

**Aid to Jobless Workers in Florida in the Face of the Great Recession: The Interaction of
Unemployment Insurance and the Supplemental Nutritional Assistance Program**

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April 2013

Draft: 5.11

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This research was supported by the Economic Research Service of the U.S. Department of Agriculture.

Introduction

The U.S. economy is undergoing a major restructuring. Unemployment rates persist at historic highs, and economic growth is slower than in any recovery since the Great Depression. The average duration of unemployment spells during the recession was higher than in any other post-War recession and there is evidence that a growing number of workers are becoming discouraged and leaving the labor market. As a result, in 2010 poverty topped 15 percent for the first time in over twenty years and food insecurity rates remained at a measured high of 14.5 percent, suggesting that American families are facing levels of hardship that are unprecedented in recent memory.

The social safety net has become a critical source of support for many families as they try to make ends meet during these difficult times. In particular, the Supplemental Nutrition Assistance Program (SNAP)¹ caseload has grown to 47.7 million people in January 2013—or 15.1 percent of all Americans. Unemployment Insurance (UI), although historically reaching only half of all unemployed workers, is a significant source of income for those who qualify. Given the recent growth in the caseloads for both programs, the composition of the SNAP caseload has shifted dramatically with the economic crisis. Yet, little is known about how the changing economic conditions have affected SNAP caseloads and its interaction with the UI program.

We examine state administrative data from Florida for SNAP and UI from late 2005 through early 2010. We focus on three research questions:

1. How has SNAP participation changed as a result of the declining economic conditions?

¹ The Food Stamp Program was renamed Supplemental Nutrition Assistance Program in fall of 2008. We refer to the program as SNAP throughout the current paper.

2. Among SNAP participants, how has participation in UI changed?
3. How has the role UI insurance changed for SNAP participants? We consider in particular patterns of combined usage and their evolution during this period.

Analyses based on Florida are ideal for addressing these research questions. Florida is the fourth largest state in the United States by population with 19.3 million residents and the 22nd largest state by total land area. The particularly severe economic downturn faced by Florida allows clear identification of the role of the recession on SNAP caseloads and UI benefit receipt patterns.

Florida SNAP administration underwent major modernization in the first part of the last decade and was one of the most advanced systems in the nation at the onset of the Great Recession. The state economy has a highly diverse service-based structure with a heterogeneous labor force, in many ways leading national trends. Analyses based on Florida may well provide the most accurate picture of expected future patterns in other states.

SNAP and UI in Context

Recent research on UI and SNAP has focused on the large increase in caseloads in the Great Recession and the ability of these programs to buffer households from the worst effects of economic shocks. Funding for SNAP grew faster as result of the Great Recession than any other American safety net program. Aggregate expenditures increased from \$30 billion in 2007 to \$65 billion in 2010; real per capita spending also doubled from \$136 to \$287 over the same period. Although the size of the average benefit amount did increase modestly, increased expenditures were driven by the rise in the number of recipients (Moffit 2013). Nationally, half of all SNAP participants are children. One in four of all American children received SNAP benefits in 2012 (Isaacs and Healy 2012). Receipt of SNAP and UI benefits during the Great Recession benefitted those at the bottom of the income distribution, while other programs, such as Earned

Income Tax Credit were less progressive (Moffit 2013). Research from the Fragile Families study, based on nearly 5,000 children born just before the turn of the century in the U.S. to disadvantaged families, found that without the availability of SNAP, food hardships would have doubled in 2008 (Pilkaukas, Currie and Garfinkel 2012).

Research on UI tends to focus on the effects of receipt on unemployment duration and job search. Although data sources and methods vary, estimates generally suggest that the extension of UI benefits beginning in 2008 has resulted in small to modest increases in the national unemployment rate and a reduction in unemployment spell exits. Results using the CPS from 1994-2010 indicate that recent UI extensions result in small increases in duration and reductions in unemployment spell exits. Nonetheless, the majority of UI recipients still exit in the first six months (Farber and Valletta 2011). Other estimates suggest that the extension of UI benefits may have increased the national unemployment rate by as much as 1.8 percentage points, and extended the duration of unemployment by 2.1 to 5.3 weeks (Mazumder 2011; Elsby, Hobijn and Sahin 2010), although Rothstein (2011) looks at a slightly longer time period and estimates national unemployment rate increases of between 0.1 and 0.5%. Van Horn and Zukin (2011) report from a national random survey of workers who lost a job during the Great Recession that UI exhaustees were more likely to be male and have a high school education or less. The unemployed who did not take up UI were more likely to be female, younger and have lower incomes relative to those who participated in UI. ²

Joint participation between UI and SNAP has been explored using state administrative data for seven states. Results examining the 2006-2009 time period indicate that joint

² A few commentators have argued that extensions in UI benefits have had much larger impacts on unemployment during the Great Recession. See Barro (2010), and Howell and Azizoglu (2011).

participation between the two programs did increase after the Great Recession but that sequential participation of SNAP take-up after UI exhaustion was not as great as anticipated (Anderson, Kirilin and Weisman 2012).

SNAP Demographics in Florida

The Department of Children and Families (DCF) in Florida serviced the third largest SNAP caseload in the country with 3.6 million individuals in December 2012, 8 percent more than in December 2010. Florida accounted for 7.5 percent of the national caseload of 47.8 million participants (USDA 2013). While growth in the Florida SNAP caseload followed the national trend closely from the beginning of 2003 to mid-2007, from May 2007 to the present, the rate of growth in the SNAP caseload has exceeded that of the nation. See Figure 1.

Located in the Southern part of the United States and known for its temperate climate a larger share of the caseload in Florida is composed of elderly adults as compared to the national average (20.2 versus 16.5 percent). Some 36.9 percent of the caseload is made up of children, 16.7 percent disabled non-elderly adults, and 15.9 percent single adults heading households with children. Approximately 24.8 percent of the caseload is classified as non-elderly, non-disabled, childless households, often referred to as “ABAWDs” in the literature (USDA 2012). Following the Great Recession, this group makes up a larger share of the caseload than in the U.S. as a whole, and it is now of substantial importance in Florida’s caseload.

Due to the history of population migration into the state, the SNAP caseload in Florida has a varied citizenship background. There were 212,000 naturalized citizens participating in SNAP in Florida in FY2011 representing 15.4 percent of all naturalized citizens on the SNAP caseload in the United States. Similarly, there were 31,000 refugees and 215,000 other non-citizens participating in SNAP in FY2008, representing 8.9 and 15.1 percent, respectively, of the

national caseload for these populations (USDA 2012). This population heterogeneity in terms of nativity and citizenship also makes Florida a particularly interesting case.

Florida's Economy

Florida entered the twenty-first century with a strong economy whose performance mirrored that of the national economy. From 1996-2002, the state unemployment rate in Florida stayed within two-tenths of a percentage point of the national average (see Figure 2). In 2003, however, Florida's unemployment rate began to fall sharply ahead of the also declining national unemployment rate. While economists debated the consequences of having a national unemployment rate of 4.6 percent in 2006, the unemployment rate reached a low of 3.4 percent in 2006 in Florida. Then, as the national annual unemployment rate held steady in 2007 at the 2006 low of 4.6 percent, Florida's unemployment rate began to climb. In 2008, Florida's unemployment rate jumped to 6.2 percent while the national unemployment rate remained at 4.8 percent. As of December 2009, Florida had the sixth highest state unemployment rate in the country, 11.8 percent, a 4.2 percentage-point increase over the December 2008 level and a more than three-fold increase in under three years.³ In contrast to other states that witnessed their largest declines in employment in manufacturing, Florida lost over 250 thousand jobs in the construction industry between December 2006 and December 2009 (Bureau of Labor Statistics, 2010).

At the national level, one of the more troubling aspects of the recent recession compared to other recessions in the last twenty years is the length of the median duration of unemployment. Since 1965, the median duration of unemployment has remained below 10 weeks with only two exceptions. In both the mid-1980s and early 2000's the median duration crossed the 10 week

³ The February 2013 rate for Florida was 7.7 percent and Florida ranked 32.

mark but still remained below 13 weeks. In December, 2009, however, the median duration of unemployment was 20.5 weeks (Federal Reserve Bank of St. Louis 2010). This unique aspect of the recession means that not only were more people unemployed, but they remained unemployed for periods that are dramatically longer than at any time in recent history. In Florida, according to data from the fourth quarter for 2012, the average duration of UI benefits was 20.3 weeks, above the national average of 17.1 weeks. The exhaustion rate in Florida was 70.1 percent, well above the national average of 47.2 percent and the highest in the country (Department of Labor, 2013). Thus, economic conditions in Florida provide a particularly challenging economic environment, so the economic impacts are likely to be particularly clear.

Federal Changes in Unemployment Insurance Program

The Unemployment Insurance Program is a joint federal-state program that operates as social insurance for short-term periods of unemployment. In order to qualify, workers must meet both monetary eligibility guidelines, based on the sector of employment and total earnings over a 20 month period, and non-monetary requirements, which are determined primarily by age, reason for work separation and availability for work. Historically, regular state UI benefits for most recipients last for 26 weeks (6 months). After exhausting regular benefits, recipients may be eligible for additional weeks of benefits funded under federal legislation, contingent on the condition of the state and national economies. Significant state variation exists in the operation of UI with regard to eligibility requirements, benefit amounts and benefit durations.

Through seven legislative actions at the U.S. federal level from June 2008 to April 2010, the Unemployment Insurance program was altered to extend the maximum duration of receipt up to 99 weeks in some states as well as to provide for a \$25 week supplement. With four tiers of benefit duration tied to the unemployment rate, states were encouraged to liberalize eligibility

standards by making a number of reforms such as relaxing non-monetary requirements to allow separations due to spousal relocation, domestic violence or to care for an ill family member. While states fund regular unemployment insurance benefits from taxes received from state employers, the federal government fully funded extended benefits received under emergency legislation (EUC08) from July 2008 to May 2010. As late as 2011, the number of recipients receiving such federal extended benefits exceeded the number on regular state UI benefits at the national level.

In Florida, monetary eligibility requires employment in two of first four of the last five quarters and total minimum earnings of \$3,200 over this period. Workers must be between the ages of 18 and 65 to qualify and have separated from their employer due to layoff, compulsory retirement, in order to move with a military spouse, or because of personal illness. Florida does not provide a dependence allowance and benefits range from a minimum weekly level of \$32 to a maximum of \$275, among the lowest in the country.

Data

Monthly data on SNAP applicants and participants for January 2006-February 2010 come from administrative case records maintained by the Florida Department of Children and Families (DCF) in computer readable form. The information in these records includes the date and method of application for benefits, disposition of the application (denial/case opened), monthly benefit amounts, reported income amounts, as well as demographic and geographic characteristics of households. Data on employment and earnings come from quarterly earnings records from the Florida Unemployment Insurance system. We also utilize weekly data on

Unemployment Insurance Program participation obtained from the Florida Agency for Workforce Innovation.⁴

Our analysis is the result of merging UI benefit data on the total SNAP caseload data. Therefore, we are beginning with the universe of SNAP recipients. As a consequence, we are unable to speak generally about the universe of UI recipients. We can, however, identify how SNAP recipients with UI program participation are different from those without UI and we can identify important program dynamics to receipt of both programs. Given the central importance of these two social programs in buffering American households during the Great Recession, our findings are of critical interest.

The analyses that follow are limited to SNAP recipients age at least 18 and less than 65. Unemployment Insurance receipt outside that age range is very low, in large part because of the structure of program rules. This means that SNAP “child only” cases are omitted, since any adults in the household are not considered SNAP recipients. Those households that have more than one adult who is listed as a SNAP recipient in this age range can contribute more than one individual to the analysis.

The unit throughout our analysis is an individual, and UI benefit receipts and earnings are those accruing to the individual. However, receipts of the SNAP are counted at the household level. When we classify an individual as a recipient of UI benefits or earnings, this means that the individual is personally receiving income of this kind, whereas receipt of SNAP indicates that the person is an eligible member of a household receiving SNAP.

⁴ Basic caseload information is available at Florida Department of Children and Families (2012).

Joint Receipt in UI and SNAP

Traditionally, the Unemployment Insurance Program and SNAP were targeted towards and served different populations. Joint participation in the Unemployment Insurance Program and SNAP was relatively rare with only 1-2 percent of the SNAP population receiving UI until mid-2008. However, as part of the National Recovery Act, in July 2008, Emergency Unemployment Compensation (EUC) benefits were implemented in July 2008 with important extensions in November 2008 and November 2009. As noted above, EUC is a federally funded program that provides benefits to individuals who have exhausted their regular state benefits. After EUC was implemented, joint participation in UI and SNAP climbed to 10 percent of Florida's SNAP recipients by 2010. See Figure 3.

The growth in joint participation is clearly related to both the high level of state unemployment and the change in federal unemployment benefit policies. Spikes are visible in the level of joint participation with implementation of the UEC program in summer 2008 as well as each time that the UEC program was extended, in both November 2008 and November 2009. Thus, the population who are eligible to jointly participate in both UI and SNAP has greatly expanded over the time period and this change has contributed to the increase over the observation period. Looking at new SNAP recipients, Figure 3 shows that the proportion receiving UI benefits increased from a base of 3-4 percent to 12-14 percent over the same period.

Equally important, program dynamics appear to have changed. Until mid-2008 when the maximum length of a UI spell was capped at 26 weeks, 25 percent of UI participants discontinued receipt each month. However, by 2009, monthly discontinuations had declined to 5-10 percent (Figure 4). Declining exits are the result of both more difficult economic conditions

that make it harder to find employment, as well as the ability to remain on the UI program for longer periods of time than ever before.⁵

In terms of subgroup differences, while UI participation among SNAP recipients was equally common among men and women prior to the Great Recession, a sharp gender differential emerged after the Great Recession, with male recipients having rates of joint receipt that were 2-4 percentage points higher than women (see Figure 5). This undoubtedly reflects the greater growth in unemployment among men occurring during the recession (Michaelides and Mueser, 2012).

In terms of racial differences in the level of joint receipt in UI and SNAP, while African-Americans are observed to have slightly higher levels of joint receipt prior to the Great Recession than Hispanics or Whites, with the onset of the recession, the difference between African-Americans and Hispanics diminishes to the point of being negligible (Figure 6). Whites have a lower level of joint receipt than both Blacks and Hispanics after the Great Recession, consistent with expectations informed by racial differences in levels of unemployment.

Turning to geographic differences in levels of joint receipt, prior to the Great Recession UI benefit receipt among SNAP participants was slightly more common in urban counties than in rural counties. However, in the recession this grows to a 2 percentage point difference (Figure 7). This differential is likely due to the differences in the number of jobs that are eligible for UI receipt and the higher levels of unemployment in urban relative to rural areas. Only about one in ten SNAP recipients in Florida lives in counties that are largely rural.

In terms of household composition, there are no observable differences in the likelihood of joint receipt between individuals in households with children and those without children after

⁵ Figure 4 presents the proportion of recipients receiving UI benefits in a given month who are not receiving UI benefits in the following month, contingent on receiving SNAP in both months. The proportion is essentially unchanged if the proportion is calculated including those receiving SNAP only in the first month.

the Great Recession, although those in both types of households increase their joint receipt after the recession (see Figure 8). However, despite the fact that our sample includes only SNAP recipients less than age 65, we find that those in households with elderly⁶ are much less likely to participate in UI and SNAP (Figure 9) relative to those in other household types after the Great Recession. Finally, as expected, those in households with no disabled or elderly, and no children were more likely to jointly participate than the average SNAP recipient; this differences grows after the Great Recession (see Figure 10).

In summary, each group examined sharply increased their level of joint participation after the Great Recession and particularly after the EUC program was introduced in July 2008. Importantly, where group differences in participation rates were present previously, these differences became more pronounced after the Great Recession. Thus, joint participation after the Great Recession is both more common and more unevenly distributed than in prior times.

Patterns of SNAP and UI Receipt

Patterns of use of UI among SNAP recipients, reflected in both the order and extent to which participants access these safety net programs, shifted in important ways over this period. One indication is provided by the distribution of UI spells among SNAP recipients in Florida. We consider spells of UI receipt that began while an individual was receiving SNAP or in the 12 months prior to the beginning of SNAP. We have divided such spells into those that began in the period prior to the onset of the major economic decline, and those beginning in the period of dramatic downturn and the extended period of labor market distress that continued even when the economy began growing. Figure 11 presents the distribution of duration for these spells. For

⁶ In defining household type, we take the elderly to be those age 60 and older, corresponding with the definition used in SNAP regulations. An individual age at least 60 but less than 65 is in our SNAP sample and is also in an elderly household, but since the SNAP recipients in our sample must be at least 18 and under 65, most recipients we analyze in households coded as containing elderly are not themselves elderly.

the first period, almost all spells end within seven months, reflecting the 26-week maximum UI receipt limit in place at that time. In contrast, in the second period, although half of all UI spells last seven months or less, about a third of all spells last for 12 months or more.

In order to examine the dynamics of SNAP and UI receipt, we have constructed spells for each individual that identify the period of time during which benefits were paid. In most prior analyses of spells, the focus is on continuous periods of receipt (i.e., successive months in which benefits were received), but we have expanded our definition of spells to include intervening periods of up to six months in which no benefits were received. Hence, an individual who receives UI compensation for three months, receives no benefits in the next four months, and then begins receiving SNAP, contribute a single spell. The value of this approach is that we are able to identify participants who cycle quickly on and off a particular program, as well as those who move from one program to another even when there are intervening periods in which they are without benefits. In the latter category, for example, are individuals who exhaust unemployment benefits and then turn to SNAP after several months when savings are depleted. Since our interest is in joint receipt of SNAP and UI, only UI spells involving some SNAP receipt are included. This means that UI benefits that are observed within six months of SNAP receipt are included in a spell, whereas other UI spells (separated by more than six months from SNAP receipt) are omitted.⁷

Table 1 provides a count of the number of spells for the two periods we will be considering, the 26-month period up through December 2007, the official start of the recession, and the 26-month period starting in January 2008. In order to account for the experience of all

⁷ Since our data include information only on individuals who received SNAP during the period of our study, UI spells are available to us for this population only. If we were to include all UI spells for such individuals, it would be a specially selected sample of UI spells. Particularly problematic for the analyses here, the selection process would be different for spells near the ends of our observation window, imposing hard-to-quantify selection effects on the patterns we are interested in studying.

SNAP recipients, we include spells that begin or end outside the period in question, but limit our analysis to patterns observed in these spells within a given period. Since the statistics we present will be influenced by the length of the period, in order for comparisons to be meaningful, it is critical that the two periods be of equal length.⁸

In the first period, we see there are approximately 1.4 million spells, increasing to over 2.2 million spells in the second period. This reflects the dramatic growth in the SNAP population. In both periods, we see that the average number of spells per person is 1.07 or 1.08, meaning that over 90 percent of individuals contribute a single spell. Spells in both periods average about 11 months in duration. It should be noted that these mean lengths includes only months within the 26-month, so that those spells that began prior to the period or continue after the end of the period are substantially longer.

We have coded spells to reflect the order in which benefits were received, with S identifying SNAP payments, U unemployment benefits, B receipt of both types of benefits within a month, and N an intervening period of up to six months with no benefits. A spell that began prior to the period begins with the code C, and a spell completed after the period ends with a code of C.⁹ Hence, UBC identifies a spell beginning with one or more months of UI benefits, followed by a period in which both UI and SNAP are received, with the spell extending beyond the end of the period. Table 2 specifies the coding system, Table 3 gives the distribution of SNAP-only spells, and Table 4 gives the distribution of spells with both UI and SNAP.

⁸ Note that these periods differ from those reported in Figure 11 reflecting the difference in focus of the two tabulations and our data timeframe limitations.

⁹ However, spells with nonreceipt at the beginning or end of the period are not counted as censored spells but are coded as starting or ending within the period. This increases the number of spells beginning in the first six months and the number ending in the last six months of the period. This effect is modest because the proportion of spells with nonreceipt is small, and, in any event, these effects are the same for the two periods, so comparisons between periods are not subject to bias.

Table 3 shows, as expected, that the proportion of SNAP-only spells declines between the periods: 93 percent of spells involve only SNAP in the first period, but that declines to 85 percent in the second period. In both periods, about 30 percent of all spells are SNAP spells that begin and end within the period (coded “S”), 40 percent are SNAP spells that are either left or right censored, and slightly under 10 percent are spells that span the full 26 months. Less than 15 percent of SNAP-only spells involve any period of nonreceipt.

Table 4 lists both the frequency distribution of particular spell types containing UI and the relative frequency ranking of such spells during each period. The distribution of such spells has changed dramatically with the onset of the recession. As an example, consider the spell UBC, which begins with one or more month of UI benefit receipt, followed by a period in which both SNAP and UI benefits are received, which is then censored at the end of the period. Whereas in the earlier period, only 0.3 percent of spells followed this pattern, the number had increased to 1.8 percent for the later period.

Also listed is the ranking of each spell type in terms of frequency (among spells with UI receipt) in each period. Focusing on the ranking adjusts for the fact that many more spells included UI in the second period than in the first. Shifts in ranking over time are particularly notable. As an example, consider those cases that begin with UI benefit receipt, are followed by a period of combined receipt, and then are followed by a period of UI benefits only (UBUC and UBU), both highly unlikely in the earlier period, but among the top ten patterns at a later point.

Several comparisons may be of interest. The codes UBS, UBSC, UNS, UNSC and US indicate those patterns where initial UI receipt is followed by exclusive SNAP use. In each case, there is little change in the proportion of spells over the two period. In contrast are those spells that end with UI receipt (possibly joint with SNAP receipt). For example, the UBC pattern,

indicating a spell that begins with UI receipt, followed by a period of receipt of both UI and SNAP, which is censored at the end of the period, amounts to only 0.3 percent of all spells in the earlier period, but accounts for 1.8 percent in the later period.

The inferences one can obtain from Table 4 are limited since only about half of observed spells fit the patterns in this listing. Table 5 reports the distribution of spells in four broad categories that include all spells (the classification is provided in Table 2). These tabulations confirm the basic results reported above. The greatest change between periods occurs where UI is the dominant type of receipt, that is, in which SNAP occurs in a spell that begins and ends with UI or with joint receipt of SNAP and UI (line 2 on Table 5). Whereas only 1.1 percent of all spells are in this category in the earlier period, 6.3 percent of the second-period spells are in this category. As a proportion of spells with UI, these spells grow from one in six spells to over two-fifths.

In contrast, those spells indicating that individuals turn to SNAP after a period of UI receipt have become relatively less important after the recession. Perhaps the prototype for combining UI and SNAP is the case of a household that receives UI for some period and then, around the time those benefits are exhausted, begins receiving SNAP (line 5). Fully two-fifths of the spells that combine UI and SNAP beginning in the first period fitted this description; by the second period, only about a quarter of such spells fitted that characterization.

Those spells in which an individual is originally receiving SNAP, and at some point receives UI benefits, and then returns to sole reliance on SNAP accounted for about one in five spells in the earlier period (line 4). By the later period, such cases accounted for only one in ten UI-SNAP spells. Finally, those spells that begin with SNAP receipt and end in UI receipt

increased substantially, from 1.2 percent to 3.2 percent of all spells (line 3), but their share of joint SNAP-UI spells remained about the same.

The lower panel of Table 5 shows that the proportion of spells that are censored increased dramatically between periods.¹⁰ This shift is clearly largely a function of the increase in spell length, which is reported in Table 6. The average spell classified as UI with embedded SNAP is about six month in length in the earlier period, but it increases to 13.4 months in the later period. We can see that this growth is primarily due to an increase in the number of months of UI receipt. In the average spell during the earlier period, individuals received UI benefits for approximately five months, whereas that figure was nearly 12 months in the second period. As noted above, this reflects changes in the UI rules allowing for extended periods of UI receipt. It is clear that whereas, prior to the recession, UI was seldom of dominant importance in a combined SNAP-UI spell, after the recession, not only did the number of cases with UI increase, but so did the relative reliance on UI.

Those spells where SNAP was clearly the dominant form of receipt, and where UI receipt is interior to SNAP, are generally long spells, averaging about 20 months. It is notable that for this category, which increased little between the two periods, the spell length increased very little. However, the relative importance of UI increased, with the average number of months receiving UI increasing from about four in the earlier period to nearly six in the later period.

As noted above, the changes in spell structure between the two periods reflect both the dramatic deterioration of labor market opportunities and legislation extending the period when benefits could be received. In order to gauge the relative importance of these two factors, we simulated UI benefit receipt in the second period as it would have occurred under the earlier UI

¹⁰ We also examined changes in the four broad categories of spells by whether the spells were censored, but the patterns of change reported above were very similar for censored and uncensored spells.

regime. Since, prior to 2008, UI benefits in Florida could be received for no more than 26 consecutive weeks, the procedure involved truncating spells of UI receipt at 26 weeks. In addition, any UI benefits received so soon after a prior spell of benefits that it would likely have been prohibited in the earlier period were also omitted.¹¹ Simulated results are provided in the Appendix tables.

Of all SNAP and SNAP-UI spells in the simulation, 14.4 percent combined UI and SNAP, as compared with 15 percent of spells based on observed data. As might be expected, longer spells are less common in the simulations. For example, the spell UBC, which identifies spells where SNAP and UI are both received each month to the end of the period, are two-thirds less likely. In contrast, those spells that begin with UI receipt and end in SNAP (e.g., UBSC, UBS, UNSC) are now more common. See Appendix Table A1. When we classify the spells in categories, the shift is even clearer (Appendix Table A2). The proportion of spells that are classified as UI with embedded SNAP declines by about half, whereas the spells that identify initial UI that leads into SNAP receipt doubles. In fact, the distribution of spells, normalized by the number of spells that combine SNAP and UI, looks quite similar for the simulated spells and those spells prior to the recession (compare columns 2 in Tables 5 with column 4 in Appendix Table A2). Also, as might be expected, the simulated spells in the categories where UI dominates have far less UI receipt (compare spell length and months of UI receipt for the first two categories of receipt in Appendix Table A3).

¹¹ Our simulated UI spells omit any week of UI benefits for an individual who had received benefits for 26 weeks or more over the prior year. This approach is an approximation of the rules in effect prior in the earlier period, which limited UI compensation to 26 weeks in the year following the filing of a claim, and only covered those with earnings above a minimum in the preceding five quarters. Since changes were a result of federal legislation, we considered using an indicator in our data for whether a particular benefit was provided under the regular state program or under the federal legislation, but we chose not to use this information because we saw evidence that individuals eligible for state benefits sometimes received federal benefits. In fact, the results would have been quite similar if we had simulated spells based on funding source, although there is evidence supportive of our concern. Of the weeks we omitted from the simulated UI spells, only about 1 percent were identified as being funded by the regular state program; of the weeks included, 82 percent were funded by the regular state program.

Our conclusion is that increases in the number of SNAP spells involving UI receipt is almost entirely driven by the recession, but that the growth of spells where UI dominates is primarily a result of legislation that extends UI benefits. In the absence of such legislation, two-thirds of those spells combining SNAP and UI would have involved households where a member's UI benefits ran out and the family turned to SNAP, or (less commonly) cases where a household receiving SNAP obtained UI benefits for a short period of time. In our observed data, these two classes of spells make up only about a third of such cases.

In the earlier section, we discussed how the joint use of SNAP and UI shifted for different groups. Table 7 provides information on the distribution and length of spells by gender, race, urbanization, as well as by the presence of children or elderly in the household. As we might expect, the disproportionate growth in unemployment for men associated with the recession increased the proportion of joint SNAP-UI spells for men relative to women. The growth in such spells for men and women follows a similar pattern across types of spells.

Racial differences are somewhat larger. Nearly 8 percent of nonwhite spells prior to the recession involved joint receipt SNAP and UI, whereas the comparable figure for whites and Hispanics was around 6 percent. Growth in such spells was slightly smaller for nonwhites, but the total proportion remained slightly higher for nonwhites. In both periods, nonwhites were appreciably more likely to have spells in which SNAP was dominant and UI receipt was interior—a pattern that was less likely to grow than other patterns. As a result, nonwhites were somewhat more likely to maintain “traditional” patterns of joint use than were whites or Hispanics.

In both periods, a smaller proportion of spells involve UI benefits for rural than urban areas in Florida. Bearing in mind that only about 10 percent of SNAP recipients are in rural

areas, the observed differences are modest. Contingent on the spell involving both SNAP and UI, there are relatively fewer spells that indicate heavy reliance on UI (spells in the first two broad categories examined above) in rural areas.

Those in households with children are slightly more likely than others to have spells that combine SNAP and UI, although the difference is modest (7.8 percent versus 6.3 percent in the first period, and 17.5 versus 16.5 in the second). Those in households with elderly individuals are much less likely to have joint SNAP-UI spells, but there is substantial growth between the two periods in the proportion with overlap. The growth in those cases that indicate particularly heavy reliance on UI (spells in the first two categories) is very strong in this group.

Sources of Income

The growth in the importance of UI can be captured by looking at the income sources for SNAP recipients. The increase in UI receipts we find implies that SNAP may be drawing in a new kind of recipient. SNAP recipients have low income and limited savings because of the program's requirements. With the recession, it appears that a low income population has expanded to include an increasing proportion of those with previously substantial incomes that have faced serious employment setbacks.

Table 8 provides information on income sources for new SNAP recipients for periods prior to and following onset of the Great Recession. Since data on earnings are available on a quarterly basis, this analysis is presented in terms of quarters, providing information on the quarter prior to SNAP entry, the quarter of entry, and the two quarters following SNAP entry.¹²

¹² Note, in contrast to the prior section, here a spell is defined by SNAP participation. We focus on those who begin receiving SNAP at least six months prior to the period end in order to assure that our measures of earnings in the two quarters following program entry occur within the period of interest.

The comparison provides information for the two quarters following SNAP entry, in each case limiting consideration to those who continue to receive SNAP through the end of the quarter.

Comparison between periods confirms that UI participation has increased dramatically. In the quarter prior to entry, during the earlier period, 2.7 percent of recipients received UI benefits, whereas in the later period, the number had increased to 7.1 percent; numbers for the quarter of entry are 4.9 and 12.5 percent, respectively.

Earnings and employment for new SNAP recipients provide a slightly more complex pattern. During the earlier period, some 43 percent of recipients had income in the quarter prior to SNAP entry, whereas that number had declined to 40 percent in the second period. Yet, for those who had income, earnings were nearly 20 percent higher in the second period. This implies that, among the employed, there is a larger share with higher prior earnings in the second period. The stories of middle class families turning to SNAP in the face of job loss are seen in these data. Of particular interest, we note that the proportion employed after beginning SNAP declines much more quickly in the later period. In the second quarter after entry, whereas 36 percent of recipients were employed in the first period, the number was only 29 percent after the onset of the recession.

In both periods, we see that, for those receiving UI, these benefits are substantially greater than the SNAP payments received. During the first period, the average recipient is in a household receiving SNAP benefits of \$700 in the quarter following SNAP entry, whereas, for the subset who receive UI benefits, the average UI benefit is \$1,722. Both SNAP and UI payments are higher for those after the recession, but UI remains much more important (\$2,139 versus \$858).

What happens to those who leave the SNAP caseload? As the previous analysis of spell types indicates, following the recession, an increasing number of those who discontinue receipt of SNAP continued to receive UI benefits. Table 9 allows us to examine the importance of such benefits as well as the role of earnings. The focus of the table is on income sources following departure from the SNAP for those whose spells of SNAP ended before and after the recession. The first column provides statistics for all such spells, whereas the second and third divide up spells by their length.

In the first period, nearly half of all spells ended with earnings in the subsequent quarter, whereas the proportion fell below 40 percent after the recession. The numbers for those with longer SNAP spells are smaller, and the gap between periods is somewhat greater: After the recession, only about a quarter of those with spells of ten months or more have employment in the quarter after SNAP ends.

Perhaps surprisingly, however, for those who have earnings, the average earnings are about 10 percent higher in the second period (\$6900 versus \$6300). It is important to recognize that a smaller proportion of recipients leave the rolls in the second period, so the higher earnings may partly reflect selection. Nonetheless, these results support the view, suggested by the higher prior earnings after the recession for employed new recipients (Table 8), that the recession may have forced additional individuals who differ from prior recipients to seek SNAP assistance.

As expected, the differentials by period in UI benefit receipt for the quarter following departure from SNAP are particularly dramatic. Only about 2 percent of those leaving SNAP in the earlier period have UI benefits, whereas the number exceeds 10 percent for those departing from SNAP in the later period. In addition, not only are more of those leaving SNAP receiving

UI benefits, but the, the total UI benefit payment, contingent on receiving benefits, is about 50 percent greater in the later period.

We also looked at differences in income sources by gender, race, settlement density, and household structure. As might be expected, contingent on working, earnings of women are somewhat below those of men (Table 10a). Perhaps surprisingly, women are more likely to be working than men at all points, that is, prior to beginning SNAP, in the first two quarters of SNAP receipt, and following the end of a spell. Changes that occur with the onset of the recession, and in particular the increased reliance on UI benefits, are essentially the same for men and women.

Comparing across racial groups (Table 10b), we see that prior to and during SNAP spells, nonwhites are appreciably more likely to be employed than whites, and they are slightly more likely to receive UI benefits, although, in both cases, the average amount received for those with these income sources is lower. For nonwhites, the pattern of growth in UI with the recession is similar to that for the population as a whole, although the increase is somewhat less dramatic. Hispanics have lower levels of employment prior to SNAP receipt than either whites or nonwhites, and their reliance on UI benefits is lower than either group. Reliance on benefits does increase with the recession, but, in contrast to the other groups, those entering SNAP after the recession are more likely than in the earlier period to be working. Hence, among Hispanics, the recession appears to have brought in those who had prior employment, making the new Hispanic entrants appear more like the other racial groups.

Table 10c provides a comparison between the SNAP recipients in rural counties to those in the remainder of counties. The slightly lower UI use is evident here, but the most notable

observation is that differences between rural and urban are small. Shifts in patterns of use are essentially the same in urban and rural areas.

As expected, reliance on employment and UI benefits is higher for those in households with children and lower for those in households with elderly individuals. Notably, after the recession, slightly more individuals had prior earnings among recipients in elderly households than was the case before the recession, the reverse of the shift observed for the population as a whole.

Conclusion

The current paper provides results from an analysis that examines the interaction of two of the largest programs aiding disadvantaged populations in the United States, with a focus on changes occurring with the onset of the most serious economic downturn in many decades. The results make clear that the recession induced important changes in patterns of receipt. The number of people receiving SNAP grew dramatically, and, in terms of sheer numbers, the increase in the number relying on SNAP alone grew much faster than those using both SNAP and UI.

However, for a growing *share* of SNAP recipients, UI and SNAP were combined (Table 5), and reliance on SNAP became secondary for a growing share of these. Among recipient spells that combined SNAP and UI, in the first period, UI was of primary importance in about a third, whereas, after the recession, that number had increased to two-thirds. Although the growth in extended periods of UI is primarily a function of federal legislation, the increased likelihood that a household receives both UI and SNAP is due primarily to labor market weakness. In the wake of the Great Recession, the conceptualization of how the American social safety net supports disadvantaged families will require revision.

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Figure 1. Unemployment: U.S. and Florida

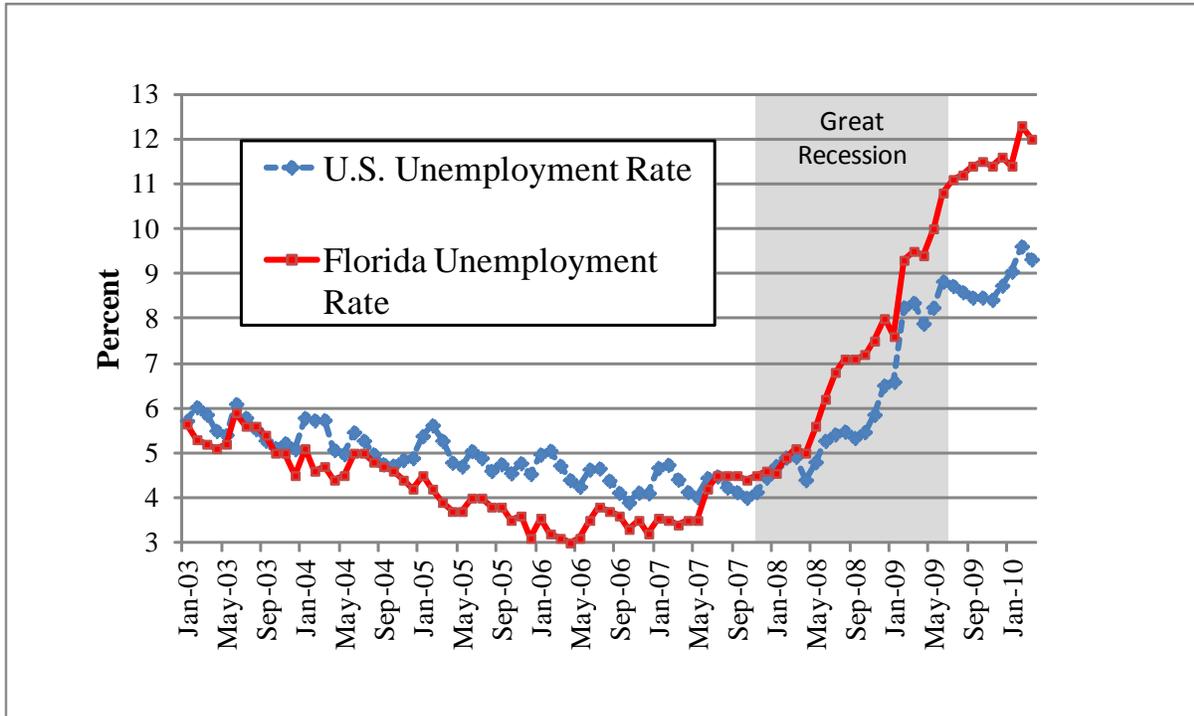


Figure 2. SNAP Caseloads: U.S. and Florida

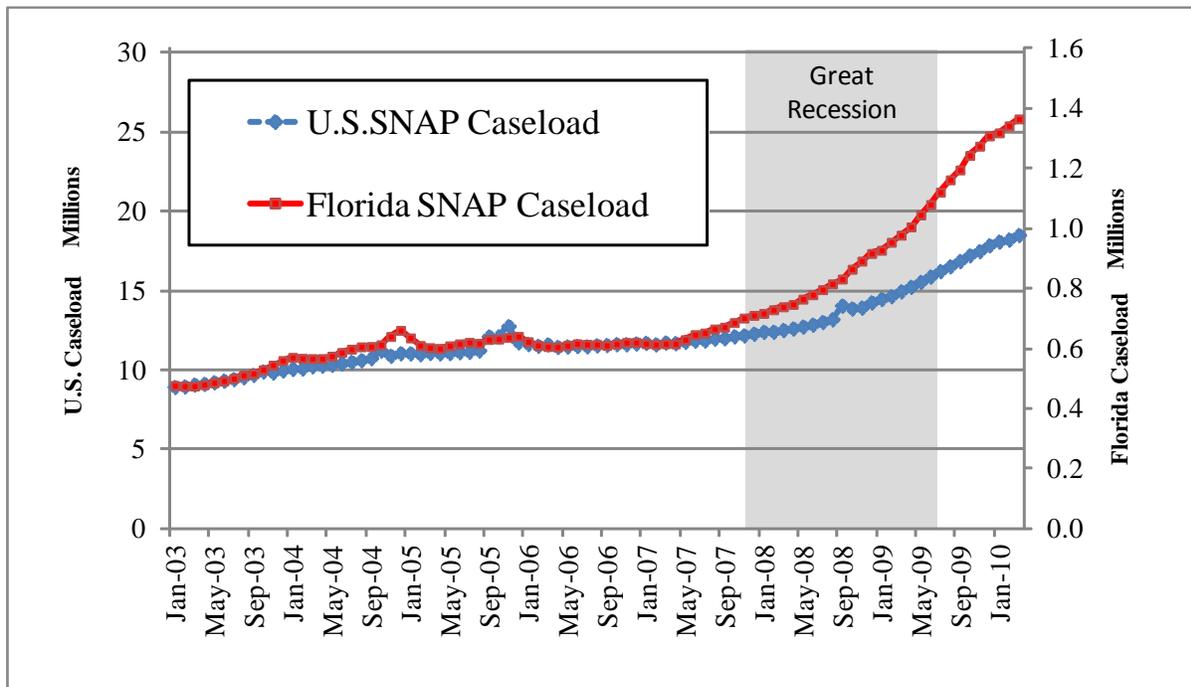


Figure 3. UI-SNAP Joint Receipt

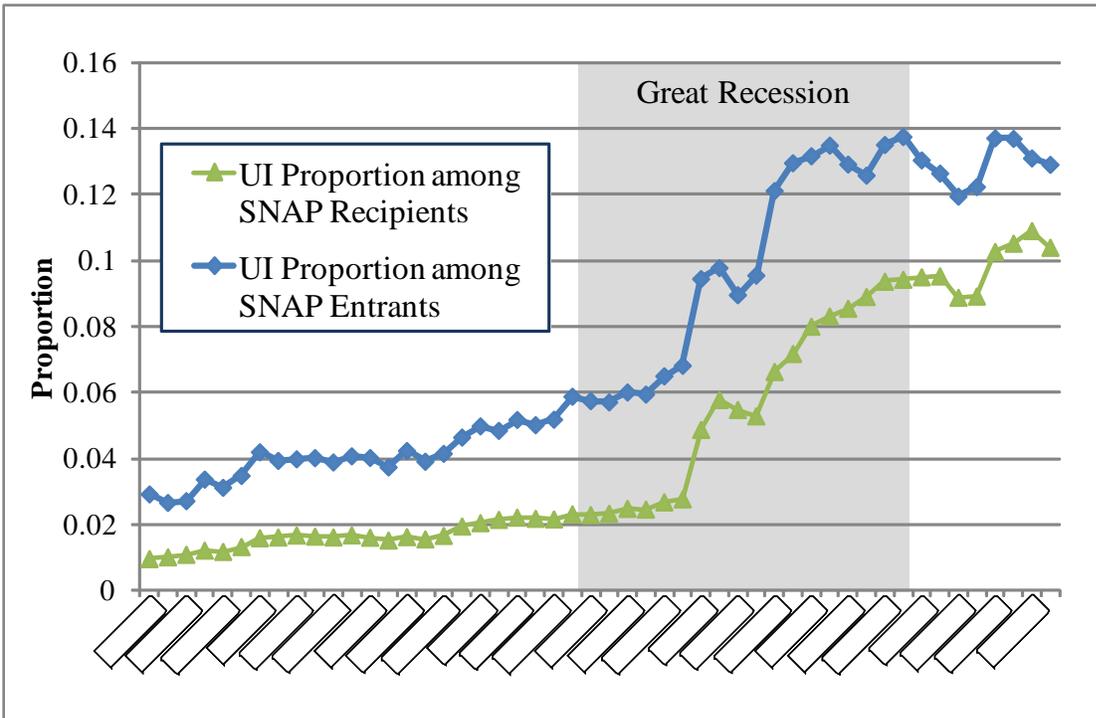


Figure 4. Probability that UI Recipient Exits UI: For SNAP Recipients

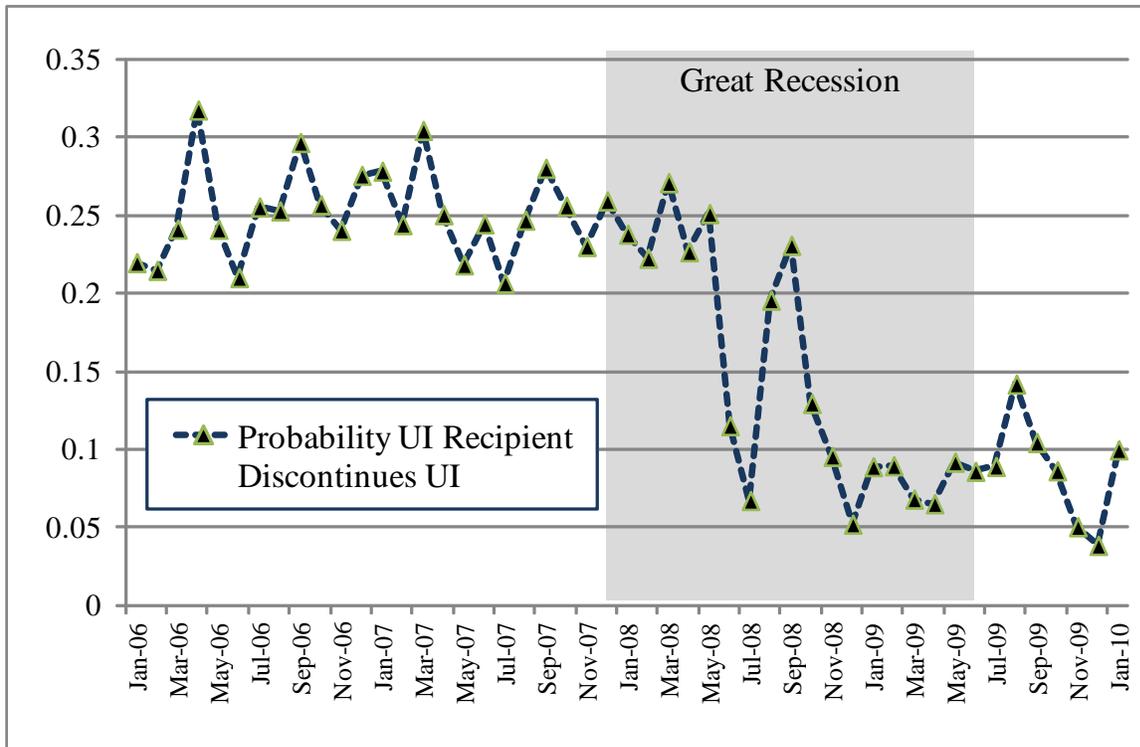


Figure 5. UI-SNAP Joint Receipt: UI Proportion among SNAP Recipients for Males and Females

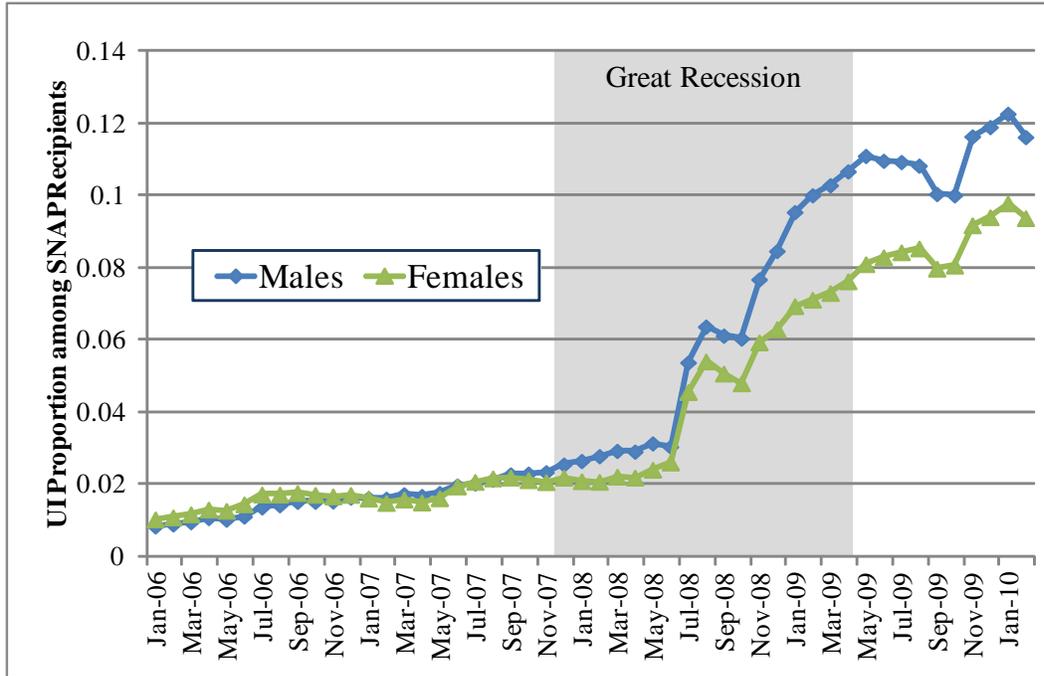


Figure 6. UI-SNAP Joint Receipt: UI Proportion among SNAP Recipients by Race

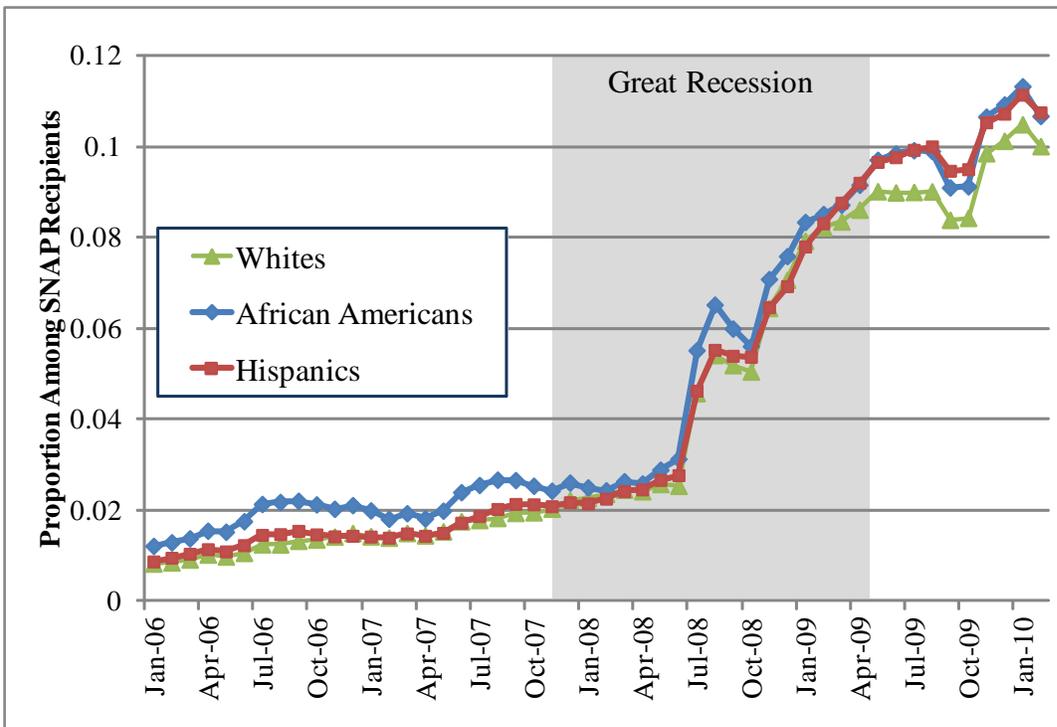


Figure 7. UI-SNAP Joint Receipt: UI Proportion Among SNAP Recipients by Urbanization

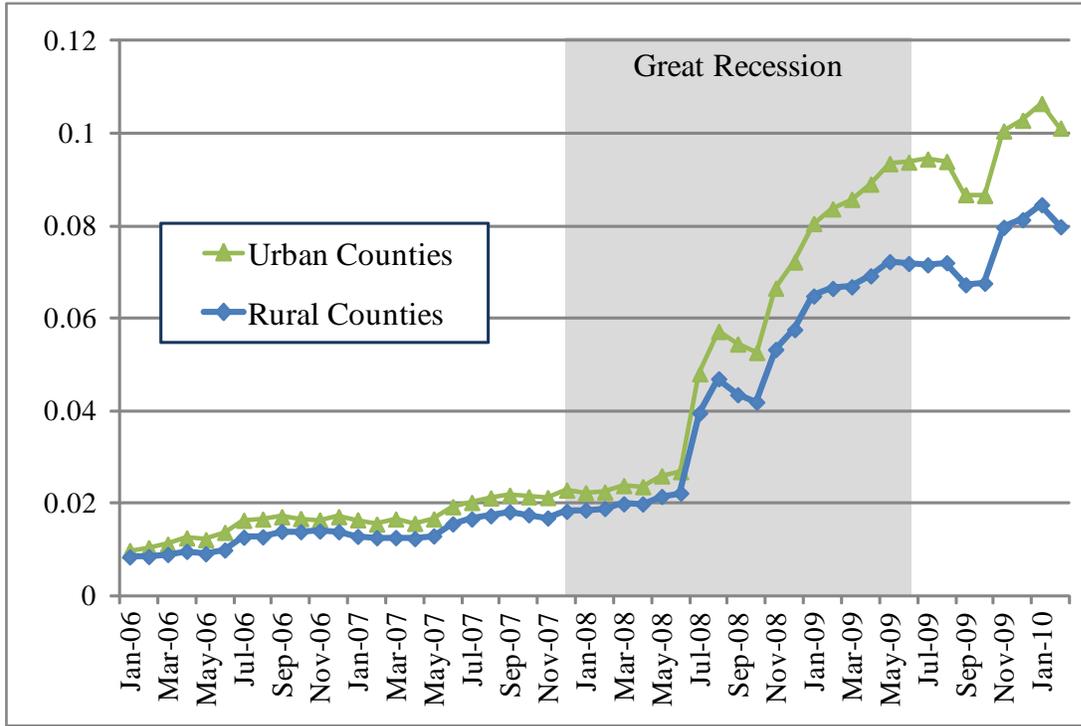


Figure 8. UI-SNAP Joint Receipt: Recipients in Households with Children

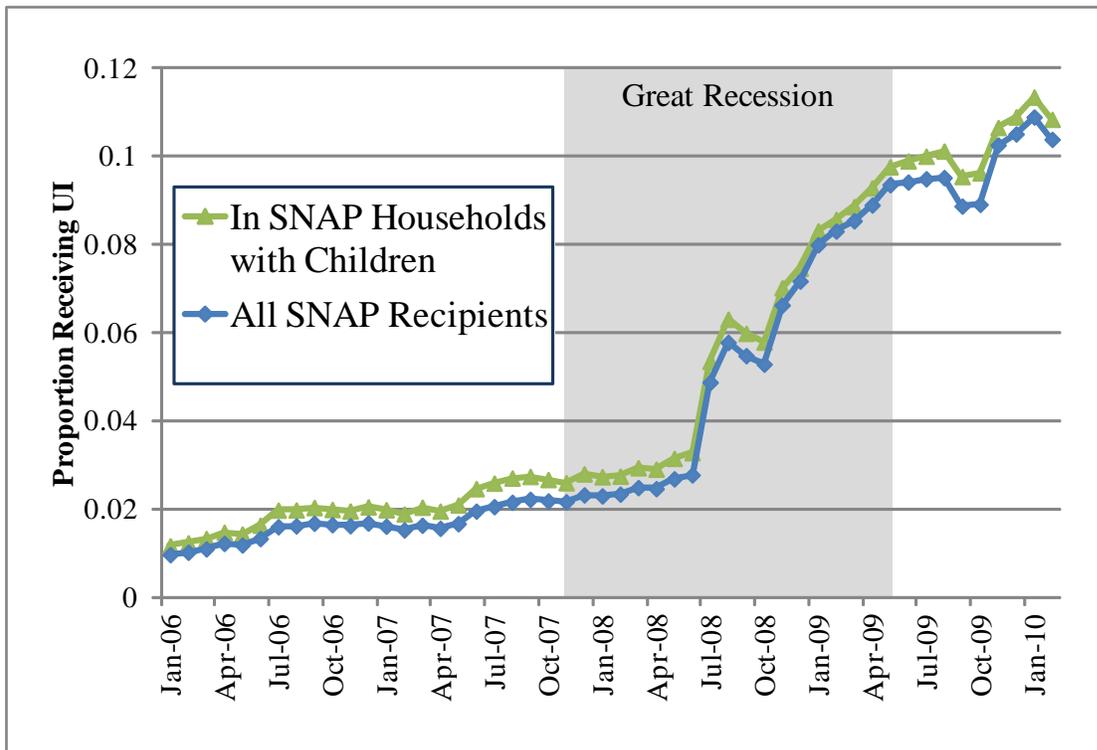


Figure 9. UI-SNAP Joint Receipt: Recipients in Households with Elderly Recipients

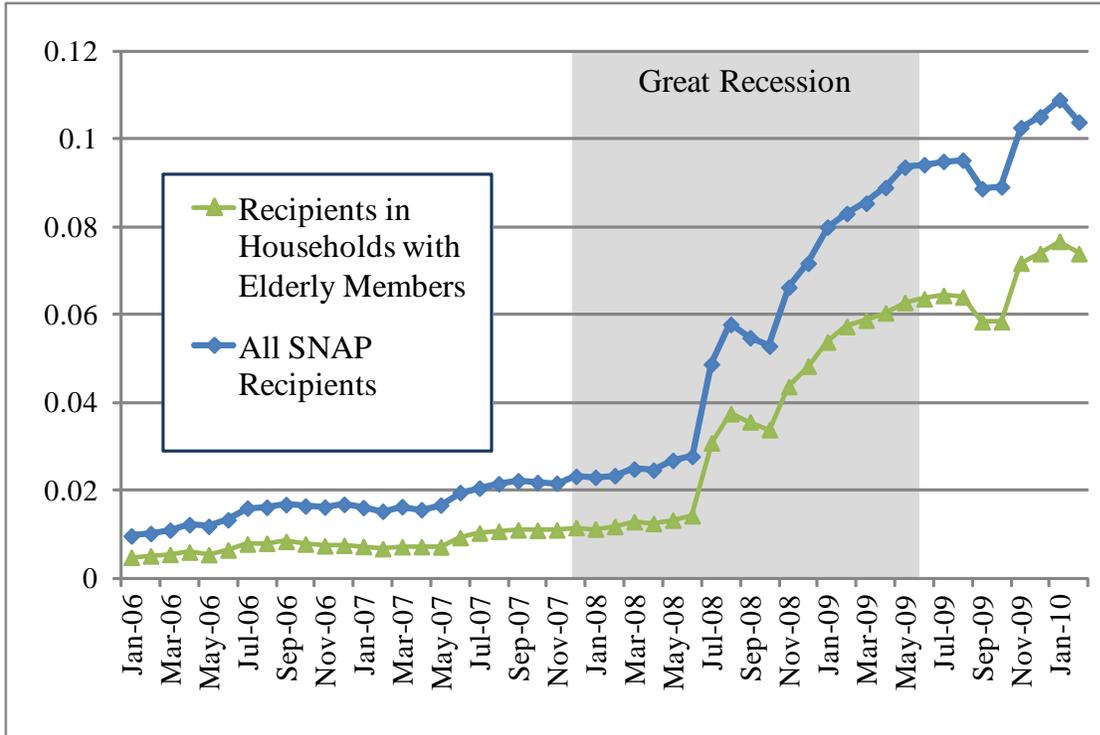


Figure 10. UI Joint Receipt: Recipients in Households without Children, Elderly or Disabled Recipients

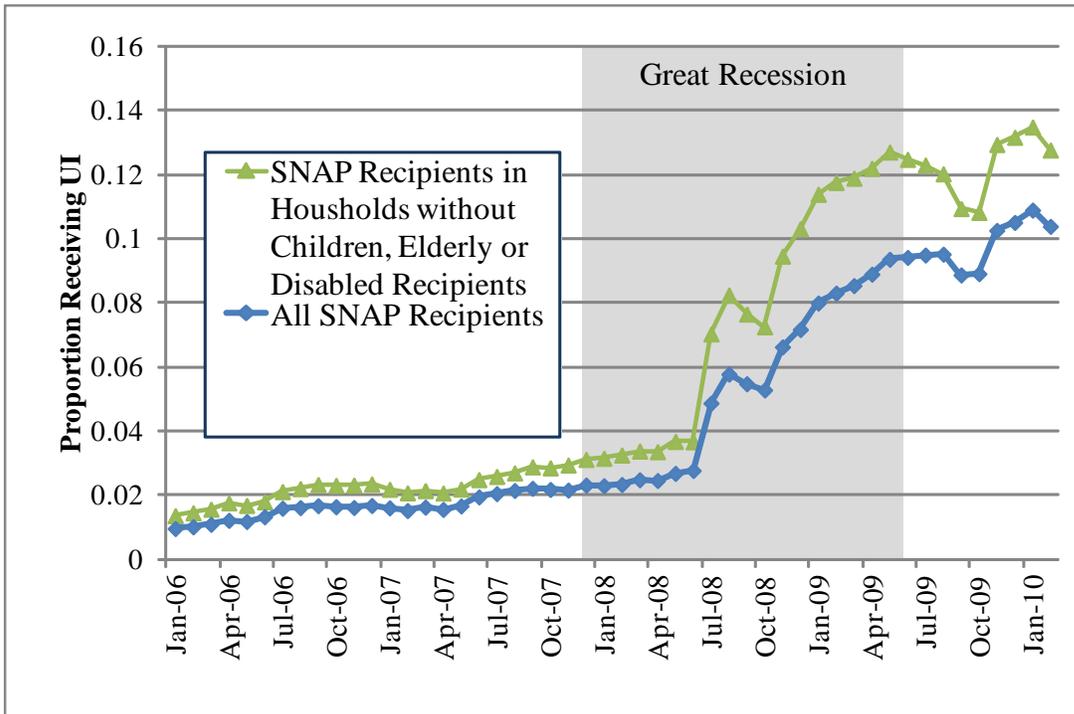


Figure 11. UI Spell Length Distribution: UI Spells with SNAP in 12 Months after Start

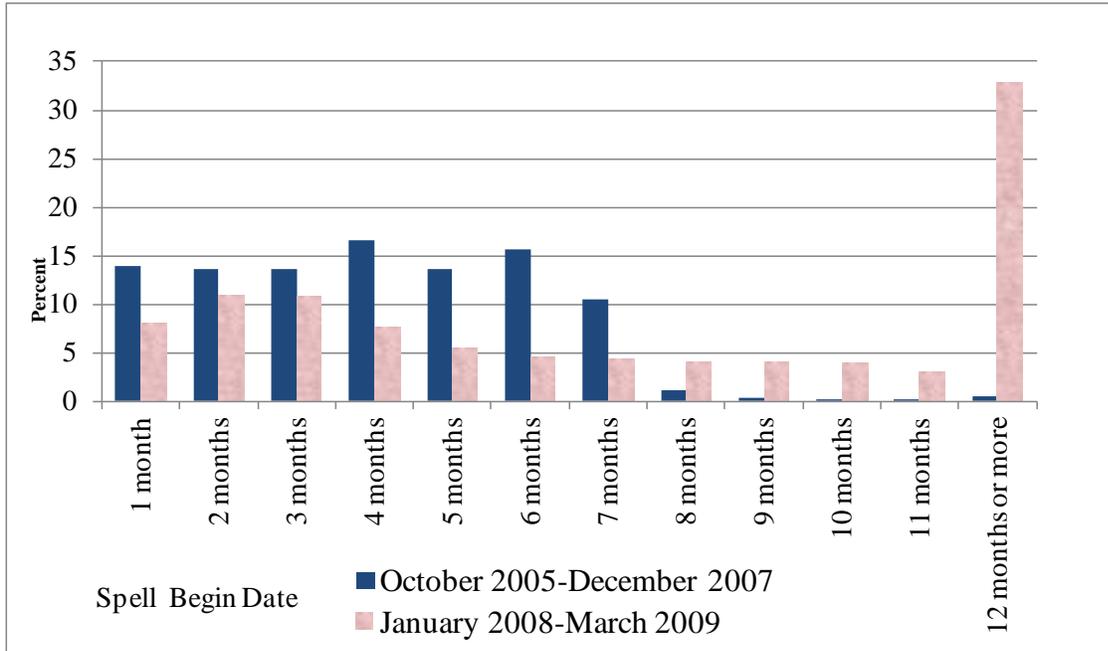


Table 1. Spell Count: Two Periods

	November 2005- December 2007	January 2008- February 2010
Number of spells	1,411,559	2,219,786
Number of individuals	1,302,349	2,070,207
Average spells per person	1.08	1.07
Average spell length	10.8	11.9

Table 2. Coding Scheme for SNAP and SNAP-UI Spells

Coding of Spell Runs	
S	One or more month of SNAP only receipt
U	One or more month of UI only receipt
B	One or more month of both SNAP and UI
N	One to six months of no receipt, internal to spell involving SNAP or UI receipt
C	Indicator that spell is censor
Example	A spell beginning in a period with two months of SNAP receipt, followed by three months with no benefit receipt, followed by a month of receipt of both UI and SNAP, ending within the period would be coded as SNB.
Spell Categories	
UI with Embedded SNAP	Spells starting with UI, or UI and SNAP; becoming SNAP, or UI and SNAP; ending in UI, or UI and SNAP (e.g., UB, UBC, UBU, UBUC, USU, UBU)
SNAP to UI	Spells starting in SNAP; ending in UI, or UI and SNAP (e.g., SBU, SBUC)
SNAP with Interior UI	Spells starting in SNAP; becoming UI, or UI and SNAP; ending in SNAP (e.g., SBS, SBSC)
UI to SNAP	Spells starting in UI, or UI and SNAP; ending in SNAP (e.g., UBS, BS, BSC)

Table 3. Spell Distribution for SNAP Only Spells

	November 2005 - December 2007	January 2008 - February 2010
	Proportion of Spells	Proportion of Spells
SNAP-Only Spells	93.4%	84.9%
S	30.9%	27.9%
SC	21.2%	26.9%
CS	19.7%	10.3%
CSC	9.7%	9.2%
SNSC	2.9%	3.7%
SNS	2.3%	2.2%
CSNS	2.5%	1.3%
More complex cycles of SNAP	4.1%	3.5%

Table 4. Spells Distribution for Spells with SNAP and UI

	November 2005 - December 2007		January 2008 - February 2010	
	Proportion of Spells	Rank	Proportion of Spells	Rank
Spells with UI and SNAP	6.5%		15.0%	
UBC	0.3%	6	1.8%	1
UBS	0.5%	1	0.6%	4
SBC	0.2%	11	0.8%	2
BC	0.2%	8	0.7%	3
UBSC	0.3%	4	0.4%	6
UBUC	0.0%	45	0.6%	5
UNSC	0.3%	2	0.3%	7
BS	0.3%	3	0.3%	10
UNS	0.3%	5	0.2%	14
SBSC	0.2%	9	0.3%	11
CSBSC	0.2%	7	0.2%	13
UBU	0.1%	20	0.3%	9
SBS	0.2%	10	0.2%	16
BSC	0.2%	12	0.2%	15
BUC	0.0%	36	0.3%	8
CSBC	0.1%	24	0.3%	12
BU	0.1%	18	0.2%	18
US	0.1%	14	0.1%	23
Other 1-, 2- or 3- run spells	1.9%		1.8%	
Spells with 4 or more runs	1.9%		5.6%	

Note: All spells with up to three runs were ranked by relative frequency. The listing in the table includes the 18 spells with the highest average ranking over the two periods.

Table 5. Spell Type Shifts Between Periods: Summary for Spells with UI Receipt

Spell Description	November 2005 - December 2007		January 2008 - February 2010	
	Proportion of Spells	Proportion of Spells with UI	Proportion of Spells	Proportion of Spells with UI
	1. All Spells with UI Receipt	6.5%	100.0%	15.0%
<i>Spell Categories</i>				
2. UI with Embedded SNAP	1.1%	16.7%	6.3%	42.1%
3. SNAP to UI	1.2%	17.7%	3.2%	21.3%
4. SNAP with Interior UI	1.5%	22.9%	1.7%	11.0%
5. UI to SNAP	2.8%	42.7%	3.8%	25.6%
<i>Censoring</i>				
6. Begin and end in period	2.5%	37.9%	3.2%	21.4%
7. Begin prior to period, end in period	0.8%	12.8%	1.0%	6.5%
8. Begin in period, end following period	2.4%	37.3%	8.7%	58.2%
9. Begin prior to period, end following period	0.8%	11.9%	2.1%	13.9%

Note: Spell category definitions are provide in Table 2.

Table 6. Spell Lengths and Months of UI Receipt for Spells with UI Receipt

<i>Spell Categories</i>	November 2005 - December 2007			January 2008 - February 2010		
	Proportion of Spells	Mean Spell Length	Mean Months UI Receipt	Proportion of Spells	Mean Spell Length	Mean Months UI Receipt
UI with Embedded SNAP	1.1%	5.9	4.8	6.3%	13.4	11.8
SNAP to UI	1.2%	14.3	3.7	3.2%	17.9	8.4
SNAP with Interior UI	1.5%	20.1	3.9	1.7%	20.4	5.8
UI to SNAP	2.8%	11.8	4.4	3.8%	14.6	6.8
Total SNAP spells with UI	6.5%	13.2	4.2	15.0%	15.4	9.2

Table 7. Spell Length and Months of UI Receipt for Spells with UI Receipt, by Recipient Characteristics

		November 2005 - December 2007			January 2008 - February 2010		
		Proportion of Spells	Mean Spell Length	Mean Months UI Receipt	Proportion of Spells	Mean Spell Length	Mean Months UI Receipt
<i>Males</i>	UI with Embedded SNAP	1.3%	5.9	4.8	7.6%	13.6	11.9
	SNAP to UI	1.1%	13.5	3.7	3.1%	16.9	8.3
	SNAP with Interior UI	1.1%	19.1	3.8	1.4%	19.2	5.8
	UI to SNAP	2.8%	11.5	4.4	4.4%	14.3	6.9
	Total UI Spells with SNAP	6.3%	12.1	4.3	16.5%	14.9	9.4
<i>Females</i>	UI with Embedded SNAP	1.0%	6.1	4.8	5.2%	13.2	11.7
	SNAP to UI	1.2%	15.3	3.8	3.3%	18.7	8.6
	SNAP with Interior UI	1.8%	20.7	3.9	1.9%	21.1	5.8
	UI to SNAP	2.8%	12.4	4.4	3.4%	14.9	6.7
	Total UI Spells with SNAP	6.8%	14.1	4.2	13.7%	16.0	8.9
<i>Whites</i>	UI with Embedded SNAP	1.1%	5.7	4.7	6.4%	13.3	11.8
	SNAP to UI	0.9%	13.1	3.6	2.8%	17.3	8.2
	SNAP with Interior UI	1.1%	19.0	3.8	1.4%	19.7	5.7
	UI to SNAP	2.7%	11.4	4.5	3.9%	14.3	6.8
	Total UI Spells with SNAP	5.8%	12.0	4.2	14.6%	15.0	9.2
<i>Nonwhites</i>	UI with Embedded SNAP	1.1%	6.3	4.8	5.8%	13.9	12.1
	SNAP to UI	1.5%	15.6	3.9	3.9%	19.0	8.8
	SNAP with Interior UI	2.2%	20.9	3.9	2.1%	21.3	6.0
	UI to SNAP	3.2%	12.5	4.3	3.7%	15.1	6.8
	Total UI Spells with SNAP	8.1%	14.5	4.2	15.5%	16.5	9.2
<i>Hispanics</i>	UI with Embedded SNAP	1.0%	5.9	4.7	6.7%	13.2	11.7
	SNAP to UI	1.1%	14.4	3.7	3.1%	17.5	8.2
	SNAP with Interior UI	1.3%	19.8	3.9	1.6%	20.0	5.6
	UI to SNAP	2.5%	11.6	4.3	3.8%	14.3	6.8
	Total UI Spells with SNAP	5.9%	13.0	4.2	15.1%	15.0	9.1
<i>Urban</i>	UI with Embedded SNAP	1.0%	6.1	4.8	6.0%	14.2	12.4
	SNAP to UI	1.1%	14.7	3.7	3.2%	18.0	8.5
	SNAP with Interior UI	1.6%	20.1	3.9	1.7%	20.4	5.9
	UI to SNAP	2.8%	12.2	4.4	3.8%	15.0	7.0
	Total UI Spells with SNAP	6.5%	13.6	4.2	14.6%	15.9	9.4
<i>Rural</i>	UI with Embedded SNAP	0.8%	5.9	4.8	4.1%	14.2	12.2
	SNAP to UI	1.1%	15.1	3.7	3.0%	19.1	8.3
	SNAP with Interior UI	1.7%	20.6	3.8	2.0%	21.0	5.7
	UI to SNAP	2.3%	12.2	4.3	3.3%	15.7	6.7
	Total UI Spells with SNAP	5.8%	14.3	4.1	12.4%	16.9	8.7
<i>Child in Household</i>	UI with Embedded SNAP	1.2%	6.1	4.8	5.8%	13.5	11.9
	SNAP to UI	1.5%	15.4	3.7	4.1%	19.0	8.5
	SNAP with Interior UI	2.1%	20.6	3.9	2.4%	21.2	5.7
	UI to SNAP	3.0%	12.1	4.3	4.2%	14.6	6.5
	Total UI Spells with SNAP	7.8%	14.2	4.1	16.4%	16.3	8.8
<i>Elderly in Household</i>	UI with Embedded SNAP	0.6%	6.0	5.1	4.9%	14.4	12.9
	SNAP to UI	0.5%	14.4	4.0	1.5%	16.9	8.9
	SNAP with Interior UI	0.5%	20.0	4.3	0.7%	19.7	6.0
	UI to SNAP	1.6%	13.3	5.0	2.5%	15.7	7.7
	Total UI Spells with SNAP	3.2%	13.2	4.7	9.5%	15.5	10.4

Table 8. Sources of Income for Spells

	All Spells		Spells Extending through at least 1st Quarter after Entry Quarter	Spells Extending through at least 2nd Quarter after Entry Quarter
	Quarter Prior to SNAP Entry	Quarter of SNAP Entry	1st Quarter after Entry	2nd Quarter after Entry
	<i>SNAP Spells beginning April 2006-June 2007</i>			
# Spells	616,565	616,565	455,525	272,251
% of All Spells	100.0%	100.0%	73.9%	44.2%
% with Any Earnings	43.2%	44.1%	41.1%	36.0%
Average Earnings	\$2,291	\$1,730	\$1,967	\$1,635
Average Earnings for those with Earnings	\$5,303	\$3,927	\$4,785	\$4,541
% with UI Benefits	2.7%	4.9%	4.0%	2.7%
Average UI Benefits	\$39	\$77	\$69	\$34
Average UI Benefit for those with Benefits	\$1,447	\$1,588	\$1,722	\$1,266
Average SNAP Benefits	\$88	\$421	\$700	\$689
<i>SNAP Spells beginning April 2008-June 2009</i>				
# Spells	1,103,865	1,103,865	872,156	608,146
% of All Spells	100.0%	100.0%	79.0%	55.1%
% with Any Earnings	40.1%	37.0%	32.5%	28.9%
Average Earnings	\$2,533	\$1,662	\$1,645	\$1,430
Average Earnings for those with Earnings	\$6,325	\$4,494	\$5,066	\$4,942
% with UI Benefits	7.1%	12.5%	12.6%	12.2%
Average UI Benefits	\$119	\$233	\$274	\$261
Average UI Benefit for those with Benefits	\$1,548	\$1,809	\$2,139	\$2,130
Average SNAP Benefits	\$76	\$491	\$858	\$897

Table 9. Sources of Income After Completion of SNAP Spell

	Quarter after last Quarter of SNAP		
	All Spells	Spells Spanning 9 or Fewer Months	Spells Spanning 10 or More Months
<i>SNAP Spells ending in January 2006-September 2007</i>			
# Spells	844,429	530,166	314,263
% of All Spells	100.0%	62.8%	37.2%
% with Any Earnings	47.0%	49.8%	40.8%
Average Earnings	\$2,957	\$3,145	\$2,595
Average for those with Earnings	\$6,294	\$6,312	\$6,367
% with UI Benefits	1.8%	2.1%	1.7%
Average UI Benefits	\$25	\$31	\$22
Average UI Benefit for those with Benefits	\$1,357	\$1,452	\$1,246
<i>SNAP Spells ending in April 2008-December 2009</i>			
# Spells	1,070,222	749,699	320,523
% of All Spells	100.0%	70.1%	29.9%
% with Any Earnings	38.0%	40.1%	25.7%
Average Earnings	\$2,630	\$2,787	\$2,137
Average for those with Earnings	\$6,927	\$6,946	\$6,876
% with UI Benefits	8.9%	10.4%	4.8%
Average UI Benefits	\$202	\$242	\$105
Average UI Benefit for those with Benefits	\$2,156	\$2,244	\$1,762

Table 10a. Sources of Income During and Following SNAP Spells by Gender

Males	All Spells		Spells Extending through at least 1st Quarter after Entry	Spells Extending through at least 2nd Quarter after Entry	Quarter After End of Spell
	Quarter Prior to SNAP Entry	Quarter of Snap Entry	1st Quarter after Entry	2nd Quarter after Entry	<i>SNAP Spells Ending January 2006- September 2007</i>
<i>SNAP Spells beginning April 2006-June 2007</i>					
% with Any Earnings	39.0%	41.5%	38.1%	31.8%	43.3%
Average for those with Earnings	\$5,824	\$4,149	\$5,314	\$4,997	\$6,945
% with UI Benefits	2.6%	4.7%	3.8%	2.5%	1.8%
Average UI Benefit for those with Benefits	\$1,524	\$1,661	\$1,878	\$1,376	\$1,483
Average SNAP Benefits		\$390	\$652	\$629	
<i>SNAP Spells beginning April 2008-June 2009</i>					
% with Any Earnings	36.9%	33.9%	29.4%	25.7%	34.0%
Average for those with Earnings	\$6,850	\$4,549	\$5,276	\$5,149	\$7,286
% with UI Benefits	8.2%	14.4%	14.3%	13.6%	10.3%
Average UI Benefit for those with Benefits	\$1,634	\$1,895	\$2,258	\$2,243	\$2,280
Average SNAP Benefits		\$458	\$809	\$838	
<i>SNAP Spells Ending April 2008- December 2009</i>					
Females					
<i>SNAP Spells beginning April 2006-June 2007</i>					
% with Any Earnings	46.0%	45.8%	43.0%	38.5%	49.4%
Average for those with Earnings	\$5,007	\$3,792	\$4,485	\$4,321	\$5,922
% with UI Benefits	2.8%	5.0%	4.2%	2.8%	1.8%
Average UI Benefit for those with Benefits	\$1,400	\$1,541	\$1,631	\$1,209	\$1,279
Average SNAP Benefits		\$441	\$730	\$724	
<i>SNAP Spells Ending April 2008- December 2009</i>					
<i>SNAP Spells beginning April 2008-June 2009</i>					
% with Any Earnings	42.7%	39.6%	35.0%	31.5%	41.1%
Average for those with Earnings	\$5,937	\$4,454	\$4,919	\$4,808	\$6,682
% with UI Benefits	6.2%	11.0%	11.2%	11.1%	7.8%
Average UI Benefit for those with Benefits	\$1,453	\$1,715	\$2,013	\$2,019	\$2,021
Average SNAP Benefits		\$519	\$900	\$944	

Table 10b. Sources of Income During and Following SNAP Spells by Race

Whites	All Spells		Spells Extending through	Spells Extending	Quarter After End of Spell
	Quarter Prior to SNAP Entry	Quarter of Snap Entry	at least 1st Quarter after Entry Quarter	through at least 2nd Quarter after Entry Quarter	
			1st Quarter after Entry	2nd Quarter after Entry	
<i>SNAP Spells beginning April 2006-June 2007</i>					<i>SNAP Spells Ending January 2006-September 2007</i>
% with Any Earnings	42.2%	42.6%	38.4%	31.4%	42.7%
Average for those with Earnings	\$5,203	\$3,724	\$4,690	\$4,403	\$6,086
% with UI Benefits	2.6%	4.5%	3.6%	2.3%	1.6%
Average UI Benefit for those with Benefits	\$1,521	\$1,638	\$1,805	\$1,316	\$1,458
Average SNAP Benefits		\$401	\$678	\$657	
<i>SNAP Spells beginning April 2008-June 2009</i>					<i>SNAP Spells Ending April 2008-December 2009</i>
% with Any Earnings	39.3%	36.2%	31.1%	27.1%	35.1%
Average for those with Earnings	\$6,230	\$4,264	\$4,929	\$4,790	\$6,803
% with UI Benefits	7.1%	12.4%	12.3%	11.7%	8.7%
Average UI Benefit for those with Benefits	\$1,610	\$1,852	\$2,194	\$2,188	\$2,226
Average SNAP Benefits		\$475	\$844	\$878	
					<i>SNAP Spells Ending January 2006-September 2007</i>
<i>SNAP Spells beginning April 2006-June 2007</i>					<i>SNAP Spells Ending April 2008-December 2009</i>
Nonwhites					
<i>SNAP Spells beginning April 2006-June 2007</i>					<i>SNAP Spells Ending January 2006-September 2007</i>
% with Any Earnings	50.6%	51.0%	47.6%	41.8%	52.8%
Average for those with Earnings	\$5,177	\$3,871	\$4,628	\$4,418	\$6,119
% with UI Benefits	3.1%	5.7%	5.0%	3.4%	2.2%
Average UI Benefit for those with Benefits	\$1,366	\$1,506	\$1,614	\$1,211	\$1,248
Average SNAP Benefits		\$428	\$701	\$710	
<i>SNAP Spells beginning April 2008-June 2009</i>					<i>SNAP Spells Ending April 2008-December 2009</i>
% with Any Earnings	42.8%	39.3%	34.3%	30.3%	40.3%
Average for those with Earnings	\$6,150	\$4,528	\$5,055	\$4,920	\$7,015
% with UI Benefits	7.1%	12.4%	13.0%	12.8%	9.2%
Average UI Benefit for those with Benefits	\$1,452	\$1,685	\$1,982	\$1,962	\$2,014
Average SNAP Benefits		\$479	\$820	\$866	
					<i>SNAP Spells Ending January 2007-September 2007</i>
<i>SNAP Spells beginning April 2006-June 2007</i>					<i>SNAP Spells Ending April 2008-December 2009</i>
Hispanics					
<i>SNAP Spells beginning April 2006-June 2007</i>					<i>SNAP Spells Ending January 2007-September 2007</i>
% with Any Earnings	35.6%	37.7%	37.7%	36.0%	46.7%
Average for those with Earnings	\$5,725	\$4,388	\$5,146	\$4,929	\$6,807
% with UI Benefits	2.4%	4.4%	3.5%	2.4%	1.7%
Average UI Benefit for those with Benefits	\$1,451	\$1,627	\$1,774	\$1,296	\$1,391
Average SNAP Benefits		\$445	\$733	\$715	
<i>SNAP Spells beginning April 2008-June 2009</i>					<i>SNAP Spells Ending April 2008-December 2009</i>
% with Any Earnings	38.3%	35.8%	32.8%	30.6%	40.3%
Average for those with Earnings	\$6,689	\$4,842	\$5,286	\$5,190	\$6,962
% with UI Benefits	7.3%	13.0%	12.9%	12.4%	9.0%
Average UI Benefit for those with Benefits	\$1,549	\$1,869	\$2,223	\$2,237	\$2,190
Average SNAP Benefits		\$531	\$924	\$963	

Table 10c. Sources of Income During and Following SNAP Spells by Urbanization

Urban	All Spells		Spells Extending through	Spells Extending	SNAP Spells Ending January 2006- September 2007
	Quarter Prior to	Quarter of Snap	at least 1st Quarter after	through at least 2nd	
	SNAP Entry	Entry	Entry Quarter	Quarter after Entry	
	<i>SNAP Spells beginning April 2006-June 2007</i>				
% with Any Earnings	42.4%	43.3%	40.5%	35.4%	46.5%
Average for those with Earnings	\$5,215	\$3,847	\$4,718	\$4,484	\$6,238
% with UI Benefits	2.7%	4.8%	3.9%	2.6%	1.8%
Average UI Benefit for those with Benefits	\$1,443	\$1,579	\$1,712	\$1,255	\$1,345
Average SNAP Benefits		\$410	\$678	\$667	
	<i>SNAP Spells beginning April 2008-June 2009</i>				<i>SNAP Spells Ending April 2008- December 2009</i>
% with Any Earnings	38.1%	35.1%	30.7%	27.5%	35.7%
Average for those with Earnings	\$6,124	\$4,244	\$4,821	\$4,727	\$6,614
% with UI Benefits	7.1%	12.5%	12.6%	11.9%	9.1%
Average UI Benefit for those with Benefits	\$1,545	\$1,798	\$2,130	\$2,104	\$2,176
Average SNAP Benefits		\$461	\$803	\$838	
	<i>SNAP Spells beginning April 2006-June 2007</i>				<i>SNAP Spells Ending January 2006- September 2007</i>
Rural					
% with Any Earnings	43.8%	44.0%	40.0%	34.9%	45.3%
Average for those with Earnings	\$4,973	\$3,761	\$4,569	\$4,252	\$5,880
% with UI Benefits	2.3%	4.1%	3.5%	2.3%	1.6%
Average UI Benefit for those with Benefits	\$1,412	\$1,435	\$1,527	\$1,246	\$1,218
Average SNAP Benefits		\$439	\$718	\$713	
	<i>SNAP Spells beginning April 2008-June 2009</i>				<i>SNAP Spells Ending April 2008- December 2009</i>
% with Any Earnings	38.6%	35.2%	30.9%	27.2%	35.4%
Average for those with Earnings	\$5,876	\$4,260	\$4,774	\$4,659	\$6,647
% with UI Benefits	5.3%	10.0%	10.0%	9.6%	6.9%
Average UI Benefit for those with Benefits	\$1,486	\$1,680	\$1,999	\$1,990	\$1,996
Average SNAP Benefits		\$485	\$831	\$869	

Table 10d. Sources of Income During and Following SNAP Spells by Household Type

Households with	All Spells		Spells Extending through	Spells Extending	Quarter After End of
	Quarter Prior to	Quarter of Snap	at least 1st Quarter after	through at least 2nd	Spell
Children	SNAP Entry	Entry	Entry Quarter	Quarter after	SNAP Spells Ending
			1st Quarter after	Entry	January 2006-
			Entry		September 2007
<i>SNAP Spells beginning April 2006-June 2007</i>					
% with Any Earnings	51.8%	52.6%	51.1%	48.2%	55.0%
Average for those with Earnings	\$5,879	\$4,604	\$5,342	\$5,094	\$6,830
% with UI Benefits	2.9%	5.4%	4.6%	3.4%	2.0%
Average UI Benefit for those with Benefits	\$1,434	\$1,677	\$1,790	\$1,332	\$1,340
Average SNAP Benefits		\$580	\$948	\$957	
<i>SNAP Spells beginning April 2008-June 2009</i>					
% with Any Earnings	47.1%	44.6%	40.8%	38.0%	46.1%
Average for those with Earnings	\$7,055	\$5,372	\$5,860	\$5,707	\$7,661
% with UI Benefits	6.9%	12.3%	12.7%	12.9%	8.4%
Average UI Benefit for those with Benefits	\$1,549	\$1,901	\$2,241	\$2,299	\$2,115
Average SNAP Benefits		\$704	\$1,207	\$1,267	
<i>SNAP Spells beginning April 2006-June 2007</i>					
Households with Elderly Members					SNAP Spells Ending
					January 2006-
					September 2007
% with Any Earnings	22.9%	20.8%	16.9%	13.2%	19.3%
Average for those with Earnings	\$4,496	\$3,378	\$4,078	\$3,546	\$5,057
% with UI Benefits	2.4%	3.5%	2.6%	1.3%	1.1%
Average UI Benefit for those with Benefits	\$1,575	\$1,517	\$1,740	\$1,234	\$1,295
Average SNAP Benefits		\$275	\$443	\$411	
<i>SNAP Spells beginning April 2008-June 2009</i>					
% with Any Earnings	25.7%	21.6%	16.5%	13.0%	17.2%
Average for those with Earnings	\$5,739	\$4,071	\$4,505	\$4,277	\$5,839
% with UI Benefits	7.1%	11.3%	11.0%	9.4%	7.0%
Average UI Benefit for those with Benefits	\$1,630	\$1,888	\$2,230	\$2,234	\$2,277
Average SNAP Benefits		\$350	\$602	\$606	

Appendix Table A1. Spells Distribution for Spells with SNAP and UI, January 2008 - February 2010

Spells with UI and SNAP	UI Receipt Coded as Observed		UI Receipt Without Benefit Extensions	
	Proportion of Spells		Proportion of Spells	
	15.0%	Rank	14.4%	Rank
UBC	1.8%	1	0.6%	4
UBS	0.6%	4	0.9%	2
SBC	0.8%	2	0.5%	6
BC	0.7%	3	0.4%	10
UBSC	0.4%	6	1.1%	1
UBUC	0.6%	5	0.0%	36
UNSC	0.3%	7	0.7%	3
BS	0.3%	10	0.4%	11
UNS	0.2%	14	0.4%	9
SBSC	0.3%	11	0.6%	5
CSBSC	0.2%	13	0.4%	8
UBU	0.3%	9	0.3%	13
SBS	0.2%	16	0.3%	14
BSC	0.2%	15	0.5%	7
BUC	0.3%	8	0.1%	31
CSBC	0.3%	12	0.1%	24
BU	0.2%	18	0.4%	12
US	0.1%	23	0.2%	18
Other 1-, 2- or 3- run spells	1.8%		4.6%	
Spells with 4 or more runs	5.6%		2.1%	

Note: All spells with up to three runs were ranked by relative frequency. The spells reported here are correspond to those in Table 4.

Appendix Table A2. Impact of Unemployment Benefit Extension on Spell Type, January 2008 - February 2010, Spells with UI Receipt

Spell Description	UI Receipt Coded as Observed		UI Receipt Without Benefit Extensions	
	Proportion of Spells	Proportion of Spells with UI	Proportion of Spells	Proportion of Spells with UI
1. All Spells with UI Receipt	15.0%	100.0%	14.4%	100.0%
<i>Spell Categories</i>				
2. UI with Embedded SNAP	6.3%	42.1%	3.1%	21.2%
3. SNAP to UI	3.2%	21.3%	2.1%	14.5%
4. SNAP with Interior UI	1.7%	11.0%	2.8%	19.1%
5. UI to SNAP	3.8%	25.6%	6.5%	45.2%
<i>Censoring</i>				
6. Begin and end in period	3.2%	21.4%	4.7%	32.8%
7. Begin prior to period, end in period	1.0%	6.5%	1.2%	8.3%
8. Begin in period, end following period	8.7%	58.2%	6.8%	46.9%
9. Begin prior to period, end following period	2.1%	13.9%	1.7%	12.0%

Note: Spell category definitions are provided in Table 2.

Appendix Table A3. Impact of Unemployment Benefit Extension on Spell Lengths and Months of UI Receipt, January 2008 - February 2010, Spells with UI Receipt

Spell Categories	UI Receipt Coded as Observed			UI Receipt Without Benefit Extensions		
	Proportion of Spells	Mean Spell Length	Mean Months UI Receipt	Proportion of Spells	Mean Spell Length	Mean Months UI Receipt
UI with Embedded SNAP	6.3%	13.4	11.8	3.1%	8.1	6.3
SNAP to UI	3.2%	17.9	8.4	2.1%	14.7	4.8
SNAP with Interior UI	1.7%	20.4	5.8	2.8%	20.6	5.4
UI to SNAP	3.8%	14.6	6.8	6.5%	14.5	5.9
Total SNAP spells with UI	15.0%	15.4	9.2	14.4%	14.3	5.8