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REPORT

# Supplemental Nutrition Assistance Program Participants' Employment Characteristics and Barriers to Work

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# EXECUTIVE SUMMARY

The Supplemental Nutrition Assistance Program (SNAP) provides nutrition assistance benefits to low-income people in an effort to reduce hunger and improve health and well-being. It is also a critical work support for many people. Policymakers recently have sought to strengthen the program participants' pathways toward self-sufficiency, including considering existing and new work requirements for participants and improving and expanding the SNAP Employment and Training program that assists unemployed and underemployed participants in job search, job skills training, education, and work experience and training. However, relatively little is known about the labor force participation and employment decisions of SNAP participants, job characteristics among employed participants, and barriers to work among participants who are unemployed or out of the labor force (referred to as *non-employed*). This report helps to fill this gap by using the most recently available national longitudinal survey data to examine the employment experiences of SNAP participants.

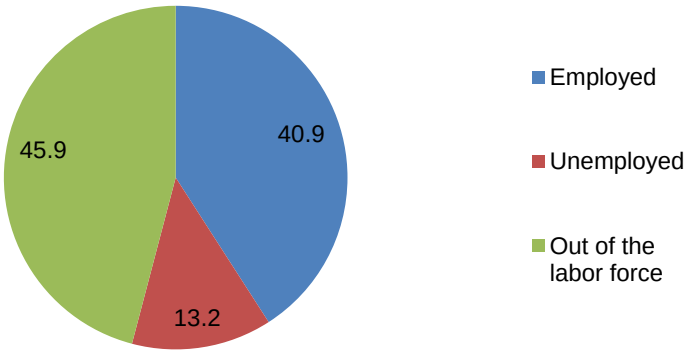
The 2008 to 2013 panel of the Survey of Income and Program Participation (SIPP), administered by the U.S. Census Bureau, forms the basis of all analyses. The SIPP is a longitudinal survey that collects detailed monthly data on labor force activity, employment, income, participation in a wide range of government assistance programs, family and household composition, personal demographic characteristics, and many other topics. The survey follows a representative sample of civilian non-institutionalized people over time, collecting monthly data by means of interviews conducted at four-month intervals. The findings in this study represent survey respondents ages 18 to 59 who were in the survey universe and responded to the survey in April 2010 and April 2011.

## A. Summary of findings

Overall, SNAP participants are strongly connected to the labor force, but many experience changes in employment and labor force participation over the course of a year. In addition, many SNAP participants who are not employed face significant barriers to work.

In April 2010, about a year after the official end of the Great Recession, 41 percent of SNAP participants ages 18 to 59 were employed (Figure 1); most of the remaining participants were out of the labor force (46 percent) rather than unemployed (13 percent). Employed SNAP participants earned, on average, $1,250 per month before taxes and worked 40 hours per week. Nearly all employed participants (88 percent) worked at a single job; 10 percent worked at two jobs.

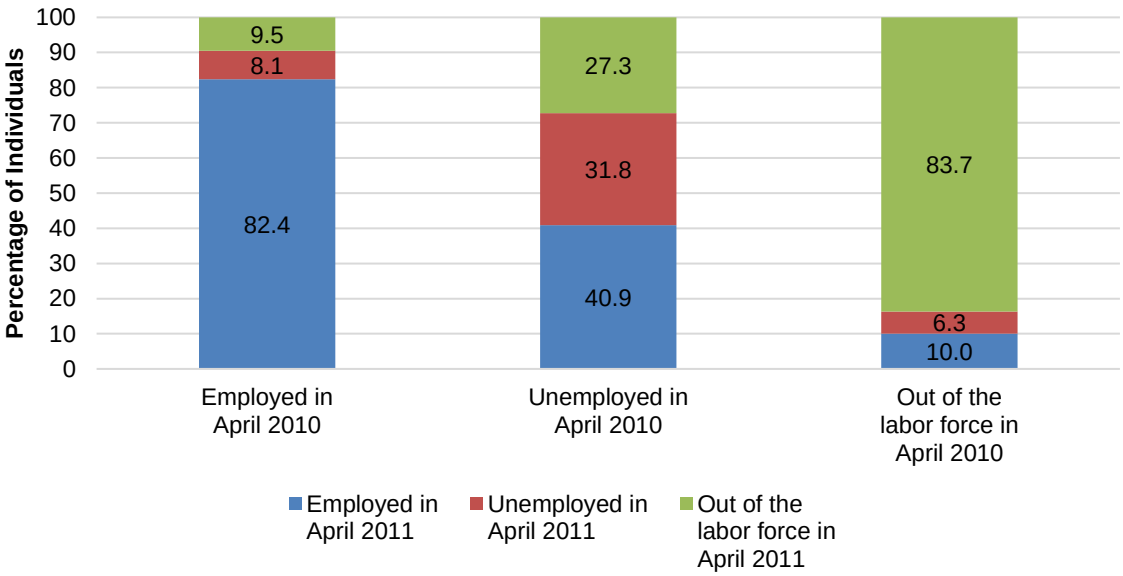
**Figure 1. Employment status in April 2010 among SNAP participants in April 2010 (percentage)**




Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 2,736 individuals in April 2010.

Many participants changed their employment status within one year. Almost one-fifth (18 percent) of employed SNAP participants were no longer employed one year later, with slightly more than half of that group leaving the labor force and the rest becoming unemployed (Figure 2). Many participants also experienced job gains. One year later, 41 percent of unemployed SNAP participants were employed. In addition, 16 percent of those who participated in SNAP, but were out of the labor force, entered the labor force within a year (10 percent became employed and 6 percent became unemployed).

**Figure 2. Changes in labor market status from April 2010 to 2011 for SNAP participants in April 2010**

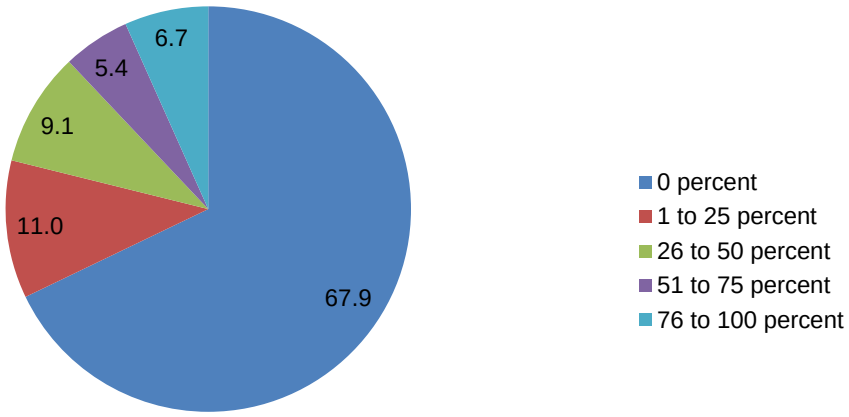



Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 2,736 individuals in April 2010 and 2011.

Non-employed SNAP participants who became employed and continued to participate in SNAP earned slightly more than $1,000 per month and worked 35 hours per week. However, their earnings and the hours they worked differed depending on whether they transitioned to employment from being unemployed or out of the labor force. Those out of the labor force who became employed and continued to participate in SNAP one year later had lower earnings than those who transitioned from unemployment ($931 versus $1,155). They also worked far fewer hours per week than those who transitioned from unemployment (25 versus 38 hours).

SNAP participants who were not working faced a diverse set of barriers to employment. Many non-employed SNAP participants lacked significant recent work experience. More than two-thirds (68 percent) of non-employed participants had not worked in the past 18 months and an additional 11 percent worked less than a quarter of the time (Figure 3). Even among unemployed participants, in contrast to those out of the labor force, more than one-third (35 percent) of participants had not worked in the past 18 months and an additional 20 percent worked less than a quarter of the time.

**Figure 3. Percentage of time SNAP participants were employed in past 18 months**



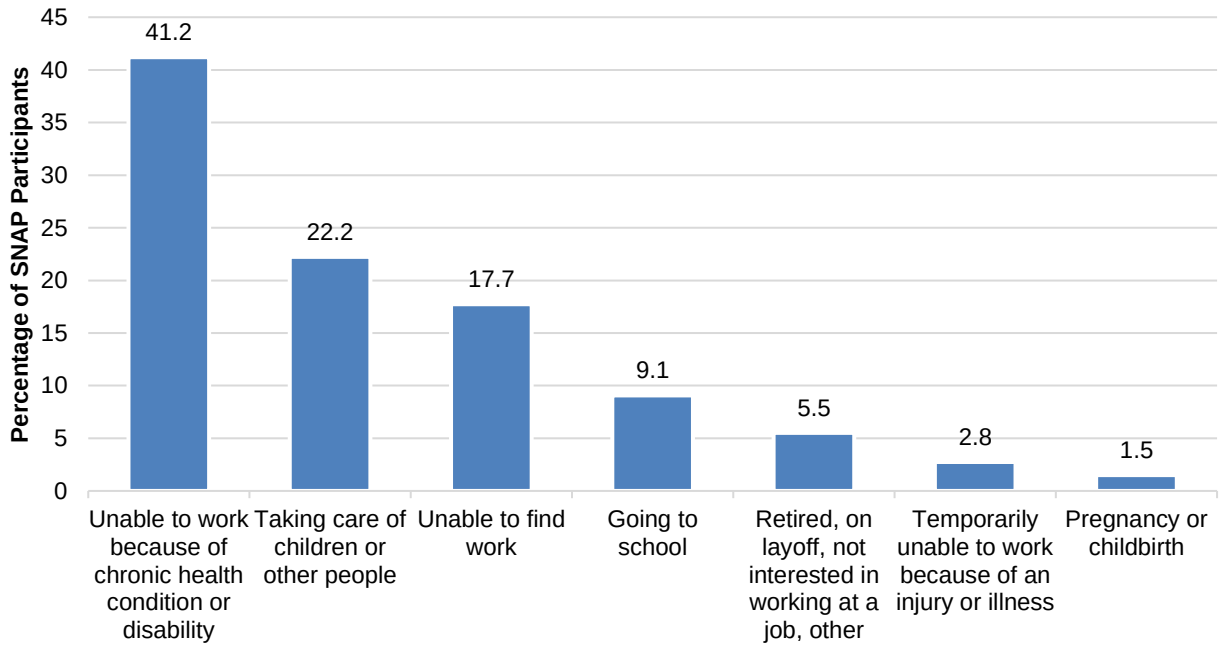

Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 1,642 individuals in April 2010.

SNAP participants experienced other barriers to work as well. More than 30 percent of non-employed participants did not have a high school diploma, and 9 percent had not completed 8th grade. Nearly half (49 percent) of participants had a physical, mental, or other health condition that limited the kind or amount of work they could do; a slightly lower percentage had a condition that altogether prevented them from working. In addition, many participants had young children: 8 percent of non-employed participants had at least one child under the age of 1 year and nearly one-quarter (23 percent) had at least one child younger than 3. Many participants also had limited English proficiency. About 24 percent reported not being able to speak English well, and another 18 percent did not speak English at all.

When asked the reason for not working, non-employed SNAP participants cited the following as the most common reasons: a chronic health condition or disability (41 percent), taking care of children or other people (22 percent), and being unable to find work (18 percent) (Figure 4). Among unemployed participants, the most common reason was being unable to find work (67 percent).

Many employed SNAP participants wanted to work full-time but could not. The most commonly reported reasons for working fewer than 35 hours per week among underemployed participants were due to "slack work or material shortages" (26 percent) and not being able to find full-time employment (25 percent).

**Figure 4. Self-reported reasons for not working among SNAP participants who were unemployed or out of the labor force in April 2010 (percentage)**




Source: Survey of Income and Program Participation, 2008 panel, weighted data.

Note: Tabulations based on 1,520 individuals in April 2010.

## B. Implications for future policy research

The study findings suggest several substantive research questions that can help inform SNAP policy related to employment and training:

- What factors are associated with SNAP participants being employed?
- Why do many unemployed SNAP participants who do not find a job leave the labor force?
- Through what mechanisms do SNAP participants who are out of the labor force find employment?

- What factors are associated with SNAP participants obtaining more stable and higher-paying jobs?
- What percentage of SNAP participants without recent work experience have explored on-the-job training and work-based learning programs? Among those who have not, what are the barriers to enrolling in these programs?
- How do barriers to work other than lack of work experience differ for non-employed SNAP participants who have been non-employed for a long time versus those who have only recently become unemployed or left the labor force?

Answering these questions is an important step in identifying potential barriers to work among non-employed SNAP participants and establishing strategies for retaining SNAP participants in the labor force, refining strategies to bolster enrollment in employment and training programs that provide work experience, and improving job search assistance policies for these populations.

# I. INTRODUCTION

The Supplemental Nutrition Assistance Program (SNAP) provides nutrition assistance benefits to low-income people in an effort to reduce hunger and improve health and well-being. SNAP has long been one of the most important nutrition assistance programs for low-income people nationwide, but its significance has grown even larger in recent years as it experienced record-high levels of participation during the most recent economic recession. Participation peaked in fiscal year 2013, when the program provided benefits to about 48 million Americans each month. Despite decreases in participation since the economic recovery, a large number of Americans continue to rely on SNAP. In fiscal year 2016, the program provided benefits to 44 million (or about 1 in 7) Americans each month.

SNAP participation is directly related to the strength of the economy. Losing a job is one of the most common reasons for entering the program, and obtaining a new job or having earnings increase at an existing job are the most common reasons for exiting the program (Mabli et al. 2014). SNAP responds to meet families' needs during economic downturns, resulting in program caseloads rising and falling with fluctuations in the economy. In this way, the program serves a vital function in helping eligible low-income families continue to put food on the table in times of need.

Because SNAP is so closely tied to the economy and employment, since the 2014 Farm Bill, policymakers have focused on learning more about SNAP in an effort to strengthen the pathway toward self-sufficiency for program participants. This has included considering existing and new work requirements for participants and improving and expanding the SNAP Employment and Training (E&T) program that assists unemployed and underemployed participants in job search, job skills training, education, and work experience and training. However, relatively little is known about the labor force participation and employment decisions of SNAP participants, job characteristics among employed participants, and barriers to work among participants who are unemployed or out of the labor force (referred to as *non-employed*).

A recent report from the Center on Budget and Policy Priorities examined SNAP administrative data from 2011 and national survey data from 2004 to 2006 to assess the labor force and work status of SNAP participants (Rosenbaum 2013). The study found that about 40 percent of participants who might reasonably be expected to work do so. Among SNAP households with working age, nondisabled adults in a given month, an overwhelming majority (82 percent) worked in the previous year or in the following year. In addition, most of the employed participants worked full time for at least half of the year. Overall, these findings indicate substantial labor force attachment of SNAP participants.

Other studies have focused on employment differences between SNAP participants and nonparticipants and on the impact of SNAP participation on work decisions. McKernan and Ratcliffe (2003) used national longitudinal survey data from the 1990s to examine how employment characteristics of low-income workers affect SNAP participation. The study found that work schedule (such as working traditional daytime versus nontraditional hours), number of jobs, number of hours worked, and number of employers influenced people's decisions to participate in SNAP. A small set of studies using data from the 1960s to the 1990s have examined how participating in SNAP affects work decisions. These studies have assessed

whether SNAP discourages work for program participants, but generally have found that SNAP has only modest employment disincentive effects (Hoynes and Schanzenbach 2012; Keane and Moffitt 1998; Hagstrom 1996; Fraker and Moffitt 1988).

This report contributes to this literature by using the most recently available national longitudinal survey data from 2010 and 2011 to examine the employment experiences of SNAP participants. We characterize participants' labor force attachment and, for those who were employed, the distribution of their monthly earnings, hours worked, and number of jobs held. Next, we assess changes in labor market status by presenting one-year transition rates between being employed, unemployed, and out of the labor force and show how these transitions differ for individuals who continued to participate in SNAP compared to those who left the program. Because an important focus among policymakers is how participants without work can obtain good jobs that lead to self-sufficiency, we describe employment characteristics for participants who obtained a new job over the year, comparing the characteristics of participants that stayed in SNAP to those of participants who left the program one year later. We also examine how earnings and hours worked changed across the year for employed SNAP participants.

The second half of the report focuses on SNAP participants' barriers to work. We describe barriers such as lack of work experience, education level, and work limiting physical and mental health conditions among SNAP participants who were not working. We also present participants' self-reported reasons for not having a job or, for those working part-time, reasons for not working full-time.

# II. DATA AND METHODOLOGY

This chapter presents an overview of the data used in the analysis and how the sample was constructed. It also presents the methodological approach for estimating the statistics in Chapters III and IV. Appendix A contains a more detailed description of the data and methodology.

## A. Survey of Income and Program Participation

This study used data from the 2008 panel of the Survey of Income and Program Participation (SIPP). The SIPP is a longitudinal survey that collects detailed monthly data on labor force activity, employment, income, participation in a wide range of government assistance programs, family and household composition, personal demographic characteristics, and many other topics. The survey follows a representative sample of civilian noninstitutionalized people over time, collecting monthly data by means of interviews conducted at four-month intervals.

The 2008 SIPP panel started in 2008 and ended in 2013. This study followed the same individuals over time using data from April 2010 and 2011. We did not use data from earlier in the survey period (those in 2008 and 2009) because we wanted to characterize SNAP participants' employment decisions after the recession that officially ended in June 2009 (Rich 2013).[1] We did not use data from later in the survey period (those in 2012 and 2013) because of smaller sample sizes due to survey attrition. Attrition or sample loss generally occurs when members of a household sampled for the survey either cannot be located or refuse to participate.

We estimated all statistics using weighted data so that the results are representative of the survey universe. Restricting the data to individuals who had a longitudinal panel weight and who had data in April 2010 and 2011 resulted in a sample of 49,312 individuals. Because this study focuses on employment transitions and barriers to work, we also restricted the sample to individuals 18 to 59 years old, resulting in a sample of 25,381 individuals. Finally, restricting the sample to individuals participating in SNAP in April 2010 resulted in a sample size of 2,736 individuals.

## B. Analysis variables

We created analysis variables using information available in the SIPP:

- We defined employment status using three categories—employed, unemployed, and out of the labor force—based on the SIPP's monthly employment status summary recode variable and other variables such as hours worked and amount of earnings.
- For employed SNAP participants, we characterize jobs using monthly earnings, weekly hours worked, and hourly wage rates. The SIPP contains variables measuring monthly earnings amounts for up to two jobs and we set monthly earnings equal to the sum of these variables. Similarly, the data contain variables measuring the numbers of hours worked for up to two jobs, so we set hours worked

[1] National unemployment rates remained high even after the official end of the recession; they were 9.9 and 9.1 percent in 2010 and 2011, respectively, and were more than twice the current rate (4.4 percent in April 2017), which should be considered when interpreting the findings in this report.

equal to the sum of these variables. Finally, the SIPP contains variables measuring the regular hourly pay rate for up to two jobs for employed individuals who are paid an hourly rate. We defined a new hourly wage rate variable equal to the wage at the job if the individual was paid an hourly wage. For individuals not paid an hour wage, we calculated the wage by dividing monthly earnings at the job by the product of the usual hours worked at the job and the number of weeks worked at the job that month.

- We defined SNAP participation status using a SIPP-generated binary variable indicating the individual was covered by SNAP.
- We measured recent work experience by calculating, for each individual, the percentage of the past 18 months that he or she was employed.
- We measured educational attainment based on the highest degree received or grade completed.
- We described whether the individual had a physical, mental, or other health condition that limited the kind or amount of work they could do at a job or business, or that altogether prevented the kind or amount of work they could do, using self-reported information.
- We described limited English proficiency using a variable that measured an individual's self-reported ability to speak English, which was asked only among those individuals who reported speaking a language other than English at home. We also described whether an individual lived in a linguistically-isolated household using a variable that measured whether he or she lived in a household where no person age 14 and over speaks English very well.
- We measured the number of young children in the household based on their age in April 2010.
- We described individuals' self-reported reasons for not working and self-reported reasons that employed individuals who worked fewer than 35 hours per week did not work more hours.

## C. Analysis methods

All analyses are descriptive and use the SIPP's longitudinal panel weights. For categorical variables like employment status, full-time versus part-time employment, and number of jobs held and for the variables measuring barriers to work such as low educational attainment, we estimate the percentage of individuals in each category. For continuous variables like monthly earnings, hours worked, and hourly wage rates, we characterize distributions by presenting the 10th, 25th, 50th, 75th, and 90th percentiles. Work experience is defined using a continuous variable (the percentage of time in the past 18 months that the individual was employed), but we describe the distribution by grouping individuals into five categories and estimating the percentage of individuals in each group. The categories are: the percentage of individuals who were not employed at all and the percentage employed 1 to 25 percent of the time, 26 to 50 percent of the time, 51 to 75 percent of the time, and 76 to 100 percent of the time.

Many analyses examine transitions in employment and SNAP participation status between April 2010 and April 2011. These analyses follow the same individuals over time but use information only from April 2010 and 2011 and not the months in between. For example, when estimating the percentage of SNAP participants employed in 2010 and unemployed in 2011, we do not consider additional employment transitions that took place between these two points in time.

All analyses are based on SNAP participants ages 18 to 59 in April 2010 that had a nonmissing longitudinal panel weight and nonmissing data in April 2010 and 2011. Analyses that further restrict the sample to those individuals who were unemployed or out of the labor force in April 2010 are noted in Chapters III and IV.

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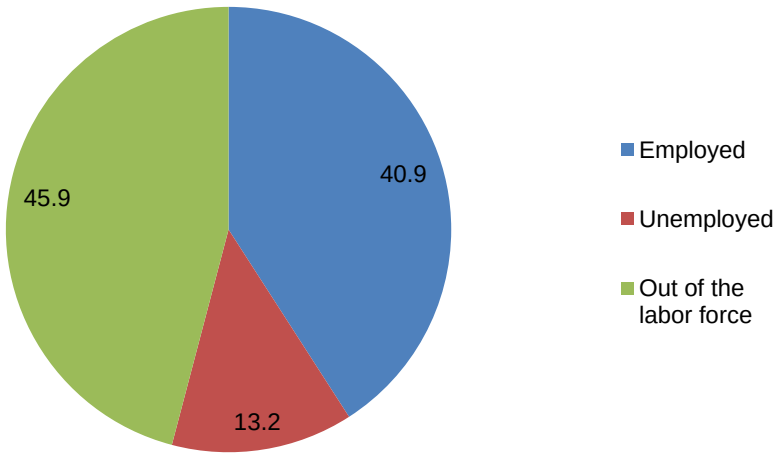
# III. EMPLOYMENT CHARACTERISTICS AND TRANSITIONS

In this chapter, we describe the employment experiences of SNAP participants. We examine the distribution of employment status in 2010 and, for those who were employed, the distributions of monthly earnings, hours worked, and number of jobs. Next, we assess changes in participants' labor market status by presenting one-year transition rates between being employed, unemployed, and out of the labor force. We describe these changes separately for individuals who participated in SNAP in both April 2010 and April 2011 and for individuals who participated in April 2010 but not in April 2011. Finally, we examine characteristics of new jobs for SNAP participants who became employed and describe changes in employment and hours worked among SNAP participants who were employed in both April 2010 and 2011.

## A. Employment characteristics of SNAP participants

Two out of five SNAP participants (40.9 percent) were employed in April 2010 (Figure III.1). Thirteen percent were unemployed and 45.9 percent were out of the labor force.

**Figure III.1. Employment status in April 2010 among individuals who participated in SNAP in April 2010 (percentage)**




Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 2,736 individuals in April 2010.

Among SNAP participants employed in April 2010, the median monthly earnings were $1,250 (Table III.1). Twenty-five percent of employed participants had earnings at or below $750, while the earnings of the top 25 percent were at least $1,819. The median number of hours worked by SNAP participants was 40 hours per week, though a quarter of employed participants worked 28 hours or less per week. Sixty-six percent of employed participants worked full-time, while 34 percent worked part-time (not shown). SNAP participants had a median wage of $9 per hour.

### Table III.1. Monthly earnings and wages and weekly hours worked among employed SNAP participants in April 2010

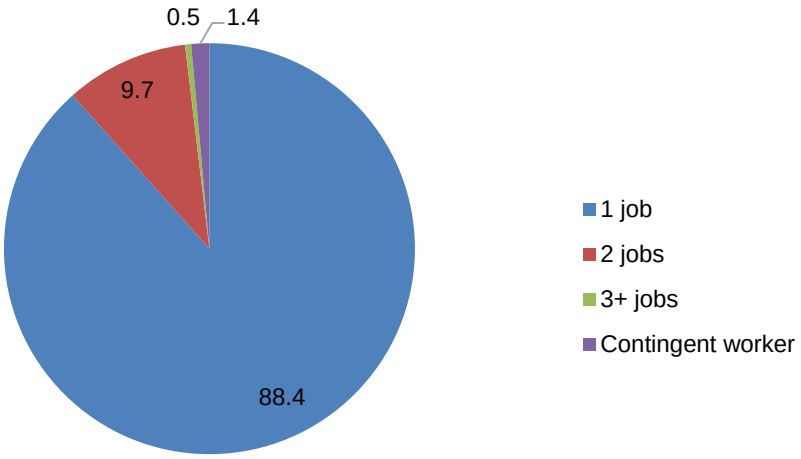
| | 10th percentile | 25th percentile | 50th percentile | 75th percentile | 90th percentile |
|---|---|---|---|---|---|
| Monthly earnings ($) | 368 | 750 | 1,250 | 1,819 | 2,500 |
| Usual hours worked per week | 18 | 28 | 40 | 40 | 47 |
| Hourly wage rate ($) | 7 | 8 | 9 | 12 | 15 |

Source: Survey of Income and Program Participation, 2008 panel, weighted data.

Note: Tabulations based on 978 individuals in April 2010.

A large majority (88 percent) of employed SNAP participants worked at a single job (Figure III.2). Another 10 percent reported working at two jobs and 0.5 percent reported working at three or more jobs. Contingent employment was reported by 1.4 percent of employed participants.[2]

### Figure III.2. Number of jobs held by employed SNAP participants in April 2010 (percentage)




Source: Survey of Income and Program Participation, 2008 panel, weighted data.

Note: Tabulations based on 982 individuals in April 2010.

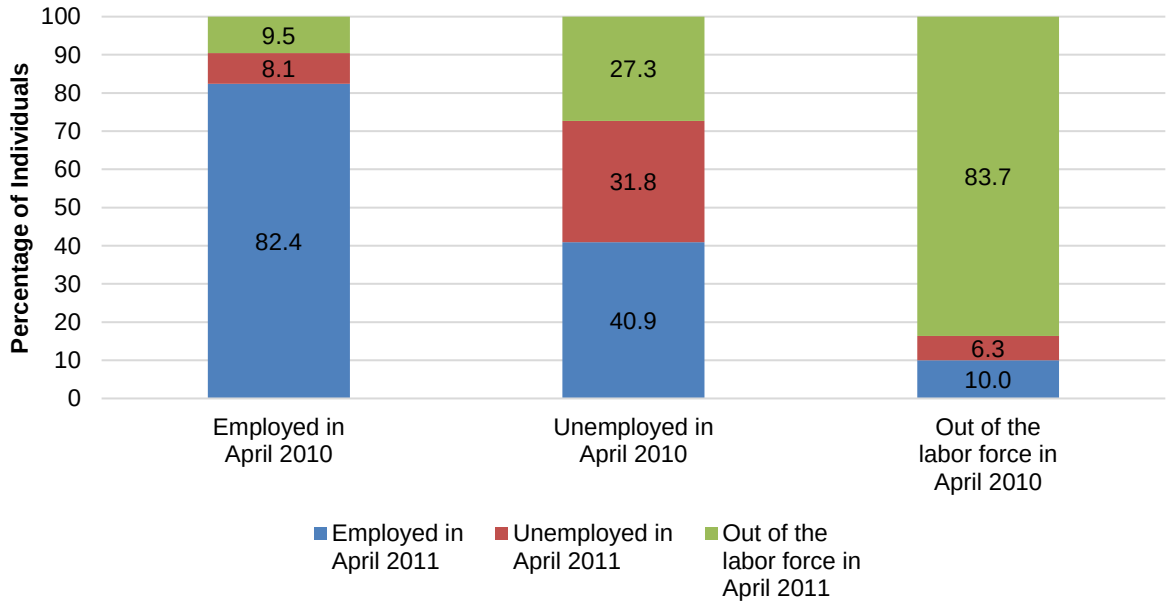
## B. SNAP participants' employment transitions

Many SNAP participants experienced employment transitions between April 2010 and 2011. Figure III.3 describes transitions among individuals who participated in SNAP in April 2010, regardless of whether they still participated in April 2011. A total of 17.6 percent of SNAP participants employed in April 2010 were not working one year later, with 8.1 percent becoming

[2] Contingent employment refers to the kinds of jobs of people with an "other work arrangement," as opposed to a job from an employer or self-employment. These people worked but did not have a definite work arrangement with a specific employer on an ongoing basis.

unemployed and 9.5 percent leaving the labor force.[3] There were many transitions in the opposite direction as well. About 41 percent of SNAP participants unemployed in April 2010 found a job as of one year later. Notably, a sizable percentage of unemployed participants did not find a job—31.8 percent of individuals who were unemployed in April 2010 remained unemployed and 27.3 percent had left the labor force by one year later. Finally, about 16 percent of SNAP participants who were out of the labor force in April 2010 entered the labor force by April 2011, with 10 percent becoming employed and 6.3 percent initiating job search but being unemployed.

**Figure III.3. Changes in labor market status from April 2010 to 2011 for SNAP participants in April 2010**



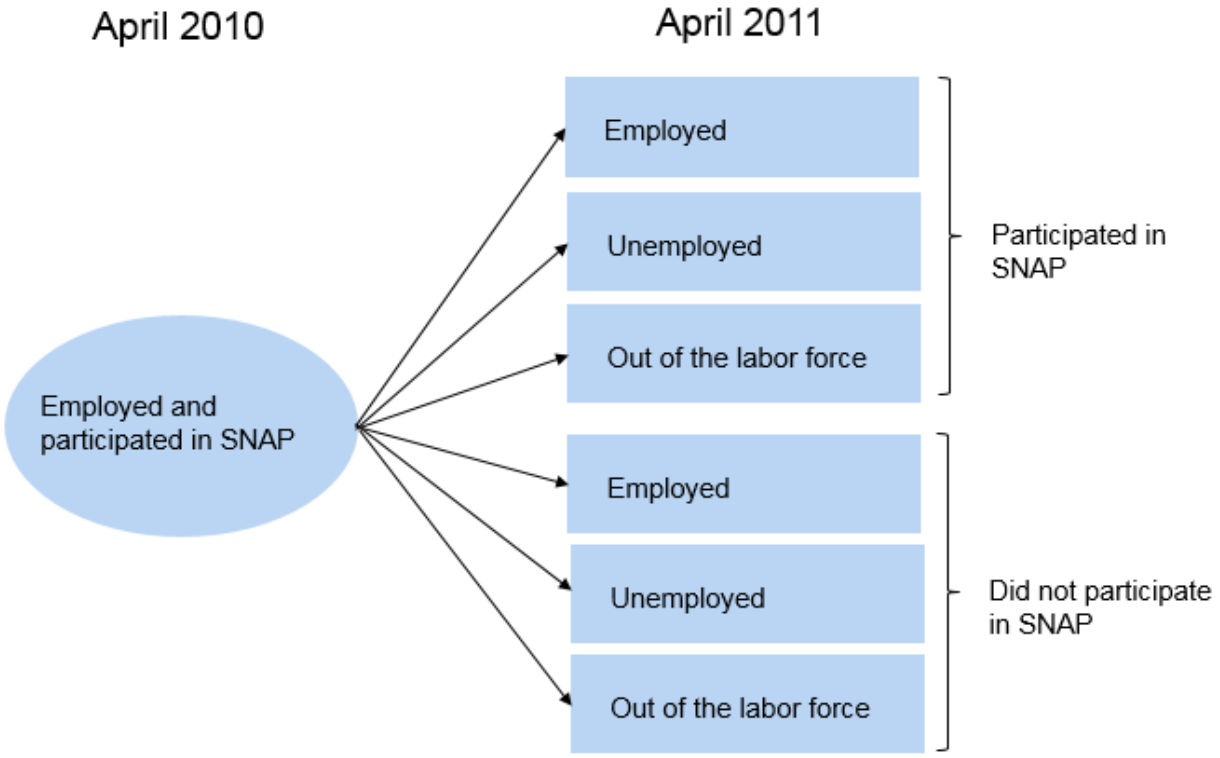

Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 2,736 individuals in April 2010 and 2011.

Becoming employed and experiencing an increase in income is one of the main determinants of exiting SNAP (Mabli et al. 2016). Whereas Figure III.3 shows employment transitions for those who participated in SNAP in April 2010 regardless of their SNAP participation status one year later, the next set of figures reestimates these employment transitions separately by SNAP participation in April 2011. As an example, Figure III.4 shows the six types of changes in employment status and SNAP participation status that we measure between April 2010 and 2011 for participants employed in April 2010. These are presented in Figure III.5 as the percentages of participants that were employed in April 2010 that remained employed, became unemployed, or left the labor force by April 2011; these findings are presented separately for those that participate in SNAP in both years and those that participate in SNAP in April 2010 but not in

[3] The percentages in this section measure changes in employment status from April 2010 to April 2011 regardless of changes that occurred between those months. For example, participants who were employed in April 2010, became unemployed several months later, and became employed again by April 2011 are included in the percentage of participants that were employed in both April 2010 and 2011. Thus, these percentages do not measure more short-term fluctuations in employment status between these two points in time.

April 2011. Similarly, Figures III.6 and III.7 present the transitions for participants who were unemployed and out of the labor force, respectively, in April 2010.

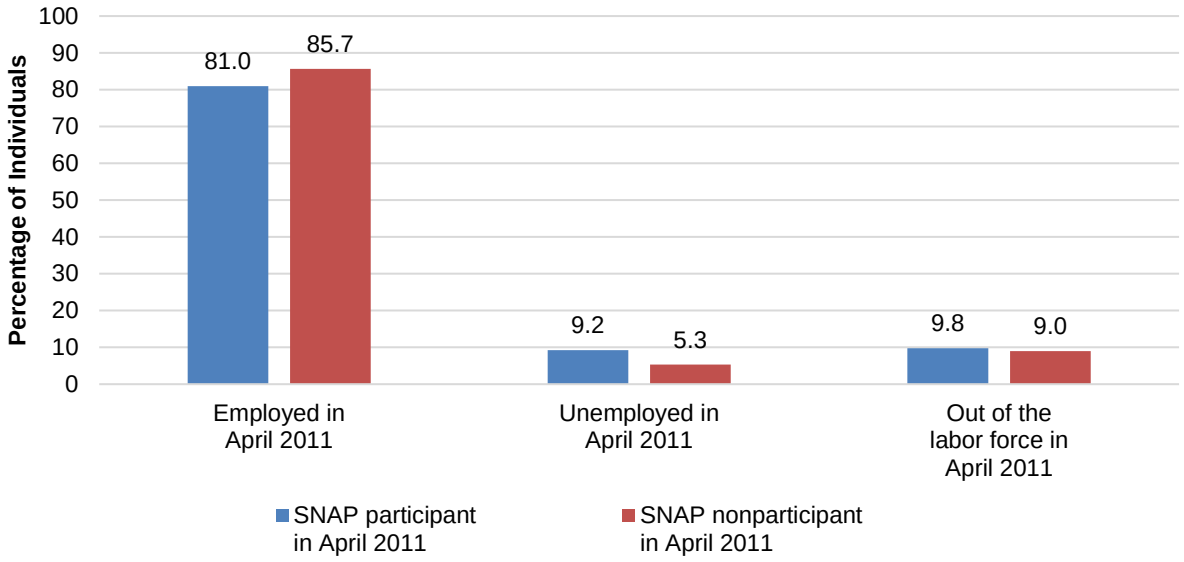
**Figure III.4. Potential changes in labor market status and SNAP participation from April 2010 to 2011 for employed SNAP participants in April 2010**




The percentage of employed SNAP participants who became unemployed was nearly twice as large among individuals who continued to participate in SNAP than among those that did not (9.2 versus 5.3 percent) (Figure III.5). Leaving the labor force was only slightly more common among participants than nonparticipants (9.8 versus 9.0 percent). Conversely, the percentage of SNAP participants employed in April 2010 who remained employed one year later was lower among individuals who still participated in SNAP in April 2011 than among those who did not (81.0 versus 85.7 percent).

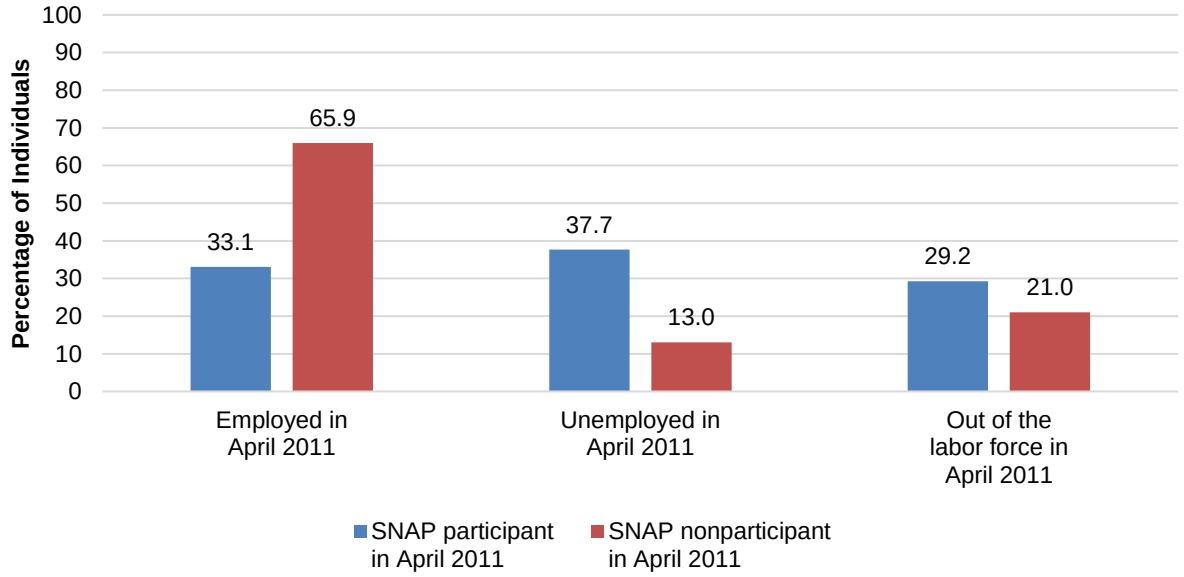
Among SNAP participants who were unemployed in April 2010 and continued to participate in SNAP one year later, 33.1 percent were employed in April 2011 (Figure III.6). By comparison, for SNAP participants who left the program by April 2011, 65.9 percent were employed. The percentage of SNAP participants unemployed in 2010 who left the labor force one year later was larger among those who continued to participate in SNAP compared to those that did not (29.2 versus 21.0 percent).

**Figure III.5. Labor market status in April 2011 among SNAP participants who were employed in April 2010 and by SNAP participation status in April 2011**




Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 1,090 individuals in April 2010 and 2011.

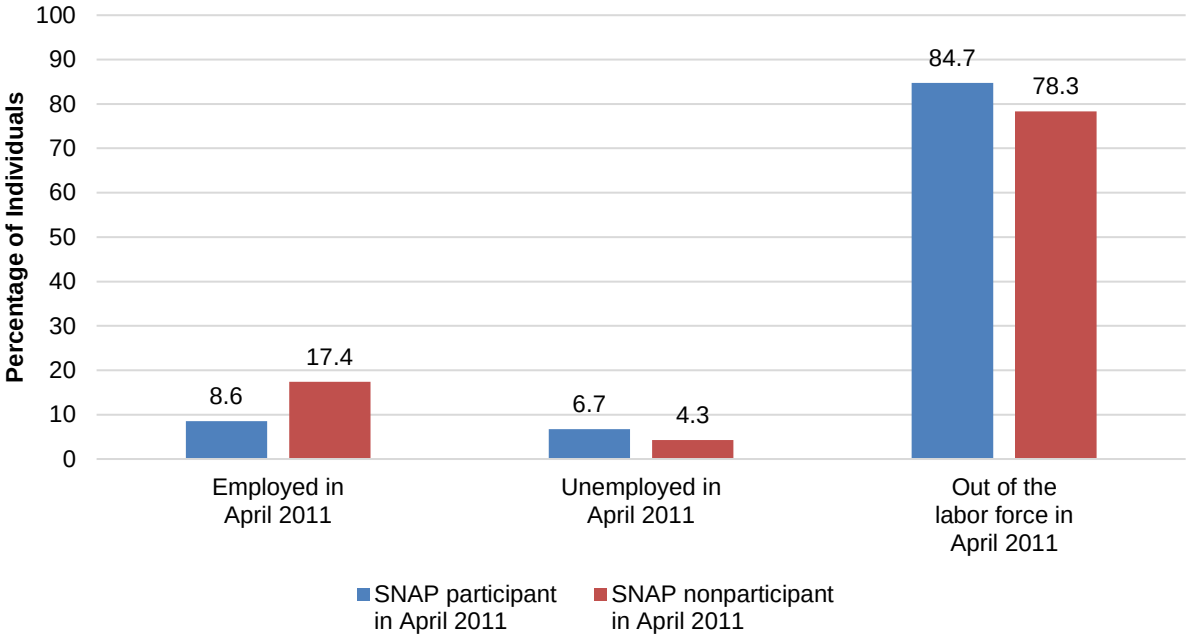
**Figure III.6. Labor market status in April 2011 among SNAP participants who were unemployed in April 2010 and by SNAP participation status in April 2011**




Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 334 individuals in April 2010 and 2011.

Finally, among SNAP participants who were out of the labor force in April 2010, the percentage that remained out of the labor force in 2011 was larger among people who continued to participate in SNAP compared to those who left the program (84.7 versus 78.3 percent) (Figure III.7). SNAP participants who continued to participate in 2011 were less likely to become employed (8.6 versus 17.4 percent) and more likely to be unemployed (6.7 versus 4.3 percent) than those who exited the program.

**Figure III.7. Labor market status in April 2011 among SNAP participants who were out of the labor force in April 2010 and by SNAP participation status in April 2011**




Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 1,312 individuals in April 2010 and 2011.

## C. Characteristics of new jobs for SNAP participants who became employed

Sizable percentages of participants who were unemployed or out of the labor force became employed by one year later, but little is known from available research about the types of jobs that SNAP participants obtain. This section examines the employment characteristics of SNAP participants who transitioned from being unemployed or out of the labor force to being employed. The characteristics analyzed consist of earnings received, hours worked, and number of jobs held.

**Earnings.** Unemployed SNAP participants in April 2010 who were employed and participated in SNAP one year later had median monthly earnings of $1,155 (Table III.2). Twenty-five percent of employed participants earned $779 or less, while the earnings of the top 25 percent were at least $1,386. Participants who were out of the labor force in April 2010 and were both employed and still participating in SNAP one year later had lower earnings than those who transitioned from unemployment ($931 versus 1,155 per month). Considering these two

groups together (participants who were unemployed or out of the labor force in April 2010), the median earnings of SNAP participants in April 2011 were slightly more than one-thousand dollars ($1,080).

Median monthly earnings in April 2011 were greater for individuals who were no longer participating in SNAP in April 2011 than for individuals who continued to participate. Unemployed SNAP participants who became employed and stopped participating in SNAP had median earnings of $1,559 per month (Table III.2). This compares to $1,155 among those who continued to participate in SNAP—a 35 percent difference. Similarly, out of the labor force SNAP participants who became employed and stopped participating in SNAP had median monthly earnings of $1,188, compared to $931 among those who continued to participate in SNAP—a 28 percent difference. Combining those who were unemployed and out of the labor force in April 2010, the median earnings in April 2011 were 22 percent greater--$1,315 for those no longer in the program versus $1,080 for continuing participants.

## Table III.2. Monthly earnings in April 2011 among April 2010 SNAP participants who became employed, by employment status in April 2010 and SNAP participation status in April 2011

| Employment status in April 2010 | SNAP participation status in April 2011 | April 2011 monthly earnings ($) | | | | |
|---|---|---|---|---|---|---|
| | | 10th percentile | 25th percentile | 50th percentile | 75th percentile | 90th percentile |
| Unemployed | Participant | 332 | 779 | 1,155 | 1,386 | 2,000 |
| Out of the labor force | Participant | 240 | 600 | 931 | 1,270 | 1,598 |
| Unemployed or out of the labor force | Participant | 250 | 605 | 1,080 | 1,386 | 1,732 |
| Unemployed | Nonparticipant | 330 | 907 | 1,559 | 2,815 | 3,366 |
| Out of the labor force | Nonparticipant | 400 | 700 | 1,188 | 1,732 | 2,376 |
| Unemployed or out of the labor force | Nonparticipant | 364 | 800 | 1,315 | 2,286 | 3,358 |

Source: Survey of Income and Program Participation, 2008 panel, weighted data.

Note: Tabulations based on 227 individuals in April 2010 and 2011.

**Hours worked.** Unemployed SNAP participants who were employed and participated in SNAP one year later worked an average of 38 hours a week (Table III.3). Twenty-five percent of employed participants worked 30 or fewer hours, while another 25 percent worked at least 40 hours. SNAP participants who were out of the labor force in April 2010 who became employed and continued to participate in SNAP one year later worked far fewer hours per week than those who transitioned from unemployment (the median number of hours was 25 versus 38). The median number of hours worked by SNAP participants who became employed by April 2011, regardless of whether they were unemployed or out of the labor force in April 2010, was 35 hours.

## Table III.3. Usual hours worked per week in April 2011 among April 2010 SNAP participants who became employed, by employment status in April 2010 and SNAP participation status in April 2011

| Employment status in April 2010 | SNAP participation status in April 2011 | Usual hours worked per week | | | | |
|---|---|---|---|---|---|---|
| | | 10th percentile | 25th percentile | 50th percentile | 75th percentile | 90th percentile |
| Unemployed | Participant | 19 | 30 | 38 | 40 | 55 |
| Out of the labor force | Participant | 16 | 20 | 25 | 40 | 40 |
| Unemployed or out of the labor force | Participant | 18 | 20 | 35 | 40 | 55 |
| Unemployed | Nonparticipant | 30 | 40 | 40 | 50 | 80 |
| Out of the labor force | Nonparticipant | 15 | 25 | 38 | 40 | 40 |
| Unemployed or out of the labor force | Nonparticipant | 21 | 32 | 40 | 40 | 60 |

Source: Survey of Income and Program Participation, 2008 panel, weighted data.

Note: Tabulations based on 202 individuals in April 2010 and 2011.

SNAP participants who became employed by April 2011 but no longer participated in SNAP worked more hours than individuals who continued to participate. Among SNAP participants who were unemployed or out of the labor force in April 2010, the median number of hours typically worked by individuals who were no longer participating in SNAP in April 2011 was 40 hours, compared to 35 hours for individuals who continued to participate (Table III.3).

**Number of jobs held.** Eighty-three percent of unemployed SNAP participants that became employed and continued to participate in SNAP in April 2011 worked at a single job (Table III.4). This compares to 88.3 percent of SNAP participants out of the labor force in April 2010 who became employed and continued to participate in SNAP in April 2011. Individuals who became employed but were no longer participating in SNAP were more likely to work at two or more jobs compared to individuals who continued to participate (24.9 versus 17.2 percent, respectively) (Table III.4).

**Table III.4. Number of jobs reported in April 2011 among April 2010 SNAP participants who became employed, by employment status in April 2010 and SNAP participation status in April 2011**

| Employment status in April 2010 | SNAP participation status in April 2011 | Contingent worker | 1 job | 2 jobs | 3 or more jobs |
|---|---|---|---|---|---|
| Unemployed | Participant | 0.0 | 82.8 | 15.6 | 1.6 |
| Out of the labor force | Participant | 1.7 | 88.3 | 10.0 | 0.0 |
| Unemployed or out of the labor force | Participant | 0.8 | 85.5 | 12.9 | 0.8 |
| Unemployed | Nonparticipant | 0.0 | 75.1 | 24.0 | 0.9 |
| Out of the labor force | Nonparticipant | 1.4 | 93.1 | 5.5 | 0.0 |
| Unemployed or out of the labor force | Nonparticipant | 0.6 | 82.5 | 16.4 | 0.5 |

Source: Survey of Income and Program Participation, 2008 panel, weighted data.

Note: Tabulations based on 242 individuals in April 2010 and 2011.

## D. SNAP participants' changes in earnings and hours worked over one year

Of the 40.9 percent of SNAP participants who were employed in April 2010 (Figure III.1), many of them (81.0 percent) were employed and continued to participate in SNAP in April 2011. Although there were changes in earnings and hours worked for SNAP participants employed in April 2010 and 2011, the sizes of these changes were small. The median monthly earnings among SNAP participants employed in April 2010 and 2011 were $1,200 and $1,292, respectively (Table III.5). Examining the distribution of differences in monthly earnings between 2010 and 2011, the median participant did not experience a change in earnings. Twenty-five percent of employed participants experienced at least a $100 decrease over one year, while another 25 percent experienced at least a $174 increase. The top and bottom 10 percent that experienced the largest changes had earnings decrease by at least $420 or increase by at least $825.

Hours worked over the year also changed little. The median number of hours worked by SNAP participants employed in April 2010 and 2011 was 40 hours in both years (Table III.5). The median participant did not experience a change in hours worked, while 25 percent experienced at least a 2-hour reduction in hours and another 25 percent experienced at least a 3-hour increase in hours.

## Table III.5. Earnings and usual hours worked per week, among employed individuals who participated in SNAP in April 2010 and April 2011

| Employment characteristics | 10th percentile | 25th percentile | 50th percentile | 75th percentile | 90th percentile |
|---|---|---|---|---|---|
| Earnings in April 2010 ($) | 400 | 756 | 1,200 | 1,732 | 2,400 |
| Earnings in April 2011 ($) | 468 | 800 | 1,292 | 1,754 | 2,376 |
| Change in earnings from April 2010 to April 2011 ($) | -420 | -100 | 0 | 174 | 825 |
| Weekly hours worked in April 2010 | 18 | 26 | 40 | 40 | 45 |
| Weekly hours worked in April 2011 | 18 | 30 | 40 | 40 | 48 |
| Change in weekly hours worked from April 2010 to April 2011 | -11 | -2 | 0 | 3 | 15 |

Source: Survey of Income and Program Participation, 2008 panel, weighted data.

Note: Tabulations based on 628 individuals in April 2010.

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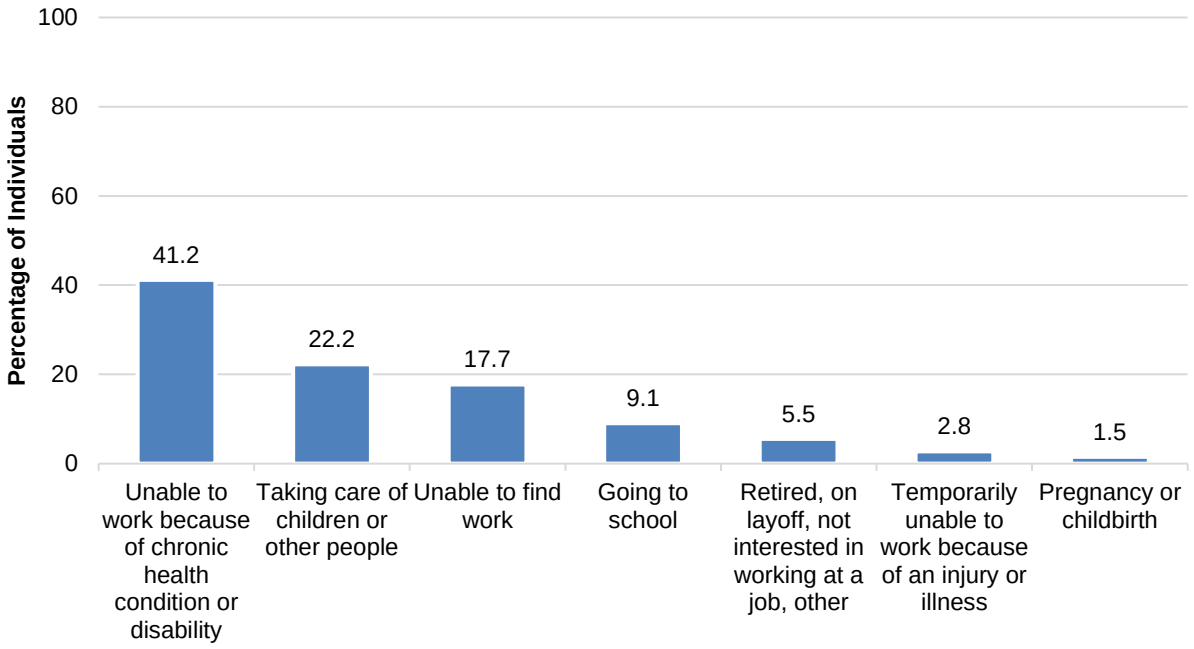
# IV. BARRIERS TO WORK AMONG SNAP PARTICIPANTS

In this chapter, we describe the barriers to employment among SNAP participants who were not working in April 2010. We describe participants' self-reported reasons for not having a job and, for those that worked part-time, reasons for not working full-time. We also examine common barriers including lack of work experience, low level of education (such as not having a high-school diploma), presence of a physical or mental health condition limiting or preventing work, presence of young children in the household, and limited English proficiency.

## A. Self-reported reasons for not working or for being underemployed

Non-employed SNAP participants reported a variety of reasons for not working. The most common reasons for not working among participants who were unemployed or out of the labor force were being unable to work because of a chronic health condition or disability (41.2 percent), taking care of children or other people (22.2 percent), and being unable to find work (17.7 percent) (Figure IV.1). Less common reasons include attending school (9.1 percent); being retired, on layoff, not interested in working, or other reasons (5.5 percent), and being temporarily unable to work because of an injury or illness (2.8 percent).

**Figure IV.1. Self-reported reasons for not working among SNAP participants who were unemployed or out of the labor force in April 2010 (percentage)**

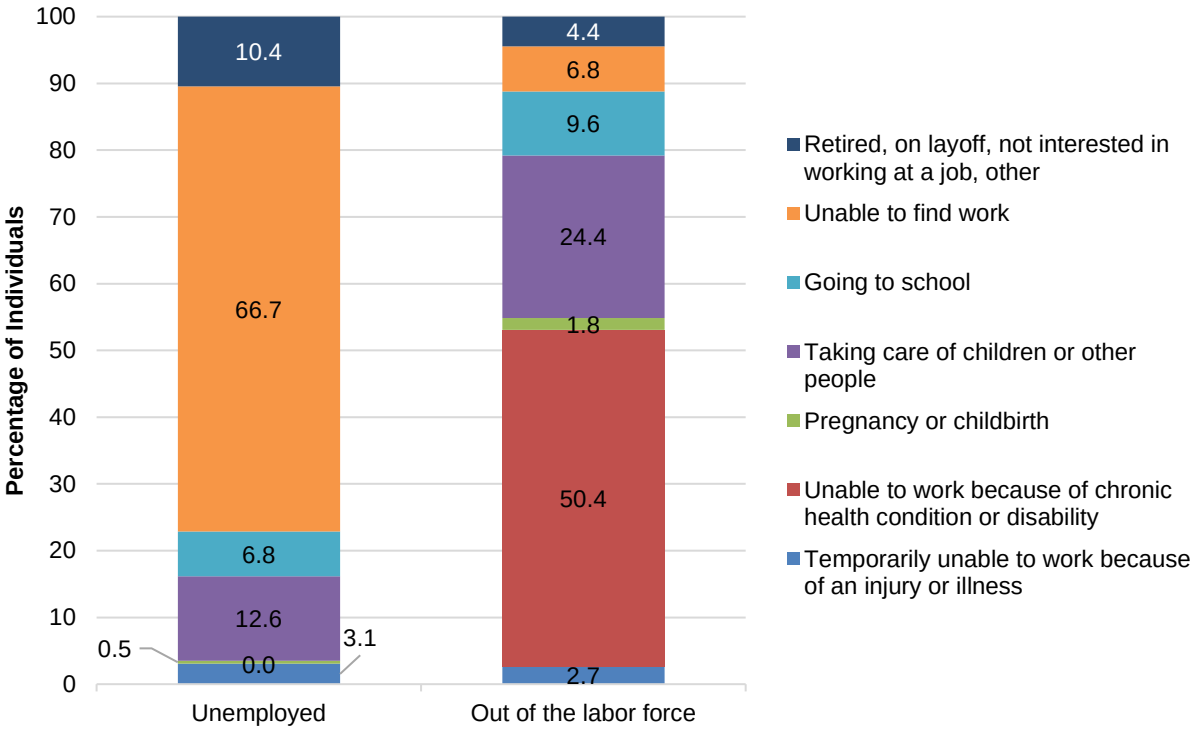



Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 1,520 individuals in April 2010.

The reasons for not working reported by non-employed SNAP participants differed across the two groups. The most common reason among unemployed participants was being unable to find work (66.7 percent) (Figure IV.2). As expected, this was not common for participants who were out of the labor force (6.8 percent). The most common reason among those participants was

being unable to work because of a chronic health condition or disability (50.4 percent); no unemployed participants reported this as a reason.

**Figure IV.2. Self-reported reasons for not working among SNAP participants in April 2010, by whether unemployed or out of the labor force (percentage)**



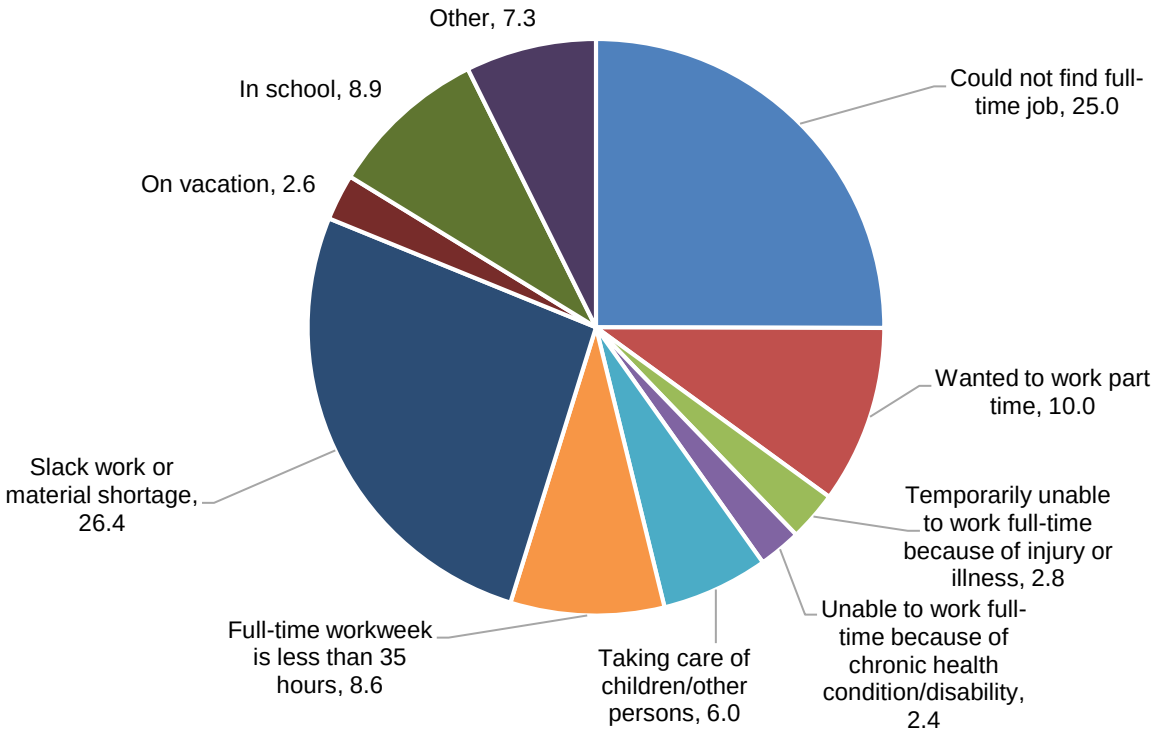

Source: Survey of Income and Program Participation, 2008 panel, weighted data.

Note: Tabulations based on 1,520 individuals in April 2010. Among the unemployed, 0.5 percent of SNAP participants reported they were not working because of pregnancy or childbirth, 0.0 percent reported they were unable to work because of a chronic health condition or disability, and 3.1 percent reported they were temporarily unable to work because of an injury or illness.

Among SNAP participants who were employed, many people desired to work full-time but could not. As shown in Figure IV.3, the most common reported reasons for working fewer than 35 hours per week among underemployed participants were due to "slack work or material shortages" (26.4 percent) and not being able to find full-time employment (25.0 percent).[4] Smaller percentages of participants reported wanting to work part-time (10.0 percent), needing to be in school (8.9 percent), and having a full-time workweek that was less than 35 hours (8.6 percent).

[4] Participants reporting "slack work or material shortages" are people who expect to return to full-time work when economic conditions improve.

**Figure IV.3. Self-reported reasons for not being able to work full-time among employed SNAP participants in April 2010 (percentage)**

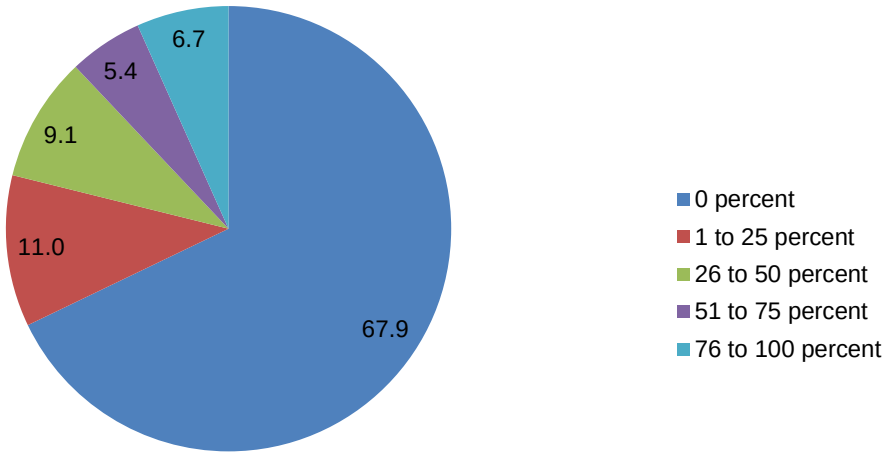



Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 557 individuals in April 2010.

## B. Lack of recent work experience

Many SNAP participants who were not employed lacked significant recent work experience. Among SNAP participants who were unemployed or out of the labor force in April 2010, more than two-thirds (67.9 percent) had not worked in the past 18 months (Figure IV.4). Eleven percent had worked less than a quarter of the time and 20.1 percent had worked less than half of the time. A small percentage (6.7 percent) had worked more than 75 percent of the time.

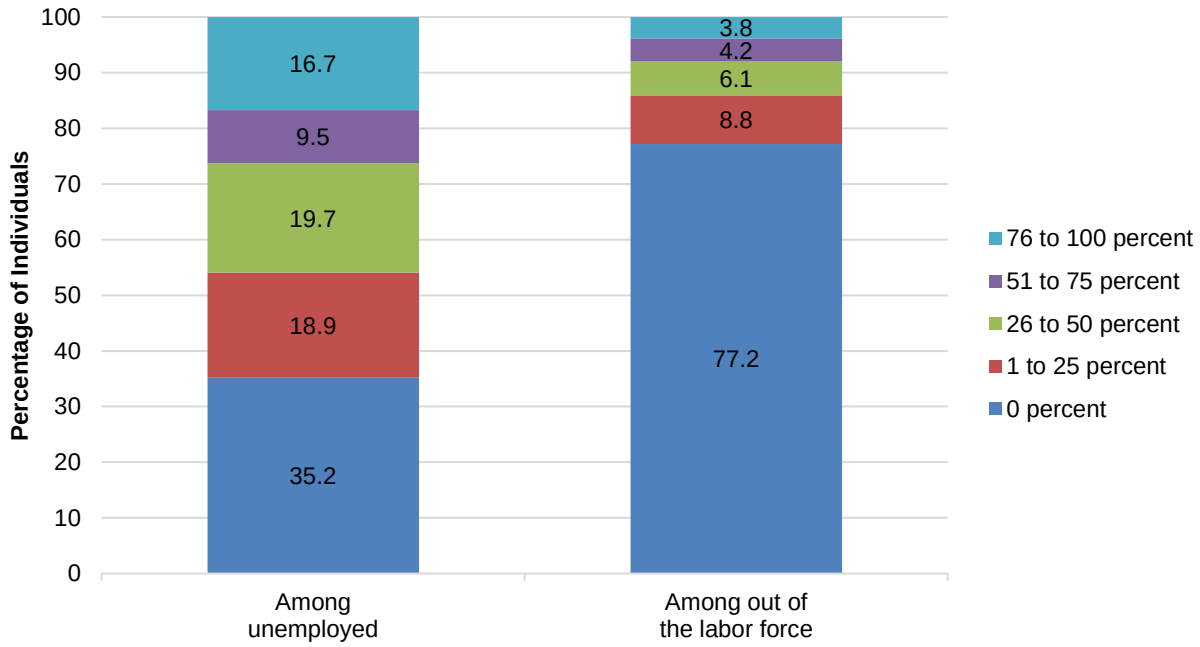
**Figure IV.4. Percentage of time SNAP participants were employed in past 18 months**




Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 1,642 individuals in April 2010.

As expected, SNAP participants who were not employed had varying levels of work experience depending on whether they were unemployed or out of the labor force. The percentage of participants in April 2010 with no work experience in the past 18 months was 35.2 percent among unemployed participants compared to 77.2 percent among participants who were out of the labor force (Figure IV.5). The percentage of participants with some work experience who worked less than half of the time in the past 18 months was greater among unemployed participants than out-of-the-labor-force participants (38.6 versus 14.9 percent, respectively). Similarly, the percentage of participants who had worked at least 75 percent of the past 18 months was over four times greater among the unemployed than among those out of the labor force (16.7 versus 3.8 percent, respectively).

**Figure IV.5. Percentage of time SNAP participants were employed in past 18 months, by whether unemployed or out of the labor force in April 2010**



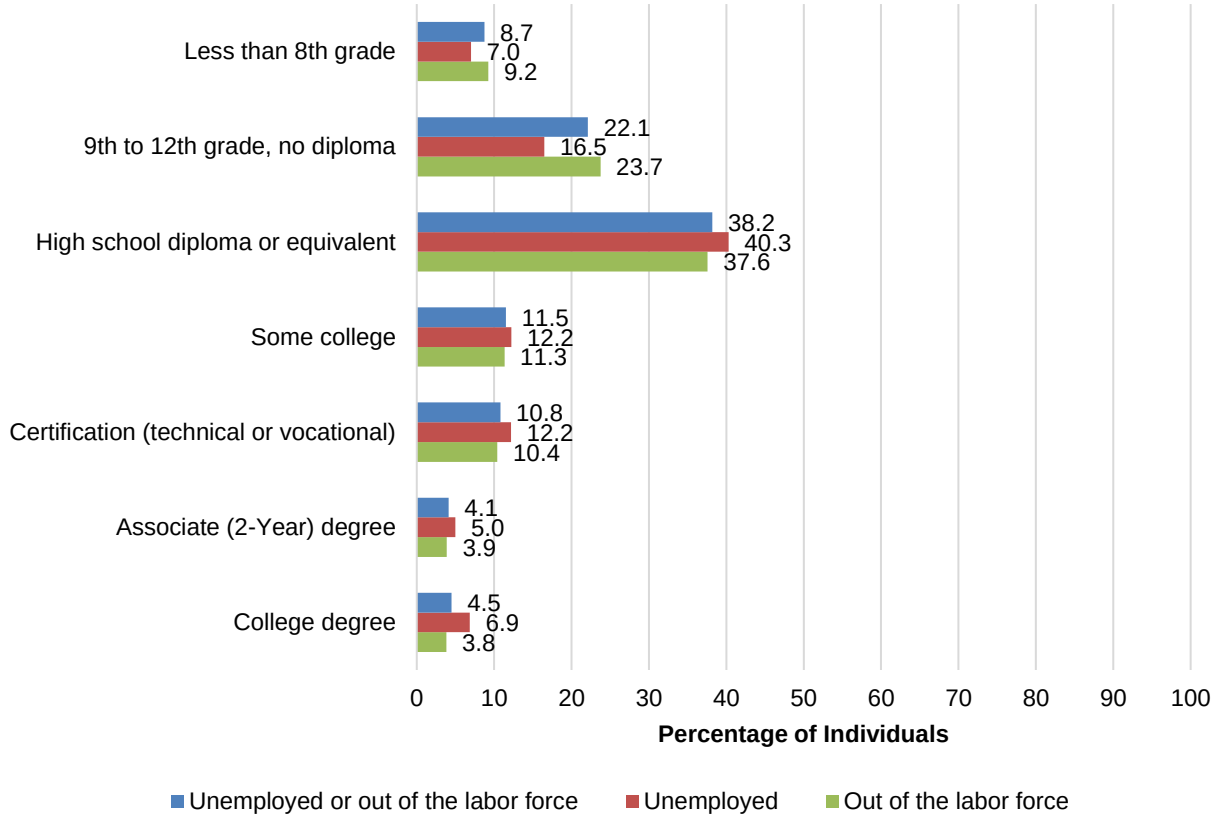

Source: Survey of Income and Program Participation, 2008 panel, weighted data.

Note: Tabulations based on 1,642 individuals in April 2010.

## C. Other barriers to employment

Low levels of educational attainment can be a barrier to employment for many low-income individuals. While the largest group of participants who were not employed (38.2 percent) obtained a high school diploma or equivalent, more than 30 percent of participants who were unemployed or out of the labor force did not have a high school diploma or GED (Figure IV.6). This was more common among participants who were out of the labor force than among those who were unemployed (32.9 versus 23.1 percent). Notably, however, many SNAP participants that were not employed had obtained more than a high school diploma: 11.5 percent had completed some college (but had not received a college degree); 10.8 percent had a diploma or certificate from a vocational, technical, trade, or business school beyond high school; 4.1 percent had received a two-year associate degree; and 4.5 percent had completed college or an advanced degree.

**Figure IV.6. SNAP participants' highest grade completed, by whether unemployed or out of the labor force in April 2010 (percentage)**

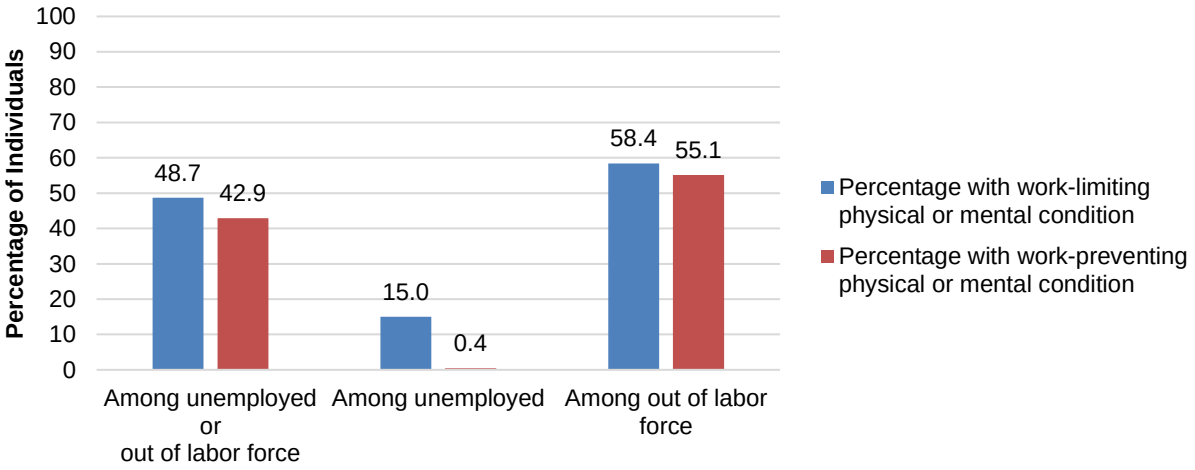



Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 1,646 individuals in April 2010.

Nearly half (48.7 percent) of SNAP participants who were unemployed or out of the labor force reported having a physical, mental, or other health condition that limited the kind or amount of work they could do (Figure IV.7). The percentage of participants who reported a condition that altogether prevented them from working was slightly lower (42.9 percent).[5] These percentages predominantly reflect the circumstances of those who are out of the labor force. The percentage of participants that reported a work-limiting condition was much lower for unemployed participants than participants who were out of the labor force (15.0 versus 58.4 percent). The same was true for the percentage that reported a work-preventing condition (0.4 versus 55.1 percent).

[5] Whether a participant had a work-preventing condition was asked only among those participants who reported having a work-limiting condition. Thus, 88.2 percent of participants reporting a work-limiting condition also reported a work-preventing condition.

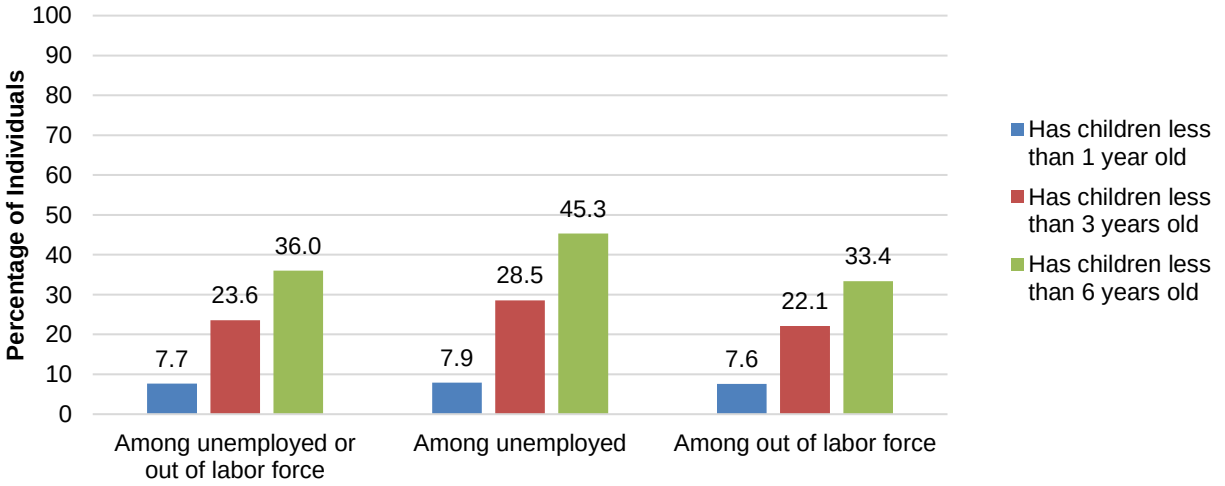
**Figure IV.7. Percentage of SNAP participants with a work-limiting or work-preventing physical, mental, or other health condition, by whether unemployed or out of the labor force**




Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 1,646 individuals in April 2010.

About 8 percent of SNAP participants who were unemployed or out of the labor force had at least one child under the age of 1 year (Figure IV.8). Greater percentages of participants had children under 3 and 6 years old (23.6 and 36.0 percent, respectively). The percentage of participants with a child under the age of 1 year was similar for unemployed and out-of-the-labor-force participants (7.9 and 7.6 percent, respectively), but the percentages of participants with children under 3 and 6 years old were higher among unemployed participants than those out of the labor force.

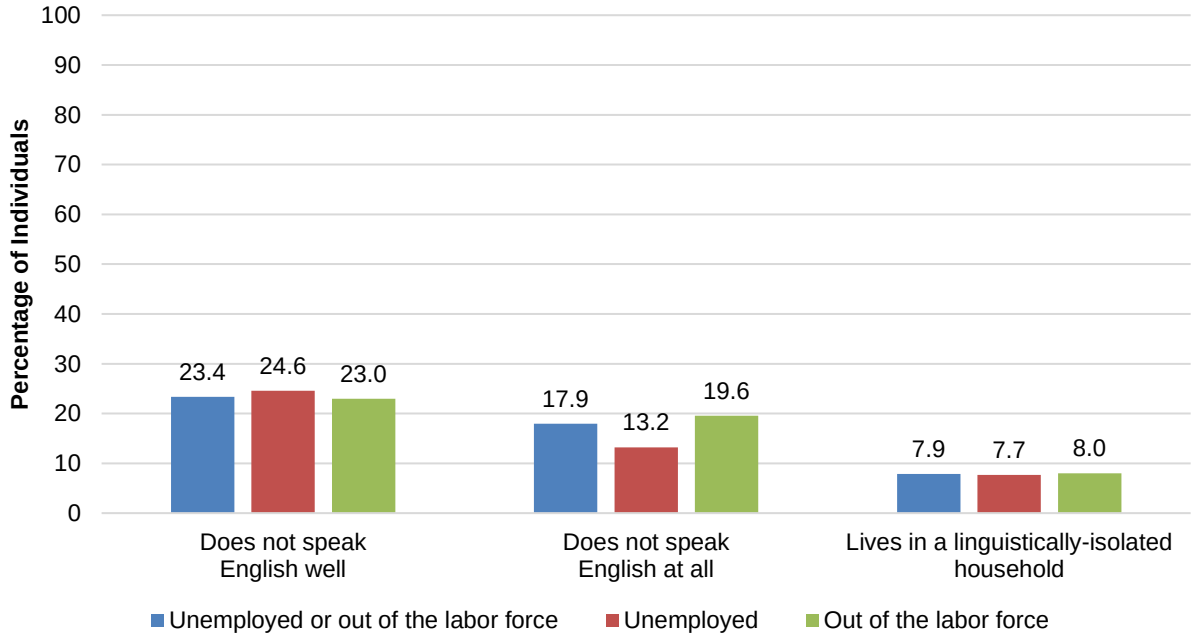
**Figure IV.8. Percentage of SNAP participants with young children, by whether unemployed or out of the labor force**




Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 1,646 individuals in April 2010.

Many non-employed SNAP participants reported having limited English proficiency. About 23 percent of participants who were unemployed or out of the labor force did not speak English well and another 17.9 percent did not speak English at all (Figure IV.9). In addition, 7.9 percent of non-employed participants lived in linguistically isolated households in which no one over the age of 14 spoke English very well. These percentages were generally similar for those unemployed and out of the labor force.

**Figure IV.9. Percentage of SNAP participants who do not speak English well, do not speak English at all, or live in a linguistically isolated household, by whether unemployed or out of the labor force**




Source: Survey of Income and Program Participation, 2008 panel, weighted data.
Note: Tabulations based on 1,646 individuals in April 2010.

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# V. CONCLUSIONS AND IMPLICATIONS FOR FUTURE POLICY RESEARCH

This report described the labor force participation and employment decisions of SNAP participants, job characteristics among employed participants, and barriers to work among non-employed participants. In this chapter, we highlight the study's main findings and discuss the implications for future research related to SNAP and employment.

## A. Summary of findings

Overall, SNAP participants are strongly connected to the labor force, but many experience changes in employment and labor force participation over the course of a year. In addition, many SNAP participants who are not employed face significant barriers to work.

In April 2010, about a year after the official end of the recession, 41 percent of SNAP participants ages 18 to 59 were employed; most of the remaining participants were out of the labor force (46 percent) rather than unemployed (13 percent). Employed SNAP participants earned, on average, $1,250 per month before taxes and worked 40 hours per week. Nearly all employed participants (88 percent) worked at a single job; 10 percent worked at two jobs.

Many participants changed their employment status within one year. Almost one-fifth (18 percent) of employed SNAP participants were no longer employed one year later, with slightly more than half of that group leaving the labor force and the rest becoming unemployed. Many participants also experienced job gains. One year later, 41 percent of unemployed SNAP participants were employed. In addition, 16 percent of those who participated in SNAP, but were out of the labor force, entered the labor force within a year (10 percent became employed and 6 percent became unemployed).

Non-employed SNAP participants who became employed and continued to participate in SNAP earned slightly more than $1,000 per month and worked 35 hours per week. However, their amount of earnings and the hours they worked differed depending on whether they transitioned to employment from being unemployed or out of the labor force. Those out of the labor force who became employed and continued to participate in SNAP one year later had lower earnings than those who transitioned from unemployment ($931 versus 1,155). They also worked far fewer hours per week than those who transitioned from unemployment (25 versus 38 hours).

The percentage of SNAP participants experiencing job losses and job gains differed for individuals who continued to participate in SNAP and those who left the program. Becoming unemployed was almost twice as likely among SNAP participants who continued to participate one year later, compared to those who did not participate. Similarly, becoming employed was twice as likely among those unemployed in 2010 who participated in SNAP in April 2010, but not April 2011, compared to those who participated in both April 2010 and 2011. SNAP participants from April 2010 who became employed by one year later but no longer participated in SNAP had more earnings ($1,315 versus 1,080) and worked more hours (40 versus 35) than individuals who continued to participate in SNAP. They were also more likely to have at least two jobs (18 versus 14 percent).

SNAP participants who were not working faced a diverse set of barriers to employment. Many non-employed SNAP participants lacked significant recent work experience. More than

two-thirds (68 percent) of non-employed participants had not worked in the past 18 months and an additional 11 percent worked less than a quarter of the time. Even among unemployed participants, in contrast to those out of the labor force, more than a third (35 percent) of participants had not worked in the past 18 months and an additional 20 percent worked less than a quarter of the time.

SNAP participants experienced other barriers to work as well. More than 30 percent of non-employed participants did not have a high-school diploma, and 9 percent had not completed 8th grade. Nearly half (49 percent) of participants had a physical, mental, or other health condition that limited the kind or amount of work they could do; a slightly lower percentage had a condition that altogether prevented them from working. In addition, many participants had young children: 8 percent of non-employed participants had at least one child under the age of 1 year and nearly a quarter (23 percent) had at least one child younger than 3. Many participants also had limited English proficiency. About 24 percent reported not being able to speak English well, and another 18 percent did not speak English at all.

When asked the reason for not working, non-employed SNAP participants cited the following as the most common reasons: a chronic health condition or disability (42 percent), taking care of children or other people (22 percent), and being unable to find work (18 percent). Among unemployed participants, the most common reason was being unable to find work (67 percent).

Many employed SNAP participants wanted to work full-time but could not. The most commonly reported reasons for working fewer than 35 hours per week among underemployed participants were due to "slack work or material shortages" (26 percent) and not being able to find full-time employment (25 percent).

## B. Implications for future policy research

The study findings suggest several substantive research questions that can help inform SNAP policy related to employment and training:

- **What factors are associated with being employed?** Many SNAP participants work, but little is known about how the likelihood of working differs according to demographic, economic, and household characteristics. Learning more about participants who work is an important step in identifying potential barriers to work among the non-employed.
- **Why do SNAP participants who lose their job leave the labor force?** Many SNAP participants who experience job losses over the course of a year leave the labor force rather than become unemployed. Further examination of why people leave the labor force after experiencing a job loss or voluntarily exiting employment could help to establish strategies for retaining SNAP participants in the labor force. A related analysis could investigate the percentage of employment to non-employment transitions that are due to termination, layoff, and voluntary leaving.

- **Why do many unemployed SNAP participants who do not find a job leave the labor force?** A sizable percentage of unemployed SNAP participants found a job within one year; however, many unemployed participants also left the labor force. Analyses examining the characteristics of unemployed SNAP participants associated with discontinuing job search and leaving the labor force could provide useful information on how to improve job search assistance policies for these populations.
- **Through what mechanisms do SNAP participants who are out of the labor force find employment?** A nonnegligible percentage of SNAP participants who are out of the labor force enter employment. Given the main distinction between being out of the labor force and being unemployed is whether one spends time searching for a job, exploring how SNAP participants who are out of the labor force obtain jobs would be a fruitful direction for future research. This could inform whether those with two labor participation statuses are truly different, marked by different job search behavior, or if people categorized as being out of the labor force simply reflects survey misreporting. In addition, knowing whether SNAP participants who are out of the labor force and who become employed within a year enter unemployment and search for a job *at some point* in the year prior to becoming employed could tell us more about the timing of job search.
- **What factors are associated with SNAP participants obtaining more stable and higher-paying jobs?** Unemployed SNAP participants that obtain a job earn slightly more than $1,000 per month on average. More research is needed to understand differences in earnings among the newly-employed and which employer and participant characteristics are associated with greater employment stability.
- **What percentage of SNAP participants without recent work experience have explored on-the-job training and work-based learning programs and, among those who have not, what are the barriers to enrolling in these programs?** A sizable percentage of unemployed SNAP participants lacked work experience in the past 18 months and many with experience had only worked a small percentage of months. Analyses examining participants' awareness of these programs and reasons for not participating in them could help to refine strategies to bolster enrollment in employment and training programs that provide work experience.
- **How do barriers to work other than lack of work experience differ for non-employed SNAP participants who have been non-employed for a long time versus those who have only recently become non-employed?** SNAP participants reported experiencing many barriers to work other than lack of significant work experience. More research is needed to understand whether these barriers differ according to the amount of work experience and attachment to the labor market.

Answering these questions is an important step in identifying potential barriers to work among non-employed SNAP participants and establishing strategies for retaining SNAP participants in the labor force, refining strategies to bolster enrollment in employment and training programs that provide work experience, and improving job search assistance policies for these populations.

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## REFERENCES


Blundell, Richard, and Luigi Pistaferri. "Income Volatility and Household Consumption: The Impact of Food Assistance Programs." *Journal of Human Resources*, 38, 2003, pp. 1032–1050.

Burstein, Nancy R. "Dynamics of the Food Stamp Program as Reported in the Survey of Income and Program Participation." Report submitted to the U.S. Department of Agriculture, Food and Nutrition Service. Cambridge, MA: Abt Associates, Inc., January 1993.

Cody, Scott, Laura Castner, James Mabli, and Julie Sykes. "Dynamics of Food Stamp Participation 2001–2003." Final Report Submitted to the U.S. Department of Agriculture, Food and Nutrition Service, Washington DC, November 2007.

Fraker, Thomas, and Robert Moffitt (1988). "The Effect of Food Stamps on Labor Supply: A Bivariate Selection Model." *Journal of Public Economics*, vol. 35, no. 1, 1988, pp. 25–56.

Gleason, Philip, Peter Schochet, and Robert Moffitt. "The Dynamics of Food Stamp Program Participation in the Early 1990s." Report submitted to the U.S. Department of Agriculture, Food and Nutrition Service. Washington, DC: Mathematica Policy Research, Inc., April 1998.

Gundersen, Craig, and James P. Ziliak. "The Role of Food Stamps in Consumption Stabilization." *Journal of Human Resources*, vol. 38, 2003, pp. 1051–1079.

Hagstrom, Paul. "The Food Stamp Participation and Labor Supply of Married Couples: An Empirical Analysis of Joint Decisions." *Journal of Human Resources*, vol. 31, no. 2, 1996, pp. 383–403.

Hoynes, Hilary, and Diane Schanzenbach. "Work Incentives and the Food Stamp Program." *Journal of Public Economics*, vol. 96, no. 1, 2012, pp. 151–162.

Keane, Michael, and Robert Moffitt. "A Structural Model of Multiple Welfare Program Participation and Labor Supply." *International Economic Review*, vol. 39, no. 3, 1998, pp. 553–589.

Klerman, Alex Jacob and Caroline Danielson. "Determinants of the Food Stamp Program Caseload." Washington, DC: USDA, Economic Research Service, 2009.

Kuhn, Betsey A., Michael LeBlanc, and Craig Gundersen. "The Food Stamp Program, Welfare Reform, and the Aggregate Economy." *American Journal of Agricultural Economics*, vol. 79, no. 5, 1997, pp. 1595–1599.

Leftin, Joshua, Nancy Wemmerus, James Mabli, Thomas Godfrey, and Stephen Tordella. "Dynamics of Supplemental Nutrition Assistance Program Participation from 2008 to 2010." Draft Report to U.S. Department of Agriculture, Food and Nutrition Service. Decision Demographics, Arlington VA, 2014.

Mabli, James, and James C. Ohls. "Supplemental Nutrition Assistance Program Dynamics and Employment Transitions: The Role of Employment Instability." Applied Economic Perspectives and Policy, vol. 34, no. 1, 2012, pp. 187–213.

Mabli, James, Stephen Tordella, Laura Castner, Thomas Godfrey, and Priscilla Foran. (2011). "Dynamics of Supplemental Nutrition Assistance Program Participation in the Mid-2000s." Report to U.S. Department of Agriculture, Food and Nutrition Service." Decision Demographics, Arlington VA.

Mabli, James, Thomas Godfrey, Nancy Wemmerus, Joshua Leftin, and Stephen Tordella. "Determinants of Supplemental Nutrition Assistance Program Participation from 2008 to 2012." Final Report to U.S. Department of Agriculture, Food and Nutrition Service. Decision Demographics, Arlington, VA. 2014.

McKernan, Signe-Mary and Caroline Ratcliffe. "Employment Factors Influencing Food Stamp Program Participation," Washington, DC: The Urban Institute, 2003.

Rich, Robert. "The Great Recession: December 2007 – June 2009". Federal Reserve Bank of New York. November 2013. Available at https://www.federalreservehistory.org/essays/great_recession_of_200709 Accessed June 15, 2017.

Rosenbaum, Dorothy. "The Relationship Between SNAP and Work Among Low-Income Households." Washington, DC: Center on Budget and Policy Priorities. 2013.

# APPENDIX A

# DATA AND METHODOLOGY

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# APPENDIX A: DATA AND METHODOLOGY

This appendix expands on the information presented in Chapter II to describe the data used in the analysis, how the sample was constructed, and the methodological approach.

## A. Survey of Income and Program Participation

This study used data from the 2008 panel of the Survey of Income and Program Participation (SIPP). The SIPP is a longitudinal survey that collects detailed monthly data on labor force activity, employment, income, participation in a wide range of government assistance programs, family and household composition, personal demographic characteristics, and many other topics (see Mabli et al. [2014] for an overview of the topics covered). The survey follows a representative sample of civilian noninstitutionalized people over time, collecting monthly data by means of interviews conducted at four-month intervals. All members of the households interviewed in the first wave remain eligible to be interviewed in subsequent waves even if they move away from the original sample address, provided that they remain in the survey universe.[6]

Each interview asks panel members and everyone living with them at the time about their activities during the preceding four months. The initial sample of SIPP households is divided at random into four equally sized groups that are interviewed on a staggered schedule, with one group interviewed each month. The first group is interviewed in January, May, and September of each year and asked to provide data for the preceding four months (for example, in September, respondents are asked to provide information on May, June, July, and August). Similarly, the second group is interviewed in October, February, and June of each year; the third group is interviewed in November, March, and July of each year; and the fourth group is interviewed in December, April, and August of each year.

Although there are 16 four-month waves in the 2008 SIPP panel, this study followed the same individuals over time using data only from waves six and nine. Specifically, it used data from April 2010 and 2011, which are the months of those waves that are common to all four rotation groups. We did not use data from earlier waves (those in 2008 and 2009) because we wanted to characterize SNAP participants' employment decisions after the recession that officially ended in June 2009 (Rich 2013). National unemployment rates remained high even after the official end of the recession; they were 9.9 and 9.1 percent in 2010 and 2011, respectively, and were more than twice the current rate (4.4 percent in April 2017), which should be considered when interpreting the findings in this report.

Although it was important to describe SNAP participants' behavior after the recession, selecting a time period later in the SIPP panel yielded a smaller sample size due to survey attrition. Attrition or sample loss generally occurs when members of a household sampled for the survey either cannot be located or refuse to participate. The SIPP contained 131,892 participants at the start of Wave 1. Restricting the data to individuals who had a longitudinal panel weight

[6] The exceptions are (1) children under 15 who move without an accompanying adult panel member, including those who enter the foster care system, and (2) individuals who move to a location that is more than 100 miles from the nearest SIPP primary sampling unit.

and who had data in April 2010 and 2011 resulted in a sample of 49,312 individuals.[7] Although sample loss makes up more than 50 percent of the original sample, the full panel weights created by the Census Bureau tend to correct for this loss and weighted estimates of general population characteristics have been shown to be unbiased (Mabli et al. 2014). Because this study focuses on employment transitions and barriers to work, we also restricted the sample to individuals 18 to 59 years old, resulting in a sample of 25,381 individuals. Finally, restricting the sample to individuals participating in SNAP in April 2010 resulted in a sample size of 2,736 individuals.

Although the official SNAP unit is generally defined to be all people in a household that purchase and prepare food together, our sample consists of individuals rather than households. This study focuses on describing the employment transitions and characteristics of SNAP participants, so portraying this at the household level would introduce added complexities without adding much insight into the relationship between SNAP and work. This is also in line with numerous studies of SNAP dynamics (Leftin et al. 2014; Mabli and Ohls 2012; Mabli et al. 2011; Cody et al. 2007; McKernan and Ratcliffe 2003; Gleason et al. 1998; Burstein 1993), as well as studies that examine aggregate SNAP participation rates (Klerman and Danielson 2009; Kuhn et al. 1997). Related studies in which the household is specified as the unit of analysis, such as Blundell and Pistaferri (2003) and Gundersen and Ziliak (2003), typically focus on household-level outcomes such as food expenditures rather than employment and program participation decisions.

## B. Employment status

This study defines employment status using three categories: employed, unemployed, and out of the labor force. We defined the employment status variable using the SIPP's monthly employment status summary recode variable, RMESR, and other variables such as hours worked and earnings amount. Our recoding procedure preserved the employment status value from RMESR for most of the sample, but recoded it for some sample members using additional information from the "usual hours worked per week" variable (RMHRSWK) and the gross monthly earnings variables (TPMSUM1 and TPMSUM2) to form a new employment summary measure. For example, we categorized as employed the individuals for which the monthly recode variable was equal to "no job at all this month" but the individuals had positive hours worked in some or all weeks of the month (0.06 percent of the sample). We categorized as out of the labor force the individuals for which the monthly recode variable was equal to "worked at job all month" or "worked at job all month but absent from work without pay at least one week", but who reported zero hours worked and zero earnings throughout the month (0.51 percent of the sample). Finally, we categorized as unemployed the individuals for which the monthly recode variable was equal to "had job all month, absent from work at least one week due to layoff" if they reported zero hours worked that month (0.34 percent of the sample). Overall, our recoded employment status variable differs marginally from the SIPP's monthly employment status

[7] We estimated all statistics using weighted data so that the results are representative of the survey universe. The longitudinal sample is weighted to represent the population eligible for the SIPP in the month to which the longitudinal weight is calibrated (January 2009 for the 2008 panel). The longitudinal panel weight has a reference period that begins with January 2009 and runs through the end of a specified wave. The Census Bureau assigns longitudinal weights to people who have data for all months of the period covered by the longitudinal weight. We used the third longitudinal panel weight (lgtpn3wt), which covers the period of the SIPP panel through December 2011.

summary recoded variable, assigning a status of "employed" to 0.9 percent additional individuals in the sample, assigning a status of "unemployed" to 0.4 percent fewer individuals in the sample and assigning a status of "out of the labor force" to 0.5 percent fewer individuals in the sample.

## C. Monthly earnings, hours worked, and hourly wage rates

For employed SNAP participants, we characterize jobs using monthly earnings, hours worked, and hourly wage rates. The SIPP contains variables measuring monthly earnings amounts for up to two jobs (TPMSUM1 and TPMSUM2). We set monthly earnings equal to the sum of these variables. Similarly, the data contain variables measuring the numbers of hours worked for up to two jobs (EJBHRS1 and EJBHRS2). We set hours worked equal to the sum of these variables. Finally, the SIPP contains variables measuring the regular hourly pay rate for up to two jobs (TPYRATE1 and TPYRATE2) for employed individuals who are paid an hourly rate. We defined a new hourly wage rate variable equal to the wage at the job if the individual was paid an hourly wage. For individuals not paid an hour wage, we calculated the wage by dividing monthly earnings at the job by the product of the usual hours worked at the job and the number of weeks worked at the job that month.

## D. SNAP participation status

We defined SNAP participation status using a SIPP-generated binary variable indicating the individual was covered by SNAP (RCUTYP27). Similar to most of the studies of SNAP dynamics for the past 30 years (Leftin et al. 2014; Mabli et al. 2011; Cody et al. 2007; Gleason et al. 1998; Burstein 1993), we recoded one-month gaps in SNAP participation. For example, if an individual reported participating in SNAP in February and April but not in March, we recoded their status to show they participated in March. To support this decision, we examined gaps in SNAP participation by estimating the incidence of gaps of different sizes, the lengths of time individuals participated in SNAP prior to and following the gaps, and characteristics associated with having a gap. Recoding gaps in participation assumes that the respondent made a mistake in reporting and did not experience an actual break in participation. It is also possible that this represents churning, or short-term nonparticipation in the program; however, we did not find evidence that individuals experienced changes in circumstances that led them to exit SNAP and then experienced another change that led them to reenter within a short time period. Thus, we concluded that one-month gaps largely represented respondent misreporting, and we recoded them to close the gaps.

## E. Work experience

We measure recent work experience by calculating, for each individual, the percentage of the past 18 months that he or she was employed. This uses our recoded employment status variable defined over waves one to six of the SIPP. The majority of the sample had 18 months of data prior to April 2010. For the few cases that joined the SIPP panel after Wave 1, we calculated the percentage of the time spent in the survey universe they were employed prior to April 2010.

## F. Other barriers to employment

We measure educational attainment based on the highest degree received or grade completed (EEDUCATE). We combined categories of grades completed to estimate the percentage that completed through 8th grade; completed 9th to 12th grade with no diploma;

obtained a high school diploma or a General Educational Development (GED) certificate or equivalent; completed some college with no degree; earned a diploma or certificate from a vocational, technical, trade, or business school beyond high school; earned a 2-year associate college degree, which includes academic and occupational degrees; or earned at least a college degree (bachelor's, master's, professional, or doctorate).

We described whether the individual had a physical, mental, or other health condition that limited the kind or amount of work they could do at a job or business using the variable EDISABL. This question was asked of all respondents ages 15 to 69 regardless of their employment status. Similarly, we described whether the individual had a physical, mental, or other health condition that prevented the kind or amount of work they could do at a job or business using the variable EDISPREV. This question was asked of all respondents ages 15 to 69 who reported having a condition that limited the kind or amount of work he or she could do. We recoded EDISPREV to "no" for individuals who reported in EDISABL that they did not have a condition that limited the amount of work they could do.

We described limited English proficiency using a variable that measured an individual's self-reported ability to speak English (EHOWWELL). The question was asked only among those individuals who reported speaking a language other than English at home. We also described whether an individual lived in a linguistically-isolated household using a variable that measured whether he or she lived in a household where no person age 14 and over speaks English very well (RLNGISOL).

Finally, we measured the number of young children in the household based on their age in April 2010.

## G. Self-reported reasons for not working or not working full-time

We described individuals' self-reported reasons for not working using the variable ERSNOWRK. This question asked individuals who are not working the main reason for not having a job or business. We combined the responses "temporarily unable to work because of an injury" and "temporarily unable to work because of an illness". We also combined the responses "on layoff (temporary or indefinite)," "not interested in working at a job," "retired," and "other" and labeled them "other."

We described the self-reported reasons that employed individuals who worked fewer than 35 hours per week did not work more hours using the variable EPTRESN. We combined the responses "temporarily unable to work because of an injury" and "temporarily unable to work because of an illness." We also combined the responses "participated in a job sharing arrangement" and "other" because there were very few individuals that selected "participated in a job sharing arrangement."

## H. Analysis methods

All analyses are descriptive and use the SIPP's longitudinal panel weights. For categorical variables like employment status, full-time versus part-time employment, and number of jobs held and for the variables measuring barriers to work such as low educational attainment, we estimate the percentage of individuals in each category. For continuous variables like monthly

earnings, hours worked, and hourly wage rates, we characterize distributions by presenting the 10th, 25th, 50th, 75th, and 90th percentiles. Work experience is defined using a continuous variable (the percentage of time in the past 18 months that the individual was employed), but we describe the distribution by grouping individuals into five categories and estimating the percentage of individuals in each group. The categories are: the percentage of individuals who were not employed at all and the percentage employed 1 to 25 percent of the time, 26 to 50 percent of the time, 51 to 75 percent of the time, and 76 to less than 100 percent of the time.

Many analyses examine transitions in employment and SNAP participation status between April 2010 and April 2011. These analyses follow the same individuals over time but use information only from April 2010 and 2011 and not the months in between. For example, when estimating the percentage of SNAP participants employed in 2010 and unemployed in 2011, we do not consider additional employment transitions that took place between these two points in time.

All analyses are based on SNAP participants ages 18 to 59 in April 2010 that had a nonmissing longitudinal panel weight and nonmissing data in April 2010 and 2011. Analyses that further restrict the sample to those individuals who were unemployed or out of the labor force in April 2010 are noted in Chapters III and IV.

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