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REPORT

FINAL REPORT

Exhaustees of Extended Unemployment Benefits Programs: Coping with the Aftermath of the Great Recession

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DISCLAIMER

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ABSTRACT

The Great Recession and the time period following it were characterized by the longest average unemployment durations seen since World War II. To extend support to unemployed workers, policymakers implemented initiatives that, in conjunction with benefits available during nonrecessionary times, offered up to 99 weeks of unemployment compensation (UC) benefits to eligible recipients in some states, representing the longest potential duration of benefits in the history of the UC system. This study examines the extent to which recipients collected all of the benefits to which they were entitled ("exhausting" their benefits) and assesses the outcomes experienced by those who exhausted their entitlements relative to (1) recipients who did not exhaust all of the benefits to which they were entitled and (2) UC nonrecipients. For the analyses, we used survey and administrative data from 10 states on UC recipients who filed claims from January 2008 through September 2009, as well as data from the Displaced Worker Supplement to the Current Population Survey. We had several important findings. Twenty-six percent of recipients in our main analysis file—recipients who collected benefits from only one claim during a three-year period—exhausted all of the UC benefits to which they were entitled. Overall, these exhaustees collected an average of 87 weeks of benefits compared to 28 weeks of benefits for nonexhaustees. Four to six years after their initial claims, and compared to nonexhaustees, exhaustees were statistically significantly less likely to be employed and more likely to be out of the labor force. They also experienced greater losses in household income and had higher rates of participation in the Supplemental Nutrition Assistance Program, Social Security retirement, and disability-related income support programs. Relative to recipients with long jobless spells, nonrecipients with long jobless spells were less likely to become reemployed in the subsequent few years following their layoff and had lower household incomes.

Key words: unemployment insurance (UI) benefits, unemployment compensation (UC) benefits, EUC08, Extended Benefits (EB), exhaustees, displaced workers, Great Recession, benefit exhaustion, reemployment, labor force participation

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EXECUTIVE SUMMARY

The Great Recession, which officially lasted from December 2007 to June 2009, was characterized by the longest average unemployment durations seen since World War II. One consequence of such long spells of unemployment is that large numbers of workers were still unemployed after collecting all of the weeks of regular unemployment insurance (UI) benefits to which they were entitled. To extend support to these unemployed workers, policymakers implemented two major initiatives that increased the number of weeks of benefits that workers could collect: (1) adoption of the Emergency Unemployment Compensation Act of 2008 (EUC08) program, which was extended and expanded by the American Recovery and Reinvestment Act of 2009 and other legislation and (2) full federal funding of the permanent Extended Benefits (EB) program in states with atypically high unemployment rates. Up to 99 weeks of benefits were available through the UI, EB, and EUC08 programs (which, for the purposes of this report, we collectively refer to as "unemployment compensation," or UC programs) in states with the weakest labor markets; this represents the largest number of weeks that unemployed workers could receive benefits in the history of the UC system. Availability of these benefits enabled unemployed workers to search for work for a longer period before collecting all ("exhausting") their UC entitlements.

To learn about the extent to which UC recipients exhausted even these long benefit entitlements during the Great Recession and its aftermath, the U.S. Department of Labor (DOL) Employment and Training Administration commissioned Mathematica Policy Research to conduct a research study. This study report examines the extent to which such benefit exhaustions occurred and assesses the outcomes experienced by those who exhausted their entitlements to all available UC benefits relative to other groups of unemployed workers.

A. Research questions and data

This study focused on three general questions related to the exhaustion of all available UC benefits:

1. How many UC recipients exhausted their UC entitlements and what were the major factors associated with exhaustion of benefits?
2. How did exhaustees fare in terms of their labor market outcomes, household economic circumstances, and participation in reemployment programs and programs of income support?
3. How did the outcomes for UC exhaustees compare to the outcomes of individuals with long unemployment spells who did not collect UC benefits?

To address the first two questions, we primarily used a data file prepared for an earlier, DOL-sponsored study of EUC08 and related programs (Hock et al. 2016). This data file combined (1) administrative data about UC claims, employment, and earnings and (2) survey data from 10 states on recipients who filed UI initial claims between January 2008 and September 2009. The administrative data covered January 2008 through September 2012, and the survey was conducted from December 2013 to August 2014, four to six years following the UI initial claims. The data file provided a comprehensive picture of UC recipients' benefit

collection patterns and their outcomes. To address the third research question, we also analyzed data from the Displaced Worker Supplement (DWS) to the Current Population Survey for workers laid off in 2009 and interviewed two to three years later. We supplemented this analysis by looking at workers laid off earlier and later in the economic downturn and recovery to learn about patterns in the characteristics and outcomes of unemployed workers over time.

B. The exhaustion rate and factors associated with exhaustion of benefits

Forty-five percent of the individuals who started collecting UI benefits from January 2008 to September 2009 also collected benefits as a result of another UI claim during the following three years. Because such "multi-claim" recipients generally had complex patterns of UC benefit entitlements and collections and because a measure of benefit exhaustion for entitlements stemming from a particular UI claim is difficult to interpret in the context of more than one set of UC entitlements, we focused explicitly on the situations of workers who exhausted all of the benefits to which they were entitled from a single UI claim. This group, which we refer to as "single-claim recipients," constitutes 55 percent of UC recipients in the study data. By using this approach, we gained the most policy-relevant insights about UC exhaustees.

Twenty-six percent of single-claim recipients exhausted all of the UC benefits to which they were entitled. Overall, these exhaustees collected an average of 87 weeks of benefits compared to 28 weeks of benefits for nonexhaustees. Two-thirds of exhaustees collected 91 or more weeks of benefits.

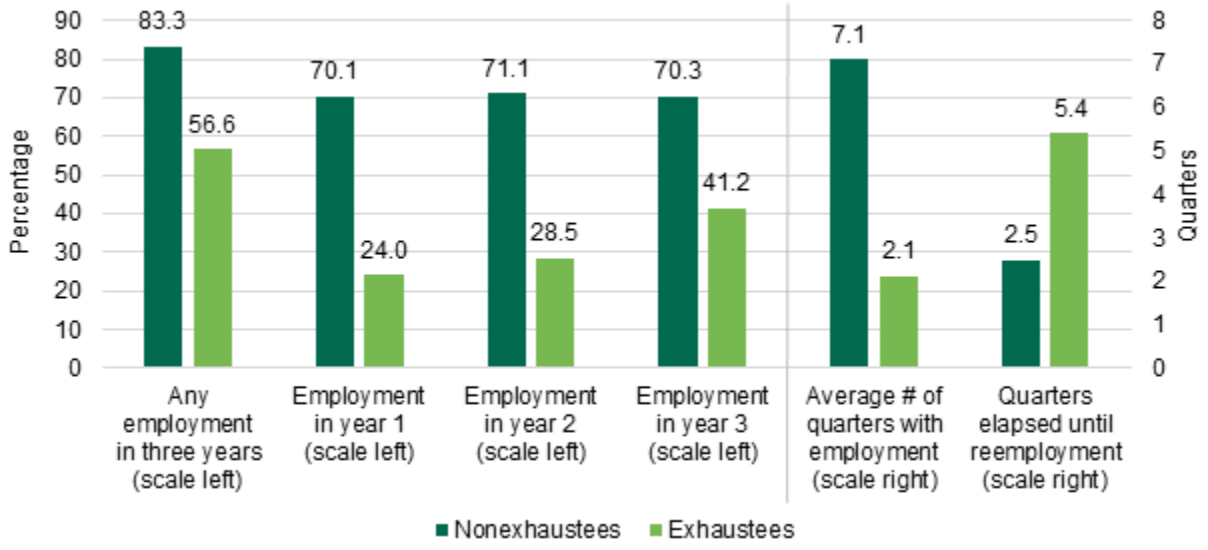
Recipients who exhausted all of the UC benefits available to them tended to come from groups that have historically had longer jobless spells and higher exhaustion rates. Women, non-Hispanic blacks or African Americans, and older workers were more likely to exhaust their UC entitlements. Workers who lost jobs in financial industries were more likely to exhaust than those who lost jobs in other industries. Workers in construction or production-related occupations, as well as farming, were less likely than those in other occupations to exhaust.

A multivariate examination of the likelihood of exhaustion revealed important findings about gender and recall expectations. The greater likelihood for women exhausting their UC entitlements did not hold up when controlling for other factors affecting exhaustion. The results also showed the unexpected result that women with young children were less likely to exhaust than other women. Also, surprisingly, we found that workers who reported having initially expected to be recalled to their prior jobs were more likely to exhaust their UC entitlements. This result might have stemmed mainly from workers with initially unrealistic recall expectations because the rate of actual recall was much lower than the rate of having expected to be recalled.

C. Exhaustees' post-claim outcomes

Exhaustees had much lower rates of employment in the three years following their UI initial claims (Figure ES.1). About 83 percent of nonexhaustees had at least some employment during these three years, and about 70 percent of them were employed in each of the three years. In contrast, 57 percent of exhaustees had any employment during these three years, and between 24 and 41 percent were employed in each of the three years. Exhaustees also had fewer quarters employed during this three-year period and a longer time to first reemployment.

Figure ES.1. Employment during the three years after the UI initial claim quarter

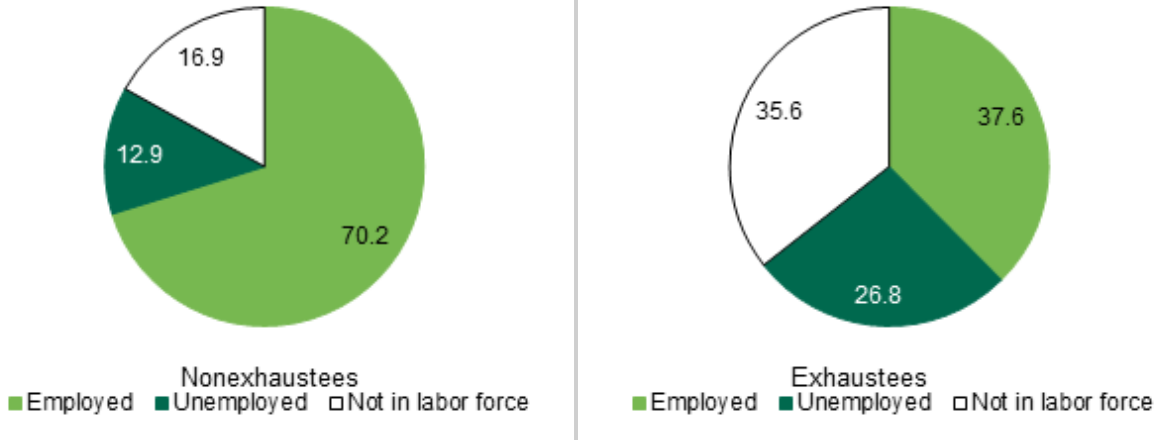


Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. The measures of any employment in three years, employment in each of the three years, and average number of quarters with employment include recipients who did not work during the three-year period in the estimates. The measure of quarters elapsed until reemployment includes only recipients with any reemployment during the three years in the estimates. Exhaustees and nonexhaustees differed significantly in the percentage with any employment in three years ($p < 0.05$), employment in year 1 ($p < 0.05$), employment in year 2 ($p < 0.05$), and employment in year 3 ($p < 0.05$). Exhaustees and nonexhaustees also differed significantly in the average number of quarters with employment ($p < 0.05$) and the quarters elapsed until reemployment ($p < 0.05$). All employment measures are based on quarterly administrative wage data.

Four to six years after their initial claims, exhaustees were much less likely than nonexhaustees to be employed and more likely to be out of the labor force (Figure ES.2). At the date of the survey, 38 percent of exhaustees were employed compared to 70 percent of nonexhaustees. About 36 percent of exhaustees were out of the labor force (such as without a job and not looking for work, retired, or unable to work because of a disability) versus 17 percent of nonexhaustees. Among recipients employed at the date of the survey, exhaustees' jobs had lower earnings and fewer fringe benefits than nonexhaustees' jobs.

Figure ES.2. Labor force participation at the time of the survey (percentages)



Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. Categories were defined based on the main work-related activity during the week before the interview. Exhaustees and nonexhaustees differed significantly in the percentage employed ($p < 0.05$), unemployed ($p < 0.05$), and not in labor force ($p < 0.05$).

Exhaustees experienced greater losses in household incomes than did nonexhaustees. Nearly three times as many exhaustees as nonexhaustees experienced at least a 50 percent drop in household income compared to their pre-claim situation (30 percent versus 10 percent). Exhaustees were also nearly twice as likely to have household incomes below the poverty line four to six years after their UI initial claims as were nonexhaustees, whose poverty rate was little changed from pre-layoff levels (39 percent versus 20 percent).

Exhaustees were more likely than nonexhaustees to participate in programs providing income support. Rates of collection of Social Security retirement benefits or of disability benefits were about twice as high for exhaustees as for nonexhaustees. The rate of participation in the Supplemental Nutrition Assistance Program (SNAP) was more than 50 percent higher for exhaustees. Rates of participation in the Temporary Assistance for Needy Families program were low for both groups.

Exhaustees were more likely than nonexhaustees to contact an American Job Center (or similar place) as part of their job search during the first three months after their job separation. Sixty-seven percent of exhaustees used such reemployment services compared to 60 percent of nonexhaustees. Most of the difference in visits to American Job Centers (AJCs) occurred because exhaustees who reported that they expected to be recalled to their prior jobs were more likely than nonexhaustees with similar expectations to visit an AJC.

Those who contacted an American Job Center (or similar place) had a higher exhaustion rate and comparable reemployment outcomes than those who did not contact an American Job Center (or similar place). This finding was similar for recipients in states with both strong and weak labor markets. It is possible that those who visited an AJC or similar place faced more difficult reemployment prospects than those who did not. In fact, recipients who are identified by their state UI agency as likely to exhaust their regular UI

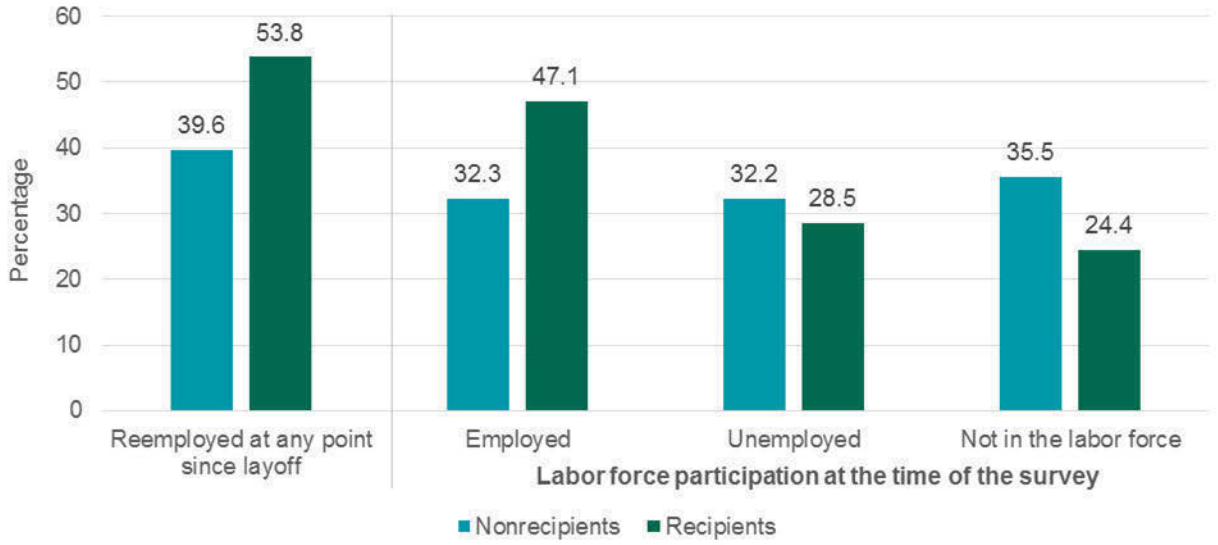
benefits are required to participate in reemployment services as a condition for benefit recipient. It is also possible that recipients who faced difficult reemployment prospects voluntarily chose to visit an AJC of their own initiative.

D. Differences in outcomes between UC recipients and nonrecipients

The post-layoff experiences of displaced workers who did not receive UC benefits were quite varied—a large portion of them had short unemployment spells and a large portion had long unemployment spells. As defined by the Bureau of Labor Statistics, displaced workers are those who reported having been laid off due to lack of work; elimination of a job or shift; closing or moving of a plant, facility, or company; the recession; or downsizing or restructuring of the company. More than 25 percent of displaced worker nonrecipients who became reemployed had very short unemployment spells (less than one week) and many had quite successful reemployment experiences, such as earnings in their post-layoff jobs that were higher than their earnings at the pre-layoff jobs. To examine nonrecipients who had experiences similar to those of exhaustees, therefore, we focused some of our analysis on the 54 percent of nonrecipients (and 66 percent of recipients) who had jobless spells of at least 27 weeks.

Nonrecipients, relative to UC recipients, both with long jobless spells, were less likely to become reemployed in the subsequent few years following their layoff (Figure ES.3). Fifty-four percent of recipients with long jobless spells had some employment during the two- to three-year period as compared to 40 percent of nonrecipients. Nonrecipients with long jobless spells were also more likely than recipients to be out of the labor force at the date of the survey (36 percent versus 24 percent).

Figure ES.3. Reemployment since the layoff and labor force participation in January 2012 among workers displaced in 2009 who had long jobless spells, by UC benefit receipt status



Source: 2012 DWS.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. The percentages in the figure are based on displaced workers who reported that they were jobless for at least 27 weeks after their layoff date. The share of individuals unemployed at the time of the survey did not differ

Figure ES.3 *(continued)*

significantly between nonrecipients and recipients ($p > 0.10$); all other differences between nonrecipients and recipients in the measures indicated in the figure are significant at the $p < 0.05$ level

Nonrecipients with long jobless spells had lower household incomes than did recipients who experienced long-term joblessness. Thirty-two percent of nonrecipients' household incomes were below the federal poverty standard, compared to 15 percent of recipients. However, relatively small differences existed in the rates at which recipients and nonrecipients with long jobless spells collected benefits from income support programs such as Social Security retirement benefits, Social Security Disability Insurance benefits, and benefits under SNAP.

I. INTRODUCTION

The unemployment compensation (UC) system in the United States cushions workers and their families against the financial effects of unemployment, and it provides more benefits as economic conditions worsen during recessions. At the core of the UC system is the federal-state unemployment insurance (UI) program, which temporarily replaces a portion of lost earnings for up to 26 weeks to eligible individuals separated from their jobs.[1] During recessions unemployment spells lengthen and increasing numbers of recipients "exhaust" their regular UI benefit entitlements—that is, they collect all of the UI benefits to which they were entitled.

Recessionary increases in the regular UI exhaustion rate indicate the need to provide more weeks of benefits during such periods, and the UC system includes two primary mechanisms for meeting this need. First, the Extended Benefits (EB) program, which was created in 1971, automatically provides up to 13 or 20 added weeks of UC benefits in states with relatively high unemployment rates. Second, during every major recession since the 1960s, the federal government has also passed emergency legislation to allow recipients to collect more weeks of benefits than they would be entitled to through the regular UI and standby EB programs. During the recent Great Recession, which began in late 2007 and lasted until mid-2009, emergency UC benefits were first provided under the Emergency Unemployment Compensation Act of 2008 (EUC08), which was passed in June 2008. As long-term unemployment grew and persisted, the EUC08 program was extended and expanded by the American Recovery and Reinvestment Act of 2009 (ARRA) and other legislation. The program eventually provided up to 53 additional weeks of benefits (depending on the state unemployment rate) to eligible UI recipients exhausting their regular benefit entitlements. Recipients losing jobs in high-unemployment states could collect up to 99 weeks of total UC benefits across the three programs: 26 through the regular UI program and 73 through the EUC08 and EB programs. Hence, some recipients could collect EUC08/EB benefits for almost one and a half years after they collected all of their UI benefits. This represents the longest potential duration of additional benefits for UI exhaustees in the history of the UC system.

To learn about the extent to which UC recipients exhausted even these long benefit entitlements during the Great Recession and its aftermath, the U.S. Department of Labor (DOL) Employment and Training Administration (ETA) commissioned Mathematica Policy Research to conduct a research study. As part of the study, we are interested both in determining the extent to which such benefits were exhausted and in looking at important differences between recipients who exhausted their entitlements and those who did not. Such an examination can yield important insights about the nature and consequences of long-term joblessness during the Great Recession. This report presents our findings on these issues.

In this introductory chapter we summarize the context for the report. We begin by discussing the economic and policy environment in which EUC08 and ARRA were enacted together with the pattern of UI benefit exhaustion over time (Section A). We then describe the study's main

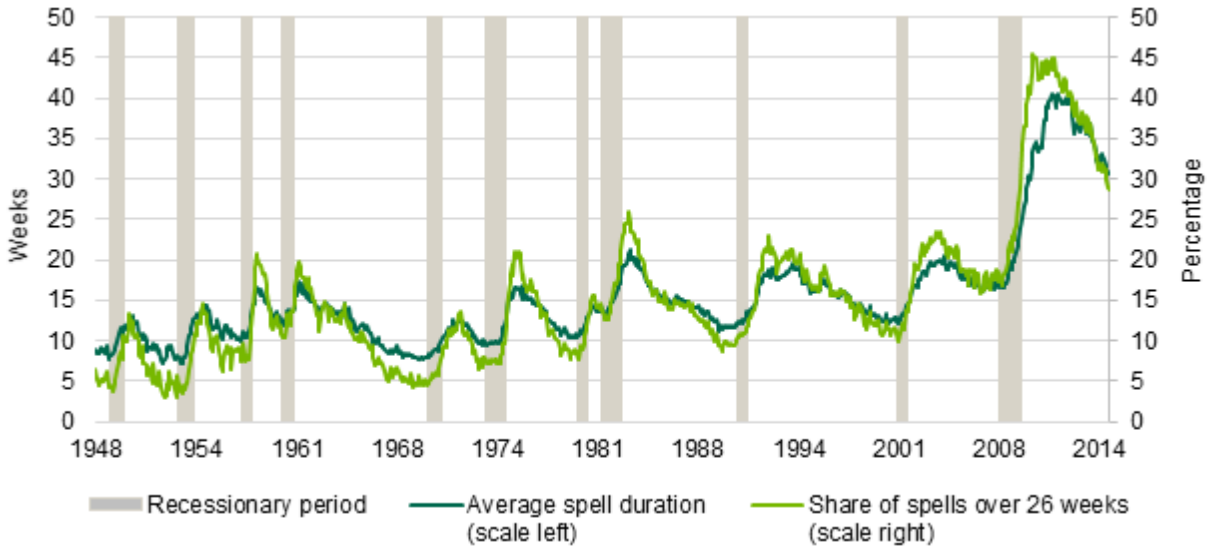
[1] Throughout this report we use "states" to refer to the 53 UI jurisdictions in the United States, which include the 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. State-specific UI eligibility requirements are related to workers' earnings histories and their reasons for job separation.

research questions and an overview of the data and methods we used to answer them (Section B). Section C summarizes findings from past research on UC benefit exhaustion. The final section of this chapter (Section D) provides a road map for the remainder of the report.

A. Economic and policy context

The Great Recession resulted in a considerable increase in joblessness in the United States during both the recession and several years following it. The unemployment rate increased rapidly from below 5 percent at the start of the recession in late 2007 to a peak of about 10 percent two years later (shortly after the recession officially ended in June 2009)—the highest unemployment rate since the recession of the early 1980s. The severity of the Great Recession and slow recovery are particularly evident when looking at how long unemployed individuals remained out of work (Figure I.1). The average length of unemployment spells reached unprecedented levels, exceeding 40 weeks for 7 months in 2011 and 2012—almost twice as high as the average unemployment duration at any other point since World War II. In addition, more than 40 percent of the unemployed were out of work for more than 26 weeks during most of 2010–2012, a much higher incidence of long-term unemployment than in any prior recession.

Figure I.1. Unemployment durations since World War II



Source: Labor Force Statistics from the Current Population Survey (http://www.bls.gov/cps/), National Bureau of Economic Research (http://www.nber.org/cycles/cyclesmain.html).

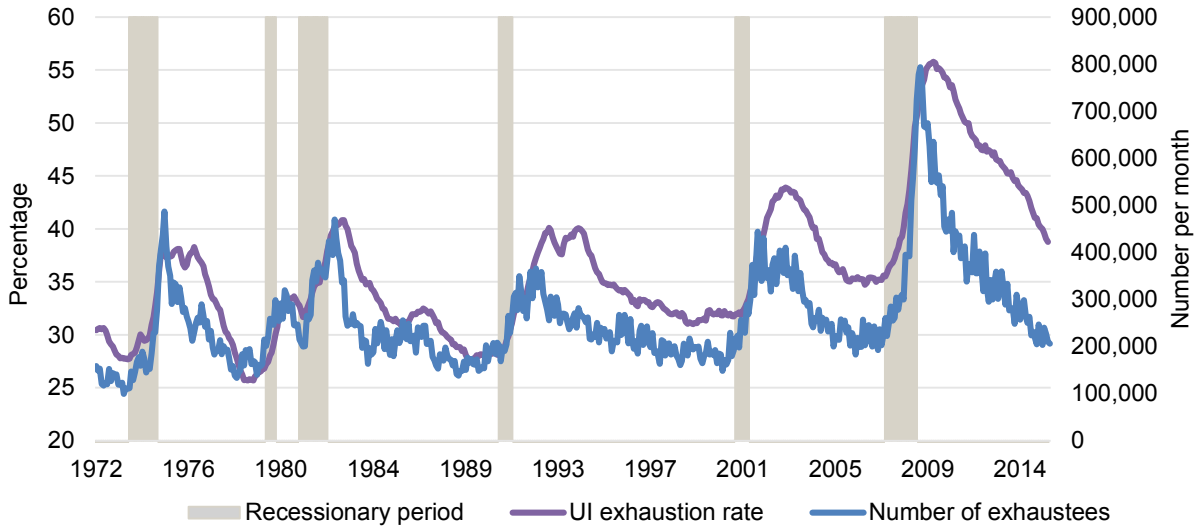
Note: The line graphs display seasonally adjusted average weeks of unemployment and the share of the unemployed who had been jobless for more than 26 weeks. The shaded bars indicate recessionary periods.

The disruptions in the labor market caused by the Great Recession resulted in a substantial increase in UI benefit payouts.[2] The average number weeks of benefits collected by regular UI recipients increased by about one-quarter, from a little over 15 weeks to almost 19 weeks, from

[2] Statistics cited in this paragraph are based on DOL's ET Financial Data Handbook 394 data, which are available at http://workforcesecurity.doleta.gov/unemploy/hb394.asp.

2007 to 2009. Longer unemployment durations during the recession also translated into increases in the number of UI recipients who exhausted their regular UI benefits. The national UI exhaustion rate rose from around 35 percent in 2007 to a peak of more than 50 percent in 2009 and 2010. Prior recessions also had increases associated with them, although the peak exhaustion rate associated with the Great Recession was much higher than those previously observed (Figure I.2).[3] However, although the UI exhaustion rate was growing, recipients exhausting their UI benefits in early 2008, during the first few months of the Great Recession, had no additional benefits available because the standby EB program had not activated in any state.

Figure I.2. Exhaustion rates for regular UI benefits since 1972



Source: National Bureau of Economic Research (http://www.nber.org/cycles/cyclesmain.html) and ETA 5159 Reports on UI program activity (http://workforcesecurity.doleta.gov/unemploy/claimssum.asp). The exhaustion rates in this figure were calculated for each month by DOL as the average of final payments for the year ending with that month, divided by the average of first payments for the year ending six months prior. The numbers of exhaustees shown in this figure are the number of final payments in each month.

Note: The line graph displays UI exhaustion rates and numbers of exhaustees by month, and shaded bars indicate recessionary periods.

In response to the increasing number of people exhausting their UI benefits, the U.S. Congress passed the EUC08 legislation in June 2008. The program initially provided up to 13 weeks of additional benefits for UI exhaustees nationwide. Over time, the number of UI recipients who exhausted their UI benefit entitlements grew, peaking in August 2009 (shortly after the recession ended) at almost 800,000 during that month. This trend prompted additional legislation in 2008 and 2009 that increased the maximum number of weeks to 53 provided through four separate and sequential tiers of benefits; although the availability and generosity of these tiers changed over time, key facets of them are that (1) each tier offered up to a certain number of weeks of benefits (such as 13 or 20) and (2) recipients received entitlement to each tier sequentially and were required under most circumstances to collect all of the benefits from

[3] Figure I.2 also shows that exhaustion rates for regular UI benefits have been generally rising over the past four decades. For a discussion of some of the factors underlying this secular increase, see Needels and Nicholson (1999).

one tier before receiving entitlement to the next tier. In addition, the number of weeks of benefits available differed across states depending on the state unemployment rate, although (unlike the EB program) some tiers of EUC08 benefits were available in every state.

The passage of ARRA in February 2009 resulted in further changes intended to meet the growing needs of unemployed workers and the states that administer the UC program. UC-related policy provisions of this legislation included: (1) full federal funding of EB (which previously had 50 percent funding from state UI programs), an action that led many states to adopt less stringent triggering rules for the program (Mastri et al. 2016); (2) adoption of provisions that enhanced UC benefit amounts through a temporary increment to the weekly benefit amount in 2009 and 2010 and a partial exemption of UC benefits during 2009 from federal income taxation; and (3) incentives to the states to adopt several "modernization" provisions into their UI laws with the general purpose of expanding UI eligibility.[4]

Although these expansions to the UC system likely dampened the hardships faced by those receiving benefits, the Great Recession also led to a widespread reduction in the financial well-being of American families.[5] The national poverty rate rose by one-fifth—that is, from 12.5 to 15.1 percent—from 2007 through 2010, the first year of the official recovery period, and stayed above 15 percent until 2013. Participation in income-support programs also rose significantly over the recession and recovery period. For example, the number of people participating in the Supplemental Nutrition Assistance Program (SNAP) climbed by over 80 percent from 2007 through 2013.[6]

B. Data sources, research questions, and methods

A major goal of this report is to show how experiences under the UC program interacted with these trends in the economy. To do so, we focus on those individuals who had such long unemployment spells that they exhausted all of the UC benefits to which they were entitled. By comparing the experiences of these individuals to those who did not exhaust benefits, we provide information about how well the extended and emergency benefits programs operated, which may be useful to policymakers considering such program innovations in the future.

Our analysis of UC benefit exhaustion relies primarily on data collected for a separate DOL-sponsored study of changes to the program made under ARRA and related legislation (Hock et al. 2016**)**. Conducted by Mathematica and the Urban Institute, that study focused on individuals who started their UI claims in 2008 and 2009 using UC administrative records in combination

[4] See Nicholson and Needels (2011), Mastri et al. (2016), and Hock et al. (2016) for more information about the policy provisions of ARRA.

[5] Poverty rates cited in this paragraph are from the data tables maintained by the U.S. Census Bureau (https://www.census.gov/hhes/www/poverty/data/historical/), and information about SNAP participation is based on the annual program participation and cost data available from the Food and Nutrition Service of the U.S. Department of Agriculture (http://www.fns.usda.gov/sites/default/files/pd/SNAPsummary.pdf).

[6] Over this period, the labor force participation rate also declined from 66 to 63 percent. However, it is not clear how much of this change reflected workers exiting from the labor force due to the economy, as opposed to exits based on preexisting demographic trends (Fujita 2014) or reductions in entry (Nichols and Lindner 2013).

with survey data from a diverse set of 12 states. Ten of those states allowed their data to be used for this study: Arkansas, California, Colorado, Florida, Georgia, New Jersey, Ohio, South Dakota, Washington, and Wisconsin. This data file, which we refer to as the merged survey respondent data file, is the main source for our analysis. Importantly, it provides the administrative detail needed to accurately identify individuals who exhausted all of their benefit entitlement along with extensive survey data documenting the long-term outcomes these individuals experience.

In addition, to learn about the national experiences of both UC recipients and nonrecipients, we also use data from the biannual Displaced Worker Supplement (DWS) to the Current Population Survey (CPS). We append to these data information from the CPS Annual Social and Economic Supplement (ASEC) to examine detailed data on family income and government support. This data file incorporates two features that make it especially useful for our purposes: (1) the data are nationally representative, thereby allowing us to explore any possible differences between our 10-state sample and the nation as a whole; and (2) the DWS contains a question on whether the respondent exhausted eligibility for unemployment benefits, thereby allowing us to compare exhaustees' experiences in the two data files. In addition, the DWS contains information on individuals with long unemployment spells who did not collect UC benefits, thereby providing further context for questions about exhaustees. To make the DWS sample as comparable as possible to our merged survey respondent data file, we focus primarily on individuals who lost their jobs in 2009 and whose data are captured in the 2012 administration of the DWS.

Our research examined three broad topics about the characteristics and experiences of UC exhaustees, nonexhaustees, and nonrecipients:

- **Questions about UC benefit exhaustion**
  - How many recipients exhausted all available UC benefits?
  - What factors were associated with a higher likelihood of exhaustion?
  - What factors were associated with faster return to work after a UI claim?
  - To what extent was the use of reemployment services associated with the exhaustion of benefits and the return to work?
- **Questions about how UC exhaustees fared**
  - What were the labor market experiences of UC recipients after they exhausted all available benefits?
  - How did household income and the incidence of poverty change as benefits were exhausted?
  - What proportions of exhaustees received assistance through SNAP and the Temporary Assistance for Needy Families (TANF) program before and after exhausting benefits?
  - What was the relationship between exhaustion and take-up of benefits from the Social Security Disability Insurance (SSDI) program?

  - Which reemployment services did exhaustees use? Was the receipt of services associated with better labor market outcomes?
  - How did the receipt of reemployment services and outcomes vary with labor market conditions?

- **Questions about UC recipients and nonrecipients with long jobless spells**
  - Were there differences in reemployment rates and reemployment earnings between UC recipients and nonrecipients?
  - How did the groups differ in their mobility patterns across industries and occupations?
  - Did the groups leave the labor force at different rates?
  - Were there differences in the amounts and sources of income between long-term unemployed UC recipients and nonrecipients?

Although we use both the merged survey respondent and DWS data files to address all three of these broad topics, most of our analysis of the first two topics is based on the former of these files. The DWS data play a much larger role in the third topic looking at unemployed individuals who did not receive UC because the merged survey respondent data file contains information on UC recipients only.

To answer this study's research questions, we used two main types of descriptive analytic methods:

1. **Tabular analysis**, which we used to present summary statistics and cross-tabulations across categories of outcomes or characteristics. We used it in presenting information about means of continuous variables (such as age or earnings) and percentages of binary and continuous variables (such as gender, race/ethnicity or employment status), particularly when comparing nonexhaustees to exhaustees and UI recipients to nonrecipients. When making such comparisons, we conducted statistical tests to assess whether these measures differ significantly across the groups of interest, using *t*-tests for continuous variables and chi-squared tests for binary and continuous variables.
2. **Multivariate regression models** which we used to isolate the relationships between individual- and program-level characteristics and outcomes, such as whether recipients exhausted their UI benefits or how quickly they became reemployed. Such models can be used to measure the association between outcomes and selected demographic, economic, and program factors, after controlling for the influence of the other measured factors. We used linear regression models for both continuous and binary outcomes because (1) as compared to a nonlinear binary response model, the linear model has significant advantages for computation and interpretation; and (2) the estimates produced by the two models are typically very similar (Wooldridge 2002), something we was found true for select outcomes of UI recipients as part of preliminary analyses done for the UCP study (Hock et al. 2016).

When applying these methods to the data sets considered in this study, we used weights that take into account the sampling design and, when applicable, nonresponse among potential survey respondents. In addition, these descriptive methods are not designed to assess causal relationships. Most of the outcomes we examined (for example, benefit exhaustion, labor market experiences, and use of reemployment services) are likely determined by a wide variety of

factors (such as personal motivation and aptitude) that cannot be adequately controlled for using the available data. Consequently, we cannot interpret the study's descriptive findings in a way that would allow for rigorous statements about the effectiveness of the UI program or reemployment services.

C. Prior research on UC exhaustion

Much of the previous research on UC exhaustion focused on three issues: (1) how fast do exhaustees become reemployed? (2) what are the consequences of exhaustion for the incomes of exhaustees? and (3) do other social safety net programs substitute for UC benefits after those benefits are exhausted? These studies typically found that reemployment rates increased significantly following exhaustion of benefits. They also found that, for those workers not finding jobs, the income support derived from UC benefits was not replaced by other social programs after exhaustion (see, for example, Nicholson and Corson 1976; Burgess and Kingston 1979). Such findings pose a dilemma for adopting policies that increase UC durations. Longer durations can provide an added cushion for family incomes that is not typically available from other programs, but such extensions pose potential concerns about prolonging recipients' joblessness.

In this section we briefly review the findings from three of the relatively more recent studies of exhaustion, which, by and large, focus on the three issues outlined above. These studies use a variety of data sources and techniques and cover different stages of the business cycle in which more and fewer weeks of UC benefits were available. They also differ substantially in how exhaustion was measured. Yet, despite these differences, the findings of these studies are reasonably similar to each other, and they all tend to mirror the results of earlier studies.

"Left Out of the Boom Economy: UI Recipients in the Late 1990s." (Needels et al. 2001). This report combined administrative and survey data to examine exhaustions among UI recipients who began collecting benefits in 1998. Because these individuals lost their jobs during a period of strong labor markets, they provide a useful contrast to those in most other studies who lose jobs during recessions. No extended or emergency benefits programs were available during the time period of the study, so individuals who exhausted their UI entitlements (typically after 26 weeks of collection) could not collect any further benefits. The authors measured UI exhaustion using administrative claims data that were considered to accurately indicate whether or not recipients had any benefits remaining at the time they stopped collecting them.

Despite the strength of the labor market in the late 1990s, the exhaustion rate in 1998 was relatively high by then-prevailing historical standards for periods of relatively strong labor markets. During this period about 32 percent of UC recipients exhausted their entitlements. The authors attributed the higher exhaustion rate observed during their study to a variety of changes in the labor market during the 1990s, including increases in the prevalence of demographic groups likely to experience longer unemployment spells and a decline in the relative prevalence of manufacturing (where layoffs tend to be temporary) in the overall composition of employment. The authors also attributed a portion of the increase to a modest decline in the potential duration of UI benefits to which recipients were entitled.

As in earlier studies of exhaustees, Needels et al. primarily used simple statistical *t*-tests and chi-squared tests of differences between the characteristics of exhaustees and nonexhaustees.

The authors found that those exhausting their UI entitlements were more likely to be women, more likely to be members of minority groups, and tended to be a little older than nonexhaustees. (There were no significant educational differences between exhaustees and nonexhaustees, however.) There were also large differences between exhaustees and nonexhaustees in expectations of being recalled to their pre-UI job. In the strong labor market of the late 1990s, about 46 percent of nonexhaustees were eventually recalled to their prior jobs versus only 18 percent of exhaustees. In addition, individuals eligible for longer UI potential durations were less likely to exhaust their entitlements, at least in part because workers with longer potential durations will be more likely to have such benefits last throughout their unemployment spells. In their least squares regression analyses the authors estimated that each extra week of entitlement was associated with a reduced likelihood of exhaustion of 2 to 3 percentage points.

Needels et al. found sharp differences in the reemployment experiences of exhaustees and nonexhaustees at the time of the survey, which was administered about 2.5 years after individuals began their UI claims. For example, at the interview date about 72 percent of nonexhaustees were employed versus only about 56 percent of exhaustees.[7] The authors also found that rates of reemployment following exhaustion of benefits were much lower in the late 1990s than what was found in a comparable study of exhaustees during the late 1980s (Corson and Dynarski 1990). For example, in the late 1980s, 40 percent of exhaustees were reemployed within 10 weeks of exhaustion of benefits, whereas in the late 1990s, only 23 percent found jobs within that time frame. In the late 1990s those exhaustees who did find jobs also experienced larger earnings losses (relative to their pre-UI jobs) than did nonexhaustees. For example, 30 percent of exhaustees experienced declines in their weekly earnings of at least 25 percent, whereas only about 15 percent of nonexhaustees experienced such large declines.

Needels et al. extensively analyzed family incomes throughout individuals' unemployment spells, finding that the well-being of exhaustees and nonexhaustees tended to diverge more substantially as time went on. For example, although they found that job loss initially reduced family incomes by about 50 percent, there were few differences between exhaustees and nonexhaustees at that point. For both groups of recipients, UI benefits provided an important cushion to income in the period immediately following job loss. Without UI benefits, family incomes would have been, on average, only 28 percent of pre-UI incomes. Family incomes improved over time as reemployment rates increased, but many families continued to experience low incomes into the post-exhaustion period. Approximately 40 percent of exhaustees had incomes below the poverty line during this period as compared to 28 percent of nonexhaustees. The authors stressed the importance of earnings of other family members in supporting incomes following job loss. Income from transfer programs or other sources were modest for all sample members, however. Only 3 to 4 percent of individuals in the sample received pension or Social Security retirement benefits, with few differences between exhaustees and nonexhaustees. Exhaustees were a little more likely to collect benefits under the food stamp program than nonexhaustees, but overall rates of collection were relatively low for both groups (8 percent versus 3 percent).

[7] Rates of labor force withdrawal were also significantly higher for the exhaustee group than for nonexhaustees.

"Unemployment Insurance: Economic Circumstances of Individuals Who Exhausted Benefits." (U.S. General Accountability Office [GAO] 2012). This report used data from the 2010 DWS supplement to the CPS to examine self-reported receipt and exhaustion of unemployment benefits among displaced workers laid off in 2007–2009. Thus, this study focused on individuals losing jobs during the depth of the Great Recession. However, it is not fully clear how to interpret the measures of UC exhaustion derived from the DWS for three reasons. First, because the survey was fielded in January 2010, it is likely that some UC recipients exhausted their benefits after the DWS interview date, and were not therefore not exhaustees when the data were collected. This is particularly likely because national legislation in November 2009 provided for up to 20 additional weeks of new EUC08 benefits. Second, respondents were specifically asked about receipt/exhaustion of "UI benefits," and it is not known what proportion of them interpreted this to also cover additional benefits from the EUC08/EB programs or, indeed, whether the respondents understood the differences among the various programs. Third, workers who were laid off in 2007 might have not have been aware of the EUC08 program because they exhausted available UI benefits before the program was created. Consequently, the exhaustion rate for all available UC benefits could be higher or lower than the 27 percent figure reported in this study.[8]

The GAO report did not provide much detail on the demographic characteristics of the individuals in its sample, but our tabulations from the DWS show that such characteristics tended to mirror those found in other studies of the exhaustee population (see Chapter VI). Exhaustees in the GAO report did experience significant problems in finding new jobs—by the date of the survey, only 46 percent of the sample was employed, 35 percent were unemployed, and the remaining 19 percent were out of the labor force (such as being without a job and not looking for work). Hence, the implied unemployment rate of exhaustees in the sample was 43 percent (35 / (46 + 35)). Of those who did find jobs, about half experienced losses in weekly earnings of more that 25 percent relative to their pre-UI jobs.

Because the GAO report also incorporated CPS data on family incomes in 2009, it gave a fairly comprehensive picture of the economic circumstances of exhaustees and their families at that time. It found that about 18 percent of exhaustee households' incomes were below the federal poverty standard in 2009, with 40 percent being below twice that standard. As in Needels et al.'s (2001) study, the presence of earnings of other household members was found to be an important source of support for many exhaustee households—nearly two-thirds of such households had at least some income from this source. As reported in other studies, the receipt of income support from other government programs by exhaustee households was modest. For instance, only about 3 percent of such households collected benefits under the TANF program, primarily because relatively few households met the categorical eligibility provisions for that program. Receipt of Social Security benefits was more common (18 percent), though the study was not able to differentiate between the retirement, disability, and survivor components of the program. Finally, about 15 percent of exhaustee households collected benefits under SNAP, a

[8] It is also important to note that displaced workers are more likely than other unemployed workers to be eligible for UI benefits. For example, the GAO (2012) report indicates that the rate of UI receipt among displaced workers losing jobs from 2007 to 2009 was 49 percent.

significantly higher percentage than what Needels et al. (2001) found in their study for food stamp benefit receipt.

"Scraping By: Income and Program Participation After the Loss of Extended Unemployment Benefits." (Rothstein and Valletta 2014). This study is the most recent examination of exhaustees reviewed here. Relative to the previous literature discussed in this section, it has the twin advantages of covering a long period of layoffs following the Great Recession and of focusing on the exhaustion of all available UC benefits, including those available from both the EUC08 and EB programs. The primary disadvantage of this study is that it does not have fully accurate data on individuals' UC collection patterns and on the prevalence of benefit exhaustion. Rothstein and Valletta's primary data source was the 2008 panel from the Survey of Income and Program Participation (SIPP), which provided 14 waves of survey data covering four-month periods from May 2008 through April 2013. Using these self-reported longitudinal data, the authors focused on spells of non-employment and showed that individuals in the sample collected UC benefits during about 30 percent of these spells. If a spell of non-employment lasted for at least one month longer than the associated spell of UC collection, the respondent was assumed to have exhausted his or her UC entitlement. Potential limitations to this approach are that the definition of exhaustion relies on self-reported information[9] and depends, in part, on reemployment outcomes. Using this definition, almost 21 percent of those who received UC benefits were estimated to have exhausted their entitlements.

Although Rothstein and Valletta's study focused mostly on income dynamics around the date of exhaustion, the authors also provided data on reemployment outcomes. In general, they find that some spells of non-employment extended well beyond the estimated date of benefit exhaustion. Nearly half of such spells were still ongoing six months after exhaustion. However, the probability that a sample member would be in the same labor status at benefit exhaustion and six months after benefit exhaustion differed significantly depending on the status at exhaustion. Of those who were unemployed at the time of exhaustion (that is, actively seeking work), only about 25 percent remained unemployed six months after exhaustion, though SIPP's ability to accurately measure differences between being unemployed and being out of the labor force is unclear, as this requires detailed information on weekly job search activity. One indication that many exhaustees may have left the labor force is that ultimately only 53 percent of exhaustees were reemployed compared to 75 percent of nonexhaustees.

Because Rothstein and Valletta had relatively detailed data on the timing of job loss, reemployment, and the exhaustion of benefits (though with the above-mentioned limitations), they were able to use individual time series data in an event study framework to focus explicitly on changes in the level and composition of household income at the date of job loss and around the date of benefit exhaustion. Because such changes are observed at the individual level they might better reflect the actual impact of exhaustion than do comparisons of exhaustees and nonexhaustees. Using this approach the authors found that UC recipients, on average,

[9] Rothstein and Valletta also pointed out that their exhaustion estimates are sensitive to well-known "seam biases" in the SIPP (which arise because respondents recall recent events better than past ones) and also report that many of the sample members they labeled as exhaustees appear to have collected fewer weeks of benefits than were available to them.

experienced a decline of about 20 percent in household income following job loss. This consisted in part of a loss of more than 52 percent of pre-layoff income from the loss of earnings coupled with a gain of about 21 percent of pre-layoff income from UI benefits. Hence, on average, UI replaced about 40 percent of lost wages. Increases in the earnings of other household members and (to a lesser extent) increases in receipt of Social Security and SNAP benefits further cushioned the income decline. Because applications for some programs (especially the SSDI program) can take a while for approval, the authors pointed out that their estimates may understate the ultimate participation rates in some programs.

Further, exhaustion of UC benefits induced further income changes over the six-month period following exhaustion. Overall, household incomes declined, on average, a further 14 percent of pre-layoff income. As might be expected, cessation of UC benefits dominated the calculation. Exhaustion of benefits led to a decline of nearly 27 percent in income (relative to the pre-layoff level). This decline was partly offset by increasing employment among exhaustees. Increasing receipt of Social Security and SNAP benefits provided only a very modest additional cushion. Overall, the poverty rate increased by 16 percentage points following exhaustion of benefits (from 22 to 38 percent). Although increasing reemployment rates did move exhaustees' incomes toward pre-layoff levels, individuals in the sample generally fell well short of restoring their incomes to pre-layoff levels over the six-month window the authors used.

D. Road map for the rest of the report

The main text of the report proceeds as follows:

- Chapter II discusses the merged survey respondent data file, which we use for much of our analysis of the characteristics and experiences of exhaustees and nonexhaustees. The data file contains information from both administrative records and a survey. The chapter also provides information about a companion data file that is based on administrative records only but contains information about a much larger group of recipients. Because these data files include recipients from 10 and 8 states, respectively, this chapter also presents information about how the study states compare to the nation as a whole.
- Chapter III describes how we constructed some of the most important measures for the study, including exhaustion, and it describes the UC benefit collection experiences of recipients in our main data file.
- Chapter IV compares the characteristics of exhaustees and nonexhaustees. It also describes factors (such as demographic characteristics and pre-unemployment job characteristics) that are associated with the exhaustion of benefits.
- Chapter V presents results from our analysis of the outcomes of recipients, including their reemployment after they began collecting benefits, their labor force status, their participation in other programs that provide income support, and the financial hardships they faced. As with Chapter IV, this chapter compares experiences of exhaustees and nonexhaustees. In addition, it measures associations between outcomes and exhaustion status, after adjusting for recipients' pre-claim characteristics.

- Chapter VI presents the findings from the analysis of UC nonrecipients using DWS data on workers who were displaced in 2009. It contains comparisons between nonrecipients and all recipients, as well as the two recipient subgroups of exhaustees and nonexhaustees.
- Chapter VII provides additional discussion of our main findings and concluding remarks.

In addition, the report contains five appendices that provide additional insights and details arising from our analyses. Appendix A examines exhaustion of UI benefits. Although additional benefits were available through the EUC08 and EB programs during the period covered by our merged survey respondent data file, this analysis is an important supplement to our main findings because UI benefits are typically the only benefits available during nonrecessionary periods. Appendix B presents findings based on the large data file that contains administrative data only, and it explains how these results compare to the results based on the study's main data file. Appendix C presents information about the similarities and differences between recipients who were included in our main analysis and those who were excluded. In particular, to facilitate interpretation of findings about the exhaustion of benefits, we restricted our main analysis to recipients who collected benefits from only one claim during a three-year period; for contextual purposes, this appendix presents information about the excluded recipients. For readers who wish to dive more deeply into the contextual information and statistical estimates discussed in the main text of the report, Appendix D includes tables of detailed results from the main data file about recipients. Finally, Appendix E includes detailed tables for the analysis of the DWS data, as well as a discussion of how the characteristics of displaced workers laid off in 2009 differed from those laid off earlier in the recession and more than a year after it ended.

II. DATA SOURCES AND RECIPIENTS' CHARACTERISTICS

We used more than one data source to answer the study research questions about the experiences of unemployed workers, including those who collected UC benefits and those who did not. Our richest data file contains a mixture of survey and administrative UC claims and earnings data on recipients who began collecting benefits during 2008 and 2009 in a diverse set of 10 states. With these data, we developed an understanding of job search activity, benefit exhaustion experiences, and reemployment of UC recipients during and up to six years after the Great Recession. We also conducted supplementary analyses (in Appendix B) on a second data file, which consists of administrative data only on a much larger sample of recipients from a subset of these states. However, analysis of this data file is more limited because it does not include detailed survey-based information. Both of these data files come from data gathered as part of another study, as described in Chapter I. To answer study research questions about unemployed workers who did not collect UC benefits, as well as how they compared to recipients, we used a different type of data: a set of publicly available data files from the DWS supplement to the CPS.

This chapter provides an overview of the contents and structure of these analysis data files. In Section A, we describe the data available for the analyses of the characteristics and experiences of UC recipients, including how the states and recipients in the data compare to the nation as a whole. We also explain our decision to focus the analysis of recipients on those who collected benefits stemming from only one UI claim during a three-year period, which enables us to clearly differentiate between UC exhaustees and UC nonexhaustees given the potential availability of several overlapping entitlements of EUC08 and EB benefits to those with more than one UI claim. In Section B, we describe the DWS data file, which contains data on nationally representative samples of displaced workers who did not report collecting UI benefits, as well as a comparable group of self-reported UI exhaustees and UI nonexhaustees.

A. Data files focused on UC recipients

The main population of interest for this study is individuals who received UC benefits after losing a job during the Great Recession. In this section, we describe the main data file of UC recipients, which we used for our analyses about the characteristics and experiences of exhaustees and nonexhaustees (subsection 1). This file is rich in its depth and breadth of topics but is focused on a relatively small subgroup of recipients who participated in a survey fielded four to six years after their UI initial claims. We also describe a separate data file containing only administrative data and that we used for the supplemental results presented in Appendix B; this file contains many more recipients but includes a substantially smaller range of topics (subsection 2). We also present information that describes the states contained in these files and compare them to the nation as a whole (subsection 3). Subsection 4 presents similar information to that in subsection 3, except it does so for the characteristics of recipients.

1. The merged survey respondent data file

The main analysis file used for the study consists of both survey and administrative data, which together provide comprehensive information about UC recipients' characteristics at the

time of their UI initial claims and their post-claim experiences.[10] The majority of our analysis for this study focuses on this data file, which we often refer to as the "merged survey respondent data file" or the "survey file," because we have the richest set of information for these recipients.

The state-provided administrative data included in the merged survey respondent data file originated from a DOL-sponsored companion study, titled the Evaluation of the Unemployment Compensation Provisions (UCP) of the American Recovery and Reinvestment Act of 2009 (ARRA)—which we refer to as "the UCP study." The UCP study assessed the EUC08 program and other UC-related provisions of ARRA and related legislation that provided relief to unemployed workers and state workforce agencies during and after the Great Recession.[11] The UCP study initially sought to collect administrative and survey data from a total of 20 states that were randomly sampled to achieve diversity along measures of benefit availability, growth in UI receipt over the recession, and geographic region. However, only a subset of the originally sampled 20 states provided administrative data in a form that was suitable for that study's analysis, likely in large part due to challenges states faced in accounting for the substantial changes over time in the EUC08 program's benefit structure (see Hock et al. 2016). Furthermore, the UCP study survey was fielded only in the 12 states from which reliable administrative data were available by late 2013. The survey was fielded to a randomly selected subset of recipients who, according to the administrative claims data, received a UI first payment on a claim whose benefit year began between January 2008 and September 2009. The sample was allocated across geographic and time-period strata to capture a wide range of experiences of UC recipients in that "universe" of states and months. The survey occurred in 2013 and 2014, which is about four to six years after recipients' first payments. Of the 5,541 UC recipients whom the study attempted to survey, 2,150 responded to the survey.[12]

Our analysis sample for this study is restricted to 10 states, fewer than the set of states that provided data for the UCP study. Primarily due to legal restrictions on the use of administrative data, not all states that provided administrative data for the UCP study allowed us to use their data for this study. Thus, for this study, we are able to include recipients who completed a survey and whose UI claims were from the following 10 states: Arkansas, California, Colorado, Florida, Georgia, New Jersey, Ohio, South Dakota, Washington, and Wisconsin (Figure II.1). In practice,

[10] Throughout the report, we use "post-claim" to refer to the period after recipients' UI initial claim dates.

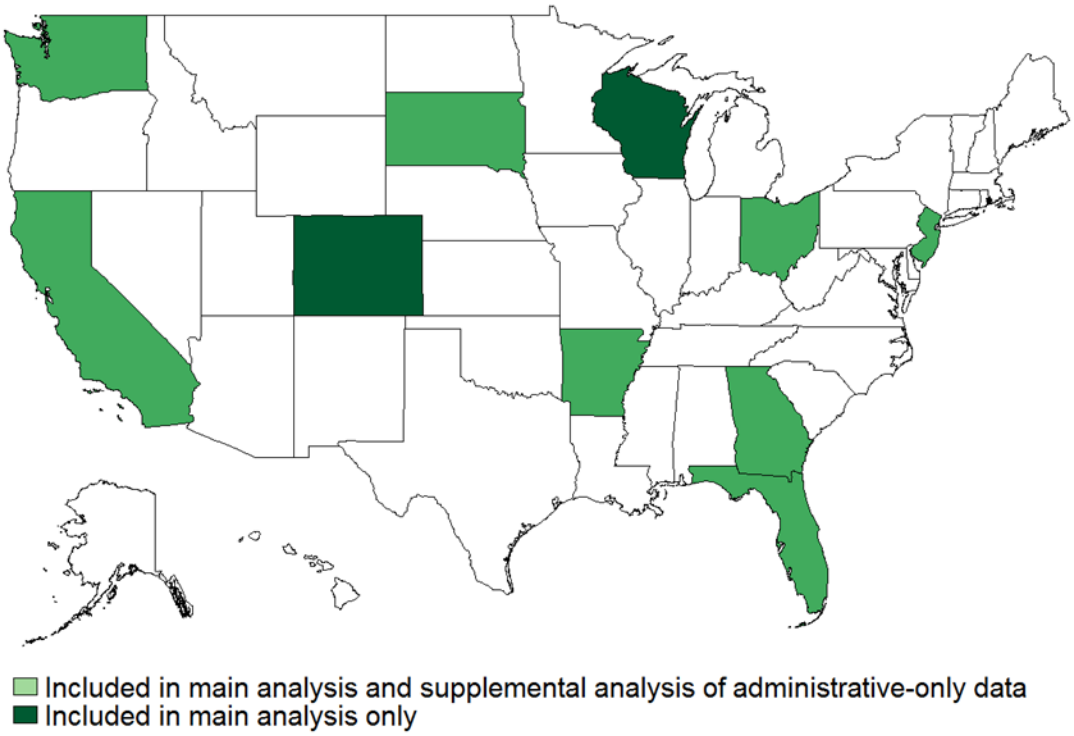
[11] The UCP study produced two reports. The first focused on federal incentives designed to expand access of UC benefits to unemployed workers (Mastri et al. 2016). The second focused on increases in the number of weeks of UC benefits available to recipients through the EUC08 and EB programs (Hock et al. 2016). Only the latter report used the individual-level recipient data that we analyze in this study.

[12] As discussed in Appendix B of Hock et al. (2016), weights were developed to adjust for survey nonresponse. Surveys were completed with 39 percent of potential respondents. Survey nonresponse was largely driven by a limited capacity to locate sample members based on outdated contact information and, to a substantially lesser extent, sample members' refusals to participate. Nonresponse weights were developed using the administrative data to adjust for differences between respondents and nonrespondents according to pre-claim characteristics and post-claim outcomes in both (1) the extent to which respondents could be located and (2) their likelihood of response after being located. A cross-validation exercise suggested that weighted estimates based only on survey respondents were likely to provide accurate results for additional post-claim outcomes recorded in the administrative data and not directly included in the nonresponse adjustment.

this means information from 1,757 (rather than 2,150) survey respondents is available for this study's analysis.

Although the survey file for this study is restricted to recipients from 10 states, we were able to track some of their outcomes using administrative UC claims and wage data from a larger number of states (as discussed in greater detail below). These states gave this study permission to use the administrative data provided for the UCP study, but the timing of when the data were provided or other considerations prevented us from including the recipients from these states in the survey. Thus, the analysis file includes some information about UC claims in up to 14 states and about employment and earnings in up to 16 states, increasing the completeness of the data file and accuracy of post-claim outcome measures constructed from it.

Figure II.1. States from which study data were collected



Note: As discussed in the main text, measures for both analyses derived from the administrative records were refined using administrative data from additional states, specifically (1) UI claims and wage data from North Carolina, North Dakota, New York, and Texas; and (2) UI wage data from Louisiana and Pennsylvania.

The merged survey respondent data file contains data from three sources:

1. **Survey of UC recipients.** The survey conducted as part of the UCP study yielded detailed information about recipients' characteristics, the nature and timing of pre-UI employment, and household economic circumstance at the time of the UI initial claim. The survey also included questions about (1) reemployment and financial hardships since the time of the claim and (2) economic well-being and labor market participation at the time of the survey. As noted above, the survey was fielded to 5,541 potential respondents who began collecting benefits between January 2008 and September 2009 in one of 12 states, 10 of which allowed

their data to be used for this study. The survey response rate was 39 percent, and we use weights in our analysis to adjust estimates for survey nonresponse.

2. **Administrative UC claims records.** These data include information about recipients' collection of UC benefits, demographic characteristics, base period earnings, pre-UI job separation reason, and the industry and occupation of the pre-UI job. The records cover all UI, EUC08, and EB claims paid in the 10 study states, plus four additional states (North Carolina, North Dakota, New York, and Texas)from January 2008 through the date that states extracted the data (which ranged from late 2012 through mid-2014). Data from the additional four states was used to assess repeat claiming, which allowed us to more clearly identify the subset of recipients who collected benefits stemming from only one UI claim during a three-year period, as discussed below.

3. **Administrative UI wage records.** These data contain information about quarterly employment and earnings in UI-covered jobs from 2008 through the quarter prior to when the states provided the data extracts (typically during calendar year 2013). Because of the timing of when study sample members began their UI claims and when the data extracts were provided for the UCP study, the data consistently capture all UI-covered work in a given state for 12 quarters after the quarter in which study sample members filed their UI initial claims. These data were available for the 10 study states plus 6 additional states (Louisiana, North Carolina, North Dakota, Pennsylvania, New York, and Texas), which allowed us to measure post-claim reemployment based on UI-covered employment occurring in *any* of these 16 states. However, the data do not include information about work occurring in other states, self-employment, or in non-UI covered jobs.

Some analysis measures could be constructed from both administrative and survey data, and in such cases, we followed the approaches taken for the UCP study. Specifically, given the differences across states in the types of pre-claim information recorded and the classification systems used to do so, our analysis measures of industry, occupation, and race/ethnicity draw primarily on survey data, using information from the administrative records only if it was missing due to survey item nonresponse. In addition, we used the administrative wage records as the only source of information about reemployment during the three-year period following a UI initial claim. We did so because the UCP study found survey-based measures of retrospective employment would have resulted in a substantial bias from underreporting during the first few years, relative to what was shown in the administrative data (Hock et al. 2016, Appendix B). However, this comparative analysis indicated that survey-based employment measures were more comparable to administrative measures near the end of the third post-claim year. This suggests that the survey-based measures are more likely to provide reliable information about employment near the interview date (a time period not covered by the administrative data).

To aid in the interpretation of results from the analyses about the experiences and outcomes of UC exhaustees and UC nonexhaustees, as reported in Chapters III through V, we restrict the UC recipient sample to recipients for whom there was no evidence that the sampled UI claim was followed by a payment from a different UI, EUC08, or EB entitlement during a three-year period. We refer to these recipients as "single-claim recipients," and the three-year period encompasses the time after the UI first payment from the sampled claim during 2008 or the first

three quarters of 2009.[13] Thus, although the merged survey respondent data file available for this study's analysis contains information on 1,757 recipients, we restrict the majority of our analysis to 976 single-claim recipients, who constitute 56 percent of the full sample.

Focusing on single-claim recipients enables us to provide more salient insights about UC benefit exhaustion for policymaking purposes. Recipients who had multiple UI first payments were generally those who had relatively short periods of both unemployment and employment, and they could potentially establish separate EUC08 and EB entitlements for each UI claim. In the context of more than one set of UC entitlements, a measure of benefit exhaustion for entitlements stemming from a *particular* UI claim is difficult to interpret. For example, a person might exhaust the benefits from one set of UI, EUC08, and EB entitlements but still collect benefits from another UI claim because eligibility for a new set of benefits can be established after a worker's earnings exceed certain thresholds and he or she meets other requirements related to his or her employment history. In addition, it was not feasible to measure exhaustion across multiple entitlements, given the complex rules governing the order in which entitlements benefits would be paid when more than one set existed.[14] It would be extremely difficult to draw policy inferences from an examination of exhaustion in the context of more than one UI claim per person given these issues.

2. The administrative-only data file

This study also used an administrative-only data file that has a strength and a couple of limitations relative to the merged survey respondent data file (Table II.1). Its strength is that it includes information on many more UC recipients: 5,972,056 compared to 1,757 in the survey file. As with the survey file, the administrative-only file includes recipients who began collecting UI benefits from January 2008 to September 2009. In contrast to the survey file, it includes *all* recipients from the states included in the file rather than a subsample of them.

[13] Appendix C contains a set of comparisons of single-claim recipients with recipients who had at least one additional UI claim during the three-year period, whom we refer to as "multi-claim recipients."

[14] Generally speaking and with some exceptions, EUC08 benefits from earlier claims were to be paid before EUC08 benefits from later claims, whereas regular UI benefits were to be paid before EUC08 payments from older claims. Thus, when more than one benefit entitlement exists, the benefits that recipients collected might have come from a mix of entitlements; recipients did not necessarily collect all of the benefits from one set of entitlements—and exhaust that entitlement—before they collected benefits from another set of entitlements.

Table II.1. States and data sources, by analysis data set

Analysis data set	States included	Survey responses	Administrative records		
			UI claims	EUC08/EB claims	UI-covered wages
Merged survey respondent data file (1,757 recipients)	10 states: Arkansas, California, Colorado, Florida, Georgia, New Jersey, Ohio, South Dakota, Washington, Wisconsin	X	X	X	X
Administrative-only analysis file (5,972,056 recipients)	8 states: Arkansas, California, Florida, Georgia, New Jersey, Ohio, South Dakota, Washington		X	X	X

Note: In both analysis data sets, measures derived from the administrative records were refined using UI claims and wage data from North Carolina, North Dakota, New York, and Texas, and UI wage data from Louisiana and Pennsylvania.

The first limitation of the administrative-only data file is that it does not contain survey-based information and, hence, does not allow for a heavily detailed analysis. Each record in the file includes administrative measures of demographic and pre-claim employment characteristics, regular-UI collection, EUC08/EB collection, and quarterly post-claim employment and earnings for at least 12 post-claim quarters. However, a significant number of measures are not available in the administrative-only data file, such as the recipients' job search behavior, post-claim household income, or participation in government programs other than the UC system.

The second limitation of the administrative-only data file is that it includes UC recipients from only 8 of the 10 states included in the survey file. Constructing summary-level information about the UC claims experiences of recipients from Colorado and Wisconsin who were part of the survey required a manual review of the data and, in some cases, corrections to the resulting analysis measures (see Appendix B in Hock et al. [2016]). Therefore, we deemed it infeasible to undertake this process for all of the recipients in the much larger administrative claims files these states provided.

Results from the analysis of the administrative-only data file are similar to those found from analysis of the survey file. Thus, the main chapters of this report focus on the set of results from the more comprehensive survey file, and Appendix B contains the results from the administrative-only file.

3. Comparability of the states in the study's recipient analysis files to states nationwide

Results based only on states in this study's data files cannot be considered nationally representative from a statistical standpoint. Nevertheless, it is useful to examine the characteristics of the states from which this study's data pertain, to assess the extent to which those states are broadly similar to the nation as a whole.

- The states in the study data files are spread out geographically (Figure II.1). Five of the six DOL regions are represented. The exception is Region II, which contains six UI jurisdictions (Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and Washington, D.C.) —the smallest number of any of the regions.

- The states in the two files include a sizeable share of the national population of individuals who received a UI first payment while the EUC08 program, which was activated in response to the Great Recession and provided additional weeks of benefits to eligible recipients, was in effect (Table II.2). The survey states included about 36 percent (20.5 million/57.3 million) of all such UI first payments nationwide, whereas 31 percent (18.0 million/57.3 million) were in states included in the administrative-only analysis file. Slightly higher percentages of all nationwide EUC08 and EB first payments occurred in the states represented in the two files.

Table II.2. UC program statistics, 2008–2013

Variable	Nation	10 states in the merged survey respondent data file	8 states in administrative-only data file
UI program			
Number of first payments (in millions)	57.3	20.5	18.0
Recipiency rate (percentage)	30.5	29.4	29.2
Number of weeks compensated (in millions)	1,004	365	326
Exhaustion rate for UI (percentage)	49.5	52.3	53.7
Average duration of benefits collected (weeks)	17.5	17.9	18.1
Average weekly benefit amount	$292	$295	$298
Average UI wage replacement rate (percentage)	35.5	33.0	32.6
Total benefits paid (in billions)	$293	$108	$97
EUC08 program (all tiers except where specified)			
Number of first payments (tier 1 only) (in millions)	24.5	8.9	8.1
Number of weeks compensated (in millions)	792	312	285
Exhaustion rate for tier 1 (percentage)	69.2	84.1	84.9
Exhaustion rate for tier 2 (percentage)	73.3	83.0	84.2
Exhaustion rate for tier 3 (percentage)	85.8	89.2	91.0
Exhaustion rate for tier 4 (percentage)	94.4	96.9	97.1
Average duration of benefits collected (weeks)	32.4	35.1	35.2
Average weekly benefit amount	$290	$297	$297
Total benefits paid (in billions)	$230	$93	$85
EB program			
Number of first payments (in millions)	6.6	2.6	2.3
Number of weeks compensated (in millions)	100	42	39
Exhaustion rate for EB (percentage)	70.0	72.4	75.2
Average duration of benefits collected (weeks)	15.3	16.2	16.6
Average weekly benefit amount	$294	$299	$300
Total benefits paid (in billions)	$29.5	$12.5	$11.7
Cross-program statistics			
Total exhaustion rate (percentage)	14.0	14.5	15.3
Total extended benefit exhaustion rate (percentage)	28.1	28.2	29.2
Number of UI jurisdictions	**53**	**10**	**8**

Source: UI program statistics are mostly based on monthly data covering January 2008 through June 2013 from ETA 5159 Reports (http://workforcesecurity.doleta.gov/unemploy/claimssum.asp). The UI recipiency rate also uses data on the total number of unemployed from the Local Area Unemployment Statistics of the

Table II.2 *(continued)*

Bureau of Labor Statistics (http://www.bls.gov/lau/data.htm), and the average UI wage replacement rate is based on the annual ET Financial Data Handbook 394 (http://ows.doleta.gov/unemploy/hb394.asp) for 2008 through 2013. EUC08 and EB program statistics are based on monthly aggregate activity reports for each program covering July 2008 through December 2013, which covers the entire period when EUC08 and EB benefits were available (http://workforcesecurity.doleta.gov/unemploy/euc.asp). A lag of six months was applied to the UI program calculations using monthly data to better align periods when UC recipients would have received UI benefits before first receiving EUC08 and EB benefits.

Notes: The UI recipiency rate is defined as the total number of insured unemployed individuals in regular unemployment benefits programs divided by the total number of unemployed individuals. The average UI wage replacement rate is defined as the ratio of the average weekly benefit amounts for payments made through the UI program to the average weekly wage in taxable and reimbursable employment. Exhaustion rates for UI, EUC08, and EB are calculated as the total number of final payments divided by the total number of first payments. Average benefit durations are calculated as the number of weeks compensated divided by the number of first payments. Average weekly benefit amounts are calculated as the total benefits paid divided by the number of weeks compensated. The total exhaustion rate is calculated as the total number of final payments from the program or program tier providing benefits (assuming all benefits were paid for UI, EUC08, and EB sequentially) divided by the total number of UI first payments. The total extended benefit exhaustion rate is calculated as the total number of final UC payments divided by the total number of EUC08 first payments.

Table II.3. Unemployment rates from 2007 to 2013, nationwide and for study states

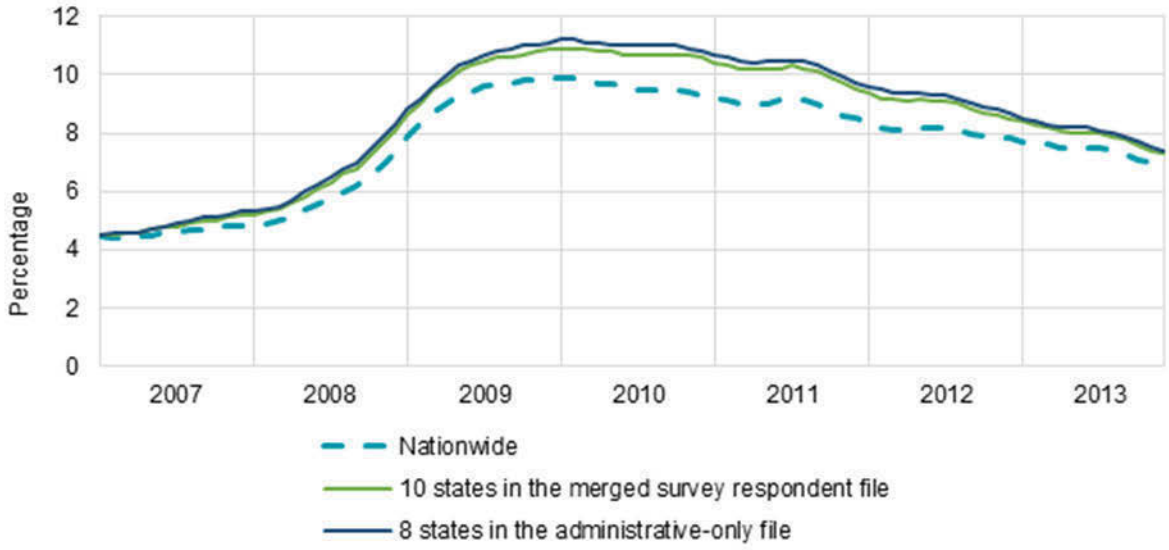
Variable	Nation	10 states in the merged survey respondent data file	8 states in the administrative-only data file
Average unemployment rate, 2007–2013 (percentage)			
Overall average for selected area	7.7	8.4	8.6
Interquartile range of jurisdiction-level means for selected area	(5.2, 8.5)	(5.3, 9.2)	(5.3, 9.5)
Growth in unemployment rate, 2007–2009 (percentage points)			
Overall average for selected area	4.6	5.3	5.4
Interquartile range of jurisdiction-level means for selected area	(3.2, 5.2)	(4.0, 5.1)	(3.4, 5.5)
Number of UI jurisdictions	**51**	**10**	**8**

Source: Local Area Unemployment Statistics (LAUS) data from the Bureau of Labor Statistics (http://www.bls.gov/lau/data.htm).

Note: Nationwide estimates include 50 states and the District of Columbia. LAUS data do not include Puerto Rico or the U.S. Virgin Islands.

- The UC recipients from the study states we analyzed faced a diverse range of labor market conditions, as measured by unemployment rates (Table II.3). There was variability across the samples both in the average unemployment rate from 2007 to 2013 and in the growth in unemployment over the recession from 2007 to 2009.
- However, the study states experienced more severe labor market downturns than the nation as a whole (Figure II.2, Table II.3). In addition, aggregate data suggest that the UC benefit collection experiences of recipients in the study states were slightly more extensive than those of recipients nationwide (Table II.2).

Figure II.2. Total unemployment rates over time, nationwide and for study states



Source: Local Area Unemployment Statistics (LAUS) data from the Bureau of Labor Statistics (http://www.bls.gov/lau/data.htm).

Notes: The graph displays seasonally adjusted unemployment rates for the labor force contained in each of the listed areas. Nationwide estimates include 50 states and the District of Columbia. LAUS data do not include Puerto Rico or the U.S. Virgin Islands.

- The unemployment rate in the study states was similar to the nationwide average in 2007 but increased more substantially over the course of the recession. In the nation as a whole, the seasonally adjusted unemployment rate rose from 4.5 percent at the start of 2007 to 9.9 percent at the end of 2009 (Figure II.2). In the states upon which the merged survey respondent data file and the administrative-only data file are based, the unemployment rate rose about one percentage point more than in the nation as a whole.
- UI exhaustion rates were somewhat higher in the states in the survey and administrative-only data files (52 and 54 percent, respectively) than in the nation as a whole (50 percent). However, the average number of weeks of regular UI benefits collected in the study states was comparable to the national average; recipiency rates and weekly benefit amounts also were comparable (Table II.2).
- Recipients in the study states were noticeably more likely to exhaust tier-1 and tier-2 benefits from the EUC08 program (Table II.2). Overall, they collected two to three more weeks of EUC08 benefits than did recipients across the nation as a whole.

From these comparisons, we conclude that the study states cannot be viewed as nationally representative, although they were similar to states nationwide on some characteristics. Most noticeably, there were differences in unemployment rates between the states that could be included in this study's analyses and the nation as whole, and these differences likely led to somewhat different experiences by recipients in the study states compared to recipients nationwide. Although the recipiency rates and weekly benefit amounts in study states and in the

nation as a whole were similar, recipients in study states collected more weeks of benefits and had higher exhaustion rates, on average.

4. Comparability of UC recipients in the study's recipient analysis files to UC recipients nationwide

It is important to understand the extent to which the single-claim recipients in the merged survey respondent data file resemble UI recipients in the nation as a whole. However, information about UI recipients nationwide, which is based on data reported by states to DOL, does not distinguish between single-claim recipients and recipients with more than one claim. Thus, we cannot directly compare single-claim recipients in the study states to a similar group nationwide. Therefore, we compare both the single-claim recipients in study states and all recipients in study states to recipients nationwide (Table II.4). We found:

- Single-claim recipients in the merged survey respondent data file differ both from all recipients in the same states and the UI recipients in the nation as a whole in 2008 and 2009 (Table II.4). They included a somewhat higher concentration of women (46 percent) than both all recipients in the merged survey respondent data file and the national population of UI recipients.[15] They also were less likely to be Hispanic or Latino.
- Relative to UI recipients in the nation as a whole, as well as to all recipients in the merged survey respondent data file, single-claim recipients were less likely to have been employed in a construction industry and more likely to have been in industries related to financial activities and professional and business services.
- As shown in Appendix C, the single-claim recipients and the multi-claim recipients in the merged survey respondent data file differ in other ways. Relative to multi-claim recipients, the single-claim recipients were more likely to have been dislocated workers and to have been in management, sales, or office and administrative support occupations. Furthermore, they were less likely to have had previous layoffs on a regular basis or to have been represented by a union.

[15] The characteristics of the UI recipients included in the survey were broadly similar to the characteristics of UI recipients in the nation as a whole in 2008 and 2009, although there were a few notable exceptions. The most sizeable difference is in the share that is black or African American, which is almost 21 percent for the national population and 15 percent for survey respondents. Some of this discrepancy could be attributed to the figures in the table being based on records with complete data only. Race information was not available for more than one-fifth of the records in the national database of UI recipients used to draw comparisons with the merged survey respondent data file.

Table II.4. Characteristics of single-claim recipient survey respondents, all survey respondents, and the national population of UI recipients (percentages)

Variable	Single-claim recipients in the merged survey respondent data file	All UI recipients in the merged survey respondent data file	National population of UI recipients
Gender			
Female	46.2	42.9	39.7
Male	53.8	57.1	60.3
Ethnicity			
Hispanic or Latino[a]	15.5	18.2	17.2
Not Hispanic or Latino[a]	84.5	81.8	82.8
Race			
Black or African American	14.8	15.2	20.5
White	75.7	75.3	74.3
Other	9.5	9.5	5.2
Age			
Younger than 25	9.2	8.8	9.5
25 to 34	24.4	25.1	23.7
35 to 44	24.0	23.4	24.1
45 to 54	25.8	25.6	24.8
55 or older	16.6	17.2	17.8
Industry			
Natural resources and mining	1.6	2.4	2.8
Construction	10.0	16.0	15.5
Manufacturing	19.2	19.5	18.3
Trade, transportation, and utilities	16.7	15.1	17.9
Information	2.2	2.3	2.6
Financial activities	9.5	6.6	5.2
Professional and business services	18.6	15.7	17.4
Education and health services	10.7	10.6	8.4
Leisure and hospitality	6.8	7.3	7.3
Other services	2.5	2.4	2.8
Public administration	2.2	2.0	1.7

Source: Merged survey respondent data file developed for this study, ETA Form 203 data (http://workforcesecurity.doleta.gov/unemploy/chariu.asp), and CPS microdata (Flood et al. 2015).

Notes: The first two columns are based on the merged survey respondent data file, and the estimates have been weighted for survey nonresponse. Age was determined at the time of the UI initial claim. Information about industry is for the pre-claim job and was filled in from the administrative data, if possible, for respondents who did not respond or whose responses could not be categorized. The third column uses ETA 203 data on the national population of individuals filing a continued UI claim in the week containing the 19th of each month over the same period. For all three columns, the summary statistics presented in the table are based only on records with complete data. Appendix Tables D.1 and D.2 provide additional information about how data items were coded for this study's survey sample.

[a]The information from the merged survey respondent file is based on a survey question that asked respondents whether they considered themselves to be of Hispanic, Latino, or Spanish origin. The ETA 203 requests states provide information on "Hispanic or Latino" workers, although states may use different categorizations in their databases. The CPS questionnaire asks respondents if they are Spanish, Hispanic, or Latino.

We conclude that the single-claim recipients upon whom we base the majority of our analysis are reflective of a broad cross-section of individuals who began collecting UI during the recession, but the data do not yield nationally representative estimates of all recipients. One reason for caution when generalizing findings is that there were systematic differences in

unemployment rates between the states that were and were not included in the analysis. Another reason is that the subgroup of single-claim recipients upon whom we focus the analysis differs from all recipients (who include multi-claim recipients). Relative to multi-claim recipients from the same set of states, single-claim recipients are less likely to have been from industries and occupations that have repeat layoffs. Furthermore, relative to the broader set of recipients nationwide, they have a higher concentration of women and lower concentration of Hispanic or Latino individuals and black or African American individuals. Some of these differences between the single-claim recipient subgroup and a broader group of all recipients are not surprising, given how the subgroup is defined. Nevertheless, the experiences of the group of recipients upon whom we base our analysis could differ from the experiences of all recipients nationwide.

B. The DWS data file containing UC nonrecipients and recipients

Developing a comprehensive understanding of the experiences of unemployed workers requires understanding the experiences of both UC recipients and nonrecipients. Thus, this study addresses several questions about the experiences of nonrecipients, particularly focusing on the long-term unemployed. DWS data, which are publicly available, are the foundation for our analyses about the experiences of nonrecipients.

The DWS supplement to the CPS is fielded biennially each January (for example, 2008, 2010, and 2012) and includes responses from a nationally-representative sample of workers who have been displaced (as defined in the survey) over the previous three years. For example, the 2012 DWS includes workers who were displaced during 2009, 2010, and 2011. The DWS provides information about these workers' characteristics, income, family structure, and labor-market experiences. Most questions in the DWS are asked only of displaced workers defined as those who lost their jobs because (1) their plant closed or moved, (2) they were laid off due to insufficient work, or (3) their position or shift was abolished. The DWS also asks whether they collected UI benefits and, if so, whether they exhausted their eligibility for UI benefits. Thus, the DWS files contain data on nationally representative samples of displaced workers who are self-identified UI exhaustees, UI nonexhaustees, and nonrecipients. The DWS data can be merged with information collected through the ASEC, which is conducted during March of a calendar year and provides information on income sources, poverty status, and receipt of government assistance for approximately half of the respondents to the DWS.

Additional detail about the DWS data that we use for this study is included in Chapter VI, where we also present the main set of DWS-based results from the analysis.

III. BENEFIT COLLECTION AND EXHAUSTION RATES

A central goal of the study is to understand the experiences of UC recipients who collected all of the UC benefits to which they were entitled—that is, they exhausted their benefits—and how those experiences compared to those for UC recipients who did not exhaust their benefits. In this chapter, we set the stage by describing how we constructed measures of UC receipt, including how we identified benefit exhaustees in the data (Section A). We then characterize the overall patterns of benefit collection among the recipients who are the main focus of our study—single-claim recipients for whom survey and administrative data are available (Section B).

Key findings

From our analysis of single-claim recipients who collected benefits from only one claim entitlement during a three-year period that started in 2008 or the first nine months of 2009, we found that:

- They were eligible for 88 weeks of UC benefits, on average, and 57 percent were eligible for the maximum number of 99 weeks.
- They collected, on average, a total of 43 weeks of UC benefits through both the regular UI claim and EUC08 and EB claims linked to it. But, this average masks considerable variability among recipients: about one-quarter of them collected 12 or fewer weeks of benefits and almost one-fifth received 91 to 99 weeks of benefits.
- Almost two-thirds of them (63 percent) exhausted their benefits through the regular UI program, and somewhat fewer recipients (56 percent) received an EUC08 first payment.
- About 44 percent collected EUC08 tier 2 benefits; 37 and 29 percent collected EUC08 tiers 3 and 4, respectively; and 29 percent collected EB.
- About one-quarter of them (26 percent) exhausted all of the UC benefits (that is, the UI, EUC08, and EB benefits) available to them.
- Exhaustees collected an average of nearly 60 more weeks of benefits than did nonexhaustees; exhaustees collected an average of 87 weeks, relative to 28 weeks by nonexhaustees.

This group of single-claim recipients, which is our main study sample, is somewhat typical of the broad cross-section of individuals who began collecting UC benefits during and after the recession, but they had higher benefit durations and exhaustion rates.

A. Defining and constructing measures of UC benefit experiences

We describe here the key measures of the UC experiences used for this study—most notably a measure of benefit exhaustion. We begin by explaining how we constructed this measure, and we follow by describing other UC-related measures used in our analysis.

1. Benefit exhaustion

A key measure for the study's analyses is an indicator of benefit exhaustion. Conceptually, benefit exhaustion is easy to understand: a UC recipient is an exhaustee for a claim when he or she collects all of the available UI, EUC08, or EB benefits to which he or she is entitled as a result of the UI initial claim. However, exhaustees are not directly identifiable in the administrative claims extracts used for the study. Thus, we developed a method using the available data to differentiate between exhaustees and recipients who stopped collecting benefits for other reasons (nonexhaustees).

The administrative claims data extracts used in the study include records for each recipient's paid UI, EUC08, and EB claims. When a recipient collected benefits from more than one EUC08 tier, states generally provided information to us by tier. Each record indicates the benefits available from and balances remaining for the claim type. But, for two reasons, the data alone cannot establish whether recipients exhausted all available benefits.

1. The data generally contain only information about programs/tiers from which benefits were actually received and no information about any additional programs/tiers from which recipients could have collected benefits, but did not do so. An accurate measure of benefit exhaustion needs to account for benefits that were available to recipients given when EUC08 tiers and EB were activated ("triggered on") and deactivated ("triggered off") in their states and over time, but which were not collected, as well as the actual patterns of benefit collection shown in the data. For example, someone in a state that did not trigger onto EUC08 tier 4 would be ineligible for the weeks of benefits made available by that tier. In contrast, someone else who lived in a different state that triggered onto EUC08 tier 4 would be entitled to tier 4 benefits, even if he or she did not collect them and there was no information in the data to reflect the availability of that tier for that person.
2. The administrative data do not contain information that can be used to directly assess whether UI recipients met an important eligibility criterion for EUC08 and EB benefits. Both programs offer benefits only to UI exhaustees who had at least 20 weeks of employment during their base periods (the one-year period during which an individual's work history is assessed as part of the UI benefit eligibility determination). Therefore, recipients who collected their entire UI entitlements but did not collect EUC08/EB benefits might have been either exhaustees or nonexhaustees, depending on their base period employment—which we do not observe in the data.

As a result, we developed an algorithm to distinguish between exhaustees and nonexhaustees using available information on benefits available, remaining balances, and last payment dates, in a way that takes into account both (1) the complex state- and time-specific patterns in the availability of different program and tiers of benefits and (2) whether or not it is likely that a recipient met the base-period work requirements for EUC08 and EB benefits.

The algorithm to classify benefit exhaustion included a series of steps to address the limitations in the administrative data extracts. Here, we present at an intuitive level a few of the key features of this algorithm.

- Recipients who collected EUC08 or EB benefits were coded as having exhausted UI benefits. Recipients who had a remaining balance that was less than a week on a EUC08 or EB claim observed in the data were coded as exhaustees of that particular claim type.[16]

[16] Recipients who had less than one week of benefits remaining available to them were coded as exhaustees because there is evidence that some recipients might not "bother" filing a continued claim to collect a final, partial week of benefits (Katz and Meyer 1990). We think that this approach incorporates the practical perspective that likely influenced the decision-making and experiences of these recipients.

- Recipients who exhausted all of the claim types shown in the data were coded as exhaustees if those claim types included all EUC08 tiers and EB available in the state.
- For recipients who exhausted all of the claim types shown in the data, but for whom we did not observe records for all EUC08 tiers and EB available in the state, we assessed the likely availability of EUC08 or EB benefits *not* shown in the data.
  - For a recipient who collected no EUC08 or EB benefits, we determined their likely eligibility for those programs according to her or his UI potential duration. Specifically, we assumed that recipients with at least 13 weeks of UI benefits available would have met the requirement of at least 20 weeks of work in their base periods to be eligible for EUC08 or EB.
  - For a recipient who collected EUC08 and/or EB benefits, we determined availability of additional tiers of EUC08 according to whether they were triggered on in the recipient's state when he or she exhausted the recorded claim or within one year after that date. Recipients could collect benefits through a new EUC08 tier that triggered on at any time after they had collected all of their previously available benefits. However, we use a one-year period to distinguish availability of new benefits because recipients with a long gap lacked access to UC support for a significant period of time and could be thought of as exhaustees from a practical perspective.
  - For a recipient who collected EUC08 but did not collect EB, we determined availability of EB benefits according to whether the program was on in the recipient's state when he or she stopped collecting benefits from all of the claim types reflected in the data. This is consistent with the rules of the EB program.
- Recipients were coded as exhaustees if they exhausted all the claim types shown in the data and, based on the algorithm described in the previous bullet, had no additional EUC08/EB benefits available to them.

2. Other UC-related measures

In addition to categorizing UC recipients as either exhaustees or nonexhaustees, we want to describe recipients' experiences collecting UC benefits. Key features of these experiences for each UI claim include (1) whether the UI claim eventually led to receipt of EUC08 or EB benefits; (2) the total potential duration of benefits available to a recipient through regular UI, EUC08, and EB entitlements linked to a UI claim; (3) the total duration of actual UC benefit collection linked to the UI claim; and (4) the weekly benefit amount (WBA), which is the dollar amount of benefits to which recipients are entitled on a weekly basis, assuming they had no employment or other reasons for deductions. Much of our analysis focuses on the number of weeks of benefits collected, rather than dollars received, because duration measures allow for clearer comparisons of the extent of benefit eligibility and utilization across recipients with different WBAs. As with the measure of benefit exhaustion, distinctive features of the EUC08 and EB programs, including how recipients became eligible for the different tiers of EUC08 in a staggered fashion, add complexity to measuring these concepts. Hock et al. (2016) provides a more thorough discussion of these issues. In this section, we provide an overview of how we constructed the UC program duration measures used for this study.

1. The **total potential duration of benefits** is the maximum number of weeks of benefits that could be collected at the full WBA through the UI program and any EUC08 and EB benefits linked to the UI claim. This measure captures the number of weeks of benefits potentially available to UC recipients. For example, if recipients had available $7,800 through their UI claim and had a WBA of $300, we would calculate their potential duration of UI receipt as 26 weeks ($7,800/$300 per week). The potential duration of UI claims varies in most states according to recipients' recent prior work history, but it is typically capped at 26 weeks. The potential durations of EUC08 and EB claims linked to a UI claim are calculated as a multiple of the potential duration of the UI claim. For example, EUC08 tier 1 initially added 50 percent to recipients' potential durations, up to a maximum of 13 weeks. National legislation added new EUC08 tiers and changed the multipliers and maximums for existing tiers over time. As with our measure of exhaustion, our measure of potential benefit durations accounted for variation across states and time.[17]
2. The number of **weeks of UC benefits collected** is calculated as the total dollars collected through the set of linked UI, EUC08, and EB claims divided by the WBA. This calculation provides the actual number of full-time week equivalents of benefits collected according to the UC administrative data. To determine the total number of UC weeks collected through entitlements stemming from a UI claim, we summed across all UI, EUC08, and EB claims linked to it.

B. Patterns of UC benefit collection

As described in Chapter II, our main analysis sample for the study consists of single-claim recipients, who are UC recipients that met three conditions. First, they received a UI first payment from January 2008 to September 2009 in one of 10 states that could be included in the survey conducted as part of the UCP study. Second, they did not collect benefits associated with another UI claim within a three-year period. Third, they responded to the survey.

For our sample of UC single-claim recipients, we found:

1. **Recipients were eligible for 88 weeks of UC benefits, on average, and 57 percent were eligible for the maximum number of 99 weeks.** Nearly three-quarters, or 71 percent, of recipients were entitled to 26 weeks of regular UI benefits (Table III.1). However, because not every state triggered on all four tiers of EUC08 benefits and EB benefits—and some that did subsequently triggered off of the programs during the analysis period—not all of the recipients who were eligible for 26 weeks of UI benefits were eligible for the maximum number of weeks of UC benefits combined across the UI, EUC08, and EB programs. When the EUC08 and EB programs were most expansive, the UC program as a whole offered up to 99 weeks of benefits in high-unemployment states. Overall, 57 percent of single-claim recipients were eligible for this maximum.
2. **Recipients' WBAs averaged about $312.** About 11 percent of recipients had WBAs of $150 or less, and a comparable percentage had WBAs in excess of $450 (Table III.1).

[17] Details of this process are described in Chapter V and Appendix B of Hock et al. (2016).

Table III.1. Benefit entitlements (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
UI potential duration			
Less than 13 weeks	2.9	2.6	3.8
13 to 18 weeks	8.9	8.7	9.5
19 to 25 weeks	17.4	17.4	17.7
26 weeks	70.7	71.3	69.0
Average (weeks)	23.9	24.0	23.6
Total potential duration[a]			
Less than 52 weeks	4.6	4.4	5.2
52 to 77 weeks	19.4	20.1	17.1
78 to 98 weeks	18.7	19.3	17.1
99 weeks	57.3	56.2	60.6
Average (weeks)	88.2	87.9	88.9
Weekly benefit amount			
$150 or less	11.3	10.9	12.3
$151 to $250	22.4	22.5	22.3
$251 to $350	28.7	30.6	23.1**
$351 to $450	26.8	26.1	28.8
$451 or more	10.8	9.9	13.5
Average (dollars)	312	308	323
Unweighted sample size	976	726	250

Source: Merged survey respondent data file.

Note: Potential duration measures were assigned to the categories displayed in the table after rounding to the nearest week. Estimates have been weighted for survey nonresponse.

[a]Total potential duration is an estimate of weeks available to a recipient through the UI, EUC08, and EB programs based on the assumption that he or she remained continuously and fully unemployed after the initial UI claim date. It uses information about the potential duration of the regular UI claim and the availability of EUC08/EB benefits over time in each state; see Hock et al. (2016) for more information.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

3. **The benefit entitlements of exhaustees and nonexhaustees were very similar.** We did not find statistically significant differences between their UI potential durations or total potential durations (Table III.1). The data also suggest that the groups generally had similar WBAs, although one statistically significant difference (at the 5 percent level) was detected in the proportion of recipients who had a WBA of $251 to $350; the groups' average WBAs, and their distributions, were not statistically different.

4. **Recipients collected, on average, a total of 43 weeks of UC benefits through both the regular UI claim and EUC08 and EB claims linked to it.** However, we found substantial variability in the duration of benefits received: slightly more than one-quarter of recipients (28 percent) collected 12 or fewer weeks of benefits, and almost one-fifth (19 percent) received 91 to 99 weeks of benefits (Table III.2).

5. **Almost two-thirds of the recipients (63 percent) exhausted their entitlements to benefits through the regular UI program, and somewhat fewer recipients (56 percent) received an EUC08 first payment.** Fewer recipients received an EUC08 first payment than exhausted their UI benefits for two reasons (Table III.2). First, as explained above, some recipients who exhausted their regular UI entitlements would not have been eligible for

EUC08 or EB benefits because, in contrast to regular UI program benefits, EUC08 and EB benefits were restricted to individuals who had at least 20 weeks of work during their base periods. Second, some recipients might have become reemployed around the time they exhausted their regular UI entitlements.

6. **About 44 percent of single-claim recipients collected EUC08 tier 2 benefits, 37 and 29 percent collected EUC08 tiers 3 and 4 respectively, and 29 percent collected EB.** It is unsurprising that smaller percentages of recipients collected benefits through each progressively higher tier of EUC08 benefits, and the smallest percentage collected EB (Table III.2), given that benefits were (with a few exceptions) typically paid in sequential order across the EUC08 tiers. In most instances, EB was paid last.

7. **About one-quarter of recipients (26 percent) exhausted all of the UC benefits available to them.** Much of the analysis from this study, and specifically the results presented in Chapters IV and V, are based on comparisons between the recipients who exhausted all of their available UC benefits and those who did not (Table III.2).

8. **As a group, exhaustees collected an average of nearly 60 more weeks of benefits than did nonexhaustees.** Exhaustees collected an average of 87 weeks, relative to 28 weeks by nonexhaustees (Table III.2). It is unsurprising that the UC benefit collection experiences of exhaustees and nonexhaustees were dramatically different, given that the two subgroups of recipients were defined based on whether or not they collected all of the benefits to which they were entitled. However, even among nonexhaustees, there are some recipients who collected benefits extensively: 42 percent collected at least some EUC08 benefits, and 9 percent collected benefits for about 1.5 years (78 weeks) or more. Furthermore, some exhaustees collected relatively few weeks of benefits; these exhaustees were entitled to relatively few weeks of UI benefits and, based on our algorithm for identifying exhaustees, were categorized as not eligible for either EUC08 or EB benefits. Moreover, about two-thirds of exhaustees collected 91 or more weeks of benefits.

Table III.2. Total weeks of UC benefits collected and EUC08/EB receipt (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Total weeks of UC benefits collected			
12 weeks or less	27.8	36.7	2.0**
13 to 38 weeks	26.2	34.5	2.1**
39 to 51 weeks	7.6	9.5	2.1**
52 to 64 weeks	6.1	6.0	6.4**
65 to 77 weeks	6.3	4.6	11.2**
78 to 90 weeks	7.6	6.7	10.2
91 to 99 weeks	18.5	2.0	66.4**
Average total duration of benefits (weeks)	43.3	28.2	86.7**
Receipt of EUC08/EB benefits			
Collected EUC08 tier 1	55.7	41.6	96.3**
Average duration of EUC08 tier 1 benefits (weeks)	16.8	15.3	18.7**
Collected EUC08 tier 2	44.0	25.8	96.3**
Average duration of EUC08 tier 2 benefits (weeks)	12.0	11.0	12.9**
Collected EUC08 tier 3	36.7	16.2	95.6**
Average duration of EUC08 tier 3 benefits (weeks)	11.7	10.6	12.3**
Collected EUC08 tier 4	29.4	9.8	85.7**
Average duration of EUC08 tier 4 benefits (weeks)	5.5	5.1	5.6**
Collected EB	28.6	7.8	88.3**
Average duration of EB benefits (weeks)	16.8	10.6	18.4**
UI exhaustion[a]	62.8	49.9	100.0**
UC exhaustion	25.8	0.0	100.0
Unweighted sample size	976	726	250

Source: Merged survey respondent data file.

Note: The total weeks of UC benefits collected were assigned to the categories displayed in the table after rounding to the nearest week. Average weeks collected for EUC08 tiers and EB were calculated among individuals who collected at least one dollar of benefits from the given program/tier. Estimates have been weighted for survey nonresponse.

[a] Seven recipients were categorized as having exhausted their UI entitlements even though they had a remaining balance of one week or more on their UI claims. These recipients lost their UI entitlements after their benefit years expired and they then collected EUC08 or EB benefits.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

The UC claim experiences of our main study sample of single-claim recipients are somewhat typical of the broad cross-section of individuals who began collecting UC benefits during and after the recession, according to the statistics shown here and those based on state-level aggregate data for the period from 2008 through 2013 and shown in Table II.2. This is the case when we compare the main study sample to both recipients in the nation as a whole and recipients in the 10 survey states. However, the main study sample had higher benefit durations and exhaustion rates. The most noteworthy differences are:

- The average WBA of the single-claim recipients in our data was $312 (Table III.1), compared to $292 for the nation as a whole and $295 for the recipients in the 10 survey states (Table II.2).
- Somewhat more than half of the single-claim recipients (56 percent) began collecting EUC08 benefits (Table III.2). This compares to a finding that about 43 percent of all UI first payments led to an EUC08 tier 1 first payment (Table II.2).[18]
- The average number of weeks of benefits and the exhaustion rate of single-claim recipients were higher than those for the nation as a whole and for all recipients in the 10 survey states. On average, the single-claim recipients collected 43 weeks of benefits (Table III.2), compared to 33 to 35 weeks for the other groups.[19] The exhaustion rate for the single-claim recipients was about 26 percent (Table III.2) compared to 14 to 15 percent for the other groups (Table II.2).

It is likely that the more extensive use of the UC system by the recipients in our main study sample is attributable, in large part, to our focus on single-claim recipients who began collecting benefits during 2008 and 2009. As described in Chapter II, relative to recipients with more than one claim during a three-year period, single-claim recipients were less likely to have been from industries and occupations that have repeat layoffs and returns to work. Furthermore, as shown in Chapter I, the recipients in our main analysis file would have been searching for jobs and collecting benefits—and potentially exhausting those benefits—during the most severe portion of the economic downturn.

Unsurprisingly, the UC claim experiences of the exhaustees and nonexhaustees subgroups differ, because the subgroups were defined based on whether or not they exhausted all of the benefits to which they were entitled. We conclude that the two groups had generally similar benefit entitlements, but their benefit collection experiences were dramatically different. Exhaustees collected an average of 87 weeks of benefits, compared to 28 weeks by nonexhaustees. Still, some nonexhaustees collected the equivalent of more than 18 months (78 weeks) of benefits, and some exhaustees collected relatively few weeks of benefits compared to the average for all exhaustees. For example, 6 percent of exhaustees collected for less than 1 year (51 or fewer weeks).

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[18] According to Table II.2, there were 24.5 million EUC08 tier 1 first payments and 57.3 million UI first payments in the nation, which means that about 43 (24.5/57.3) percent of UI first payments led to an EUC08 tier 1 first payment. A similar calculation based on information from Table II.2 for the 10 survey states included in our main study sample also indicates that about 43 (8.9/20.5) percent of UI first payments led to an EUC08 tier 1 first payment.

[19] The average number of weeks of benefits collected across UI, all tiers of EUC08, and EB for recipients from 2008 to 2013 can be approximated based on information from Table II.2 using average duration of benefits collected per claim type or tier and the ratio of first payments for higher-level claim types and tiers to the first payments for the UI program. This calculation suggests that the average duration of benefits collected in the 10 survey states during this time was about 35 weeks = 17.9 weeks of regular UI benefits + (35.1 weeks of EUC08 benefits) × (8.9 million EUC08 tier 1 first payments/20.5 million UI first payments) + (16.2 weeks of EB benefits) × (2.9 million EB tier 1 first payments/20.5 million UI first payments). A similar calculation for the nation as a whole yields an estimate of 33 weeks.

IV. CHARACTERISTICS OF EXHAUSTEES AND NONEXHAUSTEES

In this chapter, we compare the characteristics of those UC recipients who exhausted all of the benefits to which they were entitled to the characteristics of those recipients who did not exhaust their entitlements. As described in Chapter II, we focus only on those recipients who had a single UI claim in the three years following their sampled UI claim.[20] (We present information on individuals with multiple UI claims in Appendix C.) Our discussion of the results focuses largely on those differences between UC exhaustees and nonexhaustees that are statistically significant. But we also highlight some results that, while they may not be statistically significant, are unexpected or of possible substantive importance. All results that are explicitly highlighted are statistically significant unless otherwise indicated. We begin with cross-tabular comparisons of exhaustees and nonexhaustees. In the final section of this chapter we examine the likelihood of exhausting in a multivariable context to identify more clearly the factors associated with benefit exhaustion.

Key findings

In comparison to those who did not exhaust all of the UC benefits to which they were entitled, we found that UC exhaustees:

- Were more likely to be women and non-Hispanic African American.
- Were likely to be older and had somewhat lower levels of education.
- Were less likely to have had jobs in manufacturing (though the difference was not statistically significant) and were more likely to be in office or administrative support positions. In part, such differences might stem from the differing likelihood of short-term layoffs in these industries or occupations.
- Were paid less on their pre-UI jobs and had less access to retirement benefits. They also had longer tenure on their jobs.
- Were equally likely to expect to be recalled to their pre-UI jobs, but were much less likely to be recalled.
- Had lower family incomes before becoming unemployed and were more likely to be in poverty.
- Had lower levels of household savings.

Most of the significant differences in simple comparisons between exhaustees and nonexhaustees continued to be significant in a multivariate context.

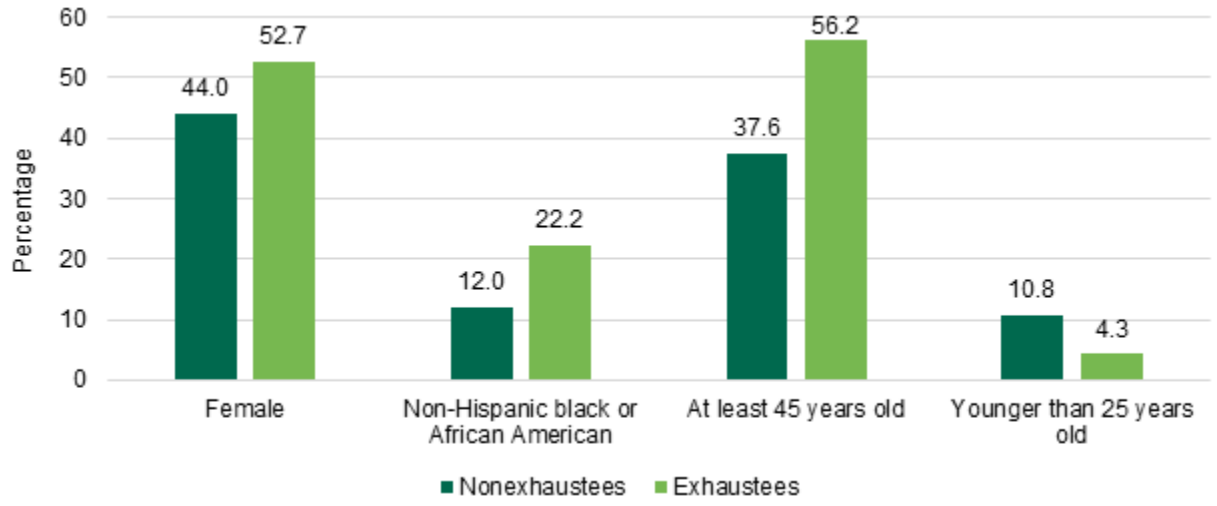
A. Demographic characteristics of exhaustees and nonexhaustees

Exhaustees were more likely than nonexhaustees to come from demographic groups that have historically faced greater labor market difficulties following job loss. Compared to those who did not exhaust their UC entitlements, exhaustees were more likely to be women, non-Hispanic African American, and at least age 45 (Figure IV.1, Appendix Table D.1). In contrast, exhaustees were less likely than nonexhaustees to be younger than age 25.

[20] Details on how these exhaustees compared to the larger set of all individuals in the same sample who exhausted their regular UI entitlements (63 percent of our sample) are provided in Appendix A.

Exhaustees generally had lower levels of education than nonexhaustees. For example, exhaustees were more likely than nonexhaustees to have less than high school education (Figure IV.2, Appendix Table D.1). Similarly, exhaustees were less likely than nonexhaustees to have a bachelor's degree or a higher level of education.

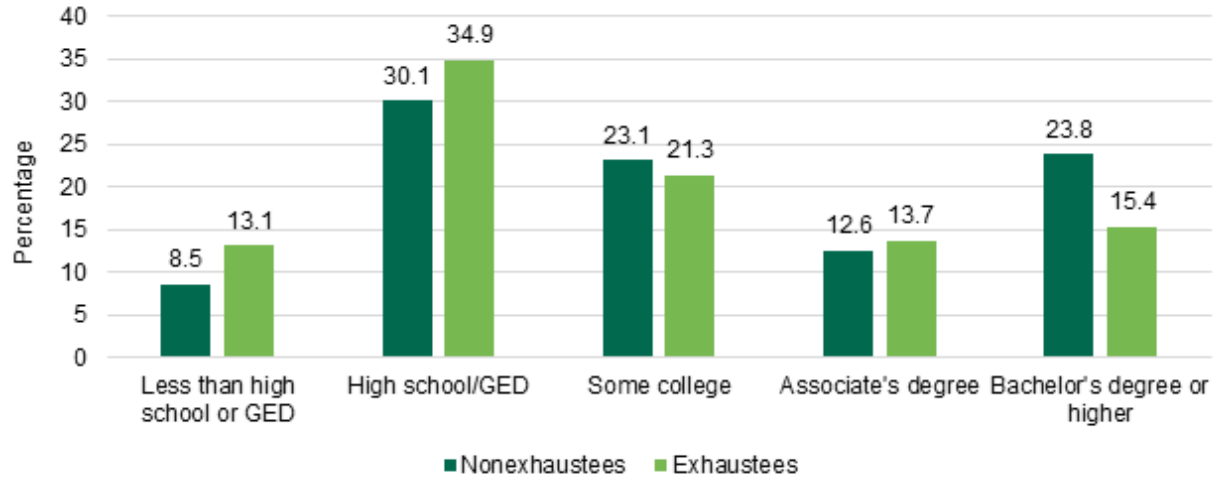
Figure IV.1. Demographic characteristics of exhaustees and nonexhaustees



Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. Exhaustees and nonexhaustees differed significantly in the percentage that are women ($p < 0.05$), non-Hispanic black or African American ($p < 0.05$), at least 45 years old ($p < 0.05$), and younger than 25 years old ($p < 0.05$).

Figure IV.2. Educational attainment of exhaustees and nonexhaustees



Source: Merged survey respondent data file.

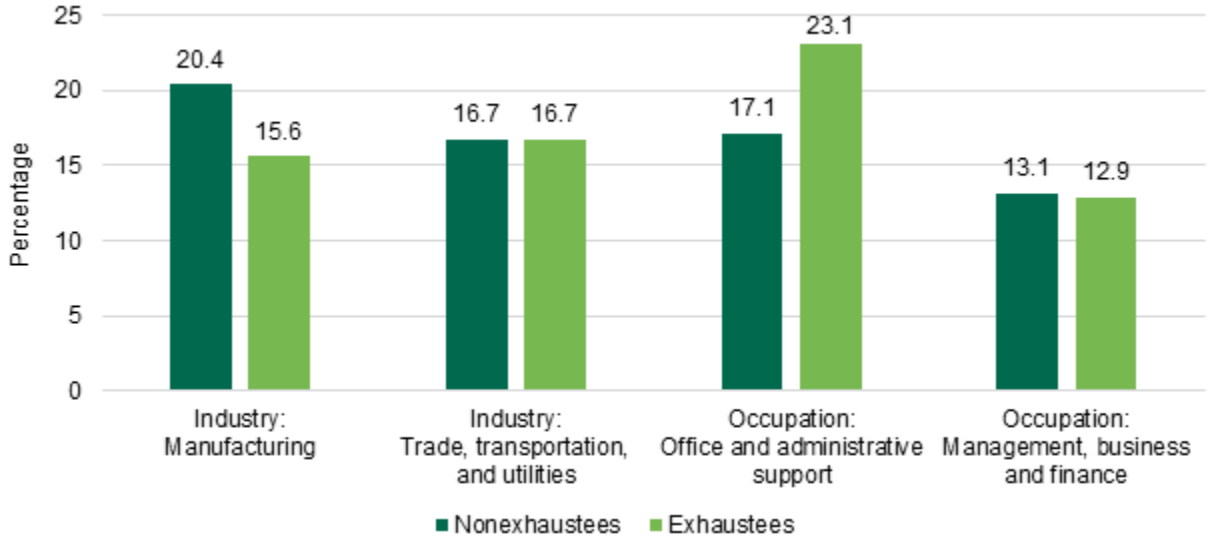
Note: Estimates have been weighted for survey nonresponse. The distribution of educational attainment differed significantly for exhaustees and nonexhaustees ($p < 0.10$). Exhaustees and nonexhaustees differed significantly in the percentage attaining "Less than high school or GED" ($p < 0.10$) and "Bachelor's degree or higher" ($p < 0.05$). No other measures depicted in the figure differed significantly at the $p < 0.10$ level between exhaustees and nonexhaustees.

GED = General Educational Development certificate.

B. Characteristics of pre-UI jobs among exhaustees and nonexhaustees

Exhaustees and nonexhaustees had similar industrial and occupational pre-UI job profiles. A somewhat higher proportion of nonexhaustees than exhaustees lost jobs in manufacturing, which was the most prevalent industry of the pre-UI job (Figure IV.3, Appendix Table D.2). However, this difference was not statistically significant. The most prevalent occupation before UI benefit collection was office and administrative support, and the proportion of exhaustees who lost jobs in this occupation was significantly higher than for nonexhaustees, at a $p < 0.10$ level. Other occupational differences were not statistically significant. These findings suggest that the prevalence of short-term layoffs might have had an effect on the likelihood of exhausting benefits because such layoffs are relatively common in manufacturing and less common in office and administrative support positions.

Figure IV.3. Most prevalent industries and occupations of pre-UI jobs



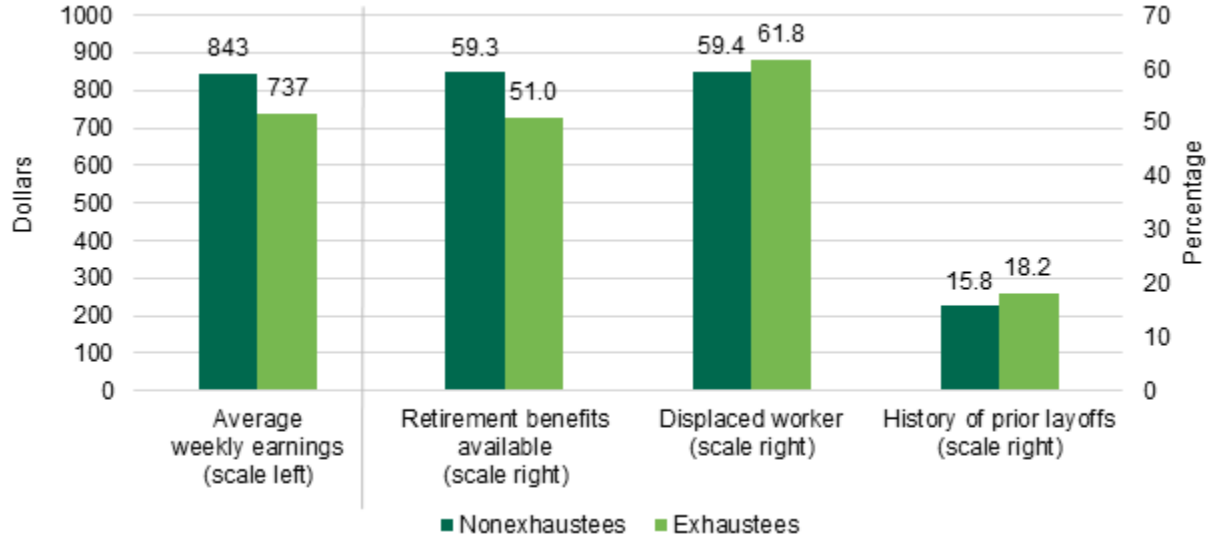
Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. This figure shows the two most prevalent categories of pre-UI job industry and occupation. Exhaustees and nonexhaustees differed significantly in the percentage of pre-UI jobs in the "Office and administrative support" occupation ($p < 0.10$). No other measures depicted in the figure differed significantly at the $p < 0.10$ level between exhaustees and nonexhaustees,

Exhaustees' pre-UI jobs paid less and were less likely to offer retirement benefits than nonexhaustees' pre-UI jobs. Average weekly earnings were $106 lower for exhaustees than for nonexhaustees, and a smaller percentage of those jobs provided retirement benefits (Figure IV.4, Appendix Table D.3). However, exhaustees had held their pre-UI jobs for about six years—about one year longer than had nonexhaustees—and there were no significant differences in weekly hours of pre-UI jobs (Appendix Table D.3).

About 60 percent of both exhaustees and nonexhaustees can be characterized as "displaced workers" because of the nature of their layoffs.[21] Also, 16 to 18 percent of both groups had experienced previous layoffs, although the difference between groups was not statistically significant (Figure IV.4, Appendix Tables D.3 and D.4).

Figure IV.4. Characteristics of pre-UI jobs



Source: Merged survey respondent data file.

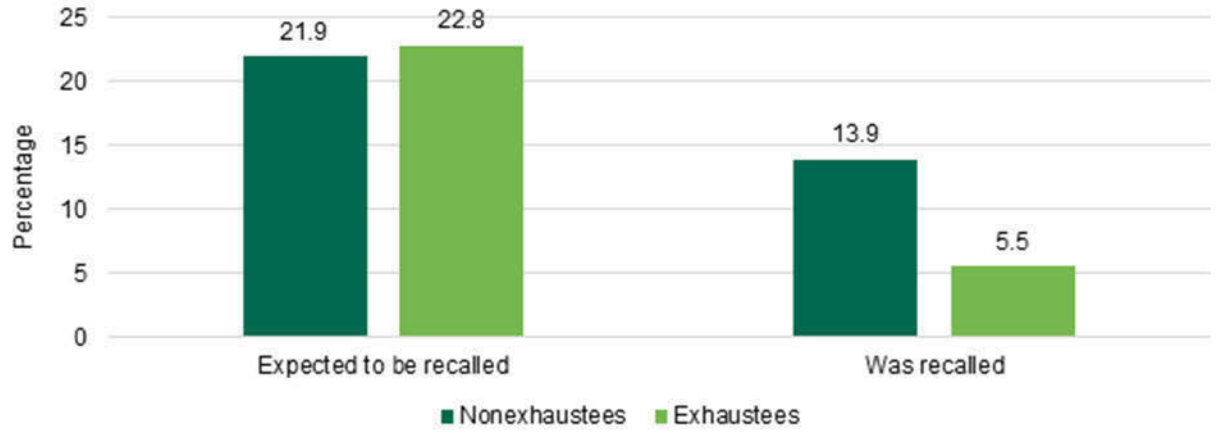
Note: Estimates have been weighted for survey nonresponse. Average weekly earnings are expressed in 2014 dollars. "Retirement benefits available" includes retirement or pension benefits, a 401(k), or 403(b). Exhaustees and nonexhaustees differed significantly in the amount of average weekly earnings ($p < 0.05$) and the percentage of pre-UI jobs with retirement benefits available ($p < 0.05$). No other measures depicted in the figure differed significantly at the $p < 0.10$ level between exhaustees and nonexhaustees,

Equal percentages of exhaustees and nonexhaustees expected to be recalled to their pre-UI jobs. Approximately 22 to 23 percent of both groups expected to be recalled when they were separated from their pre-UI job.[22] However, only 6 percent of exhaustees were actually recalled to their prior jobs versus 14 percent of nonexhaustees. (Figure IV.5, Appendix Table D.4).

[21] We follow the Bureau of Labor Statistics' practice of defining displaced workers as those who reported having been laid off due to lack of work; elimination of a job or shift; closing or moving of a plant, facility, or company; the recession; or downsizing or restructuring of the company.

[22] It is possible that recipients' responses to the survey question about their recall expectations when they separated from their pre-UI jobs were biased by their actual experiences of recall, given that the survey was conducted four to six years after the job separation.

Figure IV.5. Job recall expectations and outcomes



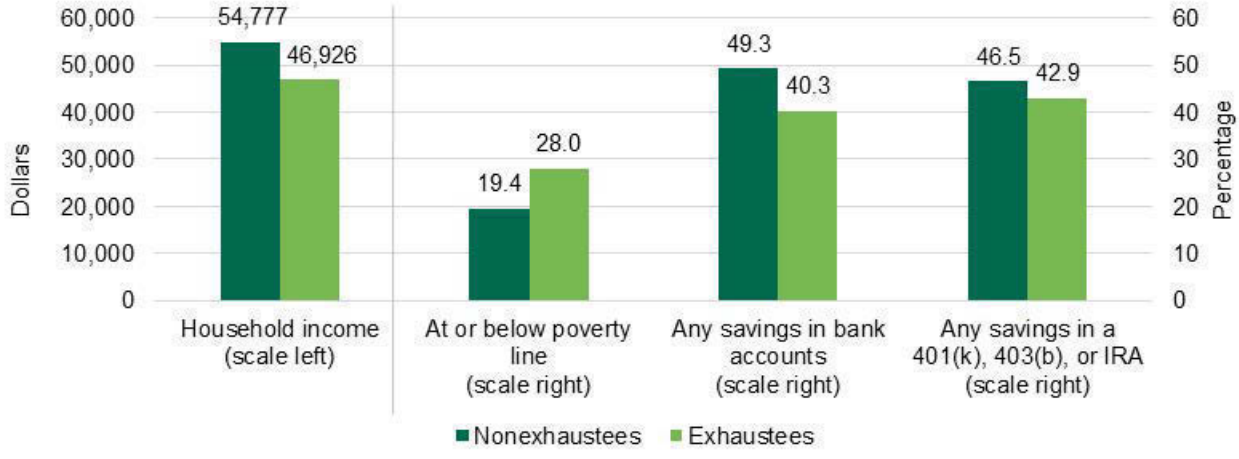
Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. Exhaustees and nonexhaustees differed significantly in the percentage who were recalled by the time of the interview ($p < 0.05$). The percentage who expected to be recalled did not differ at the $p < 0.10$ level between exhaustees and nonexhaustees.

C. Economic characteristics of exhaustees and nonexhaustees before their job loss

Exhaustees had lower household incomes before their job loss relative to nonexhaustees. Household incomes for exhaustees averaged about $8,000 less than for nonexhaustees before their job loss (Figure IV.6, Appendix Table D.5). The poverty rate before job loss for exhaustees (28 percent) was significantly higher than those for nonexhaustees (19 percent). Exhaustees were less likely to report having any savings in bank accounts, and also somewhat less likely to have various types of other savings, although most of the differences were not statistically significant (Figure IV.6, Appendix Table D.7).

Figure IV.6. Household income and savings before job loss



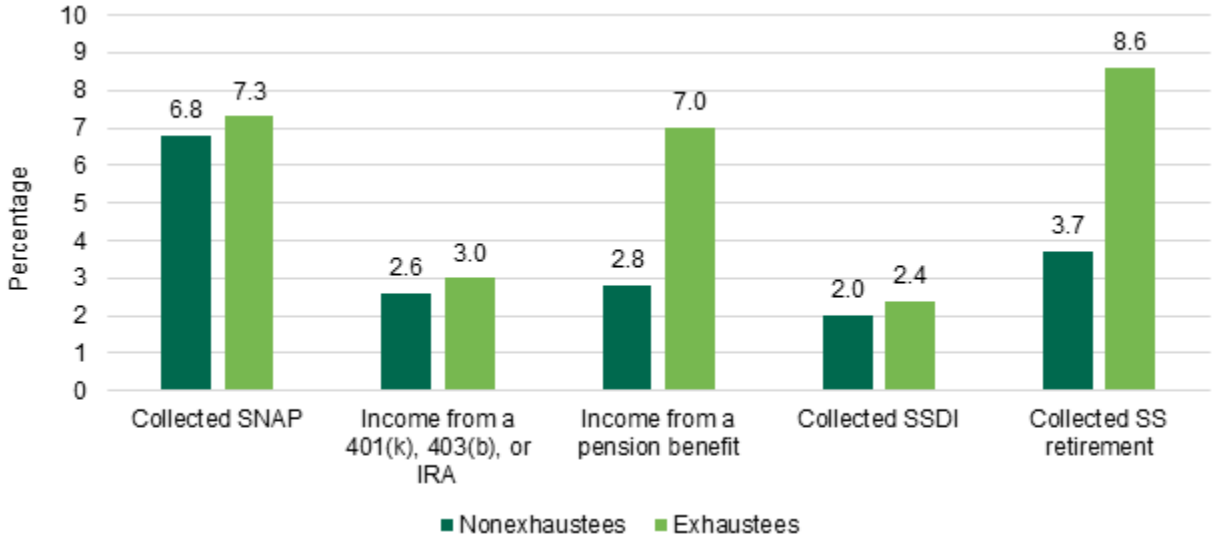
Source: Merged survey respondent data file.

Figure IV.6 *(continued)*

Note: Estimates have been weighted for survey nonresponse. Household income is expressed in 2014 dollars. Exhaustees and nonexhaustees differed significantly in the average amount of household income before job loss ($p < 0.10$), the poverty rate ($p < 0.05$), and whether they had any savings in bank accounts ($p < 0.05$). No other measures depicted in the figure differed significantly at the $p < 0.10$ level between exhaustees and nonexhaustees.

Exhaustees were more likely than nonexhaustees to have been collecting pensions and more likely to have been collecting Social Security benefits before their job loss. Seven percent of exhaustees collected pensions compared to 3 percent of nonexhaustees. Nine percent of exhaustees collected Social Security retirement benefits compared to 4 percent of nonexhaustees (Figure IV.7, Appendix Table D.6). Participation rates in other income support programs were very similar for the two groups before job loss, however.

Figure IV.7. Participation in income support programs and receipt of other sources of income before UI claim



Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. Exhaustees and nonexhaustees differed significantly in the percentage collecting income from a pension benefit ($p < 0.05$) and Social Security retirement ($p < 0.10$). No other measures depicted in the figure differed significantly at the $p < 0.10$ level between exhaustees and nonexhaustees.

IRA = individual retirement account; SNAP = Supplemental Nutrition Assistance Program; SS = Social Security; SSDI = SS Disability Insurance, including disability-based Supplemental Security Income.

D. Multivariate modeling of the likelihood of exhaustion

It is possible that many of the differences between exhaustees and nonexhaustees reported in the previous sections might reflect complex interactions among the characteristics of recipients in the two groups. For example, our tabulations suggested that women were more likely than men to exhaust their benefit entitlements. But if men came predominately from industries or occupations where exhaustion was less prevalent, the male-female difference might not hold up if industry and occupation were held constant in a multivariate context, where these recipient characteristics are examined at the same time. To examine such possibilities, we ran a series of multivariate ordinary least squares regression equations (which allow the independent effects of

various variables to be determined) seeking to explain the likelihood of benefit exhaustion using a binary dependent variable that took the value of 1 for exhaustees and 0 for nonexhaustees. To control for possible time-specific or state-specific effects, the multivariate regressions varied in their inclusion of indicators for when the recipient's benefit year began and the state for the UI initial claim, as well as interactions of these indicators with the UI potential duration. Model 1 does not include indicators for when the recipient's benefit year began or the state for the initial claim. Model 2 builds on Model 1 by including indicators and interactions motivated by the availability of EUC08/EB benefits: (1) an indicator for whether the benefit year began before May 2008, well before when EUC08 benefits became available; (2) indicators for three states where the highest tier of EUC08 was never available or only available for a short time (Arkansas, South Dakota, and Wisconsin); and (3) interactions between each of these added indicators and the UI potential duration. Model 3 uses the largest set of covariates. Relative to Model 1, Model 3 adds indicators for the month when a recipient's benefit year began and for every state, as well as the same set of interactions used in Model 2. We show the results from all three models in Table IV.1; means and standard deviations for the covariates in the analysis sample are shown in Appendix Table D.21. Next, we briefly summarize those results.

Racial and education differences between exhaustees and nonexhaustees continued to persist in the regression analysis, whereas gender and age differences did not. Non-Hispanic African Americans were about 15 percentage points more likely to exhaust their benefits than were workers in other racial/ethnic categories. Similarly, more educated workers (those with a college degree) were about 15 percentage points less likely to exhaust than others. However, although the regressions did suggest that women were more likely than men to exhaust their entitlements, after accounting for other characteristics, the differences in the regressions were generally not statistically significant. Similarly, age did not seem to be a factor affecting exhaustions in the regressions.

Women with children younger than age 18 were less likely to exhaust. Rates of exhaustion were about 13 percentage points less among this population than those among women without young children. We do not have a good explanation for this unexpected finding.

Exhaustion rates differed by industry and occupation of the pre-UI job. Workers who lost jobs in financial industries were more likely to exhaust than those who lost jobs in other industries. Workers in construction or production-related occupations, as well as farming, were less likely than those in other occupations to exhaust. Workers who were represented by a union were also less likely to exhaust.

Those workers who had experienced regular layoffs in the past were less likely to exhaust their benefits, but those who expected to be recalled had exhaustion rates about 9 percentage points higher than those with no such expectations. In an effort to measure the "reality" of workers' recall expectations, we explored whether to include in the regressions an interaction term that reflected only the recall expectations of those who had regular layoffs. Although the estimate of the coefficient of this interaction term suggested that only those workers who did not experience prior layoffs and expected to be recalled had higher rates of exhaustion, this difference was not statistically significant in our multivariate analysis.

Labor market weakness played an important role in the likelihood of exhaustion. Each percentage point increase in the average unemployment rate during the four weeks before the initial claim was estimated to increase the likelihood of exhaustion by approximately 3 percentage points.

Characteristics of workers' UI entitlements also were associated with the likelihood of exhaustion. A 10 percent increase in the workers' WBA was estimated to be associated with an increase in the likelihood of exhausting benefits by 0.5 to 1.2 percentage points. A one-week increase in the potential duration for which a worker was eligible for benefits was estimated to reduce the likelihood of exhaustion by 1 percentage point. Individuals who claimed benefits under the Unemployment Compensation for Ex-servicemembers (UCX) and Unemployment Compensation for Federal Employees (UCFE) programs—which provide benefits to ex-military and federal employees, respectively—were considerably less likely than other workers to exhaust their entitlements.

Table IV.1. Differentials in likelihood of benefit exhaustion

Variable	Model 1	Model 2	Model 3
Measure of benefit generosity			
Log weekly benefit amount[a]	0.116**	0.098**	0.053
Potential duration of regular benefits claim[b] (weeks)	-0.007	-0.009*	-0.012**
Demographic characteristics			
Female	0.058	0.052	0.037
Race/ethnicity (ref: non-Hispanic white)			
Non-Hispanic black or African American	0.152**	0.141**	0.162**
Hispanic, Latino, or Spanish origin	0.087*	0.079	0.049
Other	0.068	0.069	0.020
Age[c]	0.012	0.011	0.012
Age squared (multiplied by 100)	-0.008	-0.007	-0.008
Highest level of school or degree (ref: high school/GED)			
Less than high school or GED	0.047	0.046	0.050
Some college but no degree	-0.084*	-0.079*	-0.068
Associate's degree	-0.027	-0.026	-0.039
Bachelor's or more advanced degree	-0.151**	-0.150**	-0.138**
Other	0.003	-0.005	-0.006
Marital status			
Married or living with a partner	-0.064	-0.064	-0.078*
Female and married or living with a partner	0.082	0.089	0.090
Dependents			
Has children younger than age 18	-0.006	-0.012	0.002
Female and has children younger than age 18	-0.135**	-0.129*	-0.128*
Pre-claim job characteristics			
Worked 35 or more hours per week	-0.030	-0.026	-0.025
Job tenure (months)	0.000	0.000	0.000
Health insurance or membership in an HMO or PPO was available through employer	-0.044	-0.042	-0.002
Had layoffs on a regular basis	0.020	0.036	0.027

Table IV.1 *(continued)*

Variable	Model 1	Model 2	Model 3
Represented by a union	-0.091*	-0.096*	-0.100*
Displaced worker	0.016	0.017	0.033
Expected to be recalled at time of job separation	0.094**	0.093**	0.066
Industry (ref: manufacturing)			
Natural resources and mining	0.203	0.171	0.148
Construction	0.102	0.091	0.102
Trade, transportation, and utilities	0.048	0.044	0.045
Information	0.012	0.010	0.011
Financial activities	0.142**	0.138**	0.116*
Professional services and management	0.097	0.091	0.068
Business support services	0.099	0.086	0.076
Education and health services	0.084	0.078	0.055
Leisure and hospitality	0.039	0.025	0.014
Other services	0.317**	0.323**	0.334**
Public administration	-0.075	-0.086	-0.093
Occupation (ref: office and administrative support)			
Management, business, and finance	-0.069	-0.067	-0.059
Computer, engineering, and science	0.007	0.009	0.010
Community and social services	-0.101	-0.095	-0.071
Health care practitioners and technical	-0.095	-0.102	-0.110
Service	-0.029	-0.024	-0.019
Sales	-0.005	-0.003	-0.012
Farming, fishing, and forestry	-0.427**	-0.438**	-0.429**
Construction and extraction	-0.238**	-0.234**	-0.211**
Installation, maintenance, and repair	-0.049	-0.048	-0.058
Production	-0.148**	-0.139**	-0.119*
Transportation and material moving	-0.084	-0.077	-0.074
Military	0.192*	0.188*	0.129
Other pre-claim characteristics			
Received Social Security Retirement or Railroad Retirement payments	0.026	0.023	0.030
Received payments from 401(k), 403(b), or IRA account	0.030	0.028	0.024
Received SSDI or SSI payments for a disability[c]	0.095	0.092	0.073
Received food stamps or SNAP benefits[c]	0.061	0.062	0.060
Average state unemployment rate during the four weeks before the UI initial claim date	0.028**	0.024**	0.032
Other characteristics of UI claim			
Included benefits from UCX or UCFE programs	-0.196**	-0.192**	-0.123
Additional regression information			
R-squared	0.16	0.17	0.22
Model includes time and state indicators linked to EUC08 benefit availability[b]	No	Yes	No
Model includes fixed effects for the month of the UI initial claim and the liable claim state	No	No	Yes
Unweighted sample size	851	851	851

Source: Merged survey respondent data file.

Table IV.1 *(continued)*

Note: Estimates have been weighted for survey nonresponse. The mean likelihood of exhausting benefits in the estimation sample is 24.0 percent. Means and standard deviations of the variables are shown in Appendix Table D.21. The following variables were constructed as binary: female; married or living with a partner; married or living with a partner interacted with female; had children younger than age 18; had children younger than age 18 interacted with female; worked 35 or more hours per week; health insurance or membership in an HMO or PPO was available through employer; had layoffs on a regular basis; represented by a union; displaced worker; expected to be recalled at time of job separation; received Social Security Retirement or Railroad Retirement payments; received payments from 401(k), 403(b), or IRA account; received SSDI or SSI payments for a disability; received food stamps or SNAP benefits; included benefits from UCX or UCFE programs; the time and state indicators linked to EUC08 benefit availability; and fixed effects variables for the month of the UI initial claim and the liable claim state. The following variables were constructed as categorical, and each category is represented as a binary variable in the regressions: all racial and ethnic variables, the highest level of school or degree, and all industry and occupation variables. The following variables were constructed as continuous: the log of the weekly benefit amount, the potential duration of the regular benefits claim, interactions between the potential duration of the UI claim and time and state indicators, age and its square, job tenure, and the average state unemployment rate during the four weeks before the UI initial claim date.

[a]The natural log of this measure is used as an explanatory variable.

[b]Model 2 includes indicators for whether the benefit year began before May 1, 2008; whether the liable claim state was Arkansas; whether the liable claim state was South Dakota; and whether the liable claim state was Wisconsin. Models 2 and 3 also include interactions (not reported) between potential duration of the UI claim and the time and state indicators in Model 2.

[c]Measures of SSDI payments, SSI payments for a disability, and food stamp/SNAP benefit receipt are household-level measures. Each is coded to equal one if any member of the recipient's household collected support from the given source.

*/**Coefficient is statistically significant at the .10/.05 level, two-tailed test.

GED = General Educational Development certificate; HMO = health maintenance organization; IRA = individual retirement account; PPO = preferred provider organization; SNAP = Supplemental Nutrition Assistance Program; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income; UCFE = Unemployment Compensation for Federal Employees; UCX = Unemployment Compensation for Ex-servicemembers.

V. POST-CLAIM EXPERIENCES OF EXHAUSTEES AND NONEXHAUSTEES

In this chapter, we compare the post-claim experiences of UC recipients who exhausted all of the UI, EUC08, and/or EB benefits available to them to recipients who did not exhaust their entitlements. As with Chapter IV, we focus only on single-claim recipients. Also, consistent with Chapter IV, we focus primarily on the differences that are statistically significant between UC exhaustees and nonexhaustees, but we also highlight similarities between the two groups when they are interesting or pertinent for answering the study's research questions. The chapter is divided into five sections. In Section A, we look at the job search activities of exhaustees and nonexhaustees soon after their UI claims, with specific attention to whether they visited an American Job Center (AJC) and how the search process differed across recipients with different recall expectations. Section B then describes the labor market outcomes during the three years after the UI initial claims by exhaustees and nonexhaustees. Section C compares the labor market status and household well-being of exhaustees and nonexhaustees at the time of the survey, which was about four to six years after their initial claims. Then, in Section D we examine whether the differences in outcomes described in Section C continue to hold after pre-claim differences in the characteristics of exhaustees and nonexhaustees are taken in to account through a multivariate analysis. Finally, Section E explores possible relationships between having visited an AJC and labor market outcomes experienced by these two groups of recipients.

Key findings

In comparison to single-claim recipients who did not exhaust all of the UC benefits to which they were entitled, we found that single-claim UC exhaustees:

- Had similar levels of job search intensity in the first three months after their job separations.
- Had lower levels of employment and earnings during the three years following their UI claims.
- Were less likely to be employed and more likely to be out of the labor force at the time of the survey (four to six years after the UI claim). Among recipients with jobs, exhaustees also had lower earnings than nonexhaustees.
- Were more likely to have income at or below the poverty level and to participate in income-support programs.

Furthermore, single-claim UC exhaustees who reported to have initially expected to be recalled to their pre-UI jobs were more likely to search for work than were nonexhaustees who also reported having expected to be recalled.

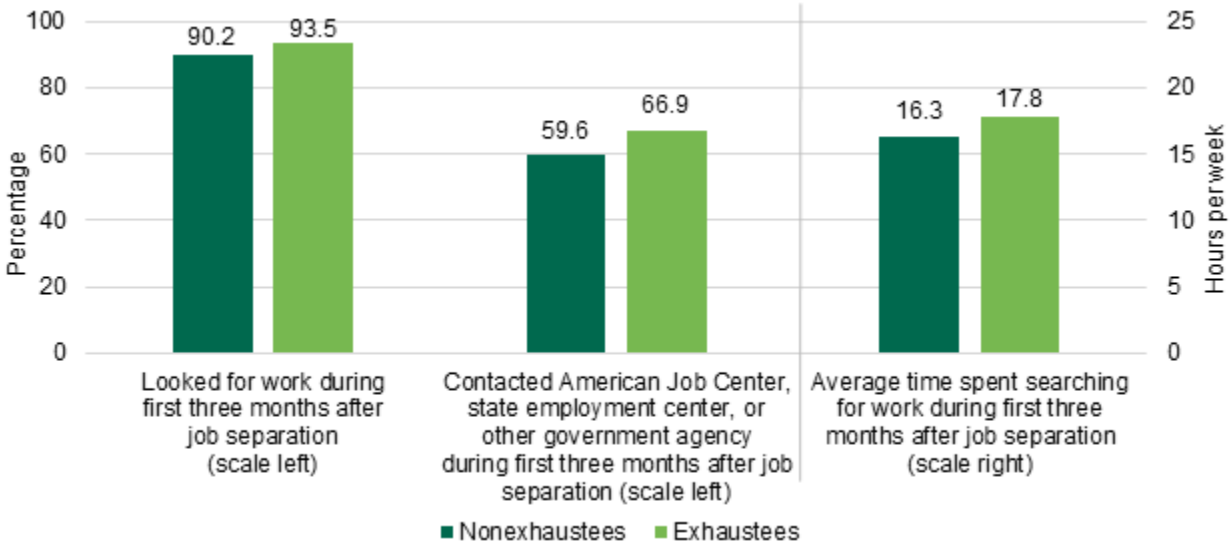
We also examined differences between workers who received reemployment assistance through an American Job Center or similar government employment organization and those who did not. We found that those who visited an AJC were somewhat more likely to have exhausted their UC benefits but the labor market outcomes of the two groups were generally similar.

A. How exhaustees and nonexhaustees searched for jobs shortly after the UI initial claim

- **Shortly after their job separations, exhaustees and nonexhaustees had similar job search intensity, but exhaustees were more likely to use some job search methods.** At least 90 percent of each group reported having searched for work during the first three months after their job separation (Figure V.1 and Appendix Table D.12). Exhaustees

reported a higher average job-search intensity than nonexhaustees (at 18 and 16 hours per week, respectively, but this difference was not statistically significant) (Figure V.1). However, a significantly higher percentage of them went to an AJC or other government employment agency as part of their job search, but these differences were not statistically significant (Figure V.1 and Appendix Table D.13). During the three months after their separation from their pre-UI jobs, exhaustees were also more likely than nonexhaustees to have looked at classified ads (86 percent to 77 percent), answered classified ads (72 percent to 63 percent), and to have applied directly to employers (89 percent to 85 percent) (Appendix Table D.13).

Figure V.1. Job search intensity and contact with an American Job Center or other government employment agency



Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. Exhaustees and nonexhaustees differed significantly in the percentage who contacted an American Job Center or similar type of agency as part of their job search ($p < 0.10$). No other differences in the measures depicted in the figure differed significantly at the $p < 0.10$ level between exhaustees and nonexhaustees. We have included in the estimates the recipients who did not search for work during the first three months after job separation as not having contacted an American Job Center or similar type of agency as part of their job search and as having searched for zero hours per week.

- **The job search efforts of exhaustees and nonexhaustees who reported in the survey that they did not expect, shortly after their job separation, to be recalled to their pre-claim jobs were similar in the first few months after their job loss.** Exhaustees and nonexhaustees who did not expect to be recalled had similar rates of searching for work (94 and 93 percent, respectively) and having gone to an AJC or similar employment agency (64 and 62 percent, respectively;) (Appendix Tables D.12 and D.13). Averaged over those who conducted any job search, they also had similar average hours searched per week and similar usage rates of different types of job search methods, such as registering online for job matching, job placement, or networking services; asking friends or relatives about job openings; and contacting a private employment or placement agency. However, among recipients not expecting to be recalled, an exception is that exhaustees were significantly

more likely than nonexhaustees to have looked at classified ads (87 percent versus 79 percent) (Appendix Table D.13).

- **Exhaustees who reported in the survey that they had expected, shortly after their job separation, to be recalled to their pre-claim jobs were more likely than comparable nonexhaustees to have searched for work.** As discussed in Chapter IV, about 22 percent of exhaustees and nonexhaustees reported that they had expected to be recalled to their prior jobs. Thus, in our study sample, only about 200 recipients are included in comparisons of this subgroup of exhaustees and nonexhaustees.[23] Nevertheless, we found a statistically significant difference between the percentages of exhaustees and nonexhaustees who searched for work during the first three months after their job loss (93 percent versus 80 percent) (Appendix Table D.12). Exhaustees who searched for a job also reported a higher number of hours per week spent on this search (20 hours versus 17 hours per week), though the difference was not significant (Appendix Table D.12). The pattern of somewhat higher job search rates and effort by exhaustees might reflect a realization by some of them during the first three months after their UI initial claim that they would not, in fact, be recalled.[24]

- **Exhaustees who had initially expected to be recalled to their pre-claim jobs were more likely than comparable nonexhaustees to have gone to an AJC or similar type of government employment agency as part of their job search efforts.** About 80 percent of exhaustees went to an AJC, whereas only 50 percent of nonexhaustees did (Appendix Table D.13). Large differences also were reported for having registered online for job matching, placement, and networking services (75 percent versus 52 percent) or to have used the internet for their job search (82 percent versus 61 percent). These findings, too, could be due to some recipients' recognition over time that their initial recall expectations were inaccurate.

- **Exhaustees and nonexhaustees were about equally likely to participate in a training or education program during the follow-up period.** About 36 to 37 percent of each group participated in at least one training program (Appendix Table D.16). Among trainees, most participated in only one program. In addition, about 8 percent of each group was participating in an education or training program at the time of the survey.

B. How exhaustees and nonexhaustees fared after their UI initial claim

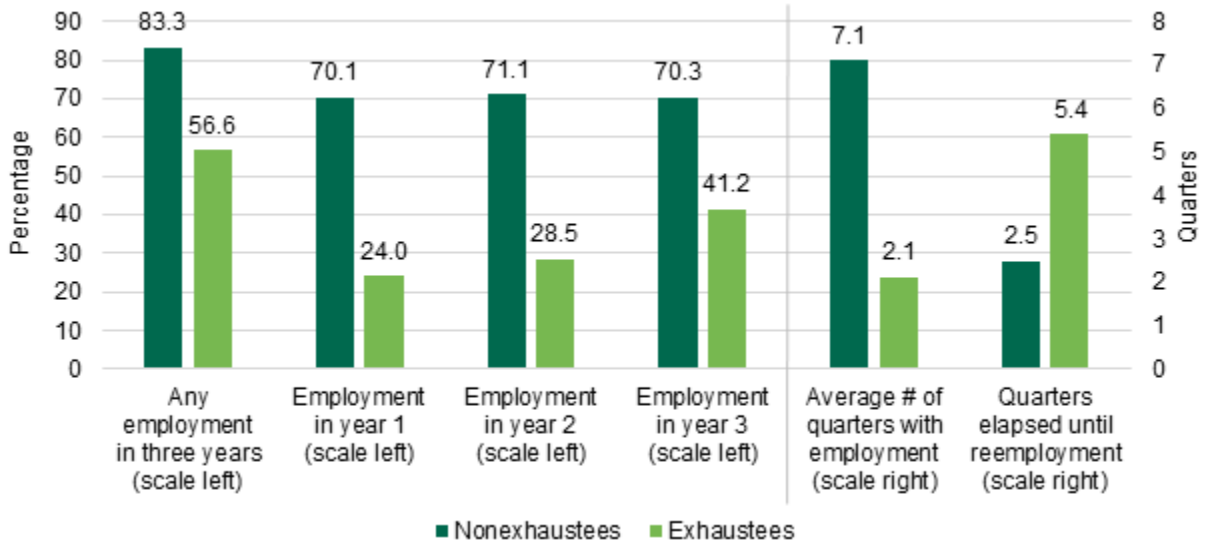
- **Relative to nonexhaustees, exhaustees were significantly less likely to have been employed during the three years following the UI initial claim quarter.** About 83 percent of nonexhaustees had at least some employment during these three years, and about 70 percent of them were employed in each of the three years. In contrast, 57 percent of

[23] Although we found substantial differences in search behavior reported by exhaustees and nonexhaustees among those who initially expected to be recalled, these do not lead to significant differences among all single-claim recipients. This is because there are no statistically significant differences among the much larger group of recipients who did not initially expect to be recalled.

[24] Another potential explanation is that some exhaustees misreported what their initial recall expectations were at the time of their pre-claim job loss, given that the survey was conducted about four to six years later. They might erroneously have stated that they had initially expected to be recalled when that was not the case, given that they knew at the time of the survey that they had been unable to quickly secure reemployment.

exhaustees had any employment during these three years, and between 24 and 41 percent were employed in each of the three years. Nonexhaustees averaged about 7 quarters of employment out of the possible 12 during this three-year period—which markedly contrasts the average of 2 quarters of employment for exhaustees over that period (Figure V.2 and Appendix Table D.9). The low employment rates among exhaustees are not completely surprising given that, as Chapter III showed, they collected an average of 87 weeks of benefits stemming from their claims, in contrast to an average of 28 weeks collected by nonexhaustees. And, among recipients who became reemployed during the three-year period, the average number of quarters to reemployment was 5 quarters for exhaustees and 3 quarters for nonexhaustees (Figure V.2 and Appendix Table D.8).

Figure V.2. Employment during the three years after the UI initial claim quarter



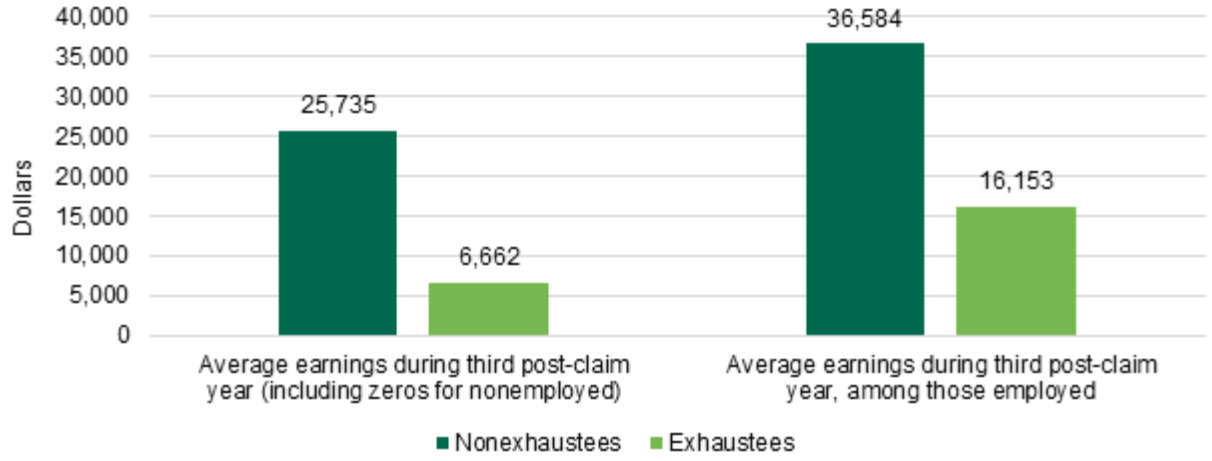
Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. The measures of any employment in three years, employment in each of the three years, and average number of quarters with employment include recipients who did not work during the three-year period in the estimates. The measure of quarters elapsed until reemployment includes only recipients with any reemployment during the three years in the estimates. Exhaustees and nonexhaustees differed significantly in the percentage with any employment in three years ($p < 0.05$), employment in year 1 ($p < 0.05$), employment in year 2 ($p < 0.05$), and employment in year 3 ($p < 0.05$). Exhaustees and nonexhaustees also differed significantly in the average number of quarters with employment ($p < 0.05$) and the quarters elapsed until reemployment ($p < 0.05$). All employment measures are based on quarterly administrative wage data.

- **Exhaustees had substantially lower earnings levels during the third year after the initial claim quarter than did nonexhaustees.** The difference in earnings between the two groups during the third year is substantial regardless of whether we focus on all of the recipients in these two groups or only those recipients who worked during the year. Even among those who were employed, exhaustees' earnings during the third year ($16,153) was less than half that of nonexhaustees earnings ($36,584), on average (Figure V.3 and Appendix Table D.10). It is possible that some claimants—particularly exhaustees—were still collecting benefits during the third year, given that they could have been entitled to a maximum of 99 weeks of benefits.

- **Exhaustees were more likely than UI-only recipients to face financial difficulties in the years following their UI initial claims**. They were more likely than nonexhaustees to receive extra financial assistance from family members (40 percent versus 32 percent) (Figure V.4 and Appendix Table D.11). They also were more likely to have postponed a major purchase (53 percent versus 46 percent). Furthermore, among people who owned their homes at the start of their UI claims, which was 40 to 50 percent of each recipient group, a greater portion of exhaustees reported having been late on a mortgage payment or experienced house foreclosure (Appendix Table D.11).

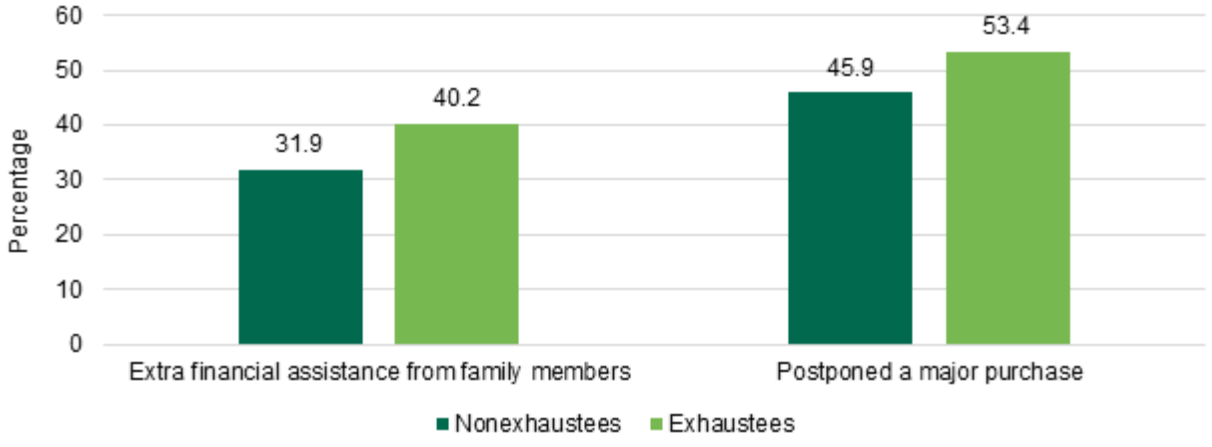
Figure V.3. Earnings during the third year after the UI initial claim quarter



Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. Exhaustees and nonexhaustees differed significantly in the average earnings during the third post-claim year including zeroes for nonemployed ($p < 0.05$) and average earnings during the third post-claim year among those employed ($p < 0.05$). The earnings measures are based on quarterly administrative wage data.

Figure V.4. Post-claim financial difficulties



Source: Merged survey respondent data file.

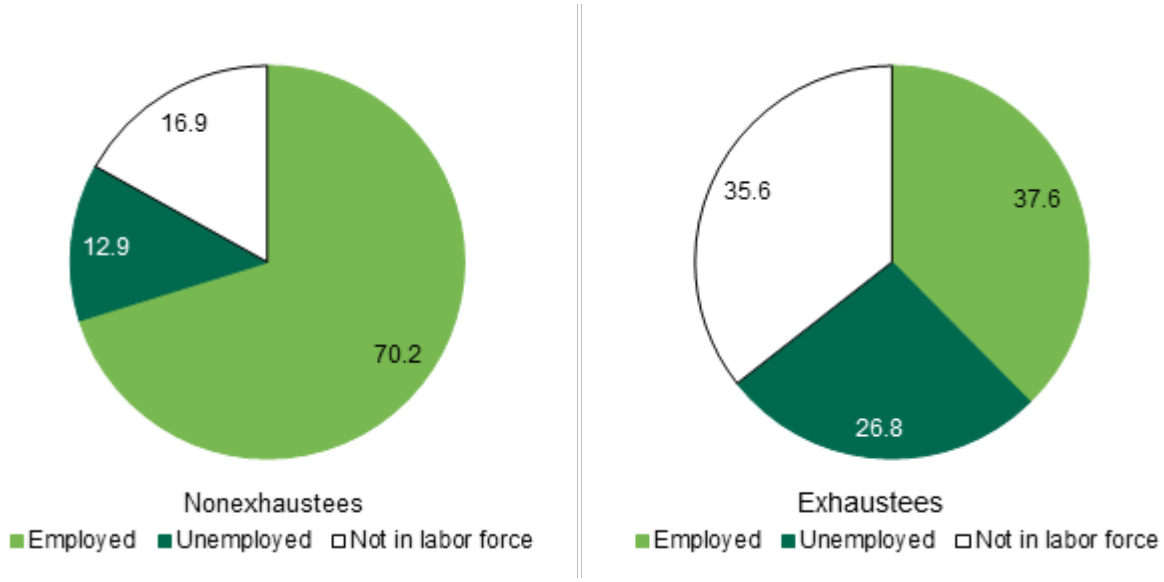
Note: Estimates have been weighted for survey nonresponse. Exhaustees and nonexhaustees differed significantly in the percentage receiving extra financial assistance from family members ($p < 0.05$) and postponing a major purchase ($p < 0.10$).

C. How exhaustees and nonexhaustees fared at the time of the survey (four to six years after their UI initial claim)

Through the survey, we were able to examine long-term outcomes of recipients four to six years after their UI initial claims. The survey was fielded from December 2013 through August 2014. Thus, these outcomes were measured at a time when the economy as a whole was much stronger than when recipients began collecting UI benefits. Furthermore, and, generally speaking, the UC system as a whole had returned to its pre-recession levels of benefit generosity because the EUC08 program concluded near the end of 2013 and the last state to trigger off EB (stop providing EB benefits) after the recession did so in May 2013. However, we found significant and long-lasting changes in exhaustees' circumstances compared to their pre-UI circumstances.

- **Exhaustees had lower employment and labor force participation rates in the week before the survey interview than nonexhaustees.** Thirty-eight percent of exhaustees reported having been employed in the previous week, whereas an almost equal percentage were out of the labor force (such as without a job and not looking for work, retired, or unable to work due to a disability) (Figure V.5, Appendix Table D.17). In contrast, about 70 percent of nonexhaustees were employed that week, and only about 17 percent were out of the labor force. Among those in the labor force, the implied unemployment rate for exhaustees of 42 percent (27/(100 – 36)) was much higher than the 16 percent (13/(100 – 17)) unemployment rate among nonexhaustees.

Figure V.5. Labor force participation at the time of the survey (percentages)



Source: Merged survey respondent data file.

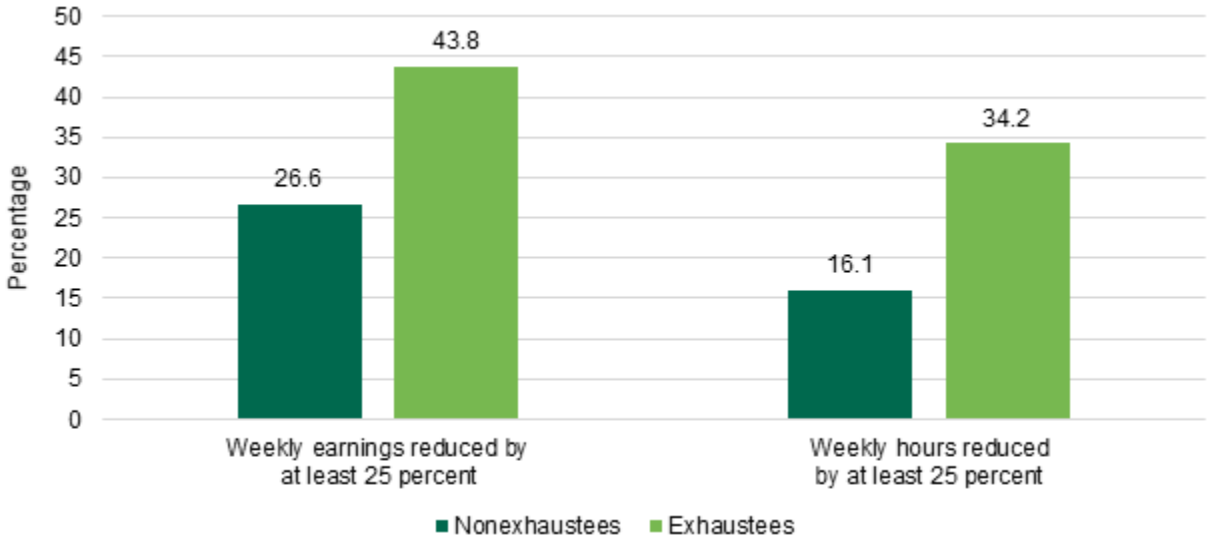
Note: Estimates have been weighted for survey nonresponse. Categories were defined based on the main work-related activity during the week before the interview. Exhaustees and nonexhaustees differed significantly in the percentage employed ($p < 0.05$), unemployed ($p < 0.05$), and not in labor force ($p < 0.05$).

- **Among those employed at the time of the survey, exhaustees tended to hold less well-paid jobs than nonexhaustees.** In comparison to nonexhaustees, exhaustees were more likely to hold a job that paid $500 or less per week and less likely to hold a job that paid

more than $1,100 per week. They also were less likely to receive health insurance, paid vacation, or retirement benefits from their jobs (Appendix Table D.18).

- **Exhaustees who had jobs at the survey date were also more likely to have experienced reductions in earnings and hours, as well as access to fringe benefits, compared to their pre-UI job.** For example, relative to nonexhaustees, exhaustees were much more likely (44 percent versus 27 percent) to have experienced a reduction in their earnings of at least 25 percent. In addition, 34 percent of exhaustees, compared to 16 percent of nonexhaustees, experienced a reduction of at least 25 percent in their hours of work per week (Figure V.6). Furthermore, rates of access to fringe benefits were considerably lower for exhaustees in their job at the time of the survey compared to their pre-claim job. In contrast, access to fringe benefits was comparable or slightly higher for nonexhaustees in their post-claim jobs compared to their pre-claim jobs (Appendix Table D.19).

Figure V.6. Reductions in earnings and hours from pre-claim job to job at the time of the survey



Source: Merged survey respondent data file.

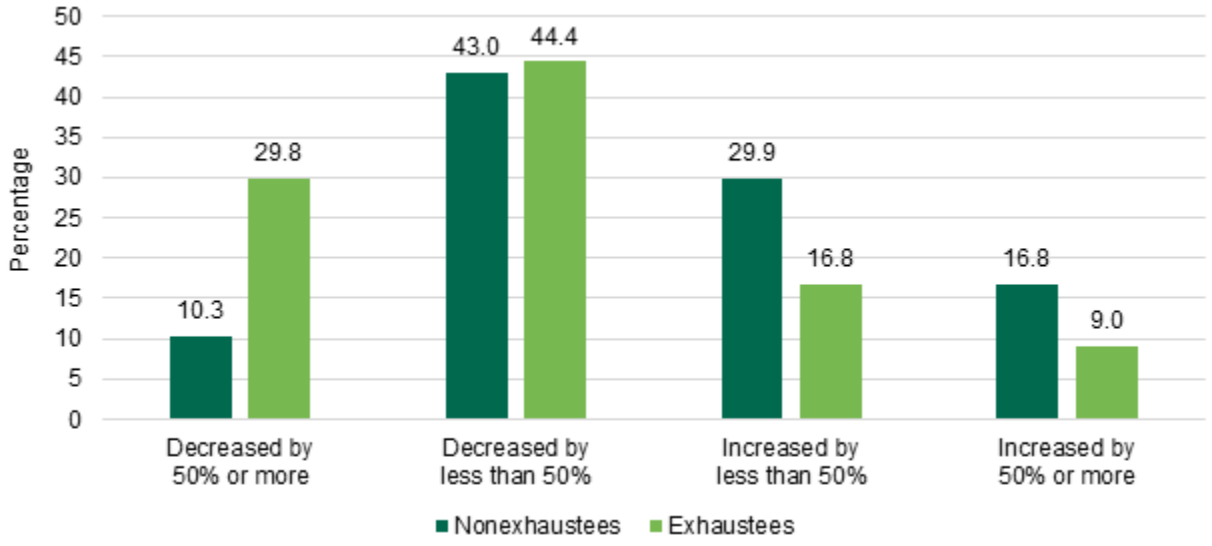
Note: Estimates have been weighted for survey nonresponse. The percentages portrayed in the figure were calculated for respondents who were employed at the time of the interview, and are based on earnings amounts that are expressed in 2014 dollars. Exhaustees and nonexhaustees differed significantly in the percentage whose weekly earnings were reduced by at least 25 percent ($p < 0.05$) and whose weekly hours were reduced by at least 25 percent ($p < 0.05$).

- **Among those employed at the time of the survey, exhaustees were more likely than nonexhaustees to have changed industry and occupation between their pre-claim and current jobs.** Sixty-six and 69 percent of exhaustees experienced changes in their industry

and occupation, respectively, compared to 55 and 50 percent of nonexhaustees (Appendix Table D.19).[25]

- **Although the household economic well-being of both exhaustees and nonexhaustees declined from the year before the UI initial claim to the time of the survey, the decline was much more substantial for exhaustees.** About 30 percent of exhaustees, as well as 10 percent of nonexhaustees, experienced a decline of at least 50 percent in their household income between the year before the UI initial claim and 2013 (Figure V.7, Appendix Table D.20).[26] The decline in household income for exhaustees was associated with an increase in their poverty rate, from about 28 percent to 39 percent (Figure V.8). In contrast, compared to exhaustees, the poverty rate for nonexhaustees was lower before the UI initial claim (at 19 percent) and increased by less than one percentage point (Figure V.8, Appendix Table D.5).

Figure V.7. Change in household income from the pre-claim year to 2013



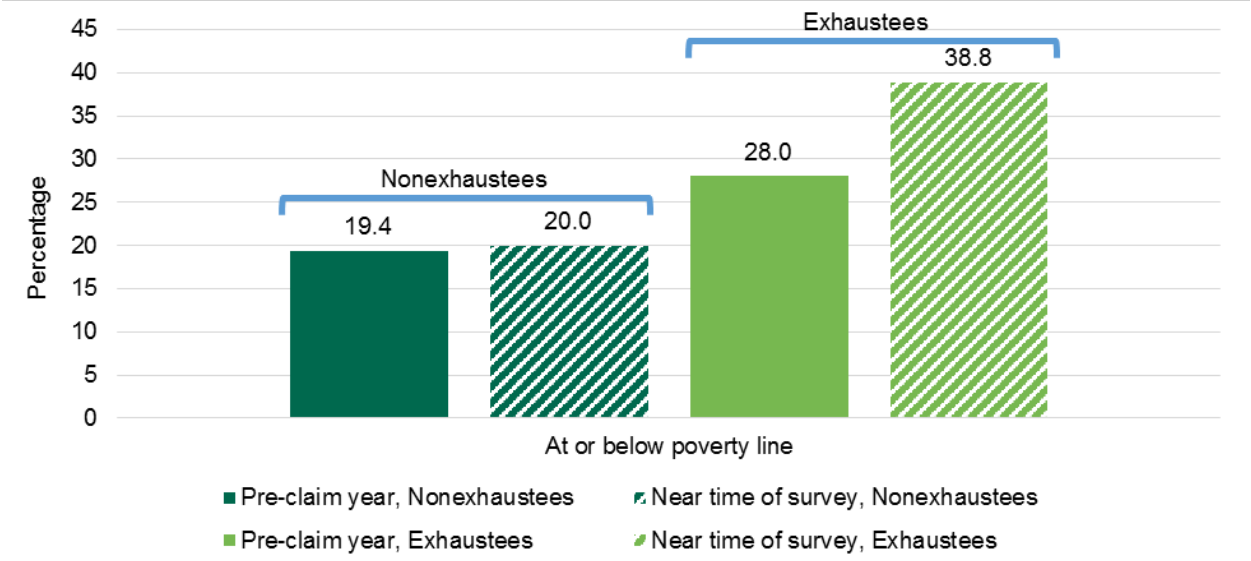
Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. The pre-claim year was either 2007 or 2008, depending on the respondent's UI initial claim date. Household income in the pre-claim year and from 2013 are both expressed in 2014 dollars. Income change measures exclude information from individuals reporting zero income in either period or a change of more than 1,000 percent between years. The distribution of changes in household differed significantly between exhaustees and nonexhaustees ($p < 0.05$).

[25] A change was defined when a recipient switched over time from one of 12 North American Industry Classification System groupings to another or from one of 13 Standard Occupational Classification groupings to another.

[26] The survey asked about income in 2013, which was the year before most respondents completed the survey. (The survey was fielded from December 2013 through August 2014.)

Figure V.8. Changes in poverty rates over time

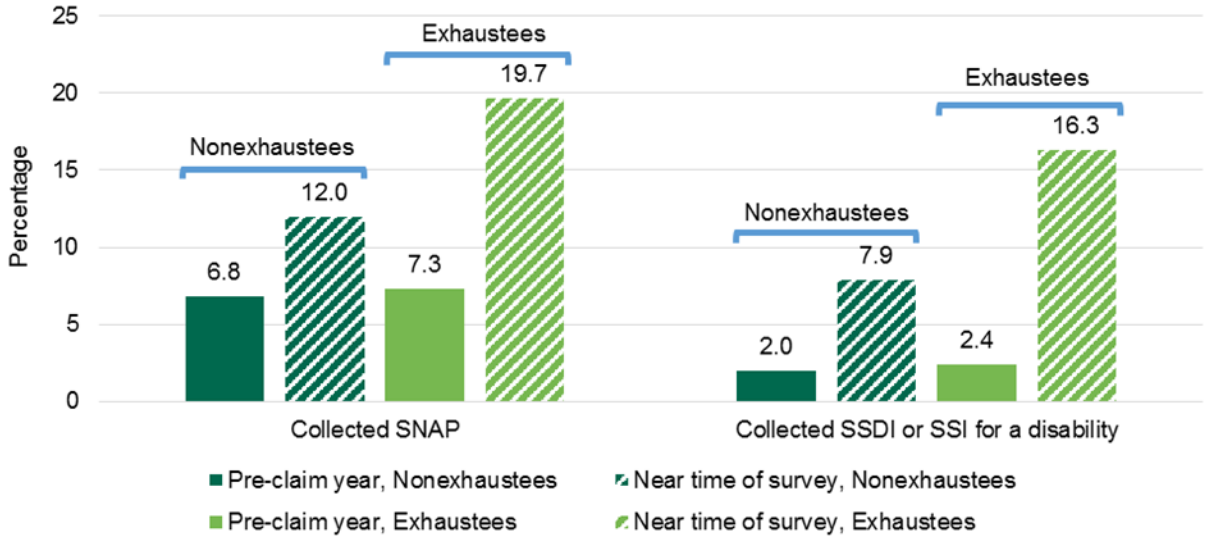


Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. The pre-claim year was either 2007 or 2008, depending on the respondent's UI initial claim date. Poverty near the time of the survey was determined based on respondents' household income in 2013, converted to 2014 dollars. Exhaustees and nonexhaustees differed significantly in the poverty rate for the pre-claim year ($p < 0.05$) and near the time of the survey ($p < 0.05$).

- **Exhaustees' households experienced larger increases in receipt of SNAP and SSDI/SSI benefits from the pre-claim year to 2013.** Rates of participation in the SNAP and SSDI/SSI programs were comparable for exhaustees and nonexhaustees households in the year before the UI initial claim. Both groups increased their participation in these programs from that time to 2013. But, in 2013, the participation rates for exhaustees in each of these programs were about 8 percentage points higher than for nonexhaustees (Figure V.9, Appendix Table D.6).
- **Exhaustees and nonexhaustees had very low participation rates in the TANF program, both before the UI initial claim and during 2013 (Appendix Table D.6).** In each time period, less than 2 percent of the households of each recipient group collected TANF.

Figure V.9. Changes in program participation over time



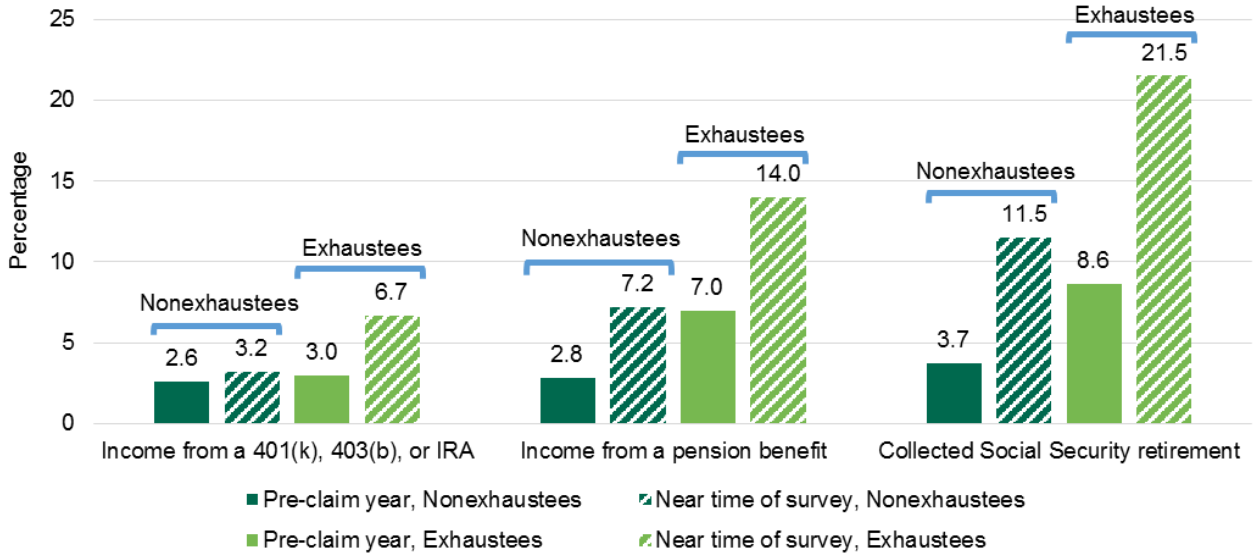
Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. The pre-claim year was either 2007 or 2008, depending on the respondent's UI initial claim date. Program participation was measured on the date of the interview. All of the variables in this table are household-level measures of income support. Exhaustees and nonexhaustees differed significantly near the time of the survey in the percentage collecting SNAP ($p < 0.05$) and collecting SSDI or SSI for a disability ($p < 0.05$).

SNAP = Supplemental Nutrition Assistance Program; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

- **The rate at which exhaustees' households received retirement income from various sources during 2013 was about twice that of households of nonexhaustees.** During 2013, the most common source of retirement-related income for each group for exhaustees and nonexhaustees was Social Security and Railroad Retirement (at 22 and 12 percent, respectively) (Figure V.10, Appendix Table D.6). Next was income from a pension benefit, at 14 percent for exhaustees' households and 7 percent for nonexhaustees' households. Least common was income from a 401(k), 403(b), or individual retirement account (IRA)—at 7 and 3 percent, respectively. Receipt of each income source was higher for exhaustees' households than for nonexhaustees' households before the UI initial claim, but the gap in receipt between the households of exhaustees and nonexhaustees widened over time. As is shown in Appendix Table D.1, a higher percentage of exhaustees was at least age 55 at the time of the UI initial claim compared to nonexhaustees (24 percent versus 14 percent).

Figure V.10. Changes in income support from sources of retirement income over time



Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. The pre-claim year was either 2007 or 2008, depending on the respondent's UI initial claim date. All of the variables in this table are household-level measures of income support. Social Security retirement includes Social Security Retirement and Railroad Retirement payments. Exhaustees and nonexhaustees differed significantly in the percentage receiving income support from a 401(k), 403(b), or IRA near the time of the survey ($p < 0.05$), pension benefits in the pre-claim year and near the time of the survey ($p < 0.05$), Social Security retirement near the time of the survey ($p < 0.05$), and income support from Social Security retirement in the pre-claim year ($p < 0.10$). No other measures depicted in the figure differed significantly at the $p < 0.10$ level between exhaustees and nonexhaustees.

IRA = Individual Retirement Account.

D. Multivariate analysis of post-claim outcomes

Although the previous sections show that exhaustees had much less favorable labor market outcomes than nonexhaustees following their UI initial claims, this finding might arise in part because exhaustees were more disadvantaged before their claim. To examine the extent to which differences in outcomes represented the continuation of long-term disadvantages or more recent problems related to exhaustees' long unemployment spells, we conducted a set of multivariate analyses of long-term outcomes to control for the pre-claim characteristics listed in Table IV.1. (Means and standard deviations of the variables are shown in Appendix Table D.21.) The results of these examinations are reported in Appendix Tables D.22–D.25.

- **Controlling for pre-claim characteristics reduced differences in employment outcomes and overall earnings between exhaustees and nonexhaustees by about one-fifth to one-quarter.** For example, in the week before the survey, employment rates for nonexhaustees were about 28 percentage points higher than for exhaustees, after taking pre-claim characteristics into account. This contrasts with a difference of 34 percentage points in employment rates in the unadjusted data. Similar modest reductions in the differences between exhaustees and nonexhaustees were found for the likelihood of being in the labor force and for weekly earnings, when recipients with no earnings at the date of the survey are

included in the data (Appendix Table D.22). This means that differences between the pre-claim characteristics of exhaustees and nonexhaustees (as observed in the data and included in the regression) explain a small portion of the differences in outcomes between the two groups. Unobserved pre-claim characteristics and post-claim experiences explain the majority of the differences.

- **Among those employed at the survey date, controlling for pre-claim characteristics had a negligible effect on the estimated difference between groups in job quality.** Although exhaustees continued to show greater declines in weekly earnings and hours than nonexhaustees, the sizes of the differences were little changed by taking pre-claim characteristics into account. Similarly, the sizes of differences between exhaustees and nonexhaustees in the likelihood of having pensions or health insurance in their new jobs were not affected by controlling for pre-claim characteristics (Appendix Table D.23). Hence, most of the effects of pre-claim characteristics on labor market outcomes reflected the effects of these characteristics on the likelihood of re-employment
- **Differences between exhaustees and nonexhaustees in the financial difficulties encountered were modestly larger when controlling for pre-claim characteristics.** For example, when controlling for pre-claim characteristics, we estimated a 28 percentage-point relative decline in household income from pre-claim year to 2013 for exhaustees rather than the 26 percentage-point decline shown in the raw data. Similar, small increases in the relative financial difficulties the two groups faced were found for the likelihood of having a home foreclosed (Appendix Table D.24).
- **Differences in the likelihood of collecting SSDI or SNAP benefits were somewhat smaller when controlling for pre-claim characteristics.** For example, the unadjusted data show a difference between exhaustees and nonexhaustees of 7 percentage points in the likelihood of collecting SNAP benefits. This difference is reduced to 5 percentage points by controlling for pre-claim characteristics—most importantly, by controlling for differences in the pre-claim likelihood of SNAP benefit receipt. Similarly, differences in the likelihood of collecting SSDI benefits are reduced from nearly 10 percentage points to about 8 percentage points. One reason for this finding is that prior receipt of a benefit of a certain type is an important predictor of later receipt of it. A contrary finding, however, is that the difference between exhaustees and nonexhaustees in the likelihood of having household incomes move below the poverty threshold increased when controlling for pre-claim characteristics (Appendix Table D.25).

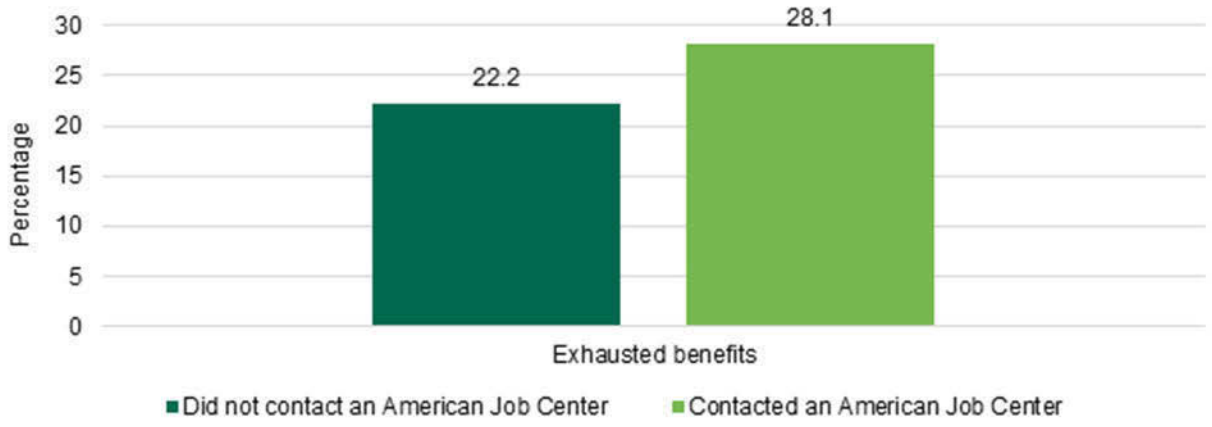
E. Reemployment services and labor market outcomes

To supplement the study's analyses about similarities among and differences between exhaustees and nonexhaustees, and in response to two specific study research questions, we also conducted additional analyses about reemployment service use. First, we examined whether a visit to an AJC (or similar type of government employment agency) as part of recipients' job search efforts is associated with better labor market outcomes. We focused on four outcomes: (1) exhaustion of benefits, (2) employment during the three years following the UI initial claim, (3) number of quarters elapsed until reemployment for those who became reemployed, and (4) employment at the time of the survey. As a second analysis, we examined whether the association between receipt of reemployment services and labor market outcomes depended on state labor market conditions. For this latter analysis, we compared the experiences of

individuals in the three states in our sample that had relatively low unemployment rates (Arkansas, South Dakota, and Wisconsin) to those of individuals in our other seven states.

- **Recipients who visited an AJC (or a similar type of agency) as part of their job search efforts were more likely than those who did not to have exhausted their UC benefits.** The exhaustion rate of the former group was about 6 percentage points higher (28 versus 22 percent) than that of the latter group (Figure V.11 and Appendix Table D.15). It is possible that those who visited an AJC faced more challenging reemployment prospects than those who did not. As a result, they could have either been mandated through the Worker Profiling and Reemployment Services system or another mechanism to participate in reemployment services as a condition of their UC benefit receipt or chosen to visit an AJC or similar agency of their own initiative.[27] However, with the available data, we cannot ascertain the cause for this relationship between exhaustion status and an AJC visit.

Figure V.11. Exhaustion rates for recipients, by contact with an American Job Center, state employment center, or other government agency



Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. "Contacted an American Job Center" includes recipients who reported looking for work during the first three months after job separation, and who contacted an American Job Center, state employment center, or other government agency as part of their job search efforts during that time. Recipients who did not report looking for work during the three-month period were assumed to have not contacted an American Job Center or similar agency. Recipients who contacted an American Job Center and who did not contact an American Job Center differed significantly in their exhaustion rate ($p < 0.10$).

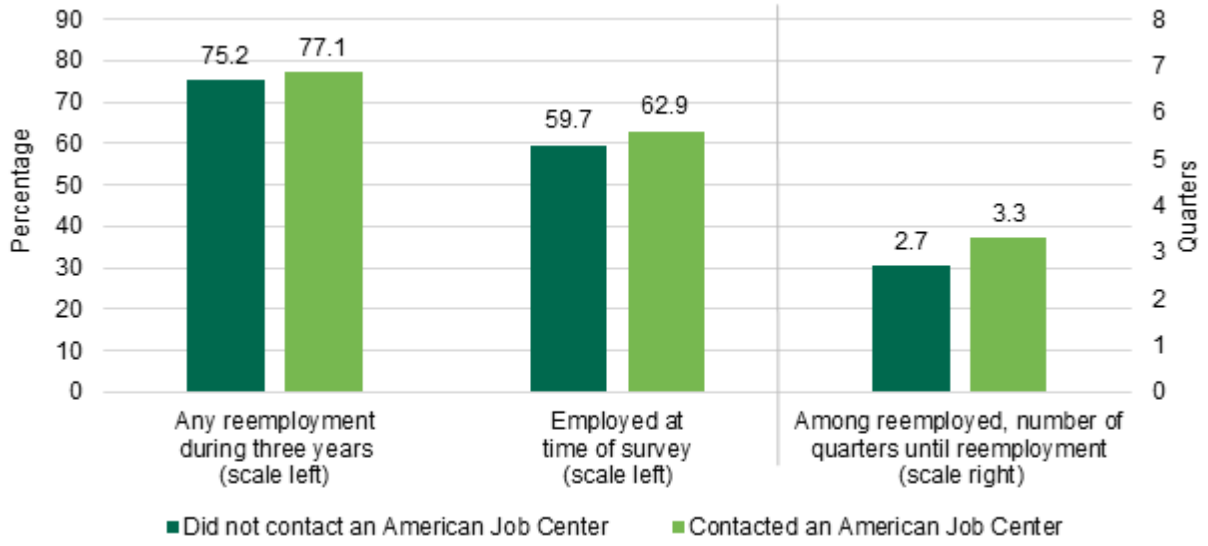
- **Among recipients who became reemployed, those who went to an AJC (or a similar type of agency) as part of their job search efforts took longer to get a job than those who did not visit an AJC (or similar agency), but the two groups did not significantly differ in other measures of reemployment.** This pattern held true also for nonexhaustees (Appendix Table D.15). For all recipients and the nonexhaustees subgroup, we did not

[27]Typically through a statistical model, the Worker Profiling and Reemployment Services system identifies UI recipients who are forecasted as likely to exhaust their benefits and mandates their participation in reemployment services. In this way, reemployment service resources can be targeted to UI recipients who are expected to need them most.

detect significant differences between those who visited an AJC and those who did not in (1) whether they had any reemployment during three years following the UI initial claim quarter and (2) whether they were reemployed at the time of the survey.

- **In contrast, among exhaustees, we found that those who visited an AJC or similar agency were more likely to have become reemployed during three years following their UI initial claim quarter.** As explained earlier, we cannot determine the casual effects of a visit to an AJC or similar organization, and the resulting receipt of reemployment services, on recipients' outcomes. However, this latter finding is consistent with a hypothesis that the effects of a visit to an AJC become apparent only in the longer term. It is also possible that, even among the exhaustee subgroup, those who visited an AJC and those who did not are systematically different from each other in ways we cannot detect (Appendix Table D.15).

Figure V.12. Employment outcomes after the UI initial claim quarter, by contact with an American Job Center



Source: Merged survey respondent data file.

Note: Estimates have been weighted for survey nonresponse. "Contacted an American Job Center" includes recipients who reported looking for work during the first three months after job separation, and who contacted an American Job Center, state employment center, or other government agency as part of their job search efforts during that time. Recipients who reported that they did not look for work during the three-month period were assumed to have not contacted an American Job Center or similar agency. Recipients who contacted an American Job Center and who did not contact an American Job Center differed significantly in the number of quarters until reemployment ($p < 0.05$). No other measures depicted in the figure differed significantly at the $p < 0.10$ level between recipients who contacted an American Job Center and recipients who did not contact an American Job Center.

- **Among the three states that had relatively strong labor markets, there is suggestive evidence that exhaustees were more likely than nonexhaustees to have used most of the different types of job search strategies about which the survey inquired (Appendix Table D.14).** However, the small sample sizes for the analysis hindered the ability to detect statistically significant differences; there were only 38 exhaustees and 179 nonexhaustees in these three states. However, patterns of (nonsignificant) differences between exhaustees and nonexhaustees suggest that exhaustees might have been more active in using different types of job search strategies. For example, 72 percent of exhaustees went to an AJC, compared to 66 percent of nonexhaustees. The only statistically significant differences between the two groups were that exhaustees were more likely than nonexhaustees (1) to have looked at classified ads (88 versus 71 percent) and (2) to have applied directly to an employer (93 versus 76 percent); both of these differences were statistically significant at the 5-percent level.
- **Among the group of seven states that had relatively weak labor markets, exhaustees were significantly more likely than nonexhaustees to have visited an AJC (66 percent versus 58 percent), and they used somewhat different types of other job search strategies (Appendix Table D.14).** The sample sizes of exhaustees and nonexhaustees were larger for this subgroup of states (212 exhaustees and 545 nonexhaustees). We found that exhaustees were more likely than nonexhaustees to have looked at and answered classified ads; other differences between the two groups were not statistically significant, and the pattern across the two groups was not as pronounced in terms of implying more active job search by one group.

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VI. UC RECIPIENCY AND EXHAUSTION FROM THE DISPLACED WORKER SUPPLEMENT

In this chapter we use information from the DWS to show how the results discussed in the previous chapters fit into the broader context of unemployed workers during the Great Recession. The merged survey respondent data file—the source of results presented in Chapters IV and V—has some important limitations in providing an overall picture of the operations of the UC system—and the experiences of unemployed workers—during the Great Recession because the data come only from 10 states that are not representative of experiences in the nation as a whole. The sample of UI claims in the merged survey respondent data file also comes only from a 21-month period near the depth of the recession (January 2008 through September 2009). Experiences of workers who began collecting UI benefits either before or after this period might be different. Finally, by its design, the data file includes only individuals who collected UC benefits. It provides no information on people who lost their jobs at about the same time but who did not receive UI benefits—many of whom might have experienced special hardships during the Great Recession. The DWS addresses many of these limitations: it is national in representation; it covers periods before and after the Great Recession; and it contains information on workers who did not receive UI benefits. Our presentation of results here uses the same conventions with regard to statistical significance and methods of analysis as described in Chapter I and as used in earlier chapters of the report.

Key findings

- Nonrecipients tended to come from groups for which rates of UI eligibility might be lower.
- Nonrecipients were more likely than both exhaustees and nonexhaustees to have had a low level of educational attainment, and they were more likely than exhaustees to have had a high level of education.
- Nonrecipients also had much more varied reemployment experiences than did recipients. The majority had relatively short durations of joblessness, whereas others had very long durations of joblessness.
- Nonrecipients were more likely than both exhaustees and nonexhaustees to avoid large reductions in earnings and to experience large earnings gains.
- Nonrecipients and exhaustees had higher rates of poverty and of SNAP collection than did recipients who did not exhaust their UI entitlements.
- Among those with long jobless spells, nonrecipients were more disadvantaged than were recipients. They had lower rates of reemployment and higher rates of poverty.

The DWS also has some limitations for answering study questions. First, it does not contain information on workers who collected UI benefits but did not meet the survey's criteria for being "displaced." As defined by the Bureau of Labor Statistics, displaced workers are those who reported having been laid off due to lack of work; elimination of a job or shift; closing or moving of a plant, facility, or company; the recession; or downsizing or restructuring of the company. Second, the survey's information on UI collection and exhaustion is self-reported so it may be subject to response bias. For example, it is not clear whether DWS survey respondents took into account all of their potential UI, EUC08, and EB benefit entitlements when they answered a question about whether or not they exhausted their benefits. Nevertheless, we believe that the

DWS provides the best data source with which to supplement our study of exhaustion and the experiences of unemployed workers during the Great Recession, so we rely on it for the analysis in this chapter.

The chapter is divided into five sections. In Section A, we provide an overview of the DWS data and analysis. Section B then describes characteristics of nonrecipients, nonexhaustees, and exhaustees who were laid off in 2009. Section C presents information about the employment and other outcomes of these groups. In Section D, we focus on recipients and nonrecipients who experienced long jobless spells after their layoffs in 2009. We summarize these analyses in Section E.

A. Overview of the DWS-based patterns in recipiency and exhaustion

We examined the DWS from three rounds of survey administration: 2010, 2012, and 2014. Because we are interested in longer-term outcomes, we used data only on individuals who lost their jobs in the calendar years three years before these surveys. That is, we looked at workers who were laid off in 2007, 2009, and 2011, respectively. Generally speaking, we characterize these as layoffs that occurred "early" in the recession, at the "depth" of the recession, and "later" in the recession.[28] In this chapter we devote most of our analysis to the 2009 layoffs, primarily because we believe these workers are most similar to those examined in earlier chapters. Appendix E provides a detailed comparison of workers laid off during all three recessionary periods. Because we were primarily interested in the 2009 cohort, we merged the DWS and ASEC data only for that group (who were surveyed in March 2012—two to three years after their layoffs).[29] This chapter presents the results of the merged analysis.

As an introduction to the data, Figure VI.1 shows the composition of each of the layoff cohorts we are examining. The 62 percent UI recipiency rate (29 + 33) among displaced workers in 2009 was significantly higher than the recipiency rates of 40 (21 + 19) for 2007 and of 51 (23 + 28) for 2011.[30] There are two possible reasons for this: (1) that individuals laid off in 2009 may have had higher levels of UI eligibility than did those laid off in other years and (2)

[28] Technically the recession ended in mid-2009, but its effects on the labor market continued to be felt for many years after that. The seasonally adjusted unemployment rate peaked at about 10 percent in late 2009 and did not return to 5 percent (its value in December 2007, when the recession started) until late 2015.

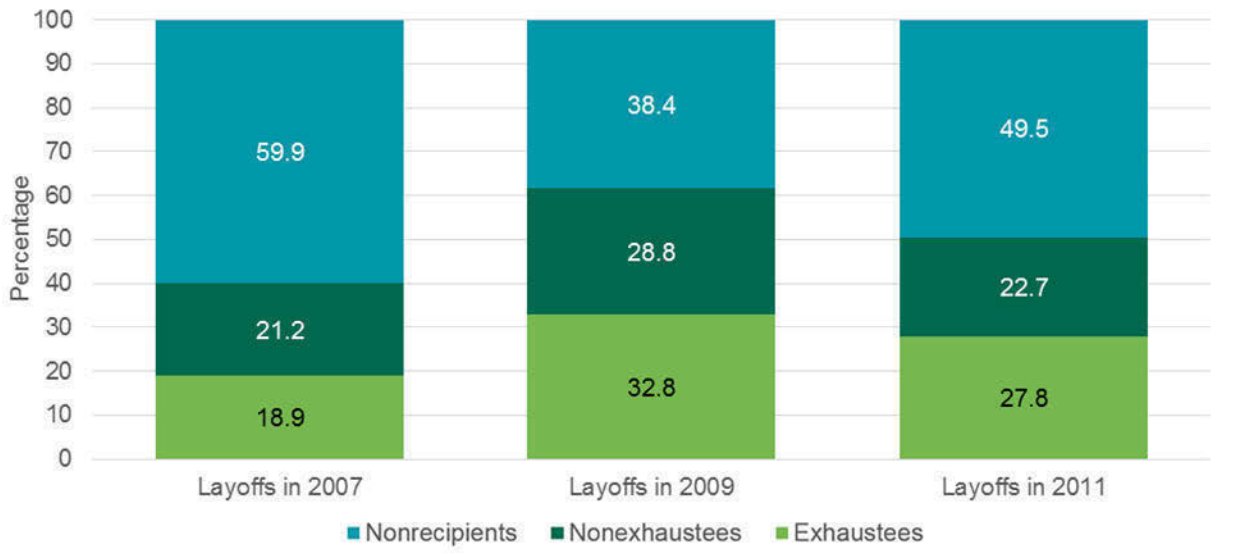
[29] We used the approach suggested by Madrian and Lefgren (2000) to match individuals across the DWS and ASEC supplements to the CPS. This approach is based on (1) a common identifier, corresponding to the unique household and record number of each respondent; and (2) a "month-in-sample" variable which can be used to longitudinally track respondents across months. We sought to conduct this match for the DWS respondents scheduled to be administered the ASEC according to the rotational design of the CPS, which corresponded to approximately half of the DWS cohort. We successfully merged in ASEC data for more than 92 percent of these DWS respondents.

[30] All estimates based on the DWS presented in this report used weights provided by the Bureaus of Labor Statistics to produce nationally-representative estimates based on survey respondents' data. These weights account for features of the CPS's stratified, multistage cluster sampling design and adjustments for fluctuations over time in the sample composition and survey nonresponse. These adjustments use external information (for example, from the U.S. Census Bureau) about the distribution of households and individuals to achieve survey-based estimates that more closely match national totals. In addition, we use the method recommended by Davern et al. (2006 and 2007) to account for the CPS survey design when assessing the precision of DWS estimates.

relatively greater numbers of workers laid off in 2007 or 2011 found new jobs relatively quickly (because of better labor market conditions) and did not need to apply for UI benefits. Some evidence on these possibilities is reported later in this chapter.

Furthermore, the exhaustion rates reported for the three layoff cohorts are reasonably close to the national figures for regular UI benefits for these years (see Figure I.2). The rates are much higher than the rates of exhaustion for all available benefits reported in Chapter III. Hence, it is possible that some or most respondents believe the question in the DWS refers to exhaustion of regular UI benefits only. Moreover, the survey questionnaire asks respondents whether they received "unemployment insurance benefits" and the follow-up question asks respondents whether they "exhausted … eligibility for unemployment benefits." Neither question explicitly mentions additional benefits available through the EUC08 or EB programs. It also is possible that nonexhaustees are more likely than exhaustees to misreport whether they received unemployment benefits—which would artificially inflate the exhaustion rate. Consequently, the "exhaustees" we report on in this chapter might be more properly compared to the UI exhaustees examined in Appendix A rather than to the workers who exhausted all available UC benefits who are the major focus of Chapters IV and V.

Figure VI.1. UC collection and exhaustion among displaced workers, by layoff year



Source: 2010, 2012, and 2014 DWS.

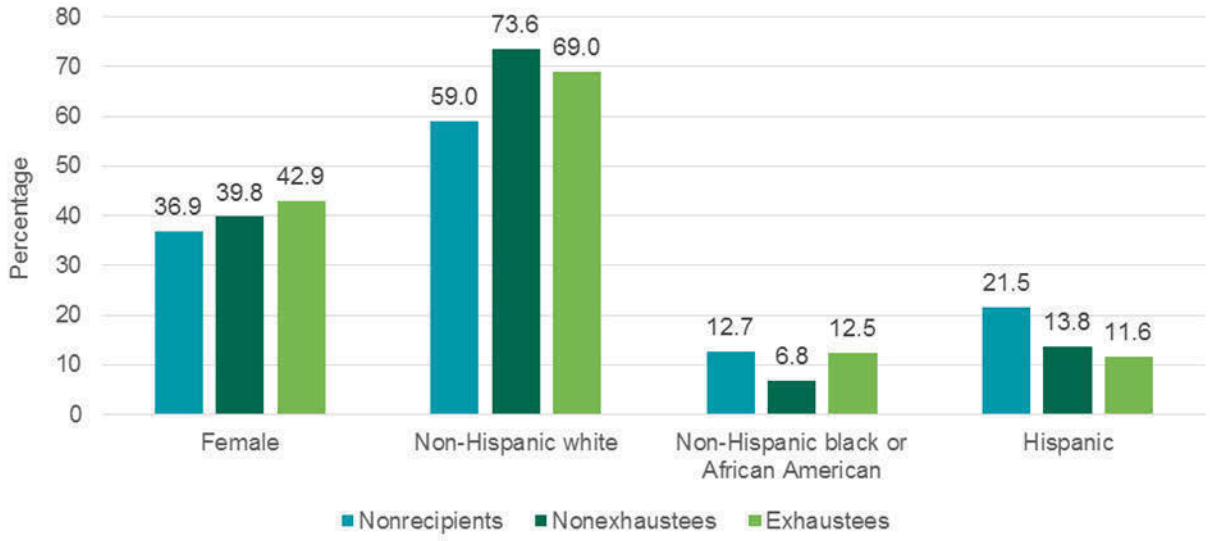
Note: Percentages in the figure are based on self-reported receipt and exhaustion of UI benefits among displaced workers laid off in each indicated year. These estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. For the reasons explained in the text, the 2010 DWS was used to measure outcomes for those laid off in 2007, the 2012 DWS was used to measure outcomes for those laid off in 2009, and the 2014 DWS was used to measure outcomes for those laid off in 2011.

B. Characteristics of nonrecipients, nonexhaustees, and exhaustees laid off in 2009

Demographic characteristics of the three displaced worker groups laid off in 2009 were generally similar, and the primary differences between recipients and nonrecipients likely

were related to differing rates of UI eligibility. For example, nonrecipients were more likely than recipients to be women, perhaps because they were more likely to have held and to have been available for and seeking part-time jobs (Bureau of Labor Statistics 2009). They were also more likely to belong to the youngest age category and were more likely to be Hispanic (Figures VI.2 and VI.3) (Appendix Table E.2).

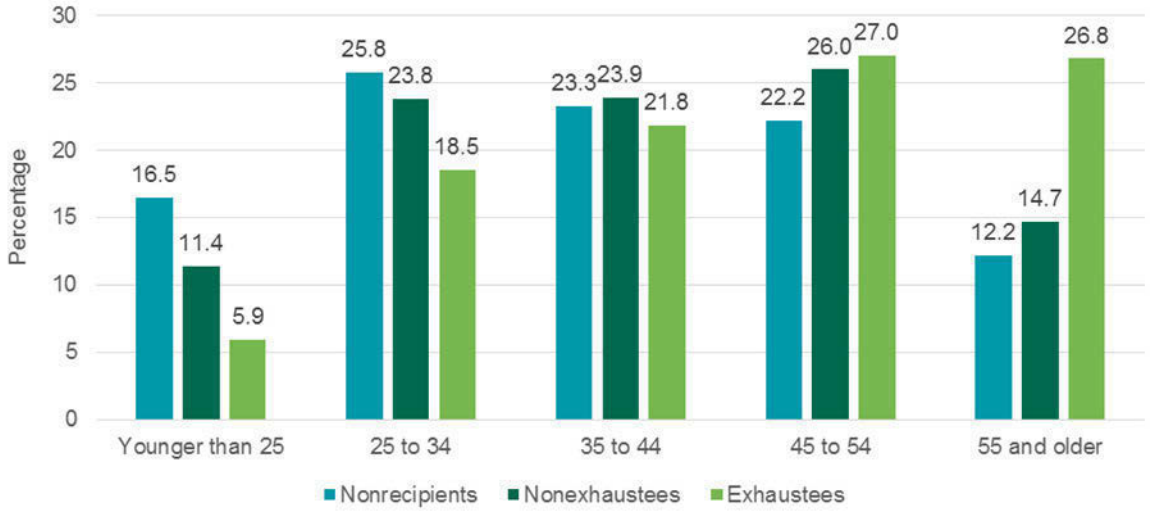
Figure VI.2. Gender, race, and ethnicity of workers displaced in 2009, by UC benefit receipt and exhaustion status



Source: 2012 DWS.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. Nonrecipients and recipients differed significantly in the percentage that are women ($p < 0.10$), non-Hispanic white ($p < 0.05$), and Hispanic ($p < 0.05$). Exhaustees and nonexhaustees differed significantly in the percentage of non-Hispanic blacks or African Americans ($p < 0.05$). No other measures depicted in the figure differed significantly at the $p < 0.10$ level between nonrecipients and recipients or between recipients who were nonexhaustees and exhaustees.

Figure VI.3. Age distribution of workers displaced in 2009, by UC benefit receipt and exhaustion status

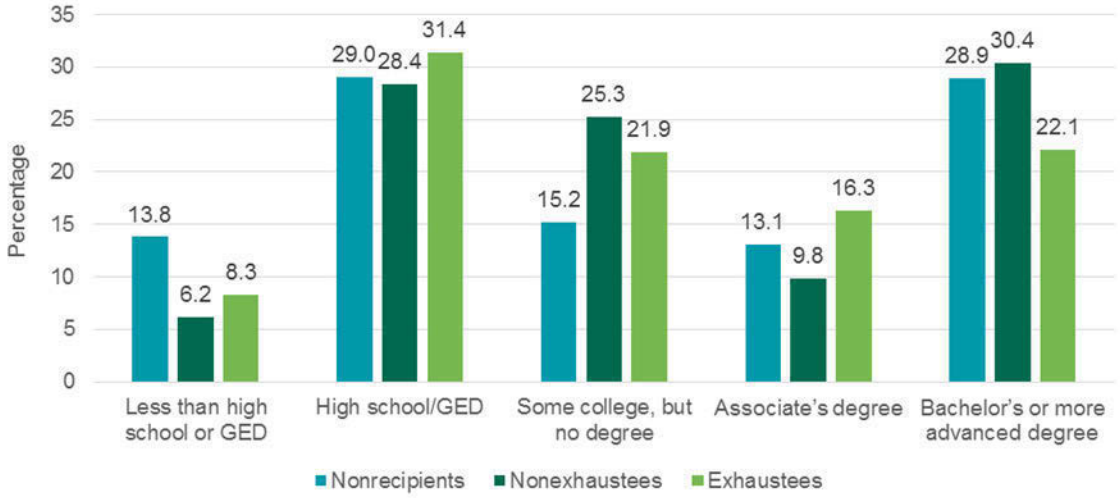


Source: 2012 DWS.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. The distribution of age differed significantly both between nonrecipients and recipients ($p < 0.05$) and between exhaustees and nonexhaustees ($p < 0.05$).

Nonrecipients were more likely than exhaustees to have either low or high levels of educational attainment. For example, nonrecipients were substantially more likely to have less than a high school education than were both groups of recipients. They also were more likely than exhaustees to have bachelor's degrees, and they resembled nonexhaustees in this regard (Figure VI.4) (Appendix Table E.3). This is an important indication of the bimodal nature of the nonrecipient group.

Figure VI.4. Educational attainment among workers displaced in 2009, by UC benefit receipt and exhaustion status



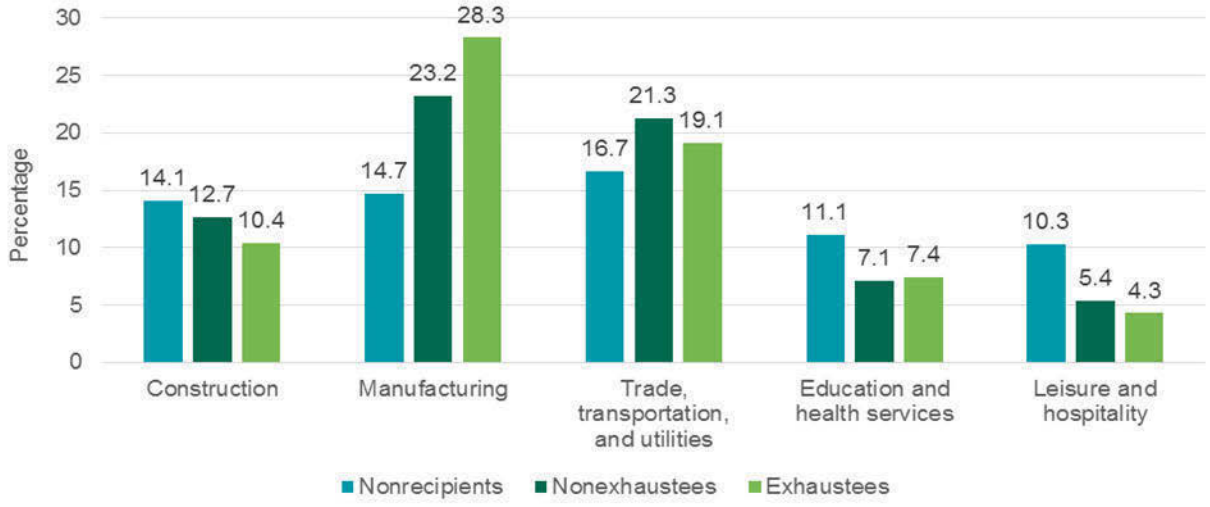
Source: 2012 DWS.

Figure VI.4 *(continued)*

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. The distribution of educational attainment differed significantly both between nonrecipients and recipients ($p < 0.05$) and between exhaustees and nonexhaustees ($p < 0.05$).

Nonrecipients were less likely to have been laid off from manufacturing jobs than were individuals in either of the recipient categories, and they were more likely to have previously worked in service occupations (Figures VI.5 and VI.6) (Appendix Tables E.4 and E.5). These differences might arise in part because of differences in the base period earnings or the distribution of those earnings for those laid off in these industrial and occupational categories. The differences might also reflect differences in application rates for UI benefits, perhaps because workers in manufacturing industries have more frequent layoffs or because, as a result of belonging to a union, they have better information about the process to receive UI benefits.

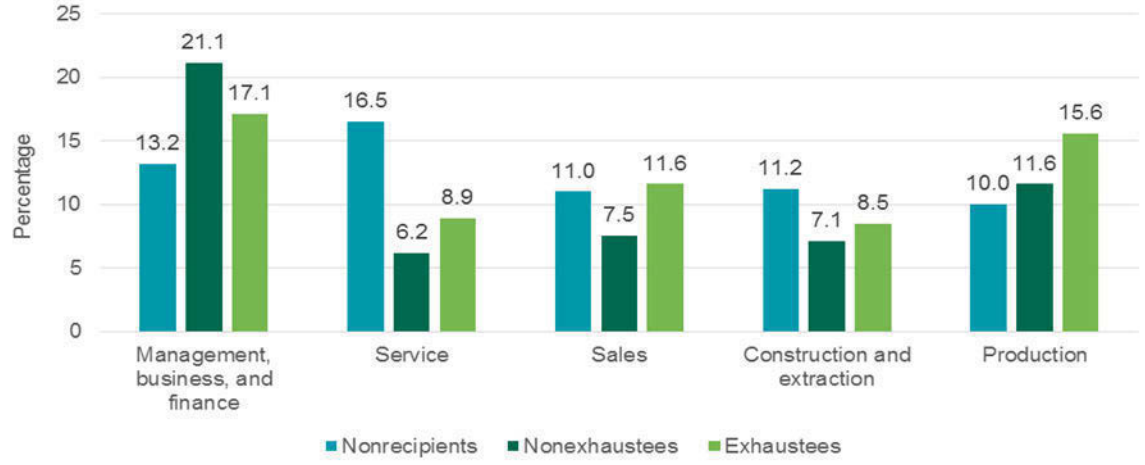
Figure VI.5. Pre-layoff industry of workers displaced in 2009, by UC benefit receipt and exhaustion status



Source: 2012 DWS.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. Nonrecipients and recipients differed significantly in the percentage separating from jobs in manufacturing ($p < 0.05$), education and health services ($p < 0.05$), and leisure and hospitality ($p < 0.05$). No other differences between nonrecipients and recipients, and none of the differences between exhaustees and nonexhaustees in pre-layoff industry, were statistically significant at the $p < 0.10$ level.

Figure VI.6. Pre-layoff occupation of workers displaced in 2009, by UC benefit receipt and exhaustion status



Source: 2012 DWS.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. Nonrecipients and recipients differed significantly in the percentage formerly employed in management, business, and finance occupations ($p < 0.05$); service occupations ($p < 0.05$); construction and extraction occupations ($p < 0.10$); and production occupations ($p < 0.05$). Exhaustees and nonexhaustees differed significantly in the percentage formerly employed in sales occupations ($p < 0.05$) and production occupations ($p < 0.10$). No other measures depicted in the figure differed significantly at the $p < 0.10$ level between nonrecipients and recipients or between recipients who were nonexhaustees and exhaustees.

C. Employment and other outcomes for workers displaced in 2009

Reemployment rates were significantly higher for nonrecipients than for UI exhaustees. In this regard, nonrecipients tended to resemble nonexhaustees. However, nearly three-quarters (72 percent) of nonrecipients had very short spells of unemployment (14 weeks or less), which contrasts markedly with the experiences of both exhaustees and nonexhaustees in this regard (Figure VI.7). In fact, about one-quarter of nonrecipients (28 percent) had an unemployment spell of one week or less (Appendix Table E.6).

Figure VI.7. Reemployment patterns since layoff among workers displaced in 2009, by UC benefit receipt and exhaustion status

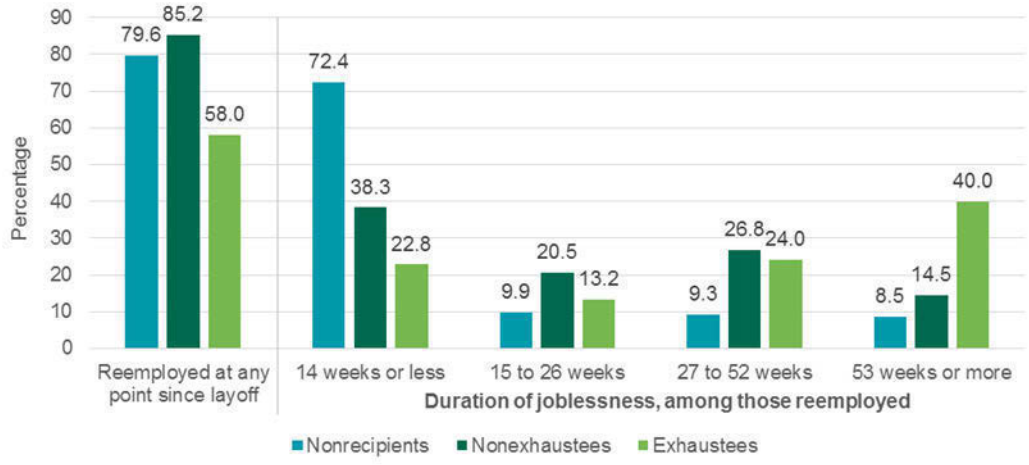


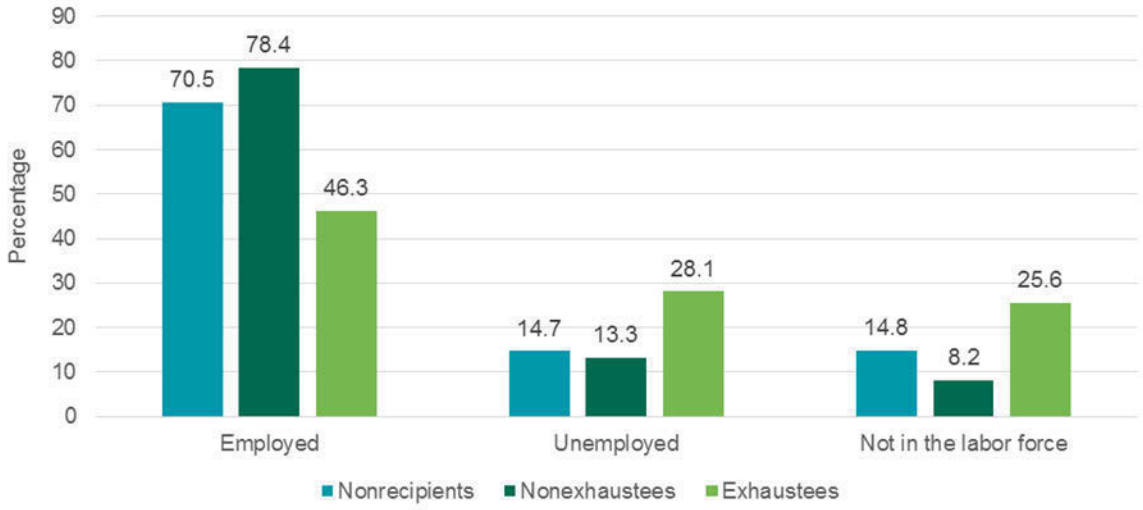
Figure VI.7 *(continued)*

Source: 2012 DWS.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. Reemployment is measured from the time of the layoff date in 2009 through the DWS survey date in January 2012. The share of displaced workers whose duration of joblessness was 27 to 52 weeks differed significantly between nonrecipients and recipients ($p < 0.05$) but not between exhaustees and nonexhaustees ($p > 0.10$). All other measures depicted in the figure differed significantly at the $p < 0.05$ level between nonrecipients and recipients and between recipients who were nonexhaustees and exhaustees.

When surveyed two to three years after their layoff, nonrecipients were about as likely as nonexhaustees to be employed but much more likely than exhaustees to be employed. At that date, nonrecipients were somewhat more likely than nonexhaustees to be out of the labor force (15 and 8 percent, respectively). But they were less likely than exhaustees to be out of the labor force (26 percent) (Figure VI.8 and Appendix Table E.7).

Figure VI.8. Labor force participation in January 2012 among workers displaced in 2009, by UC benefit receipt and exhaustion status

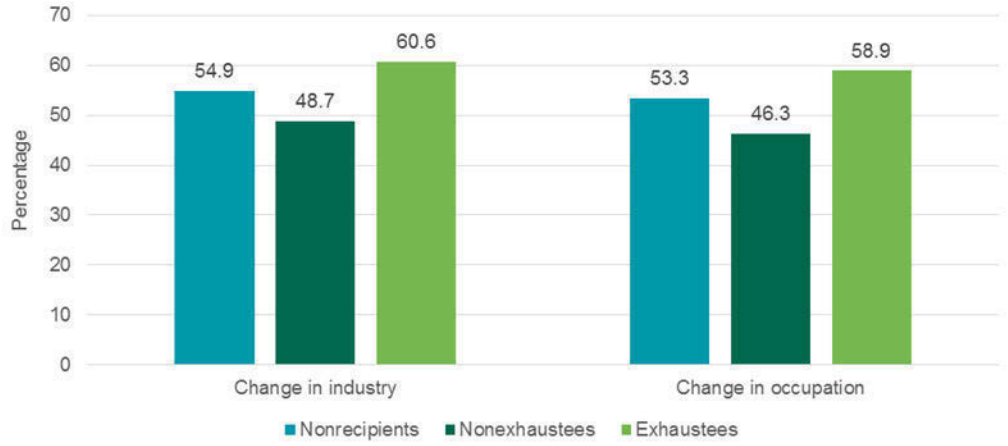


Source: 2012 DWS.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. The percentages of individuals employed and unemployed differed significantly both between nonrecipients and recipients ($p < 0.05$) and between exhaustees and nonexhaustees ($p < 0.05$). The percentage of individuals out of the labor force also differed significantly between exhaustees and nonexhaustees ($p < 0.05$) but did not differ significantly between nonrecipients and recipients ($p > 0.10$).

Of those who found jobs, about half of nonrecipients and nonexhaustees displaced in 2009 changed industries or occupations when finding a new job. Changes in industry or occupation were even more common among exhaustees: about 60 percent changed industries or occupations (Figure VI.9 and Appendix Table E.7).

Figure VI.9. Changes in industry and occupation among workers displaced in 2009 and employed in January 2012, by UC benefit receipt and exhaustion status



Source: 2012 DWS.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. The percentages portrayed in the figure measure change between the primary job held at the time of the layoff and the time of the interview in January 2012, respectively; they were calculated only among respondents who were employed at the time of the interview. The percentages of individuals who changed industry and occupation each differed significantly between exhaustees and nonexhaustees ($p < 0.05$) but did not differ significantly between recipients and nonrecipients ($p > 0.10$).

As a group, nonrecipients had more favorable changes in earnings than did either group of UI recipients. Although nonrecipients had significantly lower weekly earnings than recipients before being laid off ($693 versus $931) (Appendix Table E.3), they were less likely than exhaustees to experience earnings reductions of 25 percent or more from the pre-layoff job to the job held at the time of the survey. They also were more likely to experience earnings gains of 25 percent or more than were either group of displaced workers who collected UI benefits (Figure VI.10 and Appendix Table E.7).

Figure VI.10. Changes in earnings among workers displaced in 2009 and employed in January 2012, by UC benefit receipt and exhaustion status

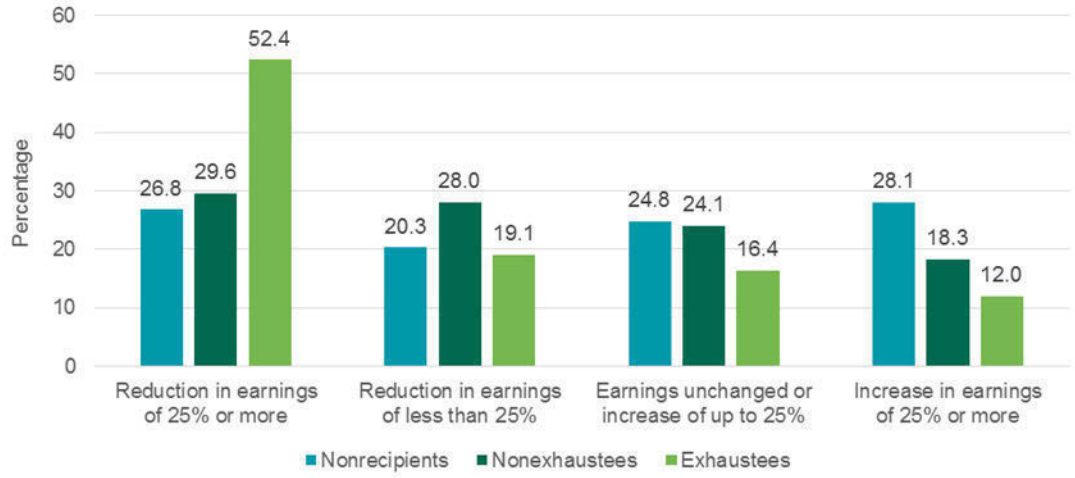


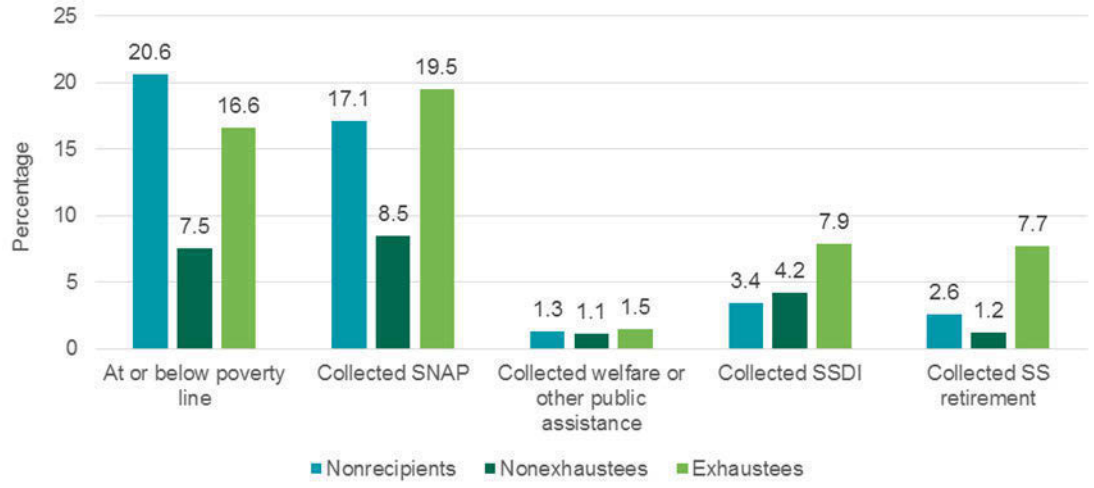
Figure VI.10*(continued)*

Source: 2012 DWS.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. The percentages portrayed in the figure measure change between primary job held at the time of the layoff and the time of the interview in January 2012, respectively; they were calculated only among respondents who were employed at the time of the interview. The distribution of earnings changes differ significantly both between nonrecipients and recipients ($p < 0.05$) and between exhaustees and nonexhaustees ($p < 0.05$).

Nonrecipients were more likely than either group of recipients to have incomes below the federal poverty standard two to three years after their layoff. Exhaustees had higher rates of poverty than did nonexhaustees (17 and 8 percent, respectively), but those rates were not as high as for nonrecipients (21 percent) (Figure VI.11 and Appendix Table E.8).

Figure VI.11. Poverty and program participation in March 2012 among workers displaced in 2009, by UC benefit receipt and exhaustion status



Source: 2012 DWS and 2012 ASEC.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. Poverty rates are based on family income, and receipt of food stamps/SNAP is measured at the household level. All other sources of income support are measured at the individual level. Comparing recipients and nonrecipients, poverty rates differed significantly ($p < 0.05$), as did receipt of SSDI benefits ($p < 0.10$), but no other differences in program participation were significant at the $p < 0.10$ level. Among UC recipients, there were significant differences between exhaustees and nonexhaustees in poverty rates ($p < 0.05$), SNAP receipt ($p < 0.05$), and receipt of SS retirement benefits ($p < 0.10$), but differences in receipt of welfare or other public assistance and in receipt of SSDI benefits were not significant at the $p < 0.10$ level.

SNAP = Supplemental Nutrition Assistance Program; SS = Social Security; SSDI = SS Disability Insurance, including disability-based Supplemental Security Income.

Nonrecipients were less likely than exhaustees to collect SNAP two to three years after their layoff. Rates of receipt for welfare assistance were low for all three groups, at 2 percent or less. Nonrecipients were about half as likely as exhaustees to collect SSDI (3 percent versus 8 percent). A similar pattern also held for Social Security retirement benefits: nonrecipients were about one-third as likely as exhaustees to receive those benefits (3 versus 8 percent) (Figure VI.11 and Appendix Table E.8).

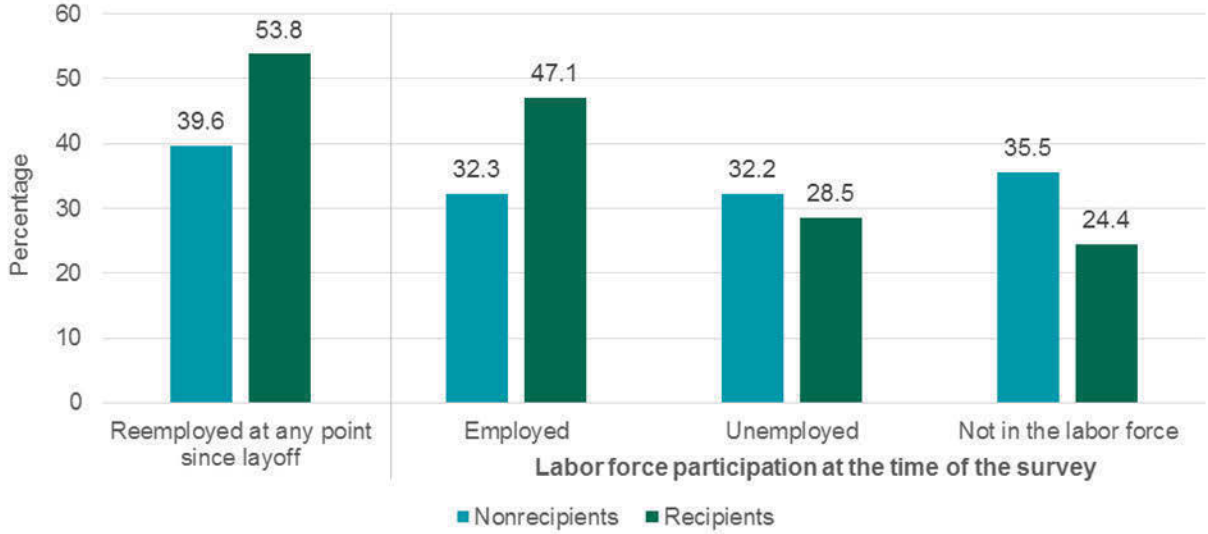
D. Outcomes of recipients and nonrecipients who experienced long jobless spells after their layoffs in 2009

The findings in Section B suggest that displaced workers who did not collect UI benefits are diverse. Many in this group experienced very short jobless spells after their layoff in 2009, and a significant portion of them experienced wage gains upon finding a new job. On the other hand, many other nonrecipients experienced relatively long spells of joblessness and suffered significant wage losses. To achieve greater comparability between the recipient and nonrecipient groups who are likely to need support from the public safety net, we focus in this section on the subgroup of displaced workers who experienced jobless spells of 27 weeks or more. Because most UI recipients with such long jobless spells were likely to have exhausted their regular UI entitlements, we did not disaggregate the findings on recipients by exhaustee status. Rather, we focus only on differences between recipients with long jobless spells and nonrecipients with long jobless spells. Overall, such long-term joblessness was more prevalent among UC recipients than among nonrecipients. The percentage of displaced workers who experienced long-term joblessness was highest for those laid off in 2009. For that group, nearly 66 percent of UC recipients had jobless spells lasting more than 26 weeks, whereas about 35 percent of nonrecipients had such long spells (Appendix Table E.1).

Differences in the characteristics of recipients and nonrecipients with long jobless spells again seemed related to factors that in part determine UI eligibility, such as the levels or distribution of base period earnings. Significantly more nonrecipients with long jobless spells were younger than age 25. Nonrecipients with long jobless spells were significantly more likely to be Hispanic, to be a non-Hispanic black or African American, and to have less than a high school education. Nonrecipients were much less likely to have been employed in manufacturing jobs and were more likely to have worked in service occupations (Appendix Tables E.9–E.12).

Nonrecipients with long jobless spells were much less likely than recipients to find a job. They were also less likely than recipients to be employed at the survey date. Nonrecipients with long jobless spells were also significantly more likely to be out of the labor force at the date of the survey than were recipients with long jobless spells (Figure VI.12 and Appendix Tables E.13 and E.14).

Figure VI.12. Reemployment since the layoff and labor force participation in January 2012 among workers displaced in 2009 who had long jobless spells, by UC benefit receipt status

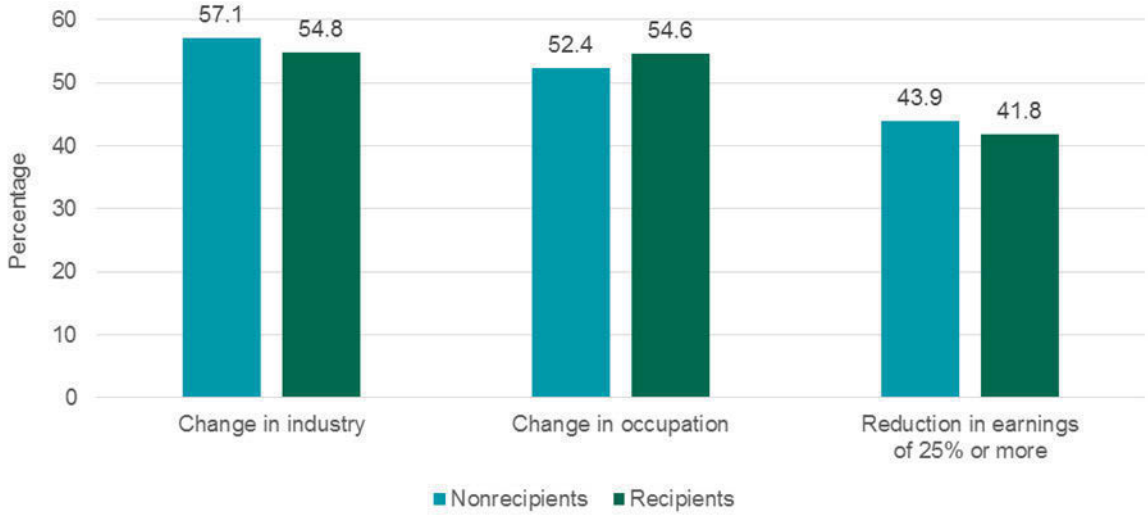


Source: 2012 DWS.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. The percentages in the figure are based on displaced workers who reported that they were jobless for at least 27 weeks after their layoff date. The share of individuals unemployed at the time of the survey did not differ significantly between nonrecipients and recipients ($p > 0.10$); all other differences between nonrecipients and recipients in the measures indicated in the figure are significant at the $p < 0.05$ level.

For those nonrecipients who found jobs following a long period of joblessness, however, experiences were not very different from those of recipients who had experienced long-term joblessness. For example, about 52 to 57 percent of both groups reported changing industries and/or occupations. In addition, more than 40 percent of both groups reported earnings losses of 25 percent or more in their new jobs (Figure VI.13 and Appendix Table E.14). Nonetheless, although the post-layoff changes were similar between the two groups, nonrecipients likely ended up in a worse position in the labor market, given that they had substantially lower average weekly earnings than recipients prior to being laid off ($595 versus $922) (Appendix Table E.10).

Figure VI.13. Changes in industry and occupation among workers displaced in 2009 and employed in January 2012, by UC benefit receipt status



Source: 2012 DWS.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. The percentages portrayed in the figure measure change between the primary jobs held at time of the layoff and the time of the interview in January 2012, respectively. They were calculated only among respondents who were employed at the time of the interview and who reported that they were jobless for at least 27 weeks after their layoff date. None of the measures depicted in the figure differed significantly at the $p < 0.10$ level between nonrecipients and recipients.

Nonrecipients with long periods of joblessness were about twice as likely as recipients to have had incomes below the federal poverty standard two to three years after their layoff. They also had a greater rate of participation in SNAP, although this difference was not statistically significant. Nonrecipients and recipients with long jobless spells had about the same rates of participation in disability insurance programs (Figure VI.14 and Appendix Table E.15).

Figure VI.14. Poverty and program participation in March 2012 among workers displaced in 2009, by UC benefit receipt status

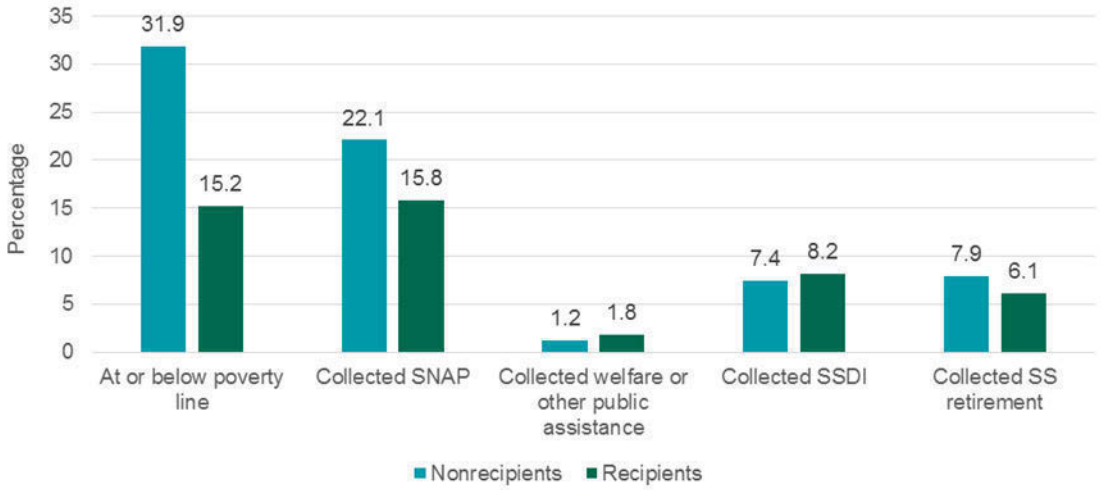


Figure VI.14 *(continued)*

Source: 2012 DWS and 2012 ASEC.

Note: Estimates have been weighted to adjust for the DWS sampling design and survey nonresponse. The percentages in the figure are based on displaced workers who reported that they were jobless for at least 27 week after their layoff date. Poverty rates are based on family income, and receipt of food stamps/SNAP is measured at the household level. All other sources of income support are measured at the individual level. Nonrecipients and recipients differed significantly in poverty rates ($p < 0.05$). No other measures depicted in the figure differed significantly at the $p < 0.10$ level between nonrecipients and recipients.

SNAP = Supplemental Nutrition Assistance Program; SS = Social Security; SSDI = SS Disability Insurance, including disability-based Supplemental Security Income.

E. Summary

Using the DWS, we have made two types of comparisons between groups of workers who lost their jobs during the Great Recession. The first is between nationally representative groups of exhaustees and nonexhaustees who lost their jobs at about the same time as did the survey respondents in the 10-state data file used for the analyses in Chapters IV and V. In general, we found that differences between exhaustees and nonexhaustees in the DWS were broadly similar to those reported in the earlier chapters, even though we used a more comprehensive measure of exhaustion in those chapters. Hence, the sample restrictions used in those earlier chapters (having data from only 10 states, focusing on single-claim recipients only, and using the comprehensive measure of exhaustion) did not appear to have seriously influenced the key findings about exhaustees' difficulties in finding new jobs nor about their relatively poor economic outcomes long after their UC benefits ended.

We also used the DWS to examine differences between laid-off workers who collected UC benefits and those who did not. In general, we found that the nonrecipients were a diverse group. Some had very short jobless spells and had relatively favorable post-unemployment wages and incomes. Others had much less favorable experiences. To focus on differences between those recipients and nonrecipients who most likely to need support from public safety net programs, we chose to examine those displaced workers who had jobless spells of 27 weeks or more. Using this approach, we found that nonrecipients with long jobless spells were a considerably more disadvantaged group than recipients with similarly long spells. They were less likely to find employment and more likely to have withdrawn from the labor force at the time of the survey. Two to three years after their layoff in 2009, nonrecipients with long jobless spells were also significantly more likely than similar recipients to have incomes at or below the poverty level.

VII. SUMMARY AND CONCLUSIONS

The very long unemployment spells associated with the Great Recession prompted policymakers to adopt a number of initiatives to help jobless workers. These included the EUC08 program that provided significant increases in the number of weeks of benefits that UC recipients could collect and policy initiatives that greatly expanded the already-existing EB program. Ultimately the four tiers of the EUC08 program, together with the greater availability of the EB program, provided up to 73 weeks of additional benefits. In combination with the 26 weeks of regular benefits to which the typical UC recipient is entitled, this allowed recipients in high-unemployment states to collect up to 99 weeks of benefits. This represents the longest potential duration of benefits in the history of the UC system. Despite such long potential durations, a significant percentage of recipients were unemployed long enough to exhaust all of the weeks of UC benefits available to them. It is these exhaustees who are the primary focus of this report.

In this concluding chapter, we summarize our findings and draw conclusions from them. Our discussion is divided into four sections. First, in Section A, we summarize our findings about the individuals who exhausted all of the benefits available to them and draw conclusions about their characteristics. Section B looks at the outcomes exhaustees experienced following their job loss. In Section C, we take a broader perspective by comparing our results to the general population of workers displaced around the time of the Great Recession, with a particular focus on differences between those who received UC and those who did not. Finally, Section D draws together all our findings and raises a few research and policy issues that might be explored and addressed in the future.

A. The characteristics of benefit exhaustees

Although much of the prior research on the exhaustion of unemployment benefits has focused on those who exhaust their entitlements to regular UI benefits, the availability of extended and emergency benefits programs during and after the Great Recession suggests the need for a more generalized notion of exhaustion. Therefore, we have looked at those individuals who exhausted all benefits available to them—that is, benefits provided by regular UI, EUC08, and EB programs combined. By combining the administrative data for the individuals in our sample with information about benefit availability from the EUC08 and EB programs, we developed a rigorous definition of exhaustion and a method to measure this important concept. For our sample of UI claims started from January 1, 2008, through September 30, 2009, we found that about 17 percent of recipients collected all of the benefits available to them through the UI claim. However, nearly 45 percent of those receiving a payment on a UI claim also collected benefits from another claim during the subsequent three years. Because the concept of benefit exhaustion is less salient for multi-claim recipients, we decided to focus only on those individuals who did not have multiple claims—that is, single-claim recipients. We found that about 63 percent of single-claim UI recipients exhausted their entitlements to regular UI benefits and that nearly 26 percent exhausted all of the benefits to which they were entitled. If these percentages held over the entire 2008-2013 period, they would imply that about 7.1 million single-claim UI recipients exhausted their regular UI benefit entitlements in the 10 study states and about 2.9 million single-claim recipients exhausted all of the benefits to which they were entitled. Both of the estimated exhaustion rates for single-claim recipients are significantly higher than national figures based on aggregate data for all UC recipients. For example, Table

II.2 shows that the regular UI benefit exhaustion rate in the 10 states included in our sample was 52 percent during the period from 2008 through 2013 and that the overall UC exhaustion rate was about 15 percent for the same states during the same period. Hence, focusing on single-claim recipients in the 10 study states identifies a category of recipients who are quite likely to exhaust their entitlements, while also excluding a group of recipients for which benefit entitlements are more extensive and exhaustion status (or the lack thereof) is harder to interpret.

Our findings about the characteristics of the single-claim recipients who exhausted all of the benefits to which they were entitled align with prior studies of exhaustees in several important dimensions. We found that women, non-Hispanic African Americans, older workers, and those workers with less education were more likely to exhaust all of the benefits to which they were entitled than were recipients from other demographic and educational attainment groups. Indeed, supplemental analysis (shown in Appendix A) shows that the demographic characteristics of recipients who exhausted all of the regular UI, EUC08, and EB benefits to which they were entitled were generally similar to those of the larger group of recipients who exhausted regular UI benefits; however, the former group had a greater concentration of individuals from demographic groups that have traditionally faced barriers in the labor market. Hence, although labor market conditions were worse for the individuals in our sample than was the case in most prior studies of exhaustees, the key determinants of exhaustion still seem to exert similar influences regardless of labor market strength. Of course, the severity of the Great Recession meant that there was a greater potential for a significant and severe effect on the economic circumstances of the exhaustees in our sample, relative to exhaustees studied in most prior research.

Our findings about the pre-UI jobs of exhaustees, relative to nonexhaustees, also align with prior research. Exhaustees were paid less on their pre-UI jobs, which were less likely to include an offer of retirement benefits as a fringe benefit. They also had longer tenure on their pre-UI jobs, on average. Relative to nonexhaustees, exhaustees also had lower household incomes before job loss; they also had higher rates of poverty and were less likely to have savings. Exhaustees and nonexhaustees were about equally likely to be displaced workers (60 percent) and were also equally likely to believe that they would be recalled to their prior jobs (22 percent); however, exhaustees were less likely actually to be recalled.

The numerous correlations among exhaustees' demographic and other pre-claim characteristics also prompted us to examine whether the differences identified in cross-tabular analysis held up when we statistically accounted for more than one characteristic at the same time. Although we found that some of the differences described above continued to hold (such as the higher exhaustion rates for non-Hispanic African Americans and for recipients with lower levels of education), for others, the findings were more nuanced. For example, the finding that women were more likely to exhaust their benefits did not hold up in a multivariate context, and we found important interactions between gender and other factors in explaining exhaustion status. In particular, we found that female UC recipients with young children were about 13 percentage points less likely to exhaust all the benefits to which they were entitled than were other female recipients. We do not know whether this unexpected result arises from an unusual peculiarity of the data or whether this is a more general phenomenon. Similarly, we found that individuals expecting to be recalled to their prior jobs were about 10 percentage points more likely to exhaust their entitlements. A possible explanation for this is that some workers

expecting to be recalled might have unrealistic expectations about their return to work. If expecting recall causes a less intensive search effort in the weeks immediately following layoff, it may increase the likelihood of benefit exhaustion. A definitive conclusion about this hypothesis would require more extensive information on how expectations of recall are formed.

The multivariate analysis sharpened some conclusions about the relationship between the likelihood of exhaustion and pre-UI jobs, economic conditions, and benefit entitlements. Specifically, those who had jobs in construction were significantly less likely to exhaust their benefits. In contrast, those who lost jobs in financial industries or in administrative support positions were more likely to exhaust their benefits. In line with the findings of prior studies, we found that economic conditions affected the likelihood of exhaustion: each percentage point increase in the unemployment rate was associated with an increase of about three percentage points in the likelihood of exhausting benefits. Another correlation consistent with previous literature involved UI entitlement—workers with higher WBAs were more likely to exhaust, whereas those with greater potential benefit durations were less likely to do so.

The similarities of our results to those from prior studies of exhaustion are in some ways surprising. Because we were looking at the exhaustion of all benefits, the typical exhaustee in our sample had a much longer period of benefit collection (about 87 weeks) than did exhaustees in some earlier studies (which typically focused on nonrecessionary periods in which a maximum of 26 weeks of regular UI was available). The fact that the differences in the conclusions of the studies were not more pronounced is most likely due to the severity of the Great Recession, which also affected the unemployment spells of nonexhaustees (who collected about 28 weeks of benefits, on average). Still, our results suggest that exhaustion of benefits during recessionary periods is governed by generally the same forces that determine exhaustions during nonrecessionary periods.

B. Outcomes for exhaustees

Our analysis of survey data shows that exhaustees and their households, as a group, were faring very poorly four to six years after their UI initial claims. This lengthy follow-up period represents a considerably longer time frame than has typically been available in other studies of benefit exhaustion. Although controlling for the pre-UI situation of individuals in our sample sometimes modestly narrowed the differences between exhaustees and nonexhaustees, exhaustees remained a very disadvantaged group.

Perhaps the most important and striking difference between exhaustees and nonexhaustees at the survey date was the difference in the labor market status of the two groups. About 38 percent of exhaustees had a job at the survey date, compared to 70 percent of nonexhaustees. This finding contrasts strongly with results from the Needels et al. (2001) study, which examined exhaustions among UI recipients who began collecting benefits in 1998, when there was a strong labor market. That study found that about 2.5 years after the UI claim, reemployment rates for exhaustees and nonexhaustees were much closer, at 56 and 72 percent, respectively. This is one indication that the exhaustees in our study were relatively more disadvantaged, as they had much longer jobless spells. In addition, our study found that about twice as many exhaustees than nonexhaustees had left the labor force. For those exhaustees who had jobs, average weekly earnings were about $143 lower than for employed nonexhaustees ($843 versus $700). Even

when controlling for prior earnings and for other factors, exhaustees experienced about a 20 percent loss in earnings relative to nonexhaustees. The new jobs held by exhaustees, compared to those held by nonexhaustees, were also less likely to offer fringe benefits such as access to pensions or health insurance.

Exhaustees' overall household economic circumstances reflected their weak labor market outcomes. Household incomes were about 25 percent lower for exhaustees than for similar nonexhaustees. In addition, the poverty rate for the exhaustee group increased substantially from before the job loss to the time of the survey, whereas the poverty rate for the nonexhaustee group was both lower initially and did not increase substantially over time. Exhaustees' participation in programs of income support (particularly disability benefits and SNAP) increased markedly both relative to nonexhaustees and relative to exhaustees' pre-UI levels of participation in these programs. At the time of the survey, more than 17 percent of exhaustees collected disability benefits (10 percentage points more than for nonexhaustees), and nearly 20 percent collected benefits under the SNAP program (7 percentage points higher than for nonexhaustees). Controlling for pre-UI characteristics did not greatly change any of these findings.

Although other studies, many of which have focused on nonrecessionary periods, have documented the relatively worse outcomes that exhaustees have experienced, our findings show remarkably more distressed conditions. For example, the losses in household income we found were larger than those reported in the Needels et al. (2001) study discussed in Chapter I. It is likely that both the severity of the Great Recession and the lengthy period of our follow-up both contributed to this finding. Interestingly, however, we also found that exhaustees in our sample, relative to those of prior studies, were more likely to access some programs providing income support. Again, a partial explanation for this finding is our length of follow-up (which allows more time for individuals to join these programs), but our finding may also reflect changes in the eligibility rules for some of those programs, such as SNAP.

C. Nonrecipients of UC benefits

To learn about unemployed workers who did not receive any UC benefits, we used data from the biannual DWS to the CPS. Even though this survey includes information only on workers who were displaced from a prior job, we believe these data provide a good source of comparison to the data about UC recipients. To enhance comparability across the data files, we focused our analysis of the DWS data primarily on workers displaced in 2009 (and surveyed two to three years later in early 2012), although we also looked at the situation of unemployed workers who were displaced in 2007 and 2011 (Appendix E).

We found that displaced workers who did not collect UI benefits were a varied group—some rapidly found reemployment at relatively high earnings, whereas others experienced long unemployment spells and/or significant reductions in their earnings after becoming reemployed. Two factors likely account for this finding. On one hand, very short unemployment spells (many one week or less) may have occurred when a displaced worker knew about his or her upcoming job loss and perhaps found a new job before the old one ended. On the other hand, some displaced workers may not have been eligible for UI benefits because either they had non-covered jobs or their work histories were not sufficiently long or stable enough to meet the UI

program's monetary eligibility rules; these possibilities might have been associated with long unemployment spells after job loss.

The diverse nature of the nonrecipient population made it difficult to interpret possible differences between this group and a group of recipients (comprising both exhaustees and nonexhaustees). Consequently, we directed most of our analysis toward displaced workers who had been unemployed at least 27 weeks, representing those nonrecipients who were disadvantaged. Reemployment rates for this group of nonrecipients were lower than for similar UC recipients, and rates of labor market withdrawal were higher. Poverty rates were also higher for the nonrecipient group. Rates of participation in programs of income support, however, were roughly similar for the two groups.

Overall, our analysis of the DWS data shows that displaced workers who do not collect UI benefits and who have long jobless spells are a disadvantaged group. In some respects, their situations resemble those of recipients who had exhausted all of the UC benefits available to them. Whether this group warrants policy innovations is an important issue as policymakers continue their ongoing efforts to adapt the UC system to the evolving characteristics of the labor force.

D. Implications for research and policy

Although the results of our study mirror those of past studies of exhaustees in some ways, some of the unique aspects of our study suggest potentially fruitful areas for further research and policy innovation. Our ability to identify UC recipients who exhaust all benefits to which they were entitled showed that, even with nearly two years of benefits available, a substantial portion of workers exhausted those benefits. To some degree, the extent of this phenomenon of long benefit collection and exhaustion is obscured, during both recessionary and nonrecessionary times, because many recipients can—and do—collect benefits from more than one UI claim over time. Because such multi-claim recipients can have extremely complex patterns of UC collection, further research on the dynamics of these patterns might aid in more effective targeting of extended or emergency UC benefits to those with long unemployment spells.

Two puzzling findings arose in our analysis of the determinants of benefit exhaustion. First, we found that prior studies of gender differences in rates of exhaustion may be due to more complex interactions than was previously thought. In particular, our finding that female recipients with young children were less likely to exhaust their benefits poses questions about whether this pattern is a general one and whether such findings might shed light on other aspects of UI policy. Second, our findings that workers who expected to be recalled to their prior jobs had higher exhaustion rates—but that actual recalls were much less likely for exhaustees—pose both research and policy questions. If inaccurate recall expectations are an important factor in leading to lengthy unemployment spells and benefit exhaustion, such as by delaying the work search efforts of recipients who initially expect to be recalled but who are not ultimately recalled, then additional effort might be warranted to help unemployed workers evaluate and improve the accuracy of those expectations.

Perhaps the most important of our findings about the outcomes for exhaustees is their high rate of labor force withdrawal four to six years after their start of benefit collection. Due to the nature of our data, we were unable to accurately determine the date of these withdrawals or

examine changes in work search effort over time, especially in relation to UC exhaustion. However, the findings suggest that there might be value in exploring the connection between labor force withdrawal and standards for continuing eligibility for extended benefits programs in more detail (see Needels et al. [2015] for a discussion of how states implemented additional work search requirements of EUC08 recipients starting in 2012). Compared to nonexhaustees, exhaustees also might need more help finding jobs during periods of high unemployment because they are more likely to attain lower-quality jobs when they become reemployed. Also, the relationship between continuing UI eligibility and the collection of disability benefits—which hinge on whether an individual is unable to engage in substantial gainful activity—has been subject to recent research and policy debate, and our results are consistent with this being an important policy question (see, for example, Morton [2015] and Mueller et al. [2014]).

Finally, our findings on nonrecipients who were displaced from their previous jobs and who had long unemployment spells suggest that more research might be warranted on this group and on potential programs to address their problems. Although the experiences of nonrecipients are obscured by the disparate nature of this population, focusing on those with long unemployment spells clearly showed that this is a group with significant needs. Examining whether reemployment services or another type of assistance could be directed toward this group is likely an important issue for policymakers.

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APPENDIX A

ANALYSIS OF UI EXHAUSTION

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Our study focuses primarily on comparisons of UI recipients who exhausted all of the benefits available to them across all UC programs (regular state UI, EUC08, and EB) with UI recipients who did not exhaust all of these benefits. We refer to these groups as UC exhaustees and UC nonexhaustees, respectively. In this appendix, we examine the group of recipients in our sample who exhausted their benefits from the regular state UI program ("UI exhaustees"). This group includes recipients who exhaust EUC08/EB benefits as well as those who did not. We compare them to recipients who did not exhaust their entitlements to regular UI benefits ("UI nonexhaustees"). This analysis is of value because it allows comparison of findings about UI exhaustees during the Great Recession with findings from other studies of UI exhaustees in non-recessionary periods. In addition, it provides further detail on how UI exhaustees, as a broad group, compare to recipients who eventually exhausted all of their benefits (including EUC08/EB). We examined demographic and pre-claim job characteristics, recipients' benefit entitlements and benefits collected, and post-claim employment outcomes.

As in the main chapters, we limited our analysis of UI exhaustees and UI nonexhaustees to single-claim recipients, who are recipients with a single UI claim during a three-year period beginning January 2008 through September 2009. We then identified UI exhaustees as recipients who collected EUC08/EB benefits or whose UI claim had less than one full week of benefits remaining (see Section A). UI nonexhaustees are defined as all single-claim recipients who are not UI exhaustees. In our study sample, 63 percent of single-claim recipients were UI exhaustees, and about 41 percent of UI exhaustees went on to exhaust all the UC benefits to which they were entitled.

The analysis of UI exhaustees includes two types of comparisons: (1) comparisons of UI exhaustees and UI nonexhaustees, and (2) comparisons of UC exhaustees and UC nonexhaustees. However, the second type of comparison is based on fairly small sample sizes because we limit the comparison to the group of UI exhaustees. These comparisons are based on statistically less precise estimates, so even differences of the same size as those found in the main text might not be statistically significant.

A. Summary

Generally speaking, the patterns that we found in our analyses of UI nonexhaustees, UI exhaustees who did not collect all of their UC benefit entitlements, and UI exhaustees who collected all of their UC entitlements indicate an increasing progression of labor market difficulty across the groups. This is not surprising given that these three groups are defined on the basis of their benefit collection patterns and are associated with progressively longer unemployment spells. Although the main report chapters present results of comparisons between UC exhaustees and all other recipients, this analysis presents results in which the latter group is categorized into two subgroups on the basis of their UI benefit exhaustion status.

When the characteristics of the three groups of recipients are compared, starting with UI nonexhaustees, we find a progression toward increased concentration of the demographic groups that have historically faced labor market barriers. Generally speaking (although with a few exceptions), we find that the recipient subgroups who collected more benefits had greater concentrations of women, Hispanics, non-Hispanic blacks or African Americans, and older workers.

We also found that the three groups differed in the industries and occupations of their pre-claim jobs. UI exhaustees were less likely than UI nonexhaustees to have pre-claim jobs in the manufacturing industry or be in a production occupation, and more likely to have pre-claim jobs in the business support services industry or in an office and administrative support occupation. These patterns also held when we compared, among UI exhaustees, those who exhausted all benefits versus those who did not.

The three groups also had similar distributions of total potential durations and weekly benefit amounts. However, on average, UI exhaustees had shorter potential durations of UI benefits than UI nonexhaustees of about one week.

As noted above, the groups differed dramatically in their benefit collection experiences and labor market outcomes. UI exhaustees collected benefits for markedly longer periods and were less likely to be employed during the three years after the UI initial claim quarter. UI exhaustees collected an average of 54 more weeks of benefits than UI nonexhaustees. This aligns with our estimate that UI exhaustees had an average of four quarters fewer with employment during the three years after the initial claim. There was also significant variation in weeks collected among UI exhaustees—those who exhausted all benefits collected 39 more weeks of benefits than UI exhaustees who did not.

B. Detailed findings

Key findings regarding characteristics of UI exhaustees and their pre-claim jobs are:

- **Compared to UI nonexhaustees, UI exhaustees were more likely to be women, less likely to be non-Hispanic white, more likely to be older, and more likely to be separated, divorced, or widowed (Table A.1).** Forty-nine percent of UI exhaustees were women versus 42 percent of UI nonexhaustees. UI exhaustees were more likely to be Hispanic, Latino, or of Spanish origin (18 percent versus 12 percent) or non-Hispanic black or African American (19 percent versus 7 percent), and less likely to be non-Hispanic white (58 percent versus 75 percent). UI exhaustees were more likely to be 55 and older than UI nonexhaustees (14 percent versus 10 percent for ages 55 to 64; 5 percent versus 2 percent for age 65 or older). The higher percentage of UI exhaustees who reported being separated, divorced, or widowed (20 percent versus 15 percent) might relate to the difference in ages of the two groups.
- **Among UI exhaustees, those who exhausted all benefits were more likely to be older, less likely to be living with a partner, and more likely to be separated, divorced, or widowed (Table A.1).** For all age categories of recipients at least 45 years old, the percentages of UC exhaustees were higher than those for UC nonexhaustees (although the difference for recipients ages 55 to 64 was not statistically significant). Compared to UC nonexhaustees, UC exhaustees were more likely to be separated, divorced, or widowed (24 percent versus 18 percent). There were no statistically significant differences in gender or race/ethnicity of UC exhaustees and UC nonexhaustees, but the point estimates follow a similar pattern to UI exhaustees and UI nonexhaustees—with the groups who collected benefits for a longer period of time having higher percentages of women and lower percentages of non-Hispanic whites.

- **UI exhaustees were more likely than UI nonexhaustees to have a high school diploma or GED as the highest level of education attainment (Table A.1).** UI exhaustees and UI nonexhaustees had comparable distributions of schooling, with only one category showing a statistically significant difference at a .10 level. UI exhaustees were slightly more likely than UI nonexhaustees to have a high school diploma or GED as the highest level of educational attainment (33 percent versus 28 percent). Among UI exhaustees, UC exhaustees were significantly less likely than UC nonexhaustees to have a bachelor's or more advanced degree (15 percent versus 25 percent).
- **UI exhaustees were less likely than UI nonexhaustees to have pre-claim jobs in the manufacturing industry or be in a production occupation, and more likely to have pre-claim jobs in the business support services industry or in an office and administrative support occupation (Table A.2).** Compared to UI nonexhaustees, UI exhaustees were 8 percentage points less likely to have been in the manufacturing industry and 6 percentage points more likely to have been in the business support services industry. Differences also were observed in the distribution of occupations, where UI exhaustees were 7 percentage points less likely to have been in a production occupation and 7 percentage points more likely to have been in an office and administrative support occupation. Among UI exhaustees, the distributions of industries and occupations for those who exhausted all benefits and those who did not were comparable.

We next examined differences in potential durations and benefit collection experiences:

- **UI exhaustees had shorter UI potential durations than UI nonexhaustees but similar total potential durations and weekly benefit amounts (Table A.3).** On average, UI exhaustees were eligible for 1 fewer week of UI benefits than UI nonexhaustees (24 weeks versus 25 weeks). However, there were no statistically significant differences in total potential durations for UI exhaustees and UI nonexhaustees. This is due in part to UI exhaustees being less likely to be in states where higher tiers of benefits were unavailable (Arkansas and South Dakota) and more likely to be in states where higher tiers of benefits were available (California, Florida, and New Jersey). Thus, although UI exhaustees began their benefit collection with lower UI potential durations than UI nonexhaustees, UI exhaustees were more likely to have access to additional benefits from higher tiers of benefits, leading to total potential durations that are similar. UI exhaustees and nonexhaustees had the same average weekly benefit amount of $312, after rounding.
- **Among UI exhaustees, those who exhausted all benefits and those who did not had comparable distributions of UI potential duration, total potential duration, and weekly benefit amounts (Table A.3).** The difference in weekly benefit amounts for UC exhaustees and UC nonexhaustees were larger than for UI exhaustees and UI nonexhaustees, but they were not statistically significant.
- **UI exhaustees collected about 64 weeks of benefits, which is 55 more weeks than UI nonexhaustees collected, on average (Table A.4).** Eighty-eight percent of UI exhaustees collected EUC08 and/or EB. By definition, because UI nonexhaustees had more than one week remaining in their UI claim and did not collect EUC08/EB benefits, all UI nonexhaustees collected 25 or fewer weeks of benefits. This contributed to a relatively low average of weeks that UI nonexhaustees collected (8 weeks). In contrast, 35 percent of UI exhaustees collected 91 to 99 weeks of benefits, contributing to an average of 64 weeks of

benefit collection. Among UI exhaustees, UC nonexhaustees collected 48 weeks of benefits, on average, compared to 87 weeks of benefits on average for UC exhaustees.

Lastly, we used administrative UI wage data to examine reemployment experiences during the three-year period after the quarter in which the UI initial claim occurred:

- **UI exhaustees were much less likely than UI nonexhaustees to be reemployed during the three-year period after the UI initial claim quarter (Table A.5).** Only 10 percent of UI nonexhaustees were not reemployed during this three-year period. During the first year, 85 percent of nonexhaustees were employed; during the second and third years, 79 and 78 percent of UI nonexhaustees were employed, respectively. In contrast, 32 percent of UI exhaustees were not reemployed during this three-year period. The employment rates of UI exhaustees were 43, 49, and 54 percent during the first, second, and third years, respectively. Overall, UI nonexhaustees had employment during an average of about 4 more quarters than UI exhaustees during those three years.
- **Similarly, among UI exhaustees, those who exhausted all benefits were much less likely than those who did not to be reemployed during the three-year period after the UI initial claim quarter (Table A.5).** UC nonexhaustees who exhausted UI benefits had employment during an average of 4 more quarters than UC exhaustees (6 quarters versus 2 quarters), and they were more likely to be employed in the third year after the UI initial claim quarter (63 percent versus 41 percent).

C. Data tables for analysis of regular UI exhaustion

Table A.1. Demographic characteristics (percentages, unless stated otherwise)

Variable	All recipients	UI nonexhaustees	UI exhaustees	UI exhaustees	
				UC Nonexhaustees	UC exhaustees
Gender			††		
Female	46.2	42.1	48.6*	45.8	52.7
Male	53.8	57.9	51.4*	54.2	47.3
Race/ethnicity			††		
Hispanic, Latino, or Spanish origin	15.7	12.0	17.9**	18.5	17.0
Non-Hispanic black or African American	14.6	6.7	19.2**	17.1	22.2
Non-Hispanic white	64.4	74.9	58.4**	59.9	56.3
Other	5.3	6.5	4.5	4.5	4.5
Age at the UI initial claim date			†		††
Younger than 25	9.2	11.2	8.0	10.5	4.3**
25 to 34	24.4	25.3	23.8	26.9	19.4**
35 to 44	24.0	24.1	24.0	26.7	20.2*
45 to 54	25.8	27.4	24.9	19.8	32.3**
55 to 64	12.6	10.0	14.1*	12.6	16.3
65 or older	4.0	2.0	5.2**	3.5	7.6**
Marital status					†
Married	47.1	49.1	45.9	46.3	45.4
Living with a partner	5.1	6.5	4.3	5.7	2.3**
Separated, divorced, or widowed	18.4	15.0	20.3**	17.5	24.4*
Never married	29.4	29.4	29.4	30.5	27.8
Household size (number)	2.6	2.5	2.6	2.7	2.6
Highest level of school or degree					
Less than high school or GED	9.6	8.0	10.6	8.9	13.1
High school/GED	31.3	27.7	33.4*	32.4	34.9
Some college but no degree	22.7	25.3	21.2	21.0	21.3
Associate's degree	12.9	13.6	12.5	11.7	13.7
Bachelor's or more advanced degree	21.6	22.7	21.1	24.9	15.4**
Other, including trade schools, certification, and apprenticeship programs	1.8	2.8	1.3	1.1	1.6
Unweighted sample size	976	363	613	363	250

Source: Merged survey respondent data file.

Note: Marital status was determined at the time of the UI initial claim. Household size was assessed during the year before the claim. Educational attainment was determined at the time of the separation from the pre-claim job. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse. Table shows results of statistical tests for (1) differences between UI nonexhaustees and UI exhaustees and (2) among UI exhaustees, differences between UC nonexhaustees and UC exhaustees.

*/**Means for UI nonexhaustees and UI exhaustees or UC nonexhaustees and UC exhaustees differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of UI nonexhaustees and UI exhaustees or UC nonexhaustees and UC exhaustees differ significantly at the .10/.05 level, chi-squared test.

GED = General Educational Development certificate.

Table A.2. Industry and occupation of the pre-claim job (percentages)

Variable	All recipients	UI nonexhaustees	UI exhaustees	UI exhaustees	
				UC Nonexhaustees	UC exhaustees
Industry			††		
Natural resources and mining	1.6	2.4	1.1	NA	NA
Construction	10.0	9.3	10.5	10.9	9.8
Manufacturing	19.2	24.5	16.1**	16.5	15.6
Trade, transportation, and utilities	16.7	16.5	16.8	16.9	16.7
Information	2.2	2.3	2.2	2.5	1.6
Financial activities	9.5	7.8	10.4	9.9	11.1
Professional services and management	8.8	7.4	9.7	10.3	8.8
Business support services	9.8	6.2	11.9**	11.7	12.3
Education and health services	10.7	10.7	10.7	10.6	10.7
Leisure and hospitality	6.8	7.4	6.4	6.4	6.4
Other services	2.5	2.3	2.6	1.2	4.7**
Public administration	2.2	3.1	1.7	NA	NA
Occupation			†		
Management, business, and finance	13.0	10.9	14.3	15.2	12.9
Computer, engineering, and science	6.1	6.2	6.1	6.8	5.0
Community and social services	4.3	4.9	4.0	4.0	3.9
Health care practitioners and technical	1.5	2.3	1.0	0.9	1.2
Service	11.3	13.1	10.3	9.1	12.1
Sales	10.9	9.8	11.5	10.5	12.9
Office and administrative support	18.7	14.4	21.1**	19.8	23.1
Farming, fishing, and forestry	NA	NA	NA	NA	NA
Construction and extraction	6.1	6.0	6.2	7.3	4.7
Installation, maintenance, and repair	5.6	6.1	5.2	5.1	5.5
Production	11.8	16.4	9.2**	9.3	9.1
Transportation and material moving	9.8	8.8	10.3	11.0	9.2
Military	NA	NA	NA	NA	NA
Unweighted sample size	976	363	613	363	250

Source: Merged survey respondent data file.

Note: Information about industry and occupation was filled in from the administrative data, if possible, for respondents who did not respond or whose responses could not be categorized. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse. Table shows results of statistical tests for differences between (1) UI nonexhaustees and UI exhaustees and (2) among UI exhaustees, differences between UC nonexhaustees and UC exhaustees. To protect respondent confidentiality, entries have been suppressed for cells showing "NA" because one or more of the cells would have been based on fewer than three individuals.

NA = Not applicable.

*/**Means for UI nonexhaustees and UI exhaustees or UC nonexhaustees and UC exhaustees differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of UI nonexhaustees and UI exhaustees or UC nonexhaustees and UC exhaustees differ significantly at the .10/.05 level, chi-squared test.

Table A.3. Potential durations of benefits (percentages, unless stated otherwise)

Variable	All recipients	UI nonexhaustees	UI exhaustees	UI exhaustees	
				UC Nonexhaustees	UC exhaustees
UI potential duration			††		
Less than 13 weeks	2.9	0.9	4.1**	4.3	3.8
13 to 18 weeks	8.9	7.9	9.6	9.6	9.5
19 to 25 weeks	17.4	13.2	19.9**	21.4	17.7
26 weeks	70.7	77.9	66.5**	64.8	69.0
Average (weeks)	23.9	24.6	23.5**	23.5	23.6
Total potential duration[a]					
Less than 52 weeks	4.6	3.9	5.0	4.8	5.2
52 to 77 weeks	19.4	19.6	19.2	20.6	17.1
78 to 98 weeks	18.7	17.6	19.4	21.0	17.1
99 weeks	57.3	58.9	56.4	53.6	60.6
Average (weeks)	88.2	88.5	88.0	87.4	88.9
Weekly benefit amount					
$150 or less	11.3	11.6	11.1	10.3	12.3
$151 to $250	22.4	19.6	24.1	25.3	22.3
$251 to $350	28.7	31.6	27.0	29.7	23.1*
$351 to $450	26.8	27.1	26.6	25.1	28.8
$451 or more	10.8	10.2	11.2	9.6	13.5
Average (dollars)	312	312	312	304	323
Unweighted sample size	976	363	613	363	250

Source: Merged survey respondent data file.

Note: Potential duration measures were assigned to the categories displayed in the table after rounding to the nearest week. Estimates have been weighted for survey nonresponse. Table shows results of statistical tests for (1) differences between UI nonexhaustees and UI exhaustees and (2) among UI exhaustees, differences between UC nonexhaustees and UC exhaustees.

[a]Total potential duration includes weeks available through the EUC08 and EB programs.

*/**Means for UI nonexhaustees and UI exhaustees or UC nonexhaustees and UC exhaustees differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of UI nonexhaustees and UI exhaustees or UC nonexhaustees and UC exhaustees differ significantly at the .10/.05 level, chi-squared test.

Table A.4. Total weeks of UC benefits collected (percentages, unless stated otherwise)

Variable	All recipients	UI nonexhaustees	UI exhaustees	UI exhaustees	
				UC Nonexhaustees	UC exhaustees
Collected EUC08/EB benefits	55.7	0.0	87.9**	82.1	96.3**
Total weeks of UC benefits collected			††		
One week or less	5.4	13.2	NA	0.0	0.0
2 to 12 weeks	25.3	59.8	1.6**	1.3	1.4
13 to 25 weeks	18.0	27.1	11.8**	15.5	1.8**
26 to 38 weeks	0.0	0.0	0.0	26.2	0.0**
39 to 51 weeks	8.5	NA	14.3**	18.8	2.2**
52 to 64 weeks	6.8	NA	11.5**	11.8	6.6**
65 to 77 weeks	7.0	NA	11.8**	9.1	11.2
78 to 90 weeks	8.4	NA	14.3**	13.3	10.2
91 to 99 weeks	20.6	NA	34.7**	4.0	66.5**
Average (weeks)	43.3	8.4	63.5**	47.5	86.7**
Unweighted sample size	976	363	613	363	250

Source: Merged survey respondent data file.

Note: Benefit collection measures were assigned to the categories displayed in the table after rounding to the nearest week. Estimates have been weighted for survey nonresponse. Table shows results of statistical tests for (1) differences between UI nonexhaustees and UI exhaustees and (2) among UI exhaustees, differences between UC nonexhaustees and UC exhaustees. To protect respondent confidentiality, entries have been suppressed for cells showing "NA" because one or more of the cells would have been based on fewer than three individuals.

*/**Means for UI nonexhaustees and UI exhaustees or UC nonexhaustees and UC exhaustees differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of UI nonexhaustees and UI exhaustees or UC nonexhaustees and UC exhaustees differ significantly at the .10/.05 level, chi-squared test.

NA = Not applicable.

Table A.5. Employment patterns during the three years following the UI initial claim quarter (percentages, unless stated otherwise)

Variable	All recipients	UI nonexhaustees	UI exhaustees	UI exhaustees	
				UC Nonexhaustees	UC exhaustees
Quarters employed during the three years after the UI initial claim quarter			††		††
0	23.6	9.9	31.6**	23.4	43.4**
1 to 2	11.7	6.8	14.6**	8.2	23.9**
3 to 4	9.8	6.8	11.6**	10.4	13.4
5 to 6	8.5	4.8	10.6**	10.0	11.5
7 to 8	7.6	5.9	8.6	11.8	4.0**
9 to 10	11.5	8.2	13.4**	21.6	1.4**
11 to 12	27.3	57.7	9.7**	14.6	2.4**
Average (number of quarters)	5.9	8.6	4.2**	5.7	2.1**
Employed during the first year after the UI initial claim quarter	58.2	85.4	42.5**	55.2	24.0**
Employed during the second year after the UI initial claim quarter	60.1	79.4	49.0**	63.1	28.5**
Employed during the third year after the UI initial claim quarter	62.8	77.6	54.3**	63.3	41.2**
Unweighted sample size	976	363	613	363	250

Source: Merged survey respondent data file.

Note: Measures in the table are based on quarterly administrative wage data and exclude employment during the quarter of the UI initial claim. Estimates have been weighted for survey nonresponse. Table shows results of statistical tests for (1) differences between UI nonexhaustees and UI exhaustees and (2) among UI exhaustees, differences between UC nonexhaustees and UC exhaustees.

*/**Means for UI nonexhaustees and UI exhaustees or UC nonexhaustees and UC exhaustees differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of UI nonexhaustees and UI exhaustees or UC nonexhaustees and UC exhaustees differ significantly at the .10/.05 level, chi-squared test.

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APPENDIX B

COMPARISONS BETWEEN EXHAUSTEES AND NONEXHAUSTEES USING ADMINISTRATIVE-ONLY DATA

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As described in Chapter II, this study's main comparisons of UC exhaustees and UC nonexhaustees, which are presented in Chapters III, IV, and V, are based on a set of recipients who completed a survey that was fielded four to six years after they started to receive benefits from their UI initial claim. We weighted the data for nonresponse to ensure our estimates were reflective of the full survey sample. By focusing on survey respondents, our main analysis could provide a rich understanding of the experiences of a set of recipients before, during, and after their benefit collection.

To assess whether the findings from the main analysis results were sensitive to the sampling for or nonresponse to the survey, this appendix provides information on the UC recipients from a second data file available for the study—the administrative-only data file. The administrative-only data file was constructed using the same basic analysis definitions that we used for the merged survey respondent data file, but it was not limited to UI recipients who were randomly selected to be part of the survey subsample and who chose to respond to it.

As with the merged survey respondent data file, our analysis with the administrative-only data file focuses on single-claim recipients. A strength of the administrative-only data file is that it contains information on a much larger group of single-claim recipients: almost 4 million recipients compared to 976 in the merged survey respondent data file. Thus, the administrative-only file provides more precise estimates of the characteristics of recipients and their experiences. In fact, with this large a number of recipients, every statistical test to compare exhaustees and nonexhaustees shows that the two groups are statistically significantly different from each other, and even small differences are statistically significant. Therefore, in our discussion of findings, we focus on differences that are substantively and qualitatively important rather than ones that show statistical significance.

However, relative to the merged survey respondent data file, the administrative-only data file also has limitations. One is that it is based on 8 states, instead of 10 for the merged survey respondent data file, because we were unable to construct some analysis measures in the administrative-only file for recipients from Colorado and Wisconsin. Second, the file contains fewer measures of recipients' characteristics, job histories, and employment outcomes. It includes no information on their job search efforts, use of public benefits, and other outcomes available through the survey. Nevertheless, analyzing the administrative-only data provides insights about the extent to which some of the results from the merged survey respondent data file are representative of the larger set of recipients for which administrative data are available.

A. Summary

Our findings from the analysis of administrative-only data are similar to those from the analysis of the merged survey respondent data file, as presented in Chapters IV and V. Relative to nonexhaustees, higher percentages of exhaustees were women and belonged to racial/ethnic groups other than non-Hispanic white. Exhaustees also were more likely to have been at least age 45 when they filed their initial claim. Generally speaking, the two groups came from similar industries before the start of their benefit collection and had similar reasons for their separations from their pre-UC jobs. Although exhaustees had lower base period wages, on average, their UI and UC entitlements were generally similar to those of nonexhaustees. Unsurprisingly, given how the two groups were defined, exhaustees collected many more weeks of UC benefits than

did nonexhaustees. They also were more likely to have had no employment (as measured by quarterly wage records) during a three-year follow-up period after the quarter containing the recipients' UI initial claim, as well as fewer quarters with employment.

Although patterns in exhaustee–nonexhaustee differences are generally similar across the administrative-only data file and the merged survey respondent data file, we noticed a difference between the two files in the overall statistics on benefit entitlements and benefit collections. Specifically, these measures were slightly higher in the administrative-only data. This is likely due to the inclusion of Wisconsin, which was on EUC08 tier 4 only briefly, in the merged survey respondent data file.

Taken as a whole, we believe that the findings presented in the main report chapters, which are based on the analysis of the merged survey respondent data file, are qualitatively similar to findings that are available from the much larger administrative-only data file. We are confident that relying on survey respondents for our analysis does not strongly influence the findings nor the policy implications that can be drawn from them and also enables us to study a broader range of outcomes over a longer follow-up period.

B. Detailed findings

The main report chapters provide rich information on the similarities and differences between exhaustees and nonexhaustees in their characteristics (Chapter IV) and outcomes (Chapter V). Here, we point out the similarities and differences between these groups according to administrative-only data measures. We also point out some instances in which the magnitude of the differences is notably different from what is found through the merged survey respondent data file, even though all of these situations still yield qualitatively similar patterns in the differences. We conclude from the analysis of administrative-only data that:

- **Relative to nonexhaustees, higher percentages of exhaustees were from demographic groups that have historically faced employment barriers in the labor market (Table B.1).** Exhaustees were more likely to be women, of a racial/ethnic category other than non-Hispanic white, and at least age 45 when they started collecting benefits on the initial claim. The differences between exhaustees and nonexhaustees in demographic characteristics were slightly smaller than those for the recipient subgroups in the merged survey respondent data file. For example, in the administrative-only data file, the difference between the two recipient subgroups who are non-Hispanic white was 6 percentage points, whereas this difference was 11 percentage points in the merged survey respondent data file (Appendix Table D.4).
- **Exhaustees earned less on average than nonexhaustees, but other pre-UI job characteristics of the two groups were similar (Table B.1).** Average base period earnings were about $30,000 for exhaustees, compared to about $36,000 for nonexhaustees. About 70 percent of each group had been laid off from their pre-UC jobs, the industries of which were broadly similar for the two groups. For example, the differences between exhaustees and nonexhaustees in the prevalence of each industry were generally less than 2 percentage points. Differences between exhaustees and nonexhaustees in pre-claim job industry, as measured through the merged survey respondent data file, were generally similar but slightly larger in some instances (Appendix Table D.5).

- **The benefit entitlements of exhaustees and nonexhaustees were similar (Table B.2).** The number of weeks of regular UI benefits to which each group was entitled averaged 24 weeks, and about 70 percent of each group was entitled to 26 weeks of UI benefits. These patterns were mirrored in the potential durations of all UC benefits—including UI, EUC08, and EB. The average potential duration of all UC benefits was 90 to 91 weeks for each group, and about two-thirds of each group (66 to 68 percent) were eligible for the maximum of 99 weeks available through all programs when the EUC08 and EB programs were the most generous. Furthermore, the weekly benefit amounts of exhaustees and nonexhaustees were similar. Although these patterns are generally similar to those found through the merged survey respondent data file, the latter file included a lower percentage of recipients (57 percent 67) who were eligible for 99 weeks and a lower average potential duration (88 weeks versus 91 weeks; see Table III.1). The discrepancy between the files arises in large part because the administrative-only data file does not include Wisconsin, which had a relatively low unemployment rate and was on EUC08 tier 4 only briefly.
- **The average numbers of weeks of UC benefits that exhaustees and nonexhaustees collected were 87 and 29, respectively (Table B.3).** Furthermore, each of the four EUC08 tiers and EB was collected by more than 90 percent of exhaustees. In contrast, about 41 percent of nonexhaustees collected any EUC08 tier 1 benefits, and 11 percent collected any EUC08 tier 4 benefits; less than 10 percent collected any EB. It is not surprising that exhaustees collected many more weeks of benefits than nonexhaustees, and they were much more likely to transition onto EUC08 tiers and EB, given that—by definition—exhaustees collected all of the benefits to which they were entitled, and nonexhaustees did not. The patterns are generally consistent with those found through the merged survey respondent data file, although the overall rate of EUC08 tier 4 benefit receipt is lower in the merged survey respondent data file by about 5 percentage points (34 percent in the administrative-only data versus 29 percent in the merged survey respondent data file); again, this is due in large part to the inclusion of Wisconsin in the latter file.
- **During the three-year period after their UI initial claim quarter, exhaustees were much more likely than nonexhaustees to have had no employment, and average time with employment was shorter (Table B.4).** About two-fifths (42 percent) of exhaustees had no employment during this three-year period, in contrast to about one-sixth (17 percent) of nonexhaustees. During each of the first and second of the three years, about one-quarter of exhaustees (about 24 to 26 percent) had any employment, and somewhat less than half (44 percent) did so during the third year. In contrast, in each of the three years, about two-thirds of the nonexhaustees had employment. These estimates are generally smaller than those found through the merged survey respondent data file by 3 or fewer percentage points.

C. Data tables for analysis of exhaustees and nonexhaustees using administrative-only data

Table B.1. Pre-claim characteristics based on administrative data only (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Gender			††
Female	42.1	40.8	45.4**
Male	57.7	59.0	54.5**
Missing	0.2	0.2	0.1**
Race/ethnicity			††
Hispanic, Latino, or Spanish origin	17.7	18.1	16.7**
Non-Hispanic black or African American	12.2	11.4	14.0**
Non-Hispanic white	50.8	52.5	46.4**
Other	8.1	8.5	7.3**
Missing	11.2	9.5	15.7**
Age at the UI initial claim date			††
Younger than 25	11.8	13.0	8.6**
25 to 34	24.4	25.7	21.1**
35 to 44	23.5	23.9	22.4**
45 to 54	23.2	22.5	24.9**
55 to 64	13.9	12.4	17.7**
65 or older	3.1	2.3	5.2**
Missing	0.2	0.2	0.2
Average (years)	40.8	39.8	43.4**
Job separation reason			††
Layoff	71.7	72.4	69.9**
Fired	17.6	16.5	20.4**
Quit or retired	4.1	3.9	4.6**
Other reason	1.6	1.8	1.1**
Missing	5.1	5.5	4.1**
Base period earnings			††
$10,000 or less	14.8	14.1	16.6**
$10,001 to $20,000	22.3	21.6	24.3**
$20,001 to $30,000	19.9	19.2	21.8**
$30,001 to $50,000	24.3	24.5	23.6**
$50,001 to $75,000	10.9	11.7	8.8**
$75,001 to $100,000	4.5	5.0	3.2**
$100,001 or more	3.2	3.7	1.8**
Missing	0.0	0.0	0.0**
Average (dollars)	34,097	35,726	29,949**
Industry			††
Natural resources and mining	1.7	1.8	1.4**
Construction	8.6	8.6	8.7**
Manufacturing	14.6	15.2	13.2**
Trade, transportation, and utilities	15.9	15.8	16.1**
Information	1.9	2.0	1.8**
Financial activities	4.9	4.8	5.0**
Professional services and management	5.7	5.9	5.3**
Business support services	10.6	10.7	10.4**
Education and health services	7.8	8.1	7.1**
Leisure and hospitality	5.0	5.3	4.1**

Table B.1 *(continued)*

Variable	All recipients	Nonexhaustees	Exhaustees
Other services	2.5	2.3	2.8**
Public administration	1.5	1.6	1.1**
Missing	19.2	17.7	22.9**
Unweighted sample size	3,932,333	2,823,612	1,108,721

Source: Administrative-only analysis file.

Note: The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

Table B.2. Potential durations of benefits (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Weekly benefit amount			††
$150 or less	11.1	10.9	11.6**
$151 to $250	21.4	20.5	23.7**
$251 to $350	31.9	32.7	30.0**
$351 to $450	27.3	27.8	26.2**
$451 or more	8.3	8.2	8.5**
Average (dollars)	310	311	306**
Regular UI potential duration			††
Less than 13 weeks	2.3	1.7	3.8**
13 to 18 weeks	9.9	9.7	10.2**
19 to 25 weeks	17.6	17.3	18.4**
26 weeks	70.2	71.3	67.5**
Average (weeks)	24.0	24.1	23.6**
Total potential duration[a]			††
Less than 52 weeks	4.9	3.5	8.6**
52 to 77 weeks	12.3	13.4	9.4**
78 to 98 weeks	15.5	15.1	16.5**
99 weeks	67.3	68.0	65.5**
Average (weeks)	90.8	91.3	89.7**
Unweighted sample size	3,932,333	2,823,612	1,108,721

Source: Administrative-only analysis file.

Note: Potential duration measures were assigned to the categories displayed in the table after rounding to the nearest week. Estimates have been weighted for survey nonresponse.

[a]Total potential duration includes weeks available through the EUC08 and EB programs.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

Table B.3. Total weeks of UC benefits collected and EUC08/EB receipt (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Total weeks of UC benefits collected			††
One week or less	4.7	6.6	0.0**
2 to 12 weeks	20.8	28.4	1.4**
13 to 25 weeks	16.6	21.7	3.6**
26 to 38 weeks	9.2	12.7	0.3**
39 to 51 weeks	8.2	10.0	3.6**
52 to 64 weeks	5.9	6.8	3.6**
65 to 77 weeks	5.7	5.4	6.6**
78 to 90 weeks	7.5	6.5	10.0**
91 to 99 weeks	21.4	2.0	70.9**
Average total duration of benefits (weeks)	45.5	29.0	87.4**
Receipt of EUC08/EB benefits			
Collected EUC08 tier 1	56.4	41.2	95.0**
Average duration of EUC08 tier 1 benefits (weeks)	17.3	15.9	18.8**
Collected EUC08 tier 2	46.5	27.4	95.0**
Average duration of EUC08 tier 2 benefits (weeks)	12.1	11.0	12.9**
Collected EUC08 tier 3	38.5	16.4	94.8**
Average duration of EUC08 tier 3 benefits (weeks)	11.8	10.7	12.2**
Collected EUC08 tier 4	34.1	11.3	92.1**
Average duration of EUC08 tier 4 benefits (weeks)	5.6	5.3	5.7**
Collected EB	31.5	8.1	90.9**
Average duration of EB benefits (weeks)	17.3	10.8	18.8**
UI exhaustion	63.0	49.2	98.2**
UC exhaustion	28.2	0.0	100.0
Unweighted sample size	3,932,333	2,823,612	1,108,721

Source: Administrative-only analysis file.

Note: The total weeks of UC benefits collected were assigned to the categories displayed in the table after rounding to the nearest week. Average weeks collected for EUC08 tiers and EB were calculated among individuals who collected at least one dollar of benefits from the given program/tier. The number of weeks of UI, EUC08, and EB benefits available to a recipient was estimated based on the assumption that he or she remained continuously and fully unemployed after the UI initial claim date; that is, we assumed that recipients collected the full weekly benefit amount each week, although it is possible that some did not do so in practice.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

Table B.4. Employment patterns during the three years following the UI initial claim quarter (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Quarters employed during the three years after the UI initial claim quarter			††
0	23.9	16.7	42.2**
1 to 2	13.9	10.1	23.6**
3 to 4	9.8	7.4	15.8**
5 to 6	8.9	8.0	11.2**
7 to 8	8.3	9.9	4.0**
9 to 10	9.3	12.3	1.7**
11 to 12	26.0	35.6	1.6**
Average (number of quarters)	5.6	6.9	2.1**
Employed during the first year after the UI initial claim quarter	55.8	68.5	23.5**
Employed during the second year after the UI initial claim quarter	57.8	70.2	26.2**
Employed during the third year after the UI initial claim quarter	62.6	69.7	44.3**
Unweighted sample size	3,932,333	2,823,612	1,108,721

Source: Administrative-only analysis file.

Note: Measures in the table are based on quarterly administrative wage data and exclude employment during the quarter of the UI initial claim.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

APPENDIX C

COMPARISONS BETWEEN SINGLE- AND MULTI-CLAIM RECIPIENTS

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As described in Chapter II, most of this study's comparisons of UC exhaustees and nonexhaustees are focused on recipients who (1) started collecting UI benefits from January 2008 through September 2009, and (2) during a three-year period thereafter collected UC benefits stemming from a single UI claim only. However, during a three-year period, many recipients were able to establish more than one UI claim: about 44 percent of the recipients in our survey sample did so. In the context of more than one set of entitlements, a measure of benefit exhaustion for a *particular* set of entitlements is difficult to interpret, given potential availability of benefits from another set of entitlements. Recipients with more than one set of entitlements might collect all of the benefits (or "exhaust") from one set but not collect the entire entitlement (or "not exhaust") from another set of benefits.

To assess how the focus in the main report chapters on single-claim recipients shapes the perspectives about UC collection, this appendix provides descriptive information about how single-claim recipients compare to other recipients in our sample, a group whom we refer to as "multi-claim recipients." As for single-claim recipients, multi-claim recipients established a UI claim during January 2008 through September 2009, but their claims during this period were followed within three years by benefit collection from another claim. Our analysis includes comparisons of demographic and pre-claim job characteristics of (1) single-claim recipients, who constitute 56 percent of the sample who had a first payment during 2008 or the first three quarters of 2009, and (2) multi-claim recipients, who constitute 44 the sample. Focusing on the UI claims that were sampled for the survey, we also present information on the recipients' benefits entitlements and benefits collected. We conclude by presenting information about the post-claim employment outcomes of the two groups. Through this analysis, we gain evidence and a broader perspective about the full set of unemployed workers served by the UC system.

A. Summary

Although single- and multi-claim recipients were similar on several demographic and pre-UI characteristics, they were very different as groups on other aspects of their pre-UI backgrounds, especially related to the industries and occupations of their pre-UI jobs. The groups were similar, for example, in their age, pre-UI weekly earnings, pre-UI job tenure, and UC entitlements for the claim upon which we focus. However, single-claim recipients were more likely to be women, non-Hispanic white, and never married. They also were more likely to have a bachelor's or more advanced degree.

It is likely that differences between the characteristics and outcomes of single- and multi-claim recipients are driven by the fact that, relative to multi-claim recipients, single-claim recipients were less likely to have come from industries and occupations for which repeat layoffs are common. This finding is not surprising because a common avenue for being identified as a multi-claim recipient—that is, having more than one UI claim within a three-year period—is having had frequent layoffs and returns to the same or a similar job. Single-claim recipients were more likely to have had jobs related to the finance industry or professional services. They were also more likely to have been in a management, sales, or office and administrative support occupation and less likely to have been in industries and/or occupations related to construction, extraction, and production. They were less likely to have been represented by a union. Reflective of their pre-UI industries and occupations, single-claim recipients were substantially less likely to have had previous layoffs on a regular basis, and they were more likely to have been displaced

workers. Although the portion of single-claim recipients who reported having been laid off for any reason was only a few percentage points lower than the portion of multi-claim recipients who did so, bigger differences existed between the two groups in their reasons for having been laid off. For example, single-claim recipients were more likely to have reported that their job or shift was eliminated; their plant, facility, or company closed or moved; or that their company downsized or restructured; in contrast, they were less likely to report having been laid off due to lack of work. Although single-claim recipients were less likely to expect to be recalled, their recall expectations were less likely to be accurate. Overall, they were less than half as likely to have been recalled to their former jobs after their UC claims.

Furthermore, unsurprisingly, single-claim recipients were less likely than multi-claim recipients to have had any earnings during the three years after their initial UC claim. Nearly one in four single-claim recipients had no employment during this time. In addition, they were less likely to have had employment in any of the three years. These post-claim employment experiences of the two groups are not surprising: workers with no subsequent earnings could not establish a subsequent UC claim because having additional earnings after the base period of the last claim is a requirement of UI eligibility for a subsequent UI claim.

Taken as a whole, we believe that the findings presented in the main report chapters provide useful insights about the subgroup of UC recipients for whom the concept of benefit exhaustion is most meaningful.

B. Detailed findings

Noteworthy patterns emerged from the comparisons of the demographic and educational characteristics of single- and multi-claim recipients:

- **Single-claim recipients were more likely to be women, non-Hispanic white, and never married (Table C.1).** Fifty-four percent of single-claim recipients were men, compared to 61 percent of multi-claim recipients. There was not a statistically significant difference between the percentage of single-claim and multi-claim recipients who were African American, but a smaller percentage of single-claim recipients were Hispanic (16 percent versus 22 percent) and a larger percentage were non-Hispanic white (64 percent versus 59 percent). The two groups of recipients were similar in age, but single-claim recipients were more likely (29 percent versus 24 percent) to have reported a status of never married.
- **Single-claim recipients were less likely to be without a high school diploma or GED and more likely to have a bachelor's or more advanced degree (Table C.1).** The two groups were comparable on their prevalence of other types of education levels, such as having a high school diploma or GED, or some college with no degree, as the highest level of educational attainment. It is likely that the findings about the educational backgrounds of the two groups of workers reflect the different occupations that the two groups came from—a topic that we discuss more below.

Much more striking differences exist between some of the pre-UI job characteristics of single- and multi-claim recipients:

- **Single-claim recipients were significantly more likely than multi-claim recipients to have access through their pre-UI jobs to some fringe benefits, although the two groups were generally similar in their pre-UI weekly earnings, hours worked, and job tenure (Table C.2).** A somewhat higher percentage of single-claim recipients compared to multi-claim recipients reported that their pre-UI job offered health insurance (67 percent versus 62 percent). However, the two groups did not significantly differ on their receipt of health insurance through their pre-UI job. Single- and multi-claim recipients differed dramatically in their access to paid vacation days (65 percent versus 49 percent, respectively).
- **Single-claim recipients were substantially less likely to have had previous layoffs on a regular basis and to have been represented by a union (Table C.2).** The percentage of single-claim recipients with previous layoffs from their jobs was less than half that for multi-claim recipients (17 percent versus 38 percent). The difference in having layoffs on a regular basis was even starker: 5 percent of single-claim recipients reported regular layoffs, whereas 25 percent of multi-claim recipients did so. Furthermore, about 10 percent of single-claim recipients reported being in a union, in contrast to about 25 percent of multi-claim recipients.
- **Single-claim recipients were much more likely to have come from financial and professional industries and to have had managerial, sales, or office and administrative occupations (Table C.3).** Consistent with their greater prevalence of regular layoffs and union representation, multi-claim recipients were more likely to have been in industries and/or occupations related to construction, extraction, and production.
- **Single-claim recipients were more likely to have been displaced workers and less likely to have been recalled to their pre-UI jobs (Table C.4).** There was a relatively small difference in the percentage of single- and multi-claim recipients who were laid off (73 percent versus 77 percent), but there were much greater differences between the two groups in the reasons they reported having been laid off. Single-claim recipients were more likely to have reported that their job or shift was eliminated; their plant, facility, or company closed or moved; or that their company downsized or restructured. In contrast, multi-claim recipients were more likely to have reported a layoff due to a lack of work or having been a temporary worker or in a temporary job. Single-claim recipients also were more likely to have reported having been fired.[31] Consistent with the pattern between the two groups in the prevalence of repeat layoffs, the single-claim recipients were less than half as likely to have been recalled to their former job after their UI claim (12 percent versus 27 percent). Among single-claim recipients, the recall rate (12 percent) was about half (53 percent) of the rate for having had recall expectations (22 percent). In contrast, among multi-claim recipients, the recall rate (27 percent) was 80 percent of the rate for having had recall expectations (34 percent).

[31] Having been fired from a job does not necessarily prevent someone from being eligible for UI benefits. UI agency staff investigate the detailed reason(s) for a claimant's having been fired from a job before making a determination of whether the claimant is eligible for UI benefits. Furthermore, it is possible that some survey respondents, and especially those with long job tenure and a lack of familiarity with the UI system, might think that they were "fired" solely because the job separation was employer-initiated, even though the job separation could have been considered a layoff according to UI eligibility criteria.

Likely because of the similarities between the weekly earnings and job tenure of single- and multi-claim recipients, the two groups were very similar in terms of their UC entitlements for the claim that was sampled for the survey. All sampled claims started during the period from January 2008 to September 2009; however, their actual benefit collection experiences for that claim were very different:

- **A little more than 70 percent of each group was entitled to 26 weeks of regular UI benefits, and 57 percent of each group was eligible for 99 weeks of benefits across UI, EUC08, and EB claim types, on their sampled claim (Table C.5).** Furthermore, their weekly benefit amounts were generally similar.
- **Single-claim recipients were much more likely to have exhausted their UC benefit entitlements, and they collected for more weeks of benefits on the sampled claim (Table C.6).** Possibly in part because of their much smaller likelihood of being recalled to their former jobs, and their higher likelihood of being displaced workers, single-claim recipients were more likely to have collected 26 or more weeks of benefits; more than half (56 percent) collected some EUC08 and/or EB benefits, in contrast to about one-third (31 percent) of multi-claim recipients. Furthermore, almost one in five (19 percent) of them collected between 91 and 99 weeks of benefits on their claim, in contrast to 2 percent of multi-claim recipients who did so. The average number of weeks of benefits collected was 43 for single-claim recipients and 26 for multi-claim recipients. Sixty-three percent of single-claim recipients exhausted their regular UI entitlement and 26 percent exhausted their UC entitlement. In contrast, 42 percent and 6 percent of multi-claim recipients exhausted their regular UI and UC entitlements, respectively.

Because establishing a second claim hinges on having additional work experience, it is unsurprising that recipients with more than one UI claim—our multi-claim group—had higher rates of reemployment after the sampled UC claim. To assess these differences, we examined reemployment experiences during a three-year period after the quarter in which the UI initial claim occurred. We found that:

- **Almost one-quarter (24 percent) of single-claim recipients had no work during the three-year period after their UI initial claim quarter, and only about three-fifths were employed in each of the three years (Table C.7).** In contrast, 83 to 90 percent of multi-claim recipients were employed in each of the three years. Fifty-nine percent of multi-claim recipients were employed in at least 9 quarters of the 12 during the three years following their initial sampled claim.[32] These findings are consistent with those presented earlier about how multi-claim recipients are more likely to have had layoffs on a regular basis because those layoffs tend to be seasonal and short-term in nature. In contrast, 39 percent of single-claim recipients were employed in at least 9 quarters of the 12 during the three years.

[32] It is possible for multi-claim recipients to have no employment in the three years following their initial sampled claim. As explained in Chapter II, the state-provided administrative data upon which this information is based do not include jobs held in other states. They also do not include wages from federal civilian or military employment. These gaps in coverage are likely the reason that we do not find that every multi-claim recipient had employment in at least one quarter after the initial UI claim quarter.

C. Data tables for analysis of single- and multi-claim recipients

Table C.1. Demographic characteristics for single-claim and multi-claim recipients (percentages, unless stated otherwise)

Variable	All recipients	Single-claim recipients	Multi-claim recipients
Gender			††
Female	42.9	46.2	38.7**
Male	57.1	53.8	61.3**
Race/ethnicity			††
Hispanic, Latino, or Spanish origin	18.4	15.7	21.9**
Non-Hispanic black or African American	14.2	14.6	13.6
Non-Hispanic white	62.0	64.4	58.9**
Other	5.4	5.3	5.6
Age			
Younger than 25	8.8	9.2	8.3
25 to 34	25.1	24.4	26.0
35 to 44	23.4	24.0	22.6
45 to 54	25.6	25.8	25.3
55 to 64	13.4	12.6	14.5
65 or older	3.7	4.0	3.4
Marital status			††
Married	48.1	47.1	49.4
Living with a partner	6.4	5.1	8.0**
Separated, divorced, or widowed	18.3	18.4	18.2
Never married	27.2	29.4	24.4**
Household size (number)	2.7	2.6	2.8**
Highest level of school or degree			††
Less than high school or GED	12.5	9.6	16.1**
High school/GED	32.2	31.3	33.3
Some college but no degree	22.2	22.7	21.7
Associate's degree	11.9	12.9	10.6
Bachelor's or more advanced degree	19.5	21.6	16.9**
Other, including trade schools, certification, and apprenticeship programs	1.7	1.8	1.5
Unweighted sample size	1,757	976	781

Source: Merged survey respondent data file.

Note: Age and marital status were determined at the time of the UI initial claim. Household size was assessed during the year before the claim. Educational attainment was determined at the time of the separation from the pre-claim job. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse. The first column includes information on single-claim and multi-claim recipients.

*/**Means for the single-claim and multi-claim recipients differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the single-claim and multi-claim recipients across categories differ significantly at the .10/.05 level, chi-squared test.

GED = General Educational Development certificate.

Table C.2. Characteristics of the pre-claim job for single-claim and multi-claim recipients (percentages, unless stated otherwise)

Variable	All recipients	Single-claim recipients	Multi-claim recipients
Weekly earnings			
$300 or less	10.3	9.7	11.1
$301 to $500	22.3	24.3	19.4**
$501 to $700	20.0	19.7	20.5
$701 to $900	16.7	16.7	16.7
$901 to $1,100	9.4	8.6	10.5
$1,101 or more	21.3	20.9	21.8
Average (dollars)	819	815	825
Hours worked per week			††
20 or less	5.6	4.1	7.5**
21 to 30	6.6	6.7	6.5
31 to 39	6.6	6.8	6.3
40	50.3	52.1	47.9
More than 40	30.9	30.2	31.7
Average (hours)	41.5	41.5	41.5
Job tenure			
6 months or less	13.0	13.0	13.0
7 months to 1 year	12.2	12.2	12.1
1 year and 1 month to 2 years	16.9	18.1	15.4
2 years and 1 month to 3 years	11.1	11.1	11.0
3 years and 1 month to 6 years	16.8	16.3	17.3
6 years and 1 month to 9 years	9.4	8.9	10.1
More than 9 years	20.7	20.4	21.0
Average (years)	5.7	5.5	6.0
Available fringe benefits			
Health insurance or membership in an HMO or PPO	64.7	66.9	61.9**
Paid vacation	57.6	64.6	48.8**
Retirement, pension benefits, 401(k) or 403(b)	55.5	57.1	53.5
Received health insurance through job	49.5	49.7	49.2
Had previous layoffs from job	26.1	16.5	38.2**
Had layoffs on a regular basis	14.1	5.3	25.1**
Was represented by a union	16.8	10.1	25.3**
Unweighted sample size	1,757	976	781

Source: Merged survey respondent data file.

Note: Weekly earnings, weekly hours, and months of job tenure were assigned to the categories displayed in the table after rounding to the nearest integer. Dollar amounts are expressed in 2014 dollars. Weekly earnings measures exclude respondents who reported earnings of more than $5,000. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse. The first column includes information on single-claim and multi-claim recipients.

*/**Means for the single-claim and multi-claim recipients differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the single-claim and multi-claim recipients across categories differ significantly at the .10/.05 level, chi-squared test.

HMO = health maintenance organization; PPO = preferred provider organization.

Table C.3. Industry and occupation of the pre-claim job for single-claim and multi-claim recipients (percentages)

Variable	All recipients	Single-claim recipients	Multi-claim recipients
Industry			††
Natural resources and mining	2.4	1.6	3.5**
Construction	16.0	10.0	23.6**
Manufacturing	19.5	19.2	19.9
Trade, transportation, and utilities	15.1	16.7	13.1**
Information	2.3	2.2	2.3
Financial activities	6.6	9.5	3.0**
Professional services and management	7.1	8.8	4.9**
Business support services	8.6	9.8	7.2*
Education and health services	10.6	10.7	10.5
Leisure and hospitality	7.3	6.8	7.9
Other services	2.4	2.5	2.3
Public administration	2.0	2.2	1.8
Occupation			††
Management, business, and finance	10.7	13.0	7.8**
Computer, engineering, and science	4.8	6.1	3.1**
Community and social services	6.2	4.3	8.6**
Health care practitioners and technical	1.0	1.5	0.4**
Service	11.2	11.3	11.1
Sales	8.3	10.9	5.1**
Office and administrative support	14.8	18.7	9.9**
Farming, fishing, and forestry	NA	NA	NA
Construction and extraction	11.6	6.1	18.6**
Installation, maintenance, and repair	4.8	5.6	3.9
Production	14.2	11.8	17.1**
Transportation and material moving	10.8	9.8	12.2
Military	NA	NA	NA
Unweighted sample size	1,757	976	781

Source: Merged survey respondent data file.

Note: Information about industry and occupation was filled in from the administrative data, if possible, for respondents who did not respond or whose responses could not be categorized. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse. The first column includes information on single-claim and multi-claim recipients. To protect respondent confidentiality, entries have been suppressed for cells showing "NA" because one or more of the cells would have been based on fewer than three individuals.

*/**Means for the single-claim and multi-claim recipients differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the single-claim and multi-claim recipients across categories differ significantly at the .10/.05 level, chi-squared test.

NA = Not applicable.

Table C.4. Pre-claim job separation reason and subsequent recall to the same job for single-claim and multi-claim recipients (percentages)

Variable	All recipients	Single-claim recipients	Multi-claim recipients
Job separation reason			††
Layoff: any reason	75.1	73.3	77.4*
Lack of work	37.4	29.3	47.0**
Job or shift eliminated	7.4	9.6	4.7**
Plant/facility/company moved or closed	10.7	14.1	6.7**
Recession	6.6	8.6	4.3**
Company downsized or restructured	19.7	25.7	12.6**
Temporary worker or job	11.7	6.8	17.5**
Other reason for layoff	6.5	5.9	7.2
Fired	12.2	15.0	8.6**
Quit or retired	7.3	6.5	8.2
Other reason	5.4	5.1	5.8
Displaced worker	57.7	60.0	54.7**
Expected to be recalled to job at the time of the separation	27.4	22.2	34.1**
Had been recalled to job by the time of the interview	18.6	11.8	27.2**
Unweighted sample size	1,757	976	781

Source: Merged survey respondent data file.

Note: The percentages shown for the detailed layoff reasons are based on the group that had a layoff rather than all sample members. Displaced workers are defined as recipients who were laid off from their pre-claim job due to lack of work, elimination of a job/shift, closing of a plant/facility/company, the recession, or downsizing/restructuring of their company. Recipients who were laid off and did not provide a detailed layoff reason were categorized as not being displaced workers. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse. The first column includes information on single-claim and multi-claim recipients.

*/**Means for the single-claim and multi-claim recipients differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the single-claim and multi-claim recipients across categories differ significantly at the .10/.05 level, chi-squared test.

Table C.5. Potential durations of benefits for single-claim and multi-claim recipients (percentages, unless stated otherwise)

Variable	All recipients	Single-claim recipients	Multi-claim recipients
UI potential duration			
Less than 13 weeks	2.7	2.9	2.5
13 to 18 weeks	9.1	8.9	9.2
19 to 25 weeks	16.9	17.4	16.3
26 weeks	71.2	70.7	71.9
Average (weeks)	23.9	23.9	23.9
Total potential duration[a]			
Less than 52 weeks	4.7	4.6	4.8
52 to 77 weeks	20.1	19.4	21.0
78 to 98 weeks	18.0	18.7	17.1
99 weeks	57.2	57.3	57.0
Average (weeks)	87.9	88.2	87.5
Weekly benefit amount			
$150 or less	10.0	11.3	8.5*
$151 to $250	21.8	22.4	21.0
$251 to $350	29.4	28.7	30.3
$351 to $450	27.9	26.8	29.2
$451 or more	10.9	10.8	11.0
Average (dollars)	316	312	321
Unweighted sample size	1,757	976	781

Source: Merged survey respondent data file.

Note: Potential duration measures were assigned to the categories displayed in the table after rounding to the nearest week. Estimates have been weighted for survey nonresponse. The first column includes information on single-claim and multi-claim recipients.

[a]Total potential duration includes weeks available through the EUC08 and EB programs.

*/**Means for the single-claim and multi-claim recipients differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the single-claim and multi-claim recipients across categories differ significantly at the .10/.05 level, chi-squared test.

Table C.6. Total weeks of UC benefits collected for single-claim and multi-claim recipients (percentages, unless stated otherwise)

Variable	All recipients	Single-claim recipients	Multi-claim recipients
Collected EUC08/EB benefits on sampled claim	44.9	55.7	31.2**
Total weeks of UC benefits collected			††
One week or less	4.6	5.0	4.2
2 to 12 weeks	26.8	22.8	31.9**
13 to 25 weeks	22.7	16.2	30.8**
26 to 38 weeks	9.5	10.0	8.9
39 to 51 weeks	7.1	7.6	6.4
52 to 64 weeks	5.5	6.1	4.6
65 to 77 weeks	5.8	6.3	5.2
78 to 90 weeks	7.0	7.6	6.1
91 to 99 weeks	11.1	18.5	1.8**
Average (weeks)	35.8	43.3	26.4**
Receipt of EUC08/EB benefits			
Collected EUC08 tier 1	44.9	55.7	31.2**
Average duration of EUC08 tier 1 benefits (weeks)	16.6	16.8	15.9**
Collected EUC08 tier 2	34.7	44.0	22.9**
Average duration of EUC08 tier 2 benefits (weeks)	11.8	12.0	11.3**
Collected EUC08 tier 3	28.6	36.7	18.4**
Average duration of EUC08 tier 3 benefits (weeks)	11.5	11.7	10.9**
Collected EUC08 tier 4	22.1	29.4	12.9**
Average duration of EUC08 tier 4 benefits (weeks)	5.4	5.5	5.3
Collected EB	17.8	28.6	4.3**
Average duration of EB benefits (weeks)	16.3	16.8	11.9**
UI exhaustion	53.8	63.4	41.8**
UC exhaustion	17.0	25.8	6.0**
Unweighted sample size	1,757	976	781

Source: Merged survey respondent data file.

Note: Benefit collection measures were assigned to the categories displayed in the table after rounding to the nearest week. Estimates have been weighted for survey nonresponse. The first column includes information on single-claim and multi-claim recipients.

*/**Means for the single-claim and multi-claim recipients differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the single-claim and multi-claim recipients across categories differ significantly at the .10/.05 level, chi-squared test.

Table C.7. Employment patterns during the three years following the UI initial claim quarter for single-claim and multi-claim recipients (percentages, unless stated otherwise)

Variable	All recipients	Single-claim recipients	Multi-claim recipients
Quarters employed during the three years after the UI initial claim quarter			††
0	14.6	23.6	3.3**
1 to 2	8.1	11.7	3.5**
3 to 4	8.9	9.8	7.7
5 to 6	10.4	8.5	12.8**
7 to 8	10.5	7.6	14.0**
9 to 10	14.8	11.5	18.9**
11 to 12	32.8	27.3	39.8**
Average (number of quarters)	7.0	5.9	8.5**
Employed during the first year after the UI initial claim quarter	72.3	58.2	90.0**
Employed during the second year after the UI initial claim quarter	71.9	60.1	86.6**
Employed during the third year after the UI initial claim quarter	71.7	62.8	82.8**
Unweighted sample size	1,757	976	781

Source: Merged survey respondent data file.

Note: Measures in the table are based on quarterly administrative wage data and exclude employment during the quarter of the UI initial claim. Estimates have been weighted for survey nonresponse. The first column includes information on single-claim and multi-claim recipients.

*/**Means for the single-claim and multi-claim recipients differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the single-claim and multi-claim recipients across categories differ significantly at the .10/.05 level, chi-squared test.

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APPENDIX D

TABLES CONTAINING DETAILED RESULTS FROM ANALYSES OF UC EXHAUSTEES AND UC NONEXHAUSTEES

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This appendix provides detailed tables of results from the analyses presented in the main text in Chapters IV and V. As in the main chapters, the tables in this appendix are based on the merged survey respondent data file, which contains survey and administrative data. In addition, they focus on single-claim recipients and show comparisons of UC exhaustees and UC nonexhaustees, as well as results from multivariate analyses. Findings from the administrative-only data are presented in Appendix B, and findings about multi-claim recipients are presented in Appendix C.

Table D.1. Demographic characteristics (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Gender			††
Female	46.2	44.0	52.7**
Male	53.8	56.0	47.3**
Race/ethnicity			††
Hispanic, Latino, or Spanish origin	15.7	15.3	17.0
Non-Hispanic black or African American	14.6	12.0	22.2**
Non-Hispanic white	64.4	67.3	56.3**
Other	5.3	5.5	4.5
Age			††
Younger than 25	9.2	10.8	4.3**
25 to 34	24.4	26.1	19.4**
35 to 44	24.0	25.4	20.2
45 to 54	25.8	23.5	32.3**
55 to 64	12.6	11.3	16.3*
65 or older	4.0	2.8	7.6**
Marital status			††
Married	47.1	47.6	45.4
Living with a partner	5.1	6.1	2.3**
Separated, divorced, or widowed	18.4	16.3	24.4**
Never married	29.4	30.0	27.8
Household size (number)	2.6	2.6	2.6
Highest level of school or degree			†
Less than high school or GED	9.6	8.5	13.1*
High school/GED	31.3	30.1	34.9
Some college but no degree	22.7	23.1	21.3
Associate's degree	12.9	12.6	13.7
Bachelor's or more advanced degree	21.6	23.8	15.4**
Other, including trade schools, certification and apprenticeship programs	1.8	1.9	1.6
Unweighted sample size	976	726	250

Source: Merged survey respondent data file.

Note: Age and marital status were determined at the time of the UI initial claim. Household size was assessed during the year before the claim. Educational attainment was determined at the time of the separation from the pre-claim job. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

GED = General Educational Development certificate.

Table D.2. Industry and occupation of the pre-claim job (percentages)

Variable	All recipients	Nonexhaustees	Exhaustees
Industry			
Natural resources and mining	1.6	1.4	1.9
Construction	10.0	10.1	9.8
Manufacturing	19.2	20.4	15.6
Trade, transportation, and utilities	16.7	16.7	16.7
Information	NA	NA	NA
Financial activities	9.5	8.9	11.1
Professional services and management	8.8	8.8	8.8
Business support services	9.8	9.0	12.3
Education and health services	10.7	10.7	10.7
Leisure and hospitality	6.8	6.9	6.4
Other services	2.5	1.8	4.7*
Public administration	NA	NA	NA
Occupation			
Management, business, and finance	13.0	13.1	12.9
Computer, engineering, and science	6.1	6.5	5.0
Community and social services	4.3	4.5	3.9
Health care practitioners and technical	1.5	1.6	1.2
Service	11.3	11.1	12.1
Sales	10.9	10.2	12.9
Office and administrative support	18.7	17.1	23.1*
Farming, fishing, and forestry	NA	NA	NA
Construction and extraction	6.1	6.7	4.7
Installation, maintenance, and repair	5.6	5.6	5.5
Production	11.8	12.8	9.1
Transportation and material moving	9.8	9.9	9.2
Military	NA	NA	NA
Unweighted sample size	976	726	250

Source: Merged survey respondent data file.

Note: Information about industry and occupation was filled in from the administrative data, if possible, for respondents who did not provide this information in the survey or whose survey responses could not be categorized. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse. To protect respondent confidentiality, entries have been suppressed for cells showing "NA" because one or more of the cells would have been based on fewer than three individuals.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

NA = not available.

Table D.3. Characteristics of the pre-claim job (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Weekly earnings			
$300 or less	9.7	8.3	13.7**
$301 to $500	24.3	25.6	20.6
$501 to $700	19.7	18.8	22.1
$701 to $900	16.7	16.3	17.7
$901 to $1,100	8.6	8.9	7.8
$1,101 or more	20.9	22.0	17.9
Average (dollars)	815	843	737**
Hours worked per week			
20 or less	4.1	4.0	4.5
21 to 30	6.7	6.1	8.5
31 to 39	6.8	6.1	8.8
40	52.1	53.2	48.9
More than 40	30.2	30.5	29.4
Average (hours)	41.5	41.7	41.2
Job tenure			
6 months or less	13.0	13.1	12.6
7 months to 1 year	12.2	12.5	11.3
1 year and 1 month to 2 years	18.1	18.6	16.3
2 years and 1 month to 3 years	11.1	11.6	9.8
3 years and 1 month to 6 years	16.3	16.7	15.2
6 years and 1 month to 9 years	8.9	8.9	9.0
More than 9 years	20.4	18.7	25.8**
Average (years)	5.5	5.2	6.3*
Available fringe benefits			
Health insurance or membership in an HMO or PPO	66.9	68.3	62.9
Paid vacation	64.6	66.1	60.4
Retirement, pension benefits, 401(k) or 403(b)	57.1	59.3	51.0**
Received health insurance through job	49.7	51.4	45.0
Had previous layoffs from job	16.5	15.8	18.2
Had layoffs on a regular basis	5.3	5.3	5.3
Was represented by a union	10.1	10.9	7.9
Unweighted sample size	976	726	250

Source: Merged survey respondent data file.

Note: Weekly earnings, weekly hours, and months of job tenure were assigned to the categories displayed in the table after rounding to the nearest integer. Dollar amounts are expressed in 2014 dollars. Weekly earnings measures exclude respondents who reported earnings of more than $5,000. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

HMO = health maintenance organization; PPO = preferred provider organization.

Table D.4. Pre-claim job separation reason and subsequent recall to the same job (percentages)

Variable	All recipients	Nonexhaustees	Exhaustees
Job separation reason			
Layoff: any reason	73.3	72.6	75.4
Lack of work	29.3	29.7	28.2
Job or shift eliminated	9.6	9.4	10.4
Plant/facility/company moved or closed	14.1	13.2	16.6
Recession	8.6	9.5	6.1
Company downsized or restructured	25.7	25.6	26.1
Temporary worker or job	6.8	7.2	5.9
Other reason for layoff	5.9	5.6	6.7
Fired	15.0	15.0	15.2
Quit or retired	6.5	6.7	6.1
Other reason	5.1	5.7	3.3*
Displaced worker	60.0	59.4	61.8
Expected to be recalled to job at the time of the separation	22.2	21.9	22.8
Had been recalled to job by the time of the interview	11.8	13.9	5.5**
Unweighted sample size	976	726	250

Source: Merged survey respondent data file.

Note: The percentages shown for the detailed layoff reasons are based on the group that had a layoff rather than all sample members. Displaced workers are defined as recipients who were laid off from their pre-claim job due to lack of work, elimination of a job/shift, closing of a plant/facility/company, the recession, or downsizing/restructuring of their company. Recipients who were laid off and did not provide a detailed layoff reason were categorized as not being displaced workers. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

Table D.5. Household income and poverty status in the year before the claim and in 2013 (percentages, unless stated otherwise)

Variable	In the calendar year before the UI initial claim			In 2013		
	All recipients	Nonexhaustees	Exhaustees	All recipients	Nonexhaustees	Exhaustees
Household income			††			††
$10,000 or less	11.9	9.7	18.3**	15.5	11.9	25.8**
$10,001 to $20,000	10.9	10.6	11.5	12.6	11.0	17.1**
$20,001 to $30,000	15.0	16.0	12.3	14.7	13.5	18.3
$30,001 to $50,000	22.1	22.6	20.8	18.4	19.1	16.4
$50,001 to $75,000	16.1	16.1	16.2	16.5	18.3	11.2**
$75,001 to $100,000	10.4	10.8	9.3	9.4	10.7	5.5**
$100,001 or more	13.5	14.2	11.6	13.0	15.5	5.7**
Average (dollars)	52,748	54,777	46,926*	50,743	56,614	33,711**
Household income, relative to the poverty threshold			††			††
50% or less	11.7	9.5	18.0**	13.5	10.1	23.1**
51% to 100%	9.9	9.9	10.0	11.4	9.9	15.7*
101% to 150%	12.0	11.4	13.4	11.9	10.9	14.7
151% to 200%	8.7	10.3	4.3**	11.3	11.2	11.5
201% to 300%	19.6	19.3	20.5	17.1	17.3	16.4
301% to 400%	12.7	13.9	9.5*	12.0	13.7	7.2**
401% or higher	25.3	25.7	24.3	22.9	26.9	11.3**
Unweighted sample size	928	689	239	943	702	241

Source: Merged survey respondent data file.

Note: Household income is expressed in 2014 dollars. Poverty was determined using income, household size, and the U.S. Census Bureau thresholds for householders younger than age 65 (http://www.census.gov/hhes/www/poverty/data/threshld/index.html). Household size in 2013 was assumed to be the same as the respondents' household size at the time they completed the survey. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

Table D.6. Income support from non-UI sources in the year before the claim and at the time of the survey (percentages)

Variable	In the calendar year before the UI initial claim			At the time of the survey		
	All recipients	Nonexhaustees	Exhaustees	All recipients	Nonexhaustees	Exhaustees
Earned income tax credit	8.5	8.3	9.4	6.9	7.7	4.6**
Food stamps or SNAP benefits	6.9	6.8	7.3	14.0	12.0	19.7**
Payments from a 401(k), 403(b), or IRA	2.7	2.6	3.0	4.1	3.2	6.7**
Pension benefits from a private or government employer	3.9	2.8	7.0**	8.9	7.2	14.0**
Social Security Retirement or Railroad Retirement payments	4.9	3.7	8.6*	14.1	11.5	21.5**
SSDI payments or SSI payments for a disability	2.1	2.0	2.4	10.0	7.9	16.3**
TANF, General Assistance, or other welfare payments	NA	NA	NA	1.2	1.1	1.5
Any other payments[a]	9.9	9.3	11.5	12.5	12.3	13.1
Unweighted sample size	975	725	250	974	725	249

Source: Merged survey respondent data file.

Note: All of the variables in this table are household-level measures of income support; each is coded to equal one if any member of the recipient's household collected support from the listed source. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse. To protect respondent confidentiality, entries have been suppressed for cells showing "NA" because one or more of the cells would have been based on fewer than three individuals.

[a]Other payments include workers compensation, private disability insurance, child support, alimony, rental income, dividends, and interest.

IRA = individual retirement account; NA = not available; SNAP = Supplemental Nutrition Assistance Program; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income; TANF = Temporary Assistance for Needy Families.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

Table D.7. Savings at the time of the UI initial claim (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Savings in bank accounts			
Any savings	47.0	49.3	40.3**
Enough savings to cover all living expenses for three months	23.1	24.1	20.2
Enough savings to cover all living expenses for six months	13.5	13.6	13.1
Any savings in a 401(k), 403(b), or IRA	45.6	46.5	42.9
Any savings in a CD, stock, or bond	16.8	17.5	14.5
Unweighted sample size	975	725	250

Source: Merged survey respondent data file.

Note: Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

CD = certificate of deposit; IRA = individual retirement account.

Table D.8. Reemployment timing during the three years following the UI initial claim quarter (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Employed during the three years after the UI initial claim quarter			††
Yes	76.4	83.3	56.6**
No	23.6	16.7	43.4**
Among those employed during the three-year period, quarters elapsed until first employment			††
1	50.1	54.5	31.5**
2	12.2	14.1	4.1**
3	7.0	8.1	2.4**
4	6.8	7.4	4.4
5	4.5	4.2	5.7
6	3.9	3.3	6.3
7	3.3	2.4	7.2*
8	3.3	1.1	12.8**
9	3.7	2.0	10.8**
10 to 12	5.1	2.8	14.8**
Average (number of quarters)	3.1	2.5	5.4**
Unweighted sample size	976	726	250

Source: Merged survey respondent data file.

Note: Measures in the table are based on quarterly administrative wage data and exclude employment during the quarter of the UI initial claim. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

Table D.9. Employment patterns during the three years following the UI initial claim quarter (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Quarters employed during the three years after the UI initial claim quarter			††
0	23.6	16.7	43.4**
1 to 2	11.7	7.5	23.9**
3 to 4	9.8	8.6	13.4*
5 to 6	8.5	7.4	11.5*
7 to 8	7.6	8.9	4.0**
9 to 10	11.5	15.0	1.4**
11 to 12	27.3	35.9	2.4**
Average (number of quarters)	5.9	7.1	2.1**
Employed during the first year after the UI initial claim quarter	58.2	70.1	24.0**
Employed during the second year after the UI initial claim quarter	60.1	71.1	28.5**
Employed during the third year after the UI initial claim quarter	62.8	70.3	41.2**
Unweighted sample size	976	726	250

Source: Merged survey respondent data file.

Note: Measures in the table are based on quarterly administrative wage data and exclude employment during the quarter of the UI initial claim. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

Table D.10. Earnings during the third year after the UI initial claim quarter (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Earnings during the third year after the UI initial claim quarter			††
No earnings	37.2	29.7	58.8**
$1 to $10,000	12.7	9.5	21.8**
$10,001 to $20,000	10.3	11.7	6.3**
$20,001 to $30,000	13.8	16.3	6.5**
$30,001 to $50,000	13.4	16.8	3.5**
$50,001 or more	12.6	16.0	3.1**
Average, among those with earnings (dollars)	33,126	36,584	16,153**
Average, including those with zero earnings (dollars)	20,816	25,735	6,662**
Unweighted sample size	976	726	250

Source: Merged survey respondent data file.

Note: Measures in the table are based on quarterly administrative wage data. Values of earnings were assigned to the categories displayed in the table after rounding to the nearest dollar. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

Table D.11. Post-claim financial difficulties (percentages)

Variable	All recipients	Nonexhaustees	Exhaustees
All respondents			
Since the UI initial claim date, the recipient:			
Had utilities disconnected	12.3	11.2	15.2
Was charged a late fee on a monthly credit payment	40.7	39.9	42.9
Declared personal bankruptcy	7.3	6.3	10.0
Postponed a major purchase that was planned or needed	47.8	45.9	53.4*
Received extra financial assistance from family members	34.1	31.9	40.2**
Received assistance from churches, food banks, or other private community organizations	18.1	16.8	21.9
Since the UI initial claim date, anyone in the recipient's household:			
Made an early withdrawal from a retirement investment account	26.5	26.3	27.0
Took early retirement to get benefits from a pension plan	4.4	3.8	6.1
Pre-claim housing status			
Owned a home	46.3	47.8	42.0
Rented	27.1	27.3	26.3
Lived with family or friends and contributed to the rent or mortgage	13.5	11.8	18.4**
Lived with family or friends and did not contribute to the rent or mortgage	10.1	10.3	9.7
Lived in some other housing arrangement	3.1	2.9	3.7
Unweighted sample size	975	725	250
Homeowners			
Since the UI initial claim date, the recipient:			
Missed or had been late on a mortgage	27.6	24.8	36.7**
Received a notice of mortgage default	17.9	16.4	22.6
Had a house foreclosed on	9.9	8.2	15.4*
Unweighted sample size	483	374	109
Renters			
Since the UI initial claim date, the recipient:			
Was charged a late fee or missed a rent payment	30.9	31.4	29.6
Received an eviction notice	9.8	9.3	11.2
Has been evicted	3.6	2.8	5.7
Unweighted sample size	499	359	140

Source: Merged survey respondent data file.

Note: Mortgage and foreclosure information was collected for recipients who were homeowners at the time of their UI initial claim. Rent and eviction information was collected for recipients who were renters at any point from their UI initial claim date to the time of the survey. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size for each panel of the table indicates the number of individuals with valid information for at least one of the measures listed in that panel of the table. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

Table D.12. Work search activity during the three months after separating from the pre-claim job (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
All respondents			
Looked for work			
Yes	91.1	90.2	93.5
No	8.9	9.8	6.5
Among those who looked for work, hours per week spent searching:			
Between 1 and 5	13.8	14.3	12.4
Between 6 and 10	20.4	19.6	22.3
Between 11 and 20	34.9	35.5	33.1
Between 21 and 30	20.7	20.7	20.8
Between 31 and 40	8.4	8.4	8.6
More than 40	1.8	1.5	2.7
Average (hours)	18.4	18.1	19.0
Unweighted sample size	974	724	250
Respondents who did not expect to be recalled			
Looked for work			
Yes	93.1	93.0	93.6
No	6.9	7.0	6.4
Among those who looked for work, hours per week spent searching:			
Between 1 and 5	13.5	13.5	13.4
Between 6 and 10	20.8	20.8	20.5
Between 11 and 20	35.6	35.9	34.6
Between 21 and 30	19.3	19.2	19.7
Between 31 and 40	9.6	9.4	10.1
More than 40	1.3	1.2	1.7
Average (hours)	18.3	18.1	19.0
Unweighted sample size	735	550	185
Respondents who expected to be recalled			
Looked for work			
Yes	83.4	79.9	93.2**
No	16.6	20.1	6.8**
Among those who looked for work, hours per week spent searching:			
Between 1 and 5	17.4	20.2	10.5*
Between 6 and 10	19.0	18.0	21.3
Between 11 and 20	32.0	32.6	30.4
Between 21 and 30	23.4	21.3	28.4
Between 31 and 40	NA	NA	NA
More than 40	NA	NA	NA
Average (hours)	18.1	17.4	19.8
Unweighted sample size	199	149	50

Source: Merged survey respondent data file.

Note: The numeric ranges listed in the table for hours per week spent searching correspond to the phrasing of the survey question. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size for each panel of the table indicates the number of individuals with valid

Table D.12 *(continued)*

information for at least one of the measures listed in that panel of the table. Estimates have been weighted for survey nonresponse. To protect respondent confidentiality, entries have been suppressed for cells showing "NA" because one or more of the cells would have been based on fewer than three individuals.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

NA = not available.

Table D.13. Work search methods used during the three months after separating from the pre-claim job, by expectations for recall (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
All respondents			
Contacted American Job Center, state employment center, and/or another government agency	61.5	59.6	66.9*
Contacted a private employment or placement agency	52.4	52.0	53.6
Contacted a school, training provider, college, or university	30.4	29.5	32.9
Registered online for job matching, job placement, or networking services	66.5	65.1	70.5
Contacted a former employer	39.2	37.8	43.1
Used the internet to post a resume, search for jobs, apply for jobs, or research information on potential employers	78.1	77.8	78.8
Asked friends or relatives about job openings	84.7	84.1	86.6
Looked at classified ads	79.2	76.8	86.1**
Answered classified ads	65.4	62.9	72.4**
Applied directly to potential employers	85.8	84.6	89.1*
Unweighted sample size	974	724	250
Respondents who did not expect to be recalled			
Contacted American Job Center, state employment center, and/or another government agency	62.7	62.4	63.6
Contacted a private employment or placement agency	53.7	53.7	53.8
Contacted a school, training provider, college, or university	30.8	30.3	32.3
Registered online for job matching, job placement, or networking services	68.6	67.8	70.7
Contacted a former employer	32.5	31.4	35.8
Used the internet to post a resume, search for jobs, apply for jobs, or research information on potential employers	81.8	82.7	79.1
Asked friends or relatives about job openings	86.7	86.5	87.2
Looked at classified ads	81.3	79.3	86.9**
Answered classified ads	67.7	66.0	72.7
Applied directly to potential employers	87.8	87.6	88.6
Unweighted sample size	735	550	185
Respondents who expected to be recalled			
Contacted American Job Center, state employment center, and/or another government agency	57.9	50.1	79.8**
Contacted a private employment or placement agency	47.3	44.7	54.5
Contacted a school, training provider, college, or university	28.3	27.0	32.1
Registered online for job matching, job placement, or networking services	58.1	52.2	74.5**
Contacted a former employer	57.8	55.0	65.6
Used the internet to post a resume, search for jobs, apply for jobs, or research information on potential employers	66.7	61.1	82.4**
Asked friends or relatives about job openings	76.5	73.9	84.0
Looked at classified ads	70.7	66.8	81.6**

Table D.13 *(continued)*

Variable	All recipients	Nonexhaustees	Exhaustees
Answered classified ads	55.9	51.8	67.6*
Applied directly to potential employers	78.0	73.6	90.2**
Unweighted sample size	199	149	50

Source: Merged survey respondent data file.

Note: Recipients were asked about these work search methods in the first three months after job separation only if they reported searching for work during that period. The estimates in this table assume that recipients did not use these work search methods in the first three months after job separation if they did not look for work during that period. The unweighted sample size for each panel of the table indicates the number of individuals with valid information for at least one of the measures listed in that panel of the table. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups of recipients differ significantly at the .10/.05 level, two-tailed test.

Table D.14. Work search methods used during the three months after separating from the pre-claim job, by groups of states (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
All respondents			
Contacted American Job Center, state employment center, and/or another government agency	61.5	59.6	66.9*
Contacted a private employment or placement agency	52.4	52.0	53.6
Contacted a school, training provider, college, or university	30.4	29.5	32.9
Registered online for job matching, job placement, or networking services	66.5	65.1	70.5
Contacted a former employer	39.2	37.8	43.1
Used the internet to post a resume, search for jobs, apply for jobs, or research information on potential employers	78.1	77.8	78.8
Asked friends or relatives about job openings	84.7	84.1	86.6
Looked at classified ads	79.2	76.8	86.1**
Answered classified ads	65.4	62.9	72.4**
Applied directly to potential employers	85.8	84.6	89.1*
Unweighted sample size	974	724	250
Respondents whose liable claim states are Arkansas, South Dakota, and Wisconsin			
Contacted American Job Center, state employment center, and/or another government agency	66.6	65.6	72.2
Contacted a private employment or placement agency	45.8	43.8	56.5
Contacted a school, training provider, college, or university	24.4	22.2	36.0
Registered online for job matching, job placement, or networking services	53.8	54.4	50.8
Contacted a former employer	31.5	29.5	42.0
Used the internet to post a resume, search for jobs, apply for jobs, or research information on potential employers	67.6	66.4	74.0
Asked friends or relatives about job openings	77.6	76.1	85.7
Looked at classified ads	73.6	70.8	88.3**
Answered classified ads	59.6	58.4	66.1
Applied directly to potential employers	78.7	76.0	92.9**
Unweighted sample size	217	179	38
Respondents whose liable claim states are not Arkansas, South Dakota, and Wisconsin			
Contacted American Job Center, state employment center, and/or another government agency	60.3	58.0	66.2**
Contacted a private employment or placement agency	54.0	54.3	53.2
Contacted a school, training provider, college, or university	31.8	31.5	32.5
Registered online for job matching, job placement, or networking services	69.5	68.1	73.1
Contacted a former employer	41.0	40.1	43.3
Used the internet to post a resume, search for jobs, apply for jobs, or research information on potential employers	80.5	80.9	79.5
Asked friends or relatives about job openings	86.4	86.3	86.7
Looked at classified ads	80.6	78.5	85.8**

Table D. 14 *(continued)*

Variable	All recipients	Nonexhaustees	Exhaustees
Answered classified ads	66.8	64.2	73.2**
Applied directly to potential employers	87.4	87.0	88.7
Unweighted sample size	757	545	212

Source: Merged survey respondent data file.

Note: Recipients were asked about these work search methods in the first three months after job separation only if they reported searching for work during that period. The estimates in this table assume that recipients did not use these work search methods in the first three months after job separation if they did not look for work during that period. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The panels show recipients from groupings of states with relatively low (middle panel) or high (bottom panel) unemployment rates. The unweighted sample size for each panel of the table indicates the number of individuals with valid information for at least one of the measures listed in that panel of the table. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups of recipients differ significantly at the .10/.05 level, two-tailed test.

Table D.15. Contacted American Job Center (AJC), state employment center, or other government agency while looking for work, by benefit exhaustion status (percentages, unless stated otherwise)

Variable	All recipients	Contacted AJC, state employment center, or other government agency	Did not contact AJC, state employment center, or other government agency
All respondents			
UC exhaustion	25.8	28.1	22.2*
Reemployed during three years following the UI initial claim quarter	76.3	77.1	75.2
Among the reemployed, number of quarters elapsed until reemployment	3.1	3.3	2.7**
Employed at the time of the survey	61.7	62.9	59.7
Unweighted sample size	974	608	366
Nonexhaustees			
UC exhaustion	0.0	0.0	0.0
Reemployed during three years following the UI initial claim quarter	83.2	83.5	82.9
Among the reemployed, number of quarters elapsed until reemployment	2.5	2.7	2.3*
Employed at the time of the survey	70.1	72.6	66.4
Unweighted sample size	724	436	288
Exhaustees			
UC exhaustion	100.0	100.0	100.0
Reemployed during three years following the UI initial claim quarter	56.6	60.7	48.4*
Among the reemployed, number of quarters elapsed until reemployment	5.4	5.6	5.0
Employed at the time of the survey	37.6	38.2	36.3
Unweighted sample size	250	172	78

Source: Merged survey respondent data file.

Note: Recipients were asked about whether they contacted an American Job Center, state employment center, or other government agency in the first three months after job separation. They were only asked this question if they reported searching for work during that period. The estimates in this table assume that recipients did not contact an American Job Center, state employment center, or other government agency in the first three months after job separation if they did not look for work during that period. The unweighted sample size for each panel of the table indicates the number of individuals with valid information for at least one of the measures listed in that panel of the table. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups of recipients differ significantly at the .10/.05 level, two-tailed test.

Table D.16. Post-claim participation in training or education programs (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Training or education programs participated in since the UI initial claim			
0	63.5	63.9	62.6
1	22.6	21.1	26.9*
2	6.8	7.4	5.2
3 or more	7.1	7.7	5.3
Average (number of programs)	0.7	0.7	0.6
Participating in a training or education program at the time of the survey	7.8	7.7	8.1
Unweighted sample size	975	725	250

Source: Merged survey respondent data file.

Note: Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups of recipients differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

Table D.17. Labor force participation at time of survey (percentages)

Variable	All recipients	Nonexhaustees	Exhaustees
Main work-related activity during the week before survey			††
Employed	61.7	70.2	37.6**
Unemployed	16.5	12.9	26.8**
Not in the labor force	21.8	16.9	35.6**
Unweighted sample size	974	724	250

Source: Merged survey respondent data file.

Note: The "employed" category includes recipients who reported that they were (1) working at a job for pay; (2) employed but on vacation, on leave, or not working for other reasons; or (3) self-employed or had started their own business. The "unemployed" category includes recipients who reported they were (1) unemployed but looking for work, (2) waiting for a new job to start, (3) expecting to be called back to a previous job, or (4) expecting a union to provide a job. The "not in the labor force" status includes recipients who reported they were (1) retired, (2) unable to work because of a disability, (3) attending school or a long-term training program, or (4) without a job and not looking for work, with a main reason for not looking for work that suggested they were out of the labor force (such as having family responsibilities or not looking due to facing discrimination). Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

Table D.18. Characteristics of the main job at time of survey (percentages, unless stated otherwise)

Variable	All recipients	Nonexhaustees	Exhaustees
Weekly earnings			††
$300 or less	9.2	8.0	16.4*
$301 to $500	26.1	24.0	38.1**
$501 to $700	19.4	19.8	17.1
$701 to $900	14.6	15.3	11.1
$901 to $1,100	9.6	10.3	5.2*
$1,101 or more	21.1	22.6	12.2**
Average (dollars)	830	851	712
Hours worked per week			††
20 or fewer	9.0	7.6	16.9**
21 to 30	8.9	7.5	16.4**
31 to 39	7.3	7.3	7.4
40	49.0	50.4	40.9
More than 40	25.8	27.1	18.3*
Average (hours)	39.6	40.2	35.7**
Available fringe benefits			
Health insurance or membership in an HMO or PPO	68.0	71.0	50.8**
Paid vacation	71.7	75.3	51.1**
Retirement, pension benefits, 401(k) or 403(b)	65.8	69.3	45.9**
Represented by a union	10.5	10.5	10.4
Employment status			
Regular part-time or full-time employee	86.2	86.8	82.7
Leased or contract employee	3.4	3.5	3.1
Independent contractor, consultant, or self-employed	6.5	6.1	8.8
Casual or day laborer, on-call employee, or temporary employee	3.8	3.5	5.4
Industry			†
Natural resources and mining	NA	NA	NA
Construction	6.5	6.6	6.1
Manufacturing	17.5	19.3	7.7**
Trade, transportation, and utilities	15.8	14.0	26.0**
Information	NA	NA	NA
Financial activities	8.0	8.0	8.0
Professional services and management	8.0	8.6	4.8
Business support services	8.3	7.6	11.9
Education and health services	16.1	16.8	12.3
Leisure and hospitality	6.4	5.8	9.7
Other services	3.1	2.8	5.1
Public administration	NA	NA	NA
Occupation			
Management, business, and finance	14.0	14.2	12.8
Computer, engineering, and science	6.7	7.0	5.2
Community and social services	6.4	6.4	6.7
Health care practitioners and technical	NA	NA	NA
Service	17.6	16.4	24.5
Sales	8.6	8.7	8.0
Office and administrative support	15.6	15.3	17.2
Farming, fishing, and forestry	0.0	0.0	0.0
Construction and extraction	NA	NA	NA
Installation, maintenance, and repair	6.4	7.0	2.8**
Production	8.3	8.3	8.1
Transportation and material moving	8.6	8.6	8.9
Military	NA	NA	NA

Table D.18 *(continued)*

Variable	All recipients	Nonexhaustees	Exhaustees
Unweighted sample size	585	492	93

Source: Merged survey respondent data file.

Note: The table is based only on information about respondents who held a job at the time of the interview. Individuals with more than one current job were asked about the one they considered their "main source of income and benefits." Values of weekly earnings and hours were assigned to the categories displayed in the table after rounding to the nearest integer. Weekly earnings measures are based on 2014 dollars and exclude respondents who reported earnings of more than $5,000. Information about industry and occupation was filled in from the administrative data, if possible, for respondents who did not provide this information or whose responses could not be categorized. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse. To protect respondent confidentiality, entries have been suppressed for cells showing "NA" because one or more of the cells would have been based on fewer than three individuals.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

HMO = health maintenance organization; NA = not available; PPO = preferred provider organization.

Table D.19. Comparison of the pre-claim job to the main current job, among individuals employed at time of survey (percentages, unless stated otherwise)

Variable	Pre-claim job			Main job at time of survey		
	All recipients	Nonexhaustees	Exhaustees	All recipients	Nonexhaustees	Exhaustees
Earnings						
Weekly earnings						††
$300 or less	6.8	5.6	13.4	9.7	8.3	16.9**
$301 to $500	22.7	24.2	14.9**	25.5	23.1	38.1**
$501 to $700	19.8	19.6	21.1	19.5	20.1	16.1
$701 to $900	16.6	16.4	18.1	14.6	15.2	11.5
$901 to $1,100	9.9	10.1	9.0	10.3	11.2	5.4
$1,101 or more	24.1	24.2	23.5	20.4	22.0	11.9**
Average (dollars)	880	891	819	820	843	700**
Ratio of current to pre-claim weekly earnings						††
0.50 or lower	n.a.	n.a.	n.a.	14.1	12.0	25.3**
0.51 to 0.75	n.a.	n.a.	n.a.	15.2	14.6	18.5
0.76 to 0.90	n.a.	n.a.	n.a.	12.8	13.0	12.0
0.91 to 1.10	n.a.	n.a.	n.a.	24.5	25.1	21.5
1.11 to 1.25	n.a.	n.a.	n.a.	10.2	10.7	7.6
1.26 or higher	n.a.	n.a.	n.a.	23.2	24.7	15.1**
Hours worked						
Hours worked per week			†			††
20 or fewer	3.9	4.0	3.7	9.0	7.6	16.9*
21 to 30	3.7	3.9	2.8	8.9	7.5	16.4**
31 to 39	6.1	5.2	11.1	7.2	7.2	7.4
40	55.1	57.2	43.4**	49.0	50.5	40.9*
More than 40	31.1	29.7	39.0**	25.8	27.1	18.3*
Average (hours)	42.1	41.9	43.5*	39.6	40.2	35.7**
Ratio of current to pre-claim weekly hours						††
0.50 or lower	n.a.	n.a.	n.a.	8.5	7.6	13.7
0.51 to 0.75	n.a.	n.a.	n.a.	10.3	8.5	20.5**
0.76 to 0.99	n.a.	n.a.	n.a.	16.5	15.6	22.1**
1.00	n.a.	n.a.	n.a.	41.9	43.8	31.4**
1.01 to 1.25	n.a.	n.a.	n.a.	14.5	15.5	8.4*
1.26 or higher	n.a.	n.a.	n.a.	8.3	9.0	4.0**
Fringe benefits and union representation						
Available fringe benefits:						
Health insurance or membership in an HMO or PPO	71.9	71.9	71.9	68.1	71.2	50.8**
Paid vacation	69.4	69.5	69.1	71.6	75.2	51.1**
Retirement, pension benefits, 401(k), or 403(b)	63.3	63.8	60.7	65.9	69.4	46.5**
Represented by a union	9.4	9.6	8.0**	10.4	10.3	10.4

Table D.19 *(continued)*

Variable	Pre-claim job			Main job at time of survey		
	All recipients	Nonexhaustees	Exhaustees	All recipients	Nonexhaustees	Exhaustees
Industry and occupation						
Industry			††			††
Natural resources and mining	NA	NA	NA	NA	NA	NA
Construction	9.8	10.5	6.1	6.6	6.6	6.4**
Manufacturing	20.3	21.5	13.9	17.7	19.4	8.1**
Trade, transportation, and utilities	16.8	16.0	21.5	15.6	13.6	27.2**
Information	3.0	2.6	5.3	3.0	3.0	3.0
Financial activities	12.4	11.0	20.6**	8.1	8.0	8.4
Professional services and management	9.0	9.4	6.5	8.0	8.5	5.1
Business support services	9.2	8.1	15.6**	8.1	7.7	10.6
Education and health services	9.4	10.7	2.4**	16.3	16.9	12.9
Leisure and hospitality	5.0	5.1	4.3	6.4	5.8	10.2
Other services	NA	NA	NA	3.2	2.8	5.4
Public administration	NA	NA	NA	NA	NA	NA
Change in industry category	n.a.	n.a.	n.a.	56.3	54.5	66.2**
Occupation			††			
Management, business, and finance	14.6	14.7	14.0	14.1	14.2	13.0
Computer, engineering, and science	6.9	7.3	4.9	6.5	7.0	3.8
Community and social services	NA	NA	NA	6.5	6.4	6.8
Health care practitioners and technical	NA	NA	NA	NA	NA	NA
Service	8.5	8.5	8.4	17.7	16.4	24.8
Sales	9.8	9.7	10.4	8.6	8.7	8.2
Office and administrative support	21.8	19.3	35.7**	15.6	15.3	17.4
Farming, fishing, and forestry	NA	NA	NA	NA	NA	NA
Construction and extraction	6.0	6.3	4.1	5.3	5.7	3.0**
Installation, maintenance, and repair	NA	NA	NA	6.4	7.0	2.8
Production	12.3	12.9	9.1	8.3	8.3	8.3*
Transportation and material moving	8.2	8.1	8.9	8.6	8.6	9.0
Military	NA	NA	NA	NA	NA	NA
Change in occupation category	n.a.	n.a.	n.a.	53.3	50.4	69.4**
Unweighted sample size	585	492	93	585	492	93

Source: Merged survey respondent data file.

Note: The table is based only on information about respondents who held a job at the time of the interview. Individuals with more than one current job were asked about the one they considered their "main source of income and benefits." Values of weekly earnings and hours were assigned to categories displayed in the table after rounding to the nearest integer. Weekly earnings measures exclude respondents who reported

Table D.19 *(continued)*

earnings of more than $5,000 and have been converted into 2014 dollars. Information about industry and occupation was filled in from the administrative data, if possible, for respondents who did not provide this information or whose responses could not be categorized. The measures indicating change in industry or occupation categories refer to differences between the pre- and post-claim jobs according to the industry/occupation groupings listed in the table. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) for both their pre-claim job and their main current job at the time of the survey and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse. To protect respondent confidentiality, entries have been suppressed for cells showing "NA" because one or more of the cells would have been based on fewer than three individuals.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

HMO = health maintenance organization; n.a. = not applicable; NA = not available; PPO = preferred provider organization.

Table D.20. Change in household income from the year before the UI initial claim to 2013 (percentages, unless stated otherwise)

Variable	In the calendar year before the UI initial claim			In 2013		
	All recipients	Nonexhaustees	Exhaustees	All recipients	Nonexhaustees	Exhaustees
Total household income			††			††
$10,000 or less	11.9	9.7	18.3**	15.5	11.9	25.8**
$10,001 to $20,000	10.9	10.6	11.5	12.6	11.0	17.1**
$20,001 to $30,000	15.0	16.0	12.3	14.7	13.5	18.3
$30,001 to $50,000	22.1	22.6	20.8	18.4	19.1	16.4
$50,001 to $75,000	16.1	16.1	16.2	16.5	18.3	11.2**
$75,001 to $100,000	10.4	10.8	9.3	9.4	10.7	5.5**
$100,001 or more	13.5	14.2	11.6	13.0	15.5	5.7**
Average (dollars)	52,748	54,777	46,926*	50,743	56,614	33,711**
Change in household income from year before the claim to 2013						††
Decrease: 75% or more	n.a.	n.a.	n.a.	5.2	3.5	10.6**
Decrease: 50% to 74%	n.a.	n.a.	n.a.	9.8	6.8	19.2**
Decrease: 25% to 49%	n.a.	n.a.	n.a.	16.1	14.7	20.5
Decrease: 0% to 24%	n.a.	n.a.	n.a.	27.2	28.3	23.9
Increase: 1% to 24%	n.a.	n.a.	n.a.	16.8	18.3	12.0**
Increase: 25% to 49%	n.a.	n.a.	n.a.	9.9	11.6	4.8**
Increase: 50% to 74%	n.a.	n.a.	n.a.	5.7	6.4	3.4
Increase: 75% to 99%	n.a.	n.a.	n.a.	3.0	3.5	1.3**
Increase: 100% or more	n.a.	n.a.	n.a.	6.2	6.9	4.3
Average (percentage)[a]	n.a.	n.a.	n.a.	7.0	13.8	-14.1**
Unweighted sample size	976	726	250	943	702	241

Source: Merged survey respondent data file.

Note: Values of each measure were assigned to the categories displayed in the table after rounding to the nearest integer. Household income from the calendar year before the claim and from 2013 are both expressed in 2014 dollars; these values repeat the information presented in Table D.5 for reference. Income change measures exclude information from individuals reporting zero income in either year or a change of more than 1,000 percent between years. Summary statistics for each measure in the table are based on individuals who provided valid responses to the underlying survey question(s) and exclude those with missing or out-of-range values. The unweighted sample size indicates the number of individuals with valid information for at least one of the measures listed in the table. Estimates have been weighted for survey nonresponse.

[a]These averages are the average percentage changes in household income from the year before the claim to 2013.

*/**Means for the exhaustee and nonexhaustee groups differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions of the exhaustee and nonexhaustee groups across categories differ significantly at the .10/.05 level, chi-squared test.

n.a. = not applicable.

Table D.21. Summary statistics for regression analyses using the survey sample

Variable	Mean	Standard deviation
Outcome measures		
Benefit exhaustion[a]	0.246	0.431
Participated in labor force during week before survey	0.787	0.410
Held a job at time of survey	0.616	0.487
Weekly earnings from main job at time of survey (including zeros for non-employed; dollars)[b]	511	638
Percentage change in weekly earnings from main job at time of survey to weekly earnings from separating job (among employed at time of survey)[c]	0.077	0.766
Percentage change in weekly hours from main job at time of survey to weekly hours from separating job (among employed at time of survey)[c]	-0.028	0.370
Availability of retirement benefits (among employed at time of survey)	0.667	0.472
Availability of health insurance (among employed at time of survey)	0.690	0.463
Utilities disconnected since the UI initial claim date	0.118	0.323
Missed a rent or mortgage payment since the UI initial claim date	0.275	0.447
Was evicted or had house foreclosed since the UI initial claim date	0.059	0.236
Proportional change in household income from pre-claim year to 2013[d]	0.076	0.866
Receiving SSDI payments or SSI payments for a disability[e]	0.102	0.303
Receiving food stamp or SNAP benefits[e]	0.143	0.351
Change in poverty status from pre-claim year to 2013[f]	0.038	0.391
Measures of benefit exhaustion and generosity		
Benefit exhaustion[a]	0.246	0.431
Weekly benefit amount (dollars)[g]	316	131
Demographic characteristics		
Female	0.483	0.500
Race/ethnicity		
Non-Hispanic white (ref. category)	0.649	0.478
Non-Hispanic black or African American	0.139	0.346
Hispanic, Latino, or Spanish origin	0.150	0.358
Other	0.061	0.240
Age[h]	41.2	12.7
Highest level of school or degree		
Less than high school or GED	0.089	0.284
High school/GED (ref. category)	0.303	0.460
Some college but no degree	0.233	0.423
Associate's degree	0.121	0.326
Bachelor's or more advanced degree	0.236	0.425
Other	0.019	0.136
Marital status		
Married or living with a partner	0.520	0.500
Female and married or living with a partner	0.223	0.416
Dependents		
Has children under the age of 18	0.405	0.491
Female and has children under the age of 18	0.198	0.399
Pre-claim job characteristics		
Worked 35 or more hours per week	0.879	0.327
Job tenure (months)	65.7	82.0
Health insurance or membership in an HMO or PPO was available through employer	0.688	0.463
Had layoffs on a regular basis	0.054	0.226
Represented by a union	0.103	0.304

Table D.21 *(continued)*

Variable	Mean	Standard deviation
Displaced worker	0.635	0.482
Expected to be recalled at time of job separation	0.222	0.416
Industry		
Natural resources and mining	0.015	0.123
Construction	0.096	0.294
Manufacturing (ref. category)	0.187	0.390
Trade, transportation, and utilities	0.161	0.368
Information	0.026	0.159
Financial activities	0.099	0.298
Professional services and management	0.093	0.290
Business support services	0.094	0.292
Education and health services	0.114	0.318
Leisure and hospitality	0.062	0.241
Other services	0.028	0.165
Public administration	0.026	0.160
Occupation		
Management, business and finance	0.130	0.337
Computer, engineering, and science	0.066	0.248
Community and social services	0.046	0.209
Health care practitioners and technical	0.016	0.126
Service	0.114	0.318
Sales	0.110	0.312
Office and administrative support (ref. category)	0.183	0.387
Farming, fishing, and forestry	0.006	0.079
Construction and extraction	0.063	0.243
Installation, maintenance and repair	0.058	0.233
Production	0.112	0.315
Transportation and material moving	0.094	0.292
Military	0.003	0.058
Other pre-claim characteristics		
Received Social Security Retirement or Railroad Retirement payments	0.047	0.213
Received payments from 401(k), 403(b), or IRA account	0.061	0.240
Received SSDI or SSI payments for a disability[e]	0.022	0.147
Received food stamps or SNAP benefits[e]	0.074	0.263
Average state unemployment rate during the four weeks before the UI initial claim date	7.658	2.262
Characteristics of UI claim		
Included benefits from UCX or UCFE program	0.014	0.116
Potential duration of regular benefits claim[i]	24.153	3.920
Benefit year began prior to May 1, 2008	0.158	0.365
Liable claim state		
Arkansas	0.078	0.268
South Dakota	0.058	0.233
Wisconsin	0.067	0.251
Other states	0.797	0.403
Unweighted sample size	851	n.a.

Source: Merged survey respondent data file.

Note: Means and standard deviations are calculated for the subsample of recipients with no missing data for any of the explanatory variables listed in the table (that is, variables other than those listed among the outcome measures). Estimates have been weighted for survey nonresponse.

[a]Benefit exhaustion is used as an outcome measure for regression presented in Table IV.1 and as a covariate in regressions presented in Chapter V.

[b]The weekly earnings measure is expressed in 2014 dollars and excludes those reporting more than $5,000.

[c]Measures for percentage changes in earnings and hours exclude values greater than 900 percent.

Table D.21 *(continued)*

[d]Calculated as the difference between household income in 2013 and household income in the year before the claim date, divided by the household income in the year before the UI initial claim date. Household income, both in 2013 and the year before the claim date, were converted to 2014 dollars. Excludes individuals reporting zero income in either year or a change of more than 1,000 percent between years.

[e]Measures of SSDI payments, SSI payments for a disability, and food-stamp/SNAP benefit receipt are household-level measures. Each is coded to equal one if any member of the recipient's household collected support from the given source.

[f]Defined as "1" if household income was not below the poverty threshold in the year before the claim date but was below the poverty threshold in 2013, "0" if household income was above the poverty threshold or below the poverty threshold in both the year before the claim and in 2013, and "-1" if household income was below the poverty threshold in the year before the claim date but was above the poverty threshold in 2013.

[g]The natural log of this measure is used as an explanatory variable.

[h]The regression also includes a control for the square of this measure (not reported).

[i]The regression also includes interactions between potential duration of the regular benefits claim and the following: (1) whether the benefit year began before May 1, 2008; (2) whether the liable claim state was Arkansas; (3) whether the liable claim state was South Dakota; and (4) whether the liable claim state was Wisconsin.

GED = General Educational Development certificate; HMO = health maintenance organization; IRA = individual retirement account; n.a. = not applicable; PPO = preferred provider organization; SNAP = Supplemental Nutrition Assistance Program; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income; UCX = Unemployment Compensation for Ex-servicemembers; UCFE = Unemployment Compensation for Federal Employees.

Table D.22. Association between benefit exhaustion and labor market outcomes at time of survey

Variable	Participated in labor force during week before survey (percent)	Held a job at time of survey (percent)	Weekly earnings from main job at time of survey[a] (dollars)
Mean for exhaustees	64.4	35.9	251
Mean for nonexhaustees	83.4	70.0	598
Difference	-19.0**	-34.1**	-347**
Difference after regression adjustment	-14.0**	-28.1**	-277**
Additional regression information			
Unweighted sample size	850	850	832
R-squared	0.32	0.31	0.40

Source: Merged survey respondent data file.

Note: Each column presents results from a separate linear regression with a different dependent variable. All regressions control for the weekly benefit amount, whether the individual received Unemployment Compensation for Ex-servicemembers and/or Unemployment Compensation for Federal Employees, and the demographic and pre-claim characteristics listed in Appendix Table D.21. All regressions also control for the month of the UI initial claim and the liable claim state, and interactions between the potential duration of the UI initial claim with indicators for whether the benefit year began before May 1, 2008, whether the liable claim state was Arkansas, whether the liable claim state was South Dakota, and whether the liable claim state was Wisconsin. Estimates have been weighted for survey nonresponse.

[a]The weekly earnings measure includes zeros for those not employed at the time of the interview. Individuals reporting more than $5,000 were omitted from this analysis.

*/**Significantly different from zero at the .10/.05 level, two-tailed test.

Table D.23. Association between benefit exhaustion and measures of job quality among employed at time of survey

Variable	Percentage change in weekly earnings[a]	Percentage change in weekly hours[a]	Availability of retirement benefits (percent)	Availability of health insurance benefits (percent)
Mean for exhaustees	-9.4	-15.9	48.3	54.6
Mean for nonexhaustees	10.5	-0.7	69.7	71.3
Difference	-19.9**	-15.2**	-21.4**	-16.6**
Difference after regression adjustment	-19.9*	-14.4**	-18.5**	-16.9**
Additional regression information				
Unweighted sample size	456	512	510	514
R-squared	0.36	0.41	0.30	0.34

Source: Merged survey respondent data file.

Note: Each column presents results from a separate linear regression with a different dependent variable. All regressions control for the weekly benefit amount, whether the individual received Unemployment Compensation for Ex-servicemembers and/or Unemployment Compensation for Federal Employees, and the demographic and pre-claim characteristics listed in Appendix Table D.21. All regressions also control for the month of the UI initial claim and the liable claim state, and interactions between the potential duration of the UI initial claim with indicators for whether the benefit year began before May 1, 2008, whether the liable claim state was Arkansas, whether the liable claim state was South Dakota, and whether the liable claim state was Wisconsin. Estimates have been weighted for survey nonresponse.

[a]Measures for percentage changes in earnings and hours exclude values greater than 900 percent.

*/**Significantly different from zero at the .10/.05 level, two-tailed test.

Table D.24. Association between benefit exhaustion and post-claim financial well-being

Variable	Utilities disconnected[a] (percent)	Missed a rent or mortgage payment[a] (percent)	Was evicted or had house foreclosed[a] (percent)	Proportional change in household income from pre-claim year to 2013[b]
Mean for exhaustees	13.0	29.7	9.6	-12.2
Mean for nonexhaustees	11.4	26.8	4.7	13.5
Difference	1.6	2.9	4.9**	-25.7**
Difference after regression adjustment	3.5	5.2	6.5**	-27.8**
Additional regression information				
Unweighted sample size	849	851	851	773
R-squared	0.21	0.20	0.13	0.17

Source: Merged survey respondent data file.

Note: Each column presents results from a separate linear regression with a different dependent variable. All regressions control for the weekly benefit amount, whether the individual received Unemployment Compensation for Ex-servicemembers and/or Unemployment Compensation for Federal Employees, and the demographic and pre-claim characteristics listed in Appendix Table D.21. All regressions also control for the month of the UI initial claim and the liable claim state, and interactions between the potential duration of the UI initial claim with indicators for whether the benefit year began before May 1, 2008, whether the liable claim state was Arkansas, whether the liable claim state was South Dakota, and whether the liable claim state was Wisconsin. Estimates have been weighted for survey nonresponse.

[a]Indicates whether recipient experienced the given financial difficulty between the UI initial claim date and the time of the survey.

[b]Calculated as the difference between household income in 2013 and household income in the year before the claim date, divided by the household income in the year before the UI initial claim date. Excludes individuals reporting zero income in either year or a change of more than 1,000 percent between years.

*/**Significantly different from zero at the .10/.05 level, two-tailed test.

Table D.25. Association between benefit exhaustion and participation in income support programs at time of survey

Variable	Receiving SSDI payments or SSI payments for a disability[a] (percent)	Receiving food stamp or SNAP benefits[a] (percent)	Change in poverty status from pre-claim year to 2013[b] (percent)
Mean for exhaustees	17.5	19.6	9.4
Mean for nonexhaustees	7.9	12.6	2.0
Difference	9.6**	7.0**	7.5*
Difference after regression adjustment	7.7**	5.3*	13.1**
Additional regression information			
Unweighted sample size	850	851	810
R-squared	0.22	0.37	0.16

Source: Merged survey respondent data file.

Note: Each column presents results from a separate linear regression with a different dependent variable. All regressions control for the weekly benefit amount, whether the individual received UCX and/or UCFE, and the demographic and pre-claim characteristics listed in Appendix Table D.21. All regressions also control for the month of the UI initial claim and the liable claim state, and interactions between the potential duration of the UI initial claim with indicators for whether the benefit year began before May 1, 2008, whether the liable claim state was Arkansas, whether the liable claim state was South Dakota, and whether the liable claim state was Wisconsin. Estimates have been weighted for survey nonresponse.

[a]Measures of SSDI payments, SSI payments for a disability, and food-stamp/SNAP benefit receipt are household-level measures. Each is coded to equal one if any member of the recipient's household collected support from the given source.

[b]Defined as "1" if household income was not below the poverty threshold in the year before the claim date but was below the poverty threshold in 2013, "0" if household income was above the poverty threshold or below the poverty threshold in both the year before the claim and in 2013, and "-1" if household income was below the poverty threshold in the year before the claim date but was above the poverty threshold in 2013.

*/**Significantly different from zero at the .10/.05 level, two-tailed test.

SNAP = Supplemental Nutrition Assistance Program; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

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APPENDIX E

FULL RESULTS FROM THE ANALYSIS OF DISPLACED WORKERS LAID OFF IN 2007, 2009, AND 2011

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In Chapter VI, we used the 2012 DWS to the CPS to examine the experiences of displaced unemployment benefit recipients and nonrecipients who were laid off in 2009.[33] We chose that year because it most closely corresponds with year of job separation for the sample of UC recipients laid off during the Great Recession who we studied in Chapters IV and V. In this appendix we provide additional tabulations to place the report's main findings about displaced workers into context relative to the experiences of displaced workers laid off both earlier and later in the recession. To do so, we include data from the 2010 and 2014 administrations of the DWS, focusing on workers who lost their jobs before the recession began (2007) and after it ended (2011). (The recession officially lasted from late 2007 to mid-2009.) In Section A, we summarize the major points of similarity and differences across the years in the characteristics and outcomes of nonrecipients and the two groups of recipients (exhaustees and nonexhaustees). In Section B, we discuss our findings in greater detail. Finally, Section C presents the tables that contain the full results of our tabulations using multiple years of DWS data.

A. Summary

Although rates of unemployment benefit receipt were higher in 2009 than in 2007 and 2011, differences in the characteristics of recipients and nonrecipients were quite similar across the years. In all three years, relative to recipients, nonrecipients were younger, more likely to be Hispanic, and more likely to have less than a high school education. Similarly, nonrecipients were less likely to have been laid off from manufacturing jobs and were more likely to have lost jobs in service occupations. On average, nonrecipients' patterns of reemployment were similar to those of recipients who did not exhaust their benefits, but their outcomes were generally more favorable than for exhaustees. All groups had greater reemployment success in 2011 than in earlier years.

As we found in Chapter VI, however, nonrecipients tended to be a quite disparate group of displaced workers. For example, in all of the years that we examined, many nonrecipients had jobless spells of a week or less. To gain greater comparability of recipients and nonrecipients, we limited our comparison of these groups to displaced workers who had at least 27 weeks of joblessness. Incorporating this sample restriction changed the demographic composition of the nonrecipient group somewhat—especially in 2011, a year for which women and African Americans constituted a much larger share than was the case in other years. In all years, nonrecipients with long jobless spells had lower rates of employment and higher rates of labor market withdrawal than did similar recipients. Among workers laid off in 2007 with long spells of joblessness, recipients were much more likely to suffer large wage losses upon reemployment than were nonrecipients laid off in that year and recipients laid off in other years.

[33] As explained in Chapter VI, the DWS does not make a clear distinction between (1) regular UI benefits and (2) EUC08 and/or EB benefits. In this appendix, we generally refer to "recipients" without specifying whether they received regular UI benefits only or the broader set of UC benefits (which include UI, EUC08, and/or EB benefits).

B. Detailed findings

Differences in the pre-layoff characteristics of displaced workers who were recipients and nonrecipients generally tended to persist across years, although some differences grew over the recession and early recovery period.

- **The UC recipiency rate and long-term joblessness were higher among displaced workers who were laid off in 2009 than among those laid off in 2007 or 2011 (Appendix Table E.1).** For example, the recipiency rates for displaced workers laid off in 2007, 2009, and 2011 were about 40 percent, 62 percent, and 51 percent, respectively. The exhaustion rates among the three cohorts of displaced workers had less variation; they ranged from 47 to 55 percent, with the 2009 cohort at 53 percent.
- **Nonrecipients were younger and more likely than recipients to be Hispanic in all years, and they were more likely to be men in the later years only (Appendix Table E.2).** In all three years, the proportion of nonrecipient displaced workers younger than 25 was about two to three times as high as for recipients. Nonrecipients were also about 1.5 to 2 times as likely as recipients to be Hispanic. In all three years, male displaced workers constituted the majority of both recipients and nonrecipients. The difference in the gender composition of these two groups was negligible among those laid off in 2007, but grew to 9 percentage points among those laid off in 2011 (63 percent among nonrecipients versus 54 among recipients).
- **Nonrecipients were much less likely than recipients to have completed high school, but other educational differences were less consistent over time (Appendix Table E.3).** In each year, nonrecipients were around twice as likely as nonrecipients to have less than a high school education. Twenty to 30 percent of both nonrecipients and recipients (including exhaustees) had a college degree. Among those laid off in the earlier years, there was no statistically significant difference between nonrecipients and recipients in college completion, but recipients laid off in 2011 were more likely to have a college degree than nonrecipients laid off in that year.
- **Nonrecipients were less likely to have been laid off from manufacturing jobs and were more likely to have been laid off from service occupations (Appendix Tables E.4 and E.5).** Nonrecipients were one-half to two-thirds as likely to have had a job in manufacturing before their layoff. They were more likely to have been laid off from jobs in service industries such as business support and leisure and hospitality. Nonrecipients were also twice as likely as recipients to have been displaced from service occupations. These patterns were fairly similar over time, although there was some year-to-year variability in the extent of the differences.

Nonrecipients' post-layoff labor market outcomes tended to be better than those of recipients as a whole, but much of this difference was due to the relatively lower success of exhaustees in finding reemployment. Labor market outcomes of all three groups (nonrecipients, nonexhaustees, and exhaustees) were generally better among those laid off in 2011, as compared to those in earlier years who were, for the most part, laid off just before and during the recession.

- **Nonrecipients were more likely than recipients to be reemployed following layoff, and exhaustees fared significantly worse than nonexhaustees (Appendix Table E.6).** In particular, 80 to 83 percent of nonrecipients had become reemployed by the survey date, as

compared to 71 to 76 percent of recipients. However, reemployment rates among nonexhaustee recipients ranged from 78 to 92 percent over this period, whereas 58 to 65 percent of exhaustees found employment. For each group, these rates were higher for workers laid off in 2011 than for those laid off in earlier years.

- **Many nonrecipients had very short jobless spells relative to recipients and particularly in comparison to exhaustees (Appendix Table E.6).** In all three layoff years, about one-third of nonrecipients were without a job for one week or less and more than 70 percent had jobless spells shorter than 15 weeks. In contrast, the jobless durations of recipients laid off in each year was much more varied. And, as might be expected, many exhaustees had very long jobless spells, which was especially true for those exhaustees who lost their jobs in 2009.
- **Nonrecipients were also more likely to be reemployed at the date of the survey than were recipients; again this difference arose primarily because of differences in the employment rates of nonrecipients and exhaustees (Appendix Table E.7).** At the interview date, 71 to 77 percent of nonrecipients held jobs, as compared to 59 to 69 percent of recipients. However, nonrecipients tended to fare slightly worse than nonexhaustees, whose employment rates were 67 to 88 percent at the date of the survey, as compared to exhaustees, whose employment rates were 46 to 53 percent at that date. The share of each group employed at the date of the survey was generally larger for those laid off in later years. However, exhaustees laid off in the year with the highest unemployment rate (2009) had the lowest employment rates at the interview date of all groups and years.
- **Nonrecipients were less likely than recipients to experience earnings losses on their new jobs, and most of this difference arose because relatively high percentages of exhaustees had such losses (Appendix Table E.7).** Among those who were employed at the survey date, nonrecipients were two-thirds as likely as recipients to have experienced earnings losses of at least 25 percent from the pre-layoff job. The prevalence of such substantial losses among nonrecipients (22 to 31 percent) was more similar in magnitude to that for nonexhaustees (26 to 38 percent) than to that for exhaustees (44 to 58 percent). The overall prevalence of earnings losses was somewhat smaller for those laid off in later years.
- **Although 50 to 60 percent of workers reported having changed industries or occupations from their pre-layoff jobs to their new jobs, few differences in these rates across displaced worker groups were statistically significant (Appendix Table E.7).** The main exception is that exhaustees laid off in 2009 were around 1.25 times as likely as nonexhaustees laid off in that year to have changed industries or occupations.
- **Nonrecipients were more likely than recipients to have low family incomes at the survey date. About 21 percent of nonrecipients, compared to 12 percent of recipients, had family incomes less than 100 percent of the poverty threshold (Appendix Table E.8).** Much of this difference is attributable to the higher family incomes of nonexhaustees relative to both nonrecipients and exhaustees. In addition, nonexhaustees were less than half as likely as nonrecipients and exhaustees to have received SNAP benefits. In contrast, SSDI, SSI, and other types of disability payments were more common among both exhaustees and nonexhaustees than among nonrecipients. Across all groups, some of the other sources of income support, such as welfare benefits, were relatively uncommon.

Focusing on displaced workers with jobless spells of 27 weeks or more, we found similar patterns of differences between nonrecipients and recipients in their pre-layoff characteristics. However, nonrecipients with long jobless spells had significantly worse labor market outcomes than recipients who experienced long-term joblessness.

- **Most of the nonrecipients–recipient differences in demographics and education outlined above continued to hold among those who experienced long-term joblessness.** For example, long-term jobless nonrecipients tended to be younger, were more likely to be Hispanic, had lower pre-UI earnings, and were less likely to have completed high school than recipients who were jobless for at least 27 weeks after the layoff (Appendix Tables E.9 and E.10). In addition, these long-term unemployed nonrecipients were less likely than long-term unemployed recipients to have been laid off from a job in manufacturing and were more likely to have been formerly employed in a service occupation, although differences in pre-layoff industry were less consistent over time (Appendix Tables E.11 and E.12).
- **Long-term jobless nonrecipients were substantially less likely than comparable recipients to have subsequently found employment or to have been in the labor force at the time of the survey.** Overall reemployment rates were 12 to 15 percentage points higher for recipients (49 to 55 percent) than for nonrecipients (37 to 41 percent) in all three of the years examined (Appendix Table E.13). There were proportionately similar differences between recipients and nonrecipients with long jobless spells in employment rates at the date of the survey. In addition, nonrecipients were 1.5 to 1.8 times as likely to be out of the labor force as were recipients at that point; the nonparticipation rate was 36 to 47 percent among nonrecipients versus 21 to 31 percent among recipients (Appendix Table E.14).
- **No consistent differences existed between recipients and nonrecipients with long jobless spells who subsequently became reemployed in the duration of non-employment, the extent of earnings losses, or in the extent of changes in industry or occupation.** Among these displaced workers who remained jobless for at least 27 weeks, the majority of both groups found reemployment within the following six months (Appendix Table E.13). Although 55 to 67 percent of these displaced workers changed industries and/or occupations, similar shares of nonrecipients and recipients changed industries and/or occupations (Appendix Table E.14). Similarly, reemployment earnings tended to be lower than pre-layoff earnings, but almost no differences between nonrecipients and recipients in the distribution of earnings changes were statistically significant. The only significant differences occurred for long-term jobless workers displaced in 2007, among whom recipients had less favorable subsequent wage rates than did nonrecipients.
- **Among the long-term unemployed, nonrecipients were more likely than recipients to have low family incomes at the survey date** (Appendix Table E.15). This finding is consistent with the finding from Appendix Table E.8, which examined poverty rates among all displaced workers and showed that nonexhaustees had relatively high family incomes. Although some differences existed between long-term unemployed recipients and nonrecipients in their rates of receipt of different types of income support benefits, such as SNAP and disability payments, none of these differences was statistically significant.

C. Data tables for analysis of DWS

Table E.1. UC collection and exhaustion of displaced workers laid off in 2007, 2009, and 2011 (percentages)

Variable	Displaced workers who were laid off in 2007	Displaced workers who were laid off in 2009	Displaced workers who were laid off in 2011
UC recipiency rate	40.1	61.6	50.5
UC exhaustion rate, among those who received UC benefits	47.1	53.2	55.0
Rate of long-term joblessness[a]			
Overall	43.9	54.2	43.5
Among UC recipients	59.4	65.9	57.7
Among UC nonrecipients	33.8	35.2	29.3
Sample size	1,017	1,676	878

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

[a] Respondents were coded as having experienced long-term joblessness if (1) they became reemployed 27 or more weeks after the layoff date, or (2) they had not regained employment by the time of the survey.

Table E.2. Demographics of displaced workers, by layoff year and self-reported receipt/exhaustion of UC benefits (percentages)

Variable	All displaced workers	Nonrecipients of UC benefits[a]	UC recipients		
			All	Nonexhaustees	Exhaustees[b]
Gender					
2007 layoffs					††
Female	43.1	42.9	43.3	37.7	49.6**
Male	56.9	57.1	56.7	62.3	50.4**
2009 layoffs		†			
Female	39.7	36.9*	41.5	39.8	42.9
Male	60.3	63.1*	58.5	60.2	57.1
2011 layoffs		††			
Female	41.5	36.8**	46.2	48.1	44.6
Male	58.5	63.2**	53.8	51.9	55.4
Age					
2007 layoffs		††			
Younger than 25	14.1	18.7**	7.2	8.6	5.6
25 to 34	25.3	26.3	23.7	24.0	23.5
35 to 44	23.3	21.8	25.5	24.5	26.5
45 to 54	24.8	20.7**	31.0	30.7	31.4
55 to 64	10.6	10.2	11.1	11.2	11.0
65 or older	2.0	2.3	1.5	1.0	2.0
2009 layoffs		††			††
Younger than 25	11.6	16.5**	8.5	11.4	5.9**
25 to 34	22.8	25.8*	21.0	23.8	18.5*
35 to 44	23.0	23.3	22.8	23.9	21.8
45 to 54	24.9	22.2*	26.5	26.0	27.0
55 to 64	15.0	10.2**	18.1	13.2	22.3**
65 or older	2.7	2.0	3.1	1.5	4.5**
2011 layoffs		††			††
Younger than 25	12.4	18.9**	6.0	10.0	2.8**
25 to 34	26.2	29.4*	23.0	22.3	23.6
35 to 44	21.4	21.3	21.4	24.8	18.7
45 to 54	22.7	16.0**	29.2	28.5	29.7
55 to 64	13.9	10.4**	17.2	12.5	21.1**
65 or older	3.5	3.9	3.1	1.8	4.2
Ethnicity and race					
2007 layoffs		††			
Hispanic, Latino, or Spanish origin	15.9	20.0**	9.7	9.8	9.6
Non-Hispanic black or African American	12.9	12.8	13.1	11.1	15.4
Non-Hispanic white	65.7	62.3**	70.8	73.8	67.5
Other	5.5	4.8	6.4	5.4	7.5
2009 layoffs		††			†
Hispanic, Latino, or Spanish origin	16.0	21.5**	12.6	13.8	11.6
Non-Hispanic black or African American	10.9	12.7	9.8	6.8	12.5**
Non-Hispanic white	66.5	59.0**	71.2	73.6	69.0
Other	6.5	6.8	6.4	5.8	6.9
2011 layoffs		††			
Hispanic, Latino, or Spanish origin	15.6	19.5**	11.7	12.1	11.5

Table E.2 *(continued)*

Variable	All displaced workers	Nonrecipients of UC benefits[a]	UC recipients		
			All	Nonexhaustees	Exhaustees[b]
Non-Hispanic black or African American	13.3	8.6**	18.0	13.2	21.9**
Non-Hispanic white	62.5	62.3	62.7	68.8	57.8**
Other	8.5	9.6	7.6	5.9	8.9
Unweighted sample size					
2007 layoffs	1,017	591	426	230	196
2009 layoffs	1,676	655	1,021	479	542
2011 layoffs	878	430	448	207	241

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

[a]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between UC recipients and nonrecipients.

[b]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between exhaustees and nonexhaustees.

*/**Means differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly at the .10/.05 level, chi-squared test.

Table E.3. Educational attainment and pre-layoff earnings of displaced workers, by layoff year and self-reported receipt/exhaustion of UC benefits (percentages, unless stated otherwise)

Variable	All displaced workers	Nonrecipients of UC benefits[a]	UC recipients		
			All	Nonexhaustees	Exhaustees[b]
Highest level of school or degree					
2007 layoffs		††			
Less than high school or GED	14.4	18.2**	8.8	5.6	12.3**
High school/GED	29.5	25.6**	35.4	38.7	31.5
Some college but no degree	19.7	18.5	21.5	23.3	19.5
Associate's degree	11.5	11.4	11.6	11.1	12.2
Bachelor's or more advanced degree	24.9	26.3	22.8	21.3	24.5
2009 layoffs		††			††
Less than high school or GED	9.8	13.8**	7.3	6.2	8.3
High school/GED	29.6	29.0	30.0	28.4	31.4
Some college but no degree	20.3	15.2**	23.5	25.3	21.9
Associate's degree	13.2	13.1	13.2	9.8	16.3**
Bachelor's or more advanced degree	27.1	28.9	26.0	30.4	22.1**
2011 layoffs		††			
Less than high school or GED	10.4	13.8**	7.0	7.5	6.7
High school/GED	25.8	25.0	26.6	22.0	30.3*
Some college but no degree	20.5	20.9	20.2	19.2	21.0
Associate's degree	12.8	12.9	12.6	13.9	11.6
Bachelor's or more advanced degree	30.5	27.4*	33.5	37.4	30.4
Weekly earnings from the primary pre-layoff job[c]					
2007 layoffs		††			
$300 or less	17.5	24.9**	6.2	6.0	6.3
$301 to $500	24.2	27.3**	19.6	17.3	22.4
$501 to $700	18.6	14.9**	24.2	27.9	19.7
$701 to $900	9.2	5.7**	14.5	11.8	17.7
$901 to $1,100	7.1	5.2**	10.1	11.7	8.1
$1,101 or more	23.5	22.1	25.5	25.2	25.8
Average (dollars)	805.2	752.0**	886.5	880.6	893.7
2009 layoffs		††			
$300 or less	11.8	23.9**	4.2	3.7	4.6
$301 to $500	23.1	27.2**	20.5	18.6	22.0
$501 to $700	18.0	15.8	19.3	16.6	21.6
$701 to $900	14.0	9.9**	16.7	18.1	15.6
$901 to $1,100	10.3	6.9**	12.4	14.9	10.5*
$1,101 or more	22.8	16.4**	26.9	28.2	25.7
Average (dollars)	838.3	692.5**	930.8	986.7	884.8**
2011 layoffs		††			
$300 or less	14.6	25.0**	4.6	4.4	4.8
$301 to $500	25.7	27.9	23.5	17.0	29.1**

Table E.3 *(continued)*

Variable	All displaced workers	Nonrecipients of UC benefits[a]	UC recipients		
			All	Nonexhaustees	Exhaustees[b]
$501 to $700	19.0	13.9**	23.9	27.7	20.5
$701 to $900	13.1	8.1**	17.8	17.9	17.7
$901 to $1,100	7.5	6.5	8.5	9.7	7.5
$1,101 or more	20.1	18.5	21.7	23.2	20.4
Average (dollars)	765.1	693.6**	833.1	868.9	802.2
Unweighted sample size					
2007 layoffs	1,017	591	426	230	196
2009 layoffs	1,676	655	1,021	479	542
2011 layoffs	878	430	448	207	241

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: All table entries, other than for average weekly earnings and sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. The earnings categories displayed in the table are based on weekly earnings from the primary pre-layoff job after rounding to the nearest dollar. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

[a]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between UC recipients and nonrecipients.

[b]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between exhaustees and nonexhaustees.

[c]Earnings from the pre-layoff job were not reported by more than 20 percent of displaced workers in each survey year; this information was not imputed by the Bureau of Labor Statistics.

*/**Means differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly at the .10/.05 level, chi-squared test.

Table E.4. Pre-separation industry of displaced workers, by layoff year and self-reported receipt/exhaustion of UC benefits (percentages)

Variable	All displaced workers	Nonrecipients of UC benefits[a]	UC recipients		
			All	Nonexhaustees	Exhaustees[b]
Industry					
2007 layoffs		††			
Natural resources and mining	1.5	1.8	0.9	0.4	1.4
Construction	14.0	14.2	13.7	13.8	13.6
Manufacturing	17.0	13.1**	22.9	24.7	20.9
Trade, transportation, and utilities	19.2	20.1	17.9	19.1	16.6
Information	3.3	3.1	3.8	3.7	3.8
Financial activities	11.8	11.6	12.2	12.3	12.0
Professional services and management	5.1	4.4	6.2	7.4	4.9
Business support services	6.1	7.6**	3.7	3.1	4.4
Education and health services	10.9	10.4	11.5	7.5	16.1**
Leisure and hospitality	7.2	9.0**	4.6	6.6	2.4*
Other services	3.1	3.9*	1.9	0.8	3.0
Public administration	0.8	0.8	0.6	0.7	0.6
2009 layoffs		††			
Natural resources and mining	1.6	1.6	1.7	1.3	2.0
Construction	12.5	14.1	11.5	12.7	10.4
Manufacturing	21.6	14.7**	25.9	23.2	28.3
Trade, transportation, and utilities	18.8	16.7	20.1	21.3	19.1
Information	2.1	1.7	2.3	2.3	2.3
Financial activities	8.5	7.8	8.9	9.3	8.6
Professional services and management	7.1	4.2**	9.0	10.0	8.1
Business support services	6.5	9.2**	4.9	4.0	5.6
Education and health services	8.7	11.1**	7.3	7.1	7.4
Leisure and hospitality	6.9	10.3**	4.8	5.4	4.3
Other services	4.2	6.6**	2.7	3.0	2.4
Public administration	1.4	2.1*	0.9	0.4	1.4
2011 layoffs		††			
Natural resources and mining	2.1	1.9	2.4	3.4	1.6
Construction	11.3	13.0	9.6	10.5	8.8
Manufacturing	17.0	13.5**	20.5	19.6	21.2
Trade, transportation, and utilities	19.1	19.7	18.5	13.9	22.4**
Information	3.7	3.9	3.4	3.3	3.5
Financial activities	7.6	4.5**	10.7	13.9	7.9*
Professional services and management	6.8	5.3	8.3	8.5	8.2
Business support services	6.0	7.2	4.9	4.8	5.0
Education and health services	13.8	13.4	14.2	15.4	13.3
Leisure and hospitality	7.5	10.4**	4.6	3.9	5.2
Other services	3.4	5.0**	1.9	2.2	1.7
Public administration	1.5	2.1	0.9	0.6	1.2

Table E.4 *(continued)*

Variable	All displaced workers	Nonrecipients of UC benefits[a]	UC recipients		
			All	Nonexhaustees	Exhaustees[b]
Unweighted sample size					
2007 layoffs	1,004	586	418	226	192
2009 layoffs	1,654	645	1,009	471	538
2011 layoffs	867	424	443	206	237

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: Pre-separation industry was determined based on each respondent's primary job held before being laid off. All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

[a]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between UC recipients and nonrecipients.

[b]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between exhaustees and nonexhaustees.

*/**Means differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly at the .10/.05 level, chi-squared test.

Table E.5. Pre-separation occupation of displaced workers, by layoff year and self-reported receipt/exhaustion of UC benefits (percentages)

Variable	All displaced workers	Nonrecipients of UC benefits[a]	UC recipients		
			All	Nonexhaustees	Exhaustees[b]
Occupation					
2007 layoffs		††			
Management, business, and finance	17.3	15.5	19.9	18.8	21.2
Computer, engineering, and science	4.3	3.8	5.1	5.9	4.2
Community and social services	4.5	4.7	4.2	3.6	4.8
Health care practitioners and technical	1.9	2.4	1.2	1.1	1.4
Service	13.0	16.9**	7.1	5.4	9.1
Sales	10.5	11.6	8.9	10.4	7.0
Office and administrative support	14.9	13.0*	17.8	18.7	16.7
Farming, fishing, and forestry	0.5	0.8*	0.0	0.0	0.0
Construction and extraction	11.3	11.9	10.3	8.1	12.8
Installation, maintenance, and repair	3.2	2.5	4.3	5.1	3.4
Production	11.1	9.1**	14.1	14.8	13.3
Transportation and material moving	7.5	7.8	7.2	8.1	6.1
Military	0.0	0.0	0.0	0.0	0.0
2009 layoffs		††			††
Management, business, and finance	16.7	13.2**	18.9	21.1	17.1
Computer, engineering, and science	6.7	5.0**	7.8	7.8	7.7
Community and social services	5.3	7.0**	4.3	5.4	3.3
Health care practitioners and technical	1.7	2.5*	1.2	1.1	1.3
Service	11.0	16.5**	7.6	6.2	8.9
Sales	10.2	11.0	9.7	7.5	11.6**
Office and administrative support	13.9	9.9**	16.3	16.4	16.2
Farming, fishing, and forestry	0.4	0.8*	0.1	0.2	0.1
Construction and extraction	9.1	11.2*	7.9	7.1	8.5
Installation, maintenance, and repair	4.4	4.5	4.3	7.4	1.6**
Production	12.3	10.0**	13.7	11.6	15.6*
Transportation and material moving	8.1	8.1	8.2	8.2	8.2
Military	0.2	0.4	0.0	0.0	0.0
2011 layoffs		††			
Management, business, and finance	14.8	12.1**	17.5	21.8	14.0*
Computer, engineering, and science	5.2	4.8	5.7	5.9	5.5
Community and social services	9.3	9.7	9.0	8.4	9.4

Table E.5 *(continued)*

Variable	All displaced workers	Nonrecipients of UC benefits[a]	UC recipients		
			All	Nonexhaustees	Exhaustees[b]
Health care practitioners and technical	1.7	1.8	1.6	2.1	1.2
Service	12.2	15.8**	8.7	9.5	8.0
Sales	11.1	12.6	9.5	7.5	11.2
Office and administrative support	15.0	10.2**	19.7	17.5	21.4
Farming, fishing, and forestry	1.1	0.8	1.4	1.6	1.2
Construction and extraction	8.6	9.2	8.1	9.6	6.7
Installation, maintenance, and repair	4.7	6.5**	2.8	1.7	3.8
Production	9.4	8.5	10.4	10.0	10.7
Transportation and material moving	6.9	8.0	5.7	4.3	6.9
Military	0.0	0.0	0.0	0.0	0.0
Unweighted sample size					
2007 layoffs	1,003	583	420	228	192
2009 layoffs	1,651	647	1,004	468	536
2011 layoffs	864	421	443	206	237

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: Pre-separation occupation was determined based on each respondent's primary job held before being laid off. All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

[a]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between UC recipients and nonrecipients.

[b]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between exhaustees and nonexhaustees.

*/**Means differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly at the .10/.05 level, chi-squared test.

Table E.6. Reemployment patterns of displaced workers, by layoff year and self-reported receipt/exhaustion of UC benefits (percentages)

Variable	All displaced workers	Nonrecipients of UC benefits[a]	UC recipients		
			All	Nonexhaustees	Exhaustees[b]
Reemployed at any point since the layoff (through the date of the CPS)					
2007 layoffs		††			††
Yes	76.4	79.6**	71.6	77.6	64.9**
No	23.6	20.4**	28.4	22.4	35.1**
2009 layoffs		††			††
Yes	74.1	79.6**	70.7	85.2	58.0**
No	25.9	20.4**	29.3	14.8	42.0**
2011 layoffs		††			††
Yes	79.5	83.4**	75.7	92.4	62.0**
No	20.5	16.6**	24.3	7.6	38.0**
Weeks elapsed until first employment, among those reemployed since the layoff					
2007 layoffs		††			††
One week or less	22.2	31.8**	5.6	8.8	1.1**
2 to 14 weeks	40.9	44.3**	35.0	48.9	15.4**
15 to 26 weeks	11.4	7.9**	17.5	20.3	13.5
27 to 52 weeks	19.0	11.7**	31.4	17.5	51.1**
52 to 78 weeks	2.3	0.9**	4.7	2.3	8.0*
79 weeks or more	4.3	3.4	5.7	2.1	10.9**
2009 layoffs		††			††
One week or less	13.8	28.0**	3.8	4.2	3.4
2 to 14 weeks	34.6	44.4**	27.8	34.1	19.4**
15 to 26 weeks	14.3	9.9**	17.4	20.5	13.2**
27 to 52 weeks	18.9	9.3**	25.6	26.8	24.0
52 to 78 weeks	7.8	3.7**	10.6	9.0	12.8
79 weeks or more	10.7	4.8**	14.8	5.5	27.2**
2011 layoffs		††			††
One week or less	22.5	36.8**	6.4	5.9	7.2
2 to 14 weeks	37.0	39.8	33.9	41.9	23.4**
15 to 26 weeks	12.6	8.8**	16.8	19.9	12.8
27 to 52 weeks	15.6	8.6**	23.3	20.6	26.8
52 to 78 weeks	5.7	1.5**	10.5	9.8	11.3
79 weeks or more	6.6	4.4*	9.1	1.9	18.5**
Unweighted sample size					
2007 layoffs					
Total sample size	1,016	590	426	230	196
Sample size of individuals employed since the layoff	750	454	296	177	119
2009 layoffs					
Total sample size	1,675	654	1,021	479	542
Sample size of individuals employed since the layoff	1,189	490	699	395	304
2011 layoffs					
Total sample size	878	430	448	207	241
Sample size of individuals employed since the layoff	652	339	313	177	136

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data

Table E.6 *(continued)*

items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

[a]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between UC recipients and nonrecipients.

[b]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between exhaustees and nonexhaustees.

*/**Means differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly at the .10/.05 level, chi-squared test.

Table E.7. Labor market outcomes of displaced workers at the CPS date, by layoff year and self-reported receipt/exhaustion of UC benefits (percentages)

Variable	All displaced workers	Nonrecipients of UC benefits[a]	UC recipients		
			All	Nonexhaustees	Exhaustees[b]
Labor force participation					
2007 layoffs		††			††
Employed	66.2	70.8**	59.4	67.1	50.8**
Unemployed	18.6	13.5**	26.1	23.9	28.6
Not in the labor force	15.2	15.6	14.5	9.0	20.6**
2009 layoffs		††			††
Employed	64.9	70.5**	61.4	78.4	46.3**
Unemployed	18.7	14.7**	21.2	13.3	28.1**
Not in the labor force	16.4	14.8	17.5	8.2	25.6**
2011 layoffs		†			††
Employed	72.9	76.9**	68.9	87.8	53.4**
Unemployed	10.4	8.3*	12.4	5.4	18.1**
Not in the labor force	16.8	14.7	18.7	6.9	28.5**
Changes in industry/occupation from the layoff job to the primary current job, among those employed at the survey date[c]					
2007 layoffs					
Change in industry category	57.4	56.2	59.5	61.8	56.0
Change in occupation category	50.9	48.3	55.5	55.8	55.1
2009 layoffs					
Change in industry category	54.1	54.9	53.5	48.7	60.6**
Change in occupation category	52.2	53.3	51.4	46.3	58.9**
2011 layoffs					
Change in industry category	50.8	47.9	53.9	52.1	56.4
Change in occupation category	53.7	49.6	58.0	55.0	62.0
Changes in weekly earnings from the primary pre-layoff job to the primary current job, among those employed at the survey date[d]					
2007 layoffs		††			†
Earnings reduced by 25% or more	36.1	30.8**	45.6	37.8	57.6**
Earnings reduced by less than 25%	16.5	15.2	18.7	21.7	14.1
Earnings unchanged or increased by less than 25%	25.9	27.4	23.2	24.6	21.2
Earnings increased by 25% or more	21.5	26.6**	12.5	16.0	7.0*
2009 layoffs		††			††
Earnings reduced by 25% or more	33.9	26.8**	39.2	29.6	52.4**
Earnings reduced by less than 25%	22.6	20.3	24.3	28.0	19.1**
Earnings unchanged or increased by less than 25%	22.6	24.8	20.9	24.1	16.4*
Earnings increased by 25% or more	21.0	28.1**	15.6	18.3	12.0*
2011 layoffs		†			††
Earnings reduced by 25% or more	27.5	21.7**	33.6	25.9	44.3**

Table E.7 *(continued)*

Variable	All displaced workers	Nonrecipients of UC benefits[a]	UC recipients		
			All	Nonexhaustees	Exhaustees[b]
Earnings reduced by less than 25%	19.3	19.4	19.3	23.8	12.9**
Earnings unchanged or increased by less than 25%	25.6	25.6	25.7	25.7	25.7
Earnings increased by 25% or more	27.5	33.3**	21.4	24.6	17.0
Unweighted sample sizes					
2007 layoffs					
Total sample size	1,017	591	426	230	196
Sample size of individuals employed at the survey date	681	419	262	161	101
2009 layoffs					
Total sample size	1,676	655	1,021	479	542
Sample size of individuals employed at the survey date	1,096	458	638	373	265
2011 layoffs					
Total sample size	878	430	448	207	241
Sample size of individuals employed at the survey date	623	319	304	174	130

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

[a]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between UC recipients and nonrecipients.

[b]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between exhaustees and nonexhaustees.

[c]Change in industry was measured using the categories listed in Table E.4, and change in occupation was measured using the categories listed in Table E.5.

[d]Earnings from the pre-layoff job were not reported by more than 20 percent of displaced workers in each survey year; this information was not imputed by the Bureau of Labor Statistics.

*/**Means differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly at the .10/.05 level, chi-squared test.

Table E.8. Poverty status and income support in March 2012 among displaced workers laid off in 2009, by receipt/exhaustion of UC benefits (percentages)

Variable	All displaced workers	Nonrecipients of UC benefits[a]	UC recipients		
			All	Nonexhaustees	Exhaustees[b]
Poverty status					
Ratio of family income to federal poverty threshold		††			††
Less than 100%	15.5	20.6**	12.4	7.5	16.6**
100% to 199%	19.6	24.0*	17.0	9.5	23.3**
At least 200%	64.8	55.4**	70.6	83.0	60.1**
Sources of income[c]					
Food stamps or SNAP benefits	15.5	17.1	14.5	8.5	19.5**
Social Security Retirement payments	3.9	2.6	4.7	1.2	7.7**
Other retirement income	3.5	1.4**	4.8	3.0	6.3
SSDI, SSI, or other disability payments	5.2	3.4*	6.2	4.2	7.9
Welfare or public assistance	1.3	1.3	1.3	1.1	1.5
Unweighted sample size	772	296	476	220	256

Source: CPS Displaced Worker Supplement and Annual Social and Economic Supplement (ASEC) fielded in 2012.

Note: This table presents information for a subset of individuals responding to both the 2012 Displaced Worker Supplement and the 2012 ASEC. This subset includes respondents who were scheduled to be administered the ASEC as part of the standard survey rotation design of the CPS; it does not include additional respondents who were part of the ASEC special-purpose oversamples. All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

[a]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between UC recipients and nonrecipients.

[b]Markers for statistical significance in this column are based on tests for differences in mean or distributions of each measure between exhaustees and nonexhaustees.

[c]Receipt of food stamps/SNAP is measured at the household level. All other sources of income support are measured at the individual level.

*/**Means differ significantly at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly at the .10/.05 level, chi-squared test.

SNAP = Supplemental Nutrition Assistance Program, Supplemental Nutrition Assistance Program; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

Table E.9. Demographic characteristics of displaced workers with long jobless spells, by layoff year and self-reported receipt of UC benefits (percentages)

Variable	All displaced workers who were jobless for at least 27 weeks	Displaced workers who were jobless for at least 27 weeks, UC nonrecipients	Displaced workers who were jobless for at least 27 weeks, UC recipients
Gender			
2007 layoffs			
Male	46.5	48.7	44.5
Female	53.5	51.3	55.5
2009 layoffs			
Male	43.5	44.4	43.2
Female	56.5	55.6	56.8
2011 layoffs			††
Male	47.7	39.6	51.8**
Female	52.3	60.4	48.2**
Age			
2007 layoffs			††
Younger than 25	14.2	21.7	7.6**
25 to 34	20.9	18.8	22.7
35 to 44	23.2	20.3	25.7
45 to 54	25.2	22.1	27.9
55 to 64	13.4	12.2	14.5
65 or older	3.2	5.0	1.6*
2009 layoffs			††
Younger than 25	8.9	17.2	6.1**
25 to 34	18.7	20.4	18.1
35 to 44	22.1	18.7	23.2
45 to 54	26.0	25.1	26.3
55 to 64	19.8	13.3	22.0**
65 or older	4.5	5.3	4.2
2011 layoffs			††
Younger than 25	7.8	13.7	4.8**
25 to 34	22.5	23.2	22.1
35 to 44	17.3	16.5	17.7
45 to 54	28.2	23.2	30.7
55 to 64	18.3	14.7	20.2
65 or older	6.0	8.7	4.6
Ethnicity and race			
2007 layoffs			
Hispanic, Latino, or Spanish origin	13.5	16.9	10.5
Non-Hispanic black or African American	18.1	21.8	14.9
Non-Hispanic white	62.0	55.6	67.5**
Other	6.5	5.8	7.2
2009 layoffs			††
Hispanic, Latino, or Spanish origin	14.2	19.6	12.4**
Non-Hispanic black or African American	12.1	19.5	9.6**
Non-Hispanic white	66.8	53.7	71.2**
Other	6.9	7.2	6.7

Table E.9 *(continued)*

Variable	All displaced workers who were jobless for at least 27 weeks	Displaced workers who were jobless for at least 27 weeks, UC nonrecipients	Displaced workers who were jobless for at least 27 weeks, UC recipients
2011 layoffs			††
Hispanic, Latino, or Spanish origin	13.4	20.8	9.7**
Non-Hispanic black or African American	18.0	7.2	23.5**
Non-Hispanic white	58.4	57.7	58.7
Other	10.2	14.3	8.0
Unweighted sample size			
2007 layoffs	405	187	218
2009 layoffs	853	222	631
2011 layoffs	362	118	244

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

*/**Means differ significantly between UC recipients and nonrecipients at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly between UC recipients and nonrecipients at the .10/.05 level, chi-squared test.

Table E.10. Educational attainment and pre-layoff earnings of displaced workers with long jobless spells, by layoff year and self-reported receipt of UC benefits (percentages, unless stated otherwise)

Variable	All displaced workers who were jobless for at least 27 weeks	Displaced workers who were jobless for at least 27 weeks, UC nonrecipients	Displaced workers who were jobless for at least 27 weeks, UC recipients
Highest level of school or degree			
2007 layoffs	.	.	††
Less than high school or GED	16.4	21.9	11.6**
High school/GED	33.5	27.9	38.3**
Some college but no degree	20.6	21.1	20.1
Associate's degree	10.2	12.3	8.4
Bachelor's or more advanced degree	19.4	16.8	21.5
2009 layoffs	.	.	††
Less than high school or GED	9.5	15.9	7.4**
High school/GED	32.0	33.0	31.7
Some college but no degree	21.5	16.0	23.3**
Associate's degree	15.2	15.4	15.2
Bachelor's or more advanced degree	21.8	19.7	22.5
2011 layoffs	.	.	††
Less than high school or GED	10.4	20.5	5.2**
High school/GED	25.1	25.1	25.1
Some college but no degree	21.1	18.0	22.7
Associate's degree	14.0	15.1	13.4
Bachelor's or more advanced degree	29.4	21.3	33.6**
Weekly earnings from the primary pre-layoff job[a]			
2007 layoffs			††
$300 or less	19.4	36.8	4.3**
$301 to $500	23.3	28.6	18.7*
$501 to $700	20.0	13.6	25.4**
$701 to $900	8.7	1.9	14.5**
$901 to $1,100	8.1	6.0	9.9
$1,101 or more	20.6	13.1	27.1**
Average (dollars)	760.4	588.2	909.2**
2009 layoffs			††
$300 or less	12.4	33.9	5.4**
$301 to $500	19.8	24.9	18.2
$501 to $700	19.1	13.7	20.9**
$701 to $900	15.8	8.9	18.0**
$901 to $1,100	11.2	5.3	13.1**
$1,101 or more	21.8	13.3	24.6**
Average (dollars)	842.0	594.5	922.0**
2011 layoffs			††
$300 or less	12.3	28.1	4.6**
$301 to $500	28.6	33.2	26.4
$501 to $700	21.3	16.1	23.8
$701 to $900	14.1	4.3	18.9**
$901 to $1,100	6.5	5.6	6.9
$1,101 or more	17.2	12.8	19.4
Average (dollars)	729.6	593.4	796.3**

Table E.10 *(continued)*

Variable	All displaced workers who were jobless for at least 27 weeks	Displaced workers who were jobless for at least 27 weeks, UC nonrecipients	Displaced workers who were jobless for at least 27 weeks, UC recipients
Unweighted sample size			
2007 layoffs	405	187	218
2009 layoffs	853	222	631
2011 layoffs	362	118	244

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: All table entries, other than for average weekly earnings and sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. The earnings categories displayed in the table are based on weekly earnings from the primary pre-layoff job after rounding to the nearest dollar. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

[a]Earnings from the pre-layoff job were not reported by more than 20 percent of displaced workers in each survey year; this information was not imputed by the Bureau of Labor Statistics.

*/**Means differ significantly between UC recipients and nonrecipients at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly between UC recipients and nonrecipients at the .10/.05 level, chi-squared test.

Table E.11. Pre-separation industry of displaced workers with long jobless spells, by layoff year and self-reported receipt of UC benefits (percentages)

Variable	All displaced workers who were jobless for at least 27 weeks	Displaced workers who were jobless for at least 27 weeks, UC nonrecipients	Displaced workers who were jobless for at least 27 weeks, UC recipients
Industry			
2007 layoffs			††
Natural resources and mining	0.7	0.8	0.6
Construction	12.8	9.9	15.2
Manufacturing	19.0	15.3	22.3
Trade, transportation, and utilities	16.8	17.3	16.4
Information	3.4	2.7	3.9
Financial activities	12.7	10.8	14.2
Professional services and management	4.8	4.0	5.5
Business support services	7.9	13.1	3.4**
Education and health services	12.1	9.3	14.4
Leisure and hospitality	5.2	9.5	1.4**
Other services	3.5	5.6	1.8*
Public administration	1.2	1.5	1.0
2009 layoffs			††
Natural resources and mining	1.4	1.1	1.5
Construction	11.5	9.0	12.3
Manufacturing	23.6	15.9	26.1**
Trade, transportation, and utilities	20.0	21.2	19.7
Information	1.7	0.5	2.1**
Financial activities	8.9	7.7	9.3
Professional services and management	6.1	2.0	7.5**
Business support services	6.4	10.5	5.1*
Education and health services	9.4	13.2	8.1*
Leisure and hospitality	5.9	9.1	4.8*
Other services	3.6	8.1	2.1**
Public administration	1.5	1.8	1.3
2011 layoffs			††
Natural resources and mining	1.8	0.2	2.6**
Construction	8.0	10.5	6.7
Manufacturing	19.8	17.5	21.0
Trade, transportation, and utilities	18.3	17.8	18.6
Information	2.3	3.3	1.9
Financial activities	7.9	3.4	10.2**
Professional services and management	7.5	5.2	8.6
Business support services	6.5	6.1	6.6
Education and health services	12.6	10.6	13.7
Leisure and hospitality	9.6	14.4	7.1*
Other services	3.9	8.3	1.8**
Public administration	1.7	2.8	1.1

Table E.11 *(continued)*

Variable	All displaced workers who were jobless for at least 27 weeks	Displaced workers who were jobless for at least 27 weeks, UC nonrecipients	Displaced workers who were jobless for at least 27 weeks, UC recipients
Unweighted sample size			
2007 layoffs	402	184	218
2009 layoffs	840	218	622
2011 layoffs	356	116	240

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: Pre-separation industry was determined based on each respondent's primary job held before being laid off. All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

*/**Means differ significantly between UC recipients and nonrecipients at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly between UC recipients and nonrecipients at the .10/.05 level, chi-squared test.

Table E.12. Pre-separation occupation of displaced workers with long jobless spells, by layoff year and self-reported receipt of UC benefits (percentages)

Variable	All displaced workers who were jobless for at least 27 weeks	Displaced workers who were jobless for at least 27 weeks, UC nonrecipients	Displaced workers who were jobless for at least 27 weeks, UC recipients
Occupation			
2007 layoffs			††
Management, business, and finance	18.6	15.2	21.6
Computer, engineering, and science	2.2	1.7	2.6
Community and social services	4.0	4.3	3.6
Health care practitioners and technical	0.9	0.0	1.7*
Service	14.8	23.8	7.0**
Sales	7.0	9.1	5.3
Office and administrative support	18.3	15.9	20.4
Farming, fishing, and forestry	0.4	0.8	0.0
Construction and extraction	11.4	9.6	13.0
Installation, maintenance, and repair	3.1	1.9	4.1
Production	12.0	9.7	14.0
Transportation and material moving	7.3	8.0	6.7
Military	0.0	0.0	0.0
2009 layoffs			††
Management, business, and finance	15.2	9.6	17.0**
Computer, engineering, and science	5.5	2.3	6.5**
Community and social services	4.0	5.9	3.4
Health care practitioners and technical	1.7	3.0	1.3
Service	10.9	20.0	7.9**
Sales	11.4	14.2	10.5
Office and administrative support	16.2	11.0	17.9**
Farming, fishing, and forestry	0.2	0.7	0.0
Construction and extraction	8.8	9.1	8.7
Installation, maintenance, and repair	3.9	4.9	3.5
Production	14.6	11.5	15.6
Transportation and material moving	7.5	7.8	7.5
Military	0.0	0.0	0.0
2011 layoffs			
Management, business, and finance	15.3	8.7	18.7**
Computer, engineering, and science	4.8	5.4	4.6
Community and social services	7.3	7.4	7.3
Health care practitioners and technical	1.4	1.4	1.5

Table E.12 *(continued)*

Variable	All displaced workers who were jobless for at least 27 weeks	Displaced workers who were jobless for at least 27 weeks, UC nonrecipients	Displaced workers who were jobless for at least 27 weeks, UC recipients
Service	16.0	22.6	12.7**
Sales	7.5	5.4	8.5
Office and administrative support	19.4	14.4	21.9
Farming, fishing, and forestry	0.7	0.6	0.8
Construction and extraction	5.7	8.9	4.1
Installation, maintenance, and repair	2.9	3.9	2.4
Production	11.2	12.0	10.7
Transportation and material moving	7.7	9.4	6.9
Military	0.0	0.0	0.0
Unweighted sample size			
2007 layoffs	401	185	216
2009 layoffs	843	220	623
2011 layoffs	355	115	240

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: Pre-separation occupation was determined based on each respondent's primary job held before being laid off. All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

*/**Means differ significantly between UC recipients and nonrecipients at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly between UC recipients and nonrecipients at the .10/.05 level, chi-squared test.

Table E.13. Reemployment patterns of displaced workers with long jobless spells, by layoff year and self-reported receipt of UC benefits (percentages)

Variable	All displaced workers who were jobless for at least 27 weeks	Displaced workers who were jobless for at least 27 weeks, UC nonrecipients	Displaced workers who were jobless for at least 27 weeks, UC recipients
Reemployed at any point since the layoff (through the date of the CPS)			
2007 layoffs			††
Yes	43.7	37.3	49.2**
No	56.3	62.7	50.8**
2009 layoffs			††
Yes	50.3	39.6	53.8**
No	49.7	60.4	46.2**
2011 layoffs			††
Yes	50.2	40.9	55.0**
No	49.8	59.1	45.0**
Weeks elapsed until first employment, among those reemployed since the layoff			
2007 layoffs			
27 to 52 weeks	74.3	73.2	75.1
52 to 78 weeks	9.0	5.6	11.2
79 weeks or more	16.7	21.2	13.7
2009 layoffs			
27 to 52 weeks	50.6	52.2	50.2
52 to 78 weeks	20.8	20.9	20.8
79 weeks or more	28.6	26.9	29.0
2011 layoffs			
27 to 52 weeks	55.7	59.5	54.3
52 to 78 weeks	20.5	10.1	24.4**
79 weeks or more	23.8	30.4	21.3
Unweighted sample size			
2007 layoffs			
Total sample size	405	187	218
Sample size of individuals employed since the layoff	185	72	113
2009 layoffs			
Total sample size	853	222	631
Sample size of individuals employed since the layoff	432	83	349
2009 layoffs			
Total sample size	362	118	244
Sample size of individuals employed since the layoff	178	43	135

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

*/**Means differ significantly between UC recipients and nonrecipients at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly between UC recipients and nonrecipients at the .10/.05 level, chi-squared test.

Table E.14. Labor market outcomes at the CPS date of displaced workers with long jobless spells, by layoff year and self-reported receipt of UC benefits (percentages)

Variable	All displaced workers who were jobless for at least 27 weeks	Displaced workers who were jobless for at least 27 weeks, UC nonrecipients	Displaced workers who were jobless for at least 27 weeks, UC recipients
Labor force participation			
2007 layoffs			††
Employed	36.9	32.2	41.0*
Unemployed	34.1	29.8	37.8
Not in the labor force	29.0	38.0	21.2**
2009 layoffs			††
Employed	43.4	32.3	47.1**
Unemployed	29.4	32.2	28.5
Not in the labor force	27.1	35.5	24.4**
2011 layoffs			††
Employed	45.5	37.0	49.9**
Unemployed	17.9	16.4	18.7
Not in the labor force	36.5	46.6	31.4**
Changes in industry/occupation from the layoff job to the primary current job, among those employed at the survey date[a]			
2007 layoffs			
Change in industry category	67.3	70.4	65.1
Change in occupation category	57.2	58.1	56.5
2009 layoffs			
Change in industry category	55.2	57.1	54.8
Change in occupation category	54.2	52.4	54.6
2011 layoffs			
Change in industry category	57.4	59.6	56.6
Change in occupation category	57.7	58.3	57.5
Changes in weekly earnings from the primary pre-layoff job to the primary current job, among those employed at the survey date[b]			
2007 layoffs			††
Earnings reduced by 25% or more	52.1	38.8	60.0**
Earnings reduced by less than 25%	17.0	17.7	16.6
Earnings unchanged or increased by less than 25%	22.6	23.7	21.9
Earnings increased by 25% or more	8.4	19.8	1.5**
2009 layoffs			
Earnings reduced by 25% or more	42.2	43.9	41.8
Earnings reduced by less than 25%	24.7	23.2	25.0
Earnings unchanged or increased by less than 25%	17.8	10.3	19.4
Earnings increased by 25% or more	15.3	22.6	13.7

Table E.14 *(continued)*

Variable	All displaced workers who were jobless for at least 27 weeks	Displaced workers who were jobless for at least 27 weeks, UC nonrecipients	Displaced workers who were jobless for at least 27 weeks, UC recipients
2011 layoffs			
Earnings reduced by 25% or more	38.0	31.7	40.3
Earnings reduced by less than 25%	23.5	27.4	22.2
Earnings unchanged or increased by less than 25%	22.1	19.0	23.2
Earnings increased by 25% or more	16.4	22.0	14.3
Unweighted sample sizes			
2007 layoffs			
Total sample size	405	187	218
Sample size of individuals employed at the survey date	154	59	95
2009 layoffs			
Total sample size	853	222	631
Sample size of individuals employed at the survey date	370	67	303
2011 layoffs			
Total sample size	362	118	244
Sample size of individuals employed at the survey date	159	39	120

Source: CPS Displaced Worker Supplements fielded in 2010, 2012, and 2014.

Note: All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

[a]Change in industry was measured using the categories listed in Table E.4, and change in occupation was measured using the categories listed in Table E.5.

[b]Earnings from the pre-layoff job were not reported by more than 20 percent of displaced workers in each survey year; this information was not imputed by the Bureau of Labor Statistics.

*/**Means differ significantly between UC recipients and nonrecipients at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly between UC recipients and nonrecipients at the .10/.05 level, chi-squared test.

Table E.15. Poverty status and income support in March 2012 among displaced workers laid off in 2009 who had long jobless spells, by self-reported receipt of UC benefits (percentages)

Variable	All displaced workers who were jobless for at least 27 weeks	Displaced workers who were jobless for at least 27 weeks, UC nonrecipients	Displaced workers who were jobless for at least 27 weeks, UC recipients
Poverty status			
Ratio of family income to federal poverty threshold			††
Less than 100%	19.1	31.9	15.2**
100% to 199%	22.2	27.3	20.6
At least 200%	58.8	40.8	64.2**
Sources of income[b]			
Food stamps or SNAP benefits	17.3	22.1	15.8
Social Security Retirement payments	6.5	7.9	6.1
Other retirement income	5.8	3.6	6.4
SSDI, SSI, or other disability payments	8.0	7.4	8.2
Welfare or public assistance	1.6	1.2	1.8
Unweighted sample size	395	100	295

Source: CPS Displaced Worker Supplement and Annual Social and Economic Supplement (ASEC) fielded in 2012.

Note: This table presents information for a subset of individuals responding to both the 2012 Displaced Worker Supplement and the 2012 ASEC. This subset includes respondents who were scheduled to be administered the ASEC as part of the standard survey rotation design of the CPS; it does not include additional respondents who were part of the ASEC special-purpose oversamples. All table entries, other than for sample size, are column percentages calculated using the values included in the CPS public-use files. These values include edits, recodes, and imputations made by the Bureau of Labor Statistics to address item consistency and missing response data to specific questions. Several data items had no missing values after imputation, whereas other final data items continued to have some missing values. The unweighted sample size indicates the number of individuals for whom information about at least one of the measures listed in the table was available. Estimates have been weighted for survey nonresponse using final Displaced Worker Supplement weights. In addition, statistical estimates of variability used to assess the significance of differences across groups accounted for the sampling design of the CPS using the method recommended by Davern et al. (2006, 2007).

[a]Receipt of food stamps/SNAP is measured at the household level. All other sources of income support are measured at the individual level.

*/**Means differ significantly between UC recipients and nonrecipients at the .10/.05 level, two-tailed test.

†/††Distributions differ significantly between UC recipients and nonrecipients at the .10/.05 level, chi-squared test.

SNAP = Supplemental Nutrition Assistance Program; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

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