

New Versus Return Participation in the Supplemental Nutrition Assistance Program During and Immediately Following the Great Recession

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Abstract:

Participation in the Supplemental Nutrition Assistance Program (SNAP) climbed to historic levels during and immediately following the Great Recession. However, it is unclear whether the recession-era increases in SNAP participation represented an influx of new participants or a mass return by former participants coinciding with the economic downturn. Using panel data spanning over four decades, I examine the extent to which the great recession coaxed new versus return participants to the program. I find that almost half of adult SNAP participation during and immediately following the recession was among first-time users. First time users were more likely than return users to be urban/suburban, white/Latino, college educated, and to have been living in two-adult (non-single headed) households. I also find evidence that first-time users were older during the great recession than first-time users in previous periods.

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Background

In the years leading up to and following the great recession, participation rates in the nation's food assistance entitlement program, the Supplementary Nutrition Assistance Program (SNAP), increased to historic levels. During the recession, about 1 in 8 persons received benefits (Klerman and Danielson 2011) and by 2011 annual federal spending on the program amounted to \$75.7 billion, with over 44.7 million people in 21.1 million households receiving benefits in an average month that year (Strayer, Eslami and Leftin 2012).

Even before the onset of the great recession, SNAP caseloads were following an upward trajectory. After declines in participation thought to be associated with welfare reforms of the mid-1990s, caseloads began to climb in the early 2000s. Pre-recession increases in participation are thought to have been a result of two factors: 1) the growing number of poor and near-poor individuals using food stamps as a substitute for cash welfare; and 2) concerted efforts by the government to coax new program participation from eligible individuals (Klerman and Danielson 2011).

This dramatic increase in participation has occurred at a time of increased political pressure to cut social program spending as a strategy for reducing high levels of public debt. Skeptics of entitlement programs argue that the programs contribute to a growing culture of dependency, where it is commonplace for household budgets to include some form of government assistance. Proponents of the 'culture of dependency' argument assume that the SNAP program is expanding because of an influx of new participants. However, is it not actually known if the increase in SNAP participation represents an inflow of new users or a return by former participants who are simultaneously cycling back into the program as a result of the depth of the economic downturn.

In addition, relatively basic facts about the demographic profiles of new and return SNAP participants are unknown. This gap in knowledge is probably due to the extensive data requirements for longitudinal analyses of this type. Cross-sectional analyses provide a wealth of information about the proportion of the population enrolled in SNAP and their personal characteristics at the time of the survey, see Strayer, Eslami, and Leftin (2012); however, these analyses reveal little about the *dynamics* of SNAP participation. For example, one recent study attributed high participation rates in poor southern areas to high poverty, low employment availability, and relatively low levels of human capital compared to urban areas (Slack and Myers 2012). However, this study does not include information from the great recession, nor does it differentiate between new and return program participation.

In order to differentiate between new and return SNAP users, one must have access to information about SNAP use over time. One study using this longitudinal approach found that about 3 in 10 adults use food stamps at some point after age 25 with most of those cycling on and off the program. The study also found that individuals were unlikely to participate in SNAP if they hadn't already done so by the end of their 30s (Grieger and Danziger 2011).

The Current Study

In this paper, I will utilize longitudinal data spanning over 40 years in order to discover the extent to which the great recession coaxed new versus return participation in SNAP among adults. I examine whether the profiles of new and return users differ depending on a set of common demographic characteristics including household location, race/ethnicity, gender, education, and household configuration. I also examine whether the great recession coaxed first time participation from older individuals. Results from this analysis seek to clarify the dynamics of SNAP participation, adding texture to the national debate about the role of government entitlement programs by revealing more nuanced information about beneficiaries.

Specifically, this paper will focus on the following research questions:

1. To what extent did the great recession coax new versus return participation in SNAP among adults?
2. How do the demographic profiles of new versus return program participants differ for adults?
3. Was the great recession severe enough to coax new participation from older individuals?

Data Source and Measures

For this analysis I will use data from the Panel Study of Income Dynamics (PSID), the longest-running nationally representative source of panel data in the United States. The PSID was first administered to about 18,000 individuals in 1968; and original panel members and their offspring were re-interviewed annually (biennially after 1997). As of the 2011 wave, the PSID includes information from over 70,000 individuals spanning 42 years. The PSID is ideal for this research because it is the only data source with information that spans a period long enough to track SNAP participation over the entirety of individuals' adulthoods. Other panel data sources such as the Survey of Income and Program Participation (SIPP) provide better information on short-term usage, but the observation period of the SIPP is relatively short in comparison to the PSID. The PSID is publically available and is known to be a reliable source of longitudinal data for nationally representative studies on income and poverty (Grieger, Danziger and Schoeni 2009). For more information about the PSID, see: PSID Users Manual (2012).

SNAP participation is measured at the family level in each year of the panel. In each household, the head and wife report the amount of income received from food stamps in the previous year. After combining, if the value is non-zero all members of the family are considered to have been program participants in that year. Individuals were considered to be great recession SNAP participants if they lived in a family that received income from the program in 2008, 2009, or 2010.

The PSID also includes information about the demographic characteristics of sample individuals. Age in years is captured for each sample member and varies with each wave. An indicator for the race/ethnicity is created by collapsing responses into a single measure that categorizes individuals into one of the following groups: white (non-Latino), black (non-Latino), Latino, and other (Asian or native). A variable measuring the completed adult education is created by grouping individuals into one of four categories depending on their completed education by age 25: less than high school diploma, high school diploma, some college, and college graduate.

Household configuration in 2010 is captured as a binary variable with 0=single headed household and 1=household with head and ‘wife.’ The head and ‘wife’ do not have to be married, thus, families with a married or cohabiting head are treated as equivalent. A variable measuring household location in 2010 groups individuals into one of three categories depending on their place of residence in 2010: urban, suburban, and rural. The categorization is based off of the Beale-Ross Rural/Urban Continuum Code, which is provided by the PSID. A variable measuring region of household residence in 2010 groups individuals into one of four categories depending on their state of residence: northeast, north central, south, and west (including Alaska and Hawaii).

Individuals are included in the analytic sample if they are observed continuously (that is, in each survey wave) from the year they become age 25 until 2010 and have non-missing values on all other variables of interest. Continuous observation is required to ensure that SNAP participation for the entire period of adulthood, which is considered to begin at age 25, is observed. Thus, individuals may be observed for varying lengths of time – ranging from 43 years for individuals who turned 25 in the 1967 wave, to 1 year for those who turned 25 in the 2010 wave.

Core sample weights, which are provided in each wave of the PSID, were used for all statistical analyses. All analyses were calculated using Stata version 12.1.

Results

Table 1 includes descriptive statistics for the analytic sample (second column) and for the sub-sample of great recession SNAP participants (third column). To ensure that the analytic sample is free of selection bias due to the sampling criteria, Table 1 also includes weighted descriptive statistics for all respondents aged 25 to 68 in the 2011 wave of the PSID (first column). According to the table, the characteristics of the analytic sample do not depart substantially from those of the full 2010 cross section with one important exception: analytic sample members are slightly younger and slightly more educated.

[Table 1 about here]

Table 2 includes the coefficients of a logistic regression predicting great recession SNAP participation among analytic sample members. According to the table, SNAP participation during and immediately following the great recession was more common among individuals who were non-suburban, non-white, young, female, living in single

headed households, and less educated. These results align with myriad other studies outlining the demographic correlates of SNAP participation.

[Table 2 about here]

Overall, about 12.2% of the analytic sample lived in families receiving income from SNAP during or immediately following the great recession. Figure 1 shows the proportion of great recession program participants who were first time versus return participants in SNAP. According to the Figure, 42.8% of great recession SNAP participants were new first-time users, compared to 57.8% who were return users.

[Figure 1 about here]

Table 3 includes the coefficients from a logistic regression comparing the demographic characteristics of new versus return great recession SNAP participants. According to the table, the demographic profiles for new SNAP participants are significantly different from return SNAP participants in many ways. New participants are more likely to be suburban and less likely to be rural than return users. They are also more likely to be white or Latino, to come from two-adult households (as opposed to single headed households), and are more educated than return users.

[Table 3 about here]

Figure 2 shows the average age of first time SNAP participation for new and return recipients during the great recession. According to the figure, the average age of first time receipt for great recession participants who were return users was 28.1 years old. That is, the first time these participants received SNAP assistance (which was prior to the great recession), they were about 28 years old. Great recession SNAP participants who were new to the program had an average age of 31.8 years. Thus, first timers during the recession were about 3.7 years older than those whose first SNAP receipt was before the great recession.

[Figure 2 about here]

Figure 3 shows Kaplan-Meier failure estimates for new and return great recession SNAP users. According to the figure, the line representing return users is higher than the one representing return users indicating that first-time participation among return users was compressed more toward younger ages. This reinforces the finding from the previous figure, again suggesting that the great recession did coax new participation from older people.

[Figure 3 about here]

Multivariate analyses also support the findings from Figures 2 and 3. Table 4 contains the coefficients from a Cox proportional hazard regression modeling the time to failure among great recession SNAP participants. (For more information about basic survival

analysis techniques, including Kaplan-Meier failure estimates and Cox proportional hazard models, please see Box-Steffensmeier and Jones (2004)). Results from the model indicate that the hazard of great recession SNAP participation is about two-thirds as high (33% lower) for new versus return participants after controlling for other observed demographic traits. This indicates a longer duration (age) until eventual failure (SNAP receipt).

[Table 4 about here]

The same result is confirmed when using a simple linear regression framework. Table 5 contains the coefficients from an ordinary least squares regression predicting age of first SNAP participation. According to the table, new great recession SNAP participants were an average of 6.3 years older than their return counterparts after controlling for other observed demographic characteristics (and after including a control for cohort, which is not shown).

[Table 5 about here]

Summary and Implications

It is known that participation in SNAP climbed steadily through the first decade of the 2000s, exploding to unprecedented levels in the period during and following the great recession. What is not known is whether this participation represents an influx of new users or a mass return of previous participants. It is also not known how these new participants compare to return participants in terms of their demographic profiles.

This analysis finds the following:

- 1 in 8 were adults used SNAP in the period during and immediately following the great recession.
- Over 2 in 5 adult great recession SNAP participants were first-time users.
- Compared to returners, new SNAP participants during the great recession were more likely to be suburban, white or Latino, to come from two-adult households (as opposed to single-headed households), and to be highly educated.
- The average return recipient first participated in SNAP when they were 28.1 years old compared to 31.8 years old for new participants.
- First time participation was compressed more toward younger ages for return participants to SNAP compared to those who were new to SNAP during the great recession.

Several important implications follow from these findings. First, new SNAP users during the great recession are very different from their return counterparts in ways that do not fit

mainstream conceptions of the typical SNAP participant. Second, new SNAP usage among older people appears to be more common as a result of the great recession. This is notable because until recently, it was believed that the likelihood of first-time SNAP participation very sharply declines after age 40 (Grieger and Danziger 2011). In sum, the severity of the recession was deep enough that it coaxed a very diverse set of new users to participate in the program, perhaps most notably suburban people, whites, highly educated people, and older individuals. These findings are important for policymakers to consider as the debate surrounding the future of SNAP moves forward.

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Figure 1

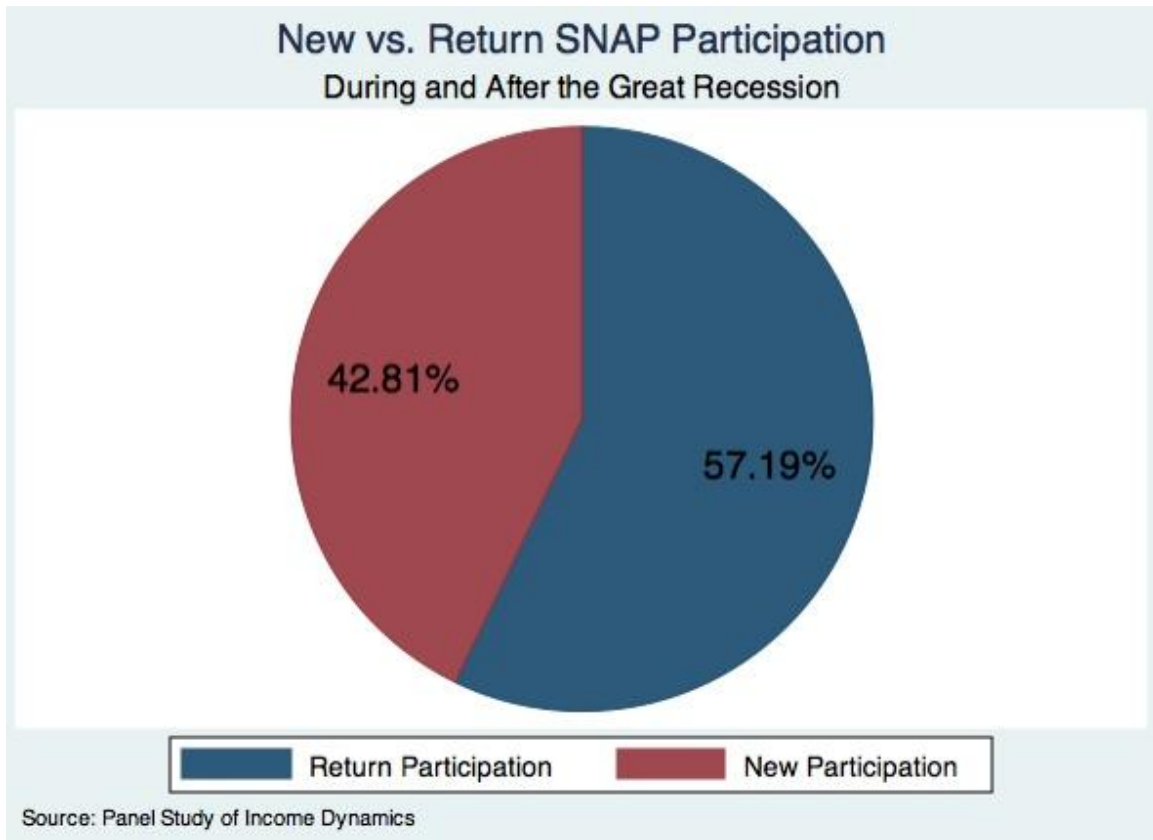


Figure 2

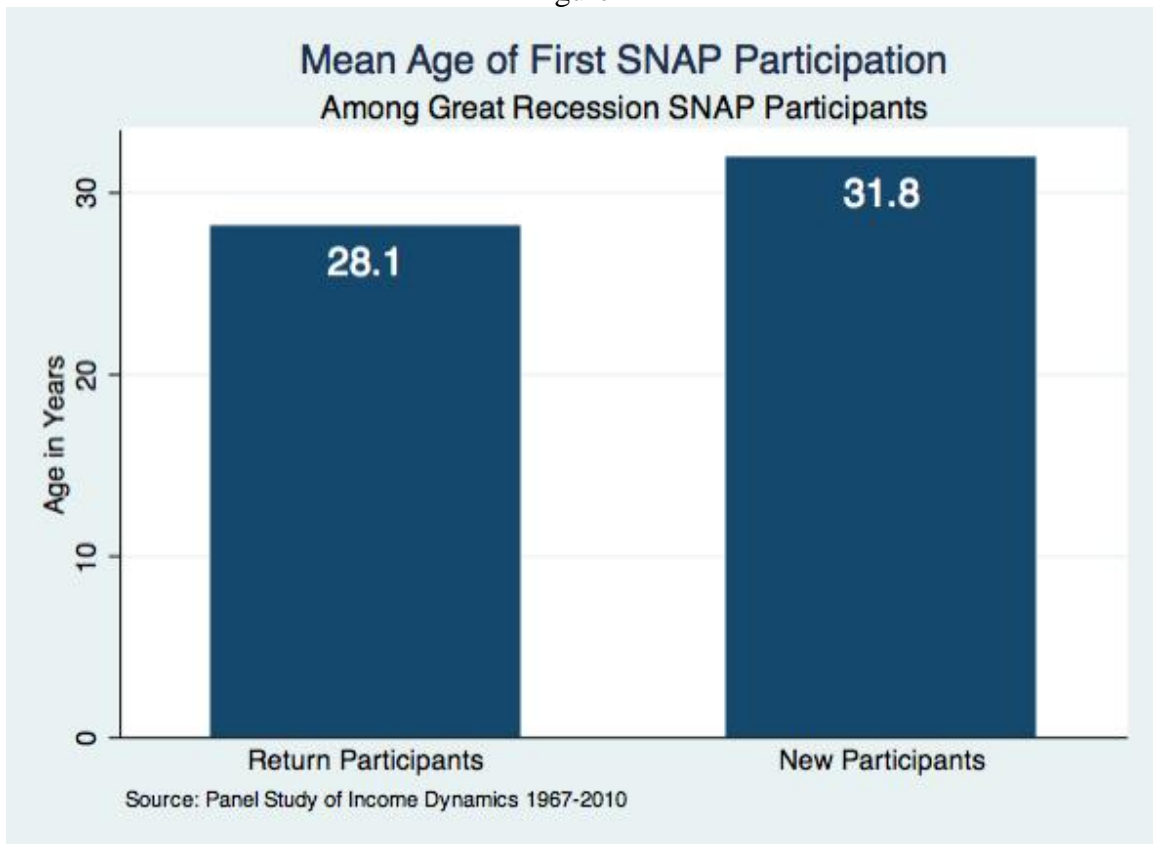


Figure 3

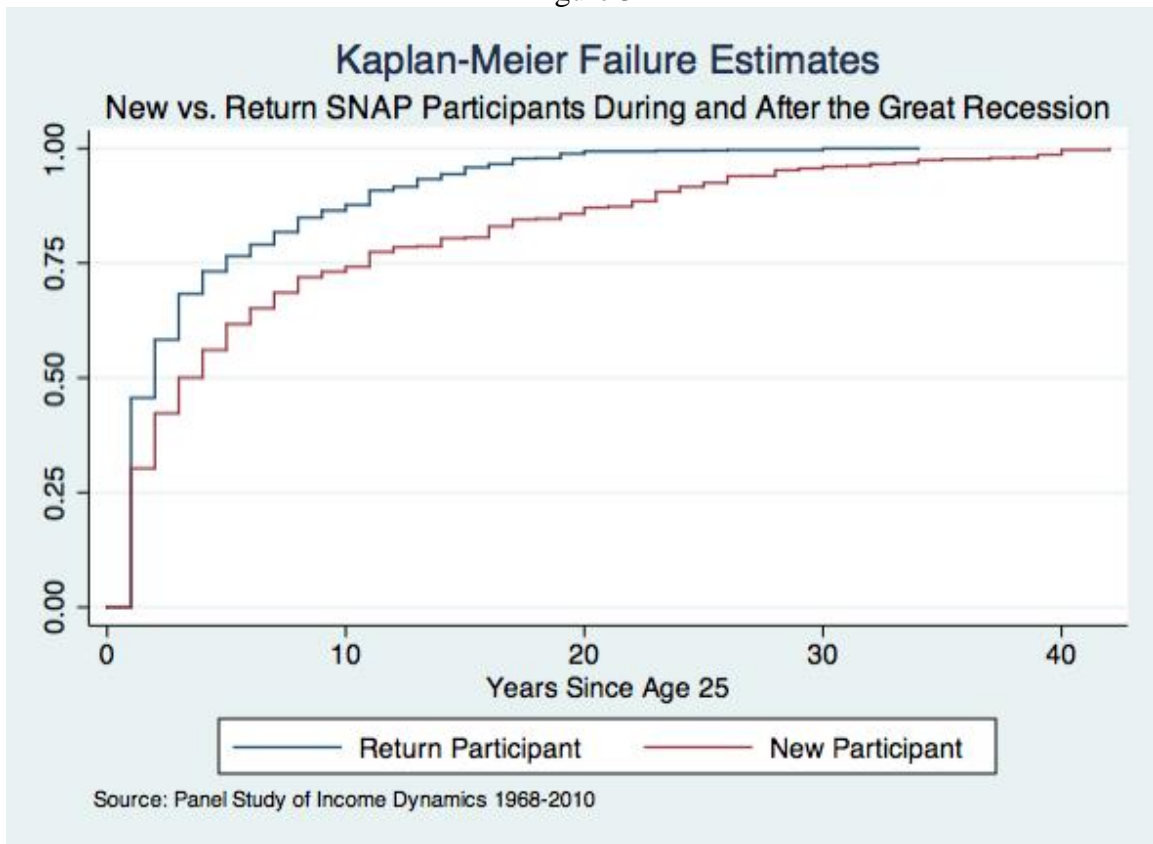


Table 1: Descriptive Statistics.

| | <u>2010</u> <u>Cross</u> <u>Section</u> | <u>Analytic</u> <u>Sample</u> | <u>GR FS</u> <u>Participants</u> |
|-------------------------------------|---|----------------------------------|-------------------------------------|
| <i>Household Location:</i> | | | |
| % Urban | 57.0% | 56.8% | 61.4% |
| % Suburban | 25.2% | 24.5% | 15.8% |
| % Rural | 17.8% | 18.7% | 22.8% |
| <i>Household Region:</i> | | | |
| % North Central | 22.0% | 23.7% | 22.7% |
| % Northeast | 17.9% | 18.3% | 15.0% |
| % South | 37.2% | 36.8% | 42.3% |
| % West | 22.9% | 21.2% | 20.0% |
| <i>Race:</i> | | | |
| % Black (Non-Latino) | 12.1% | 11.4% | 29.2% |
| % White (Non-Latino) | 72.7% | 78.6% | 55.7% |
| % Latino | 10.6% | 7.0% | 11.5% |
| % Other | 4.6% | 3.0% | 3.6% |
| <i>Age in 2010:</i> | | | |
| % Age 25-34 (new adult) | 24.6% | 32.4% | 51.3% |
| % Age 35-44 (adult) | 22.8% | 22.4% | 22.4% |
| % Age 45-54 (older adult) | 24.6% | 19.3% | 13.1% |
| % Age 55-64 (near retirement) | 22.7% | 21.0% | 11.0% |
| % Age 65-68 (senior) | 5.3% | 4.9% | 2.2% |
| <i>Sex:</i> | | | |
| % Female | 50.8% | 52.8% | 62.4% |
| % Male | 49.2% | 47.2% | 37.6% |
| <i>Household Configuration:</i> | | | |
| % Single-Head | 31.6% | 35.4% | 59.4% |
| % Two-Person HH | 68.4% | 64.6% | 40.6% |
| <i>Highest Completed Education:</i> | | | |
| % Less than HS Diploma | 7.1% | 4.2% | 14.8% |
| % HS Diploma | 27.4% | 26.3% | 40.2% |
| % Some College | 27.8% | 29.7% | 35.4% |
| % College Degree | 37.6% | 39.8% | 9.6% |
| n | 12321 | 7680 | 1478 |

Table 2: Logistic regression predicting great recession SNAP participation.

| | <u>Coef.</u> | <u>SE</u> | <u>p> z </u> |
|-------------------------------------|--------------|-----------|-----------------|
| <i>Household Location:</i> | | | |
| Urban (omitted) | | | |
| Suburban | -0.29 | 0.13 | 0.024 |
| Rural | 0.21 | 0.13 | 0.099 |
| <i>Household Region:</i> | | | |
| North Central (omitted) | | | |
| Northeast | 0.02 | 0.16 | 0.910 |
| South | 0.96 | 0.12 | 0.428 |
| West | 0.09 | 0.15 | 0.551 |
| <i>Race:</i> | | | |
| Black (Non-Latino) (omitted) | | | |
| White (Non-Latino) | -0.94 | 0.12 | 0.000 |
| Latino | -0.55 | 0.19 | 0.004 |
| Other | -0.67 | 0.25 | 0.007 |
| <i>Age:</i> | | | |
| Age 25-34 (omitted) | | | |
| Age 35-44 | -0.46 | 0.13 | 0.000 |
| Age 45-54 | -1.05 | 0.17 | 0.000 |
| Age 55-64 | -1.23 | 0.16 | 0.000 |
| Age 65-68 | -1.64 | 0.32 | 0.000 |
| <i>Sex:</i> | | | |
| Female (omitted) | | | |
| Male | -0.62 | 0.10 | 0.000 |
| <i>Household Configuration:</i> | | | |
| Single-Head (omitted) | | | |
| Two-Person HH | -0.99 | 0.10 | 0.000 |
| <i>Highest Completed Education:</i> | | | |
| Less than HS Diploma (omitted) | | | |
| HS Diploma | -1.19 | 0.18 | 0.000 |
| Some College | -1.58 | 0.18 | 0.000 |
| College Degree | -3.20 | 0.23 | 0.000 |
| Constant | 1.77 | 0.22 | 0.000 |
| Pseudo r-squared | | 0.214 | |
| n | | 7680 | |

Table 3: Logistic regression predicting new versus return SNAP participation during the great recession.

| | <u>Coef.</u> | <u>SE</u> | <u>p> z </u> |
|-------------------------------------|--------------|-----------|-----------------|
| <i>Household Location:</i> | | | |
| Urban (omitted) | | | |
| Suburban | 0.43 | 0.26 | 0.097 |
| Rural | -1.04 | 0.24 | 0.000 |
| <i>Household Region:</i> | | | |
| North Central (omitted) | | | |
| Northeast | 0.14 | 0.30 | 0.637 |
| South | 0.23 | 0.22 | 0.296 |
| West | 0.22 | 0.29 | 0.450 |
| <i>Race:</i> | | | |
| Black (Non-Latino) (omitted) | | | |
| White (Non-Latino) | 0.53 | 0.20 | 0.008 |
| Latino | 0.80 | 0.35 | 0.022 |
| Other | -0.57 | 0.48 | 0.235 |
| <i>Sex:</i> | | | |
| Female (omitted) | | | |
| Male | 0.24 | 0.19 | 0.194 |
| <i>Household Configuration:</i> | | | |
| Single-Head (omitted) | | | |
| Two-Person HH | 0.57 | 0.19 | 0.003 |
| <i>Highest Completed Education:</i> | | | |
| Less than HS Diploma (omitted) | | | |
| HS Diploma | 0.43 | 0.27 | 0.113 |
| Some College | 0.70 | 0.27 | 0.010 |
| College Degree | 1.93 | 0.41 | 0.000 |
| Constant | -0.77 | 0.33 | 0.018 |
| Pseudo r-squared | | 0.213 | |
| n | | 1478 | |

Control for cohort included but not shown.

Table 4: Cox proportional hazard model predicting time to failure (great recession SNAP participation).

| | <u>Hazard</u> <u>Ratio</u> | <u>SE</u> | <u>p> z </u> |
|-------------------------------------|-------------------------------|-----------|-----------------|
| <i>Previous SNAP Participation</i> | | | |
| Return (Omitted) | | | |
| New | 0.66 | 0.05 | 0.000 |
| <i>Household Location:</i> | | | |
| Urban (omitted) | | | |
| Suburban | 0.83 | 0.08 | 0.069 |
| Rural | 1.16 | 0.11 | 0.108 |
| <i>Household Region:</i> | | | |
| North Central (omitted) | | | |
| Northeast | 1.08 | 0.12 | 0.518 |
| South | 0.83 | 0.08 | 0.047 |
| West | 0.94 | 0.11 | 0.577 |
| <i>Race:</i> | | | |
| Black (Non-Latino) (omitted) | | | |
| White (Non-Latino) | 0.70 | 0.06 | 0.000 |
| Latino | 1.32 | 0.17 | 0.027 |
| Other | 1.29 | 0.17 | 0.050 |
| <i>Sex:</i> | | | |
| Female (omitted) | | | |
| Male | 0.90 | 0.07 | 0.149 |
| <i>Household Configuration:</i> | | | |
| Single-Head (omitted) | | | |
| Two-Person HH | 1.01 | 0.07 | 0.929 |
| <i>Highest Completed Education:</i> | | | |
| Less than HS Diploma (omitted) | | | |
| HS Diploma | 0.92 | 0.09 | 0.441 |
| Some College | 0.79 | 0.08 | 0.019 |
| College Degree | 0.58 | 0.08 | 0.000 |
| Wald chi squared | | 124.87 | |
| n | | 1478 | |

Table 5: Ordinary least squares regression predicting age at first SNAP participation.

| | <u>Coef.</u> | <u>SE</u> | <u>p> z </u> |
|-------------------------------------|--------------|-----------|-----------------|
| <i>Previous SNAP Participation</i> | | | |
| Return (Omitted) | | | |
| New | 6.34 | 0.59 | 0.000 |
| <i>Household Location:</i> | | | |
| Urban (omitted) | | | |
| Suburban | 1.27 | 0.69 | 0.067 |
| Rural | -0.65 | 0.62 | 0.298 |
| <i>Household Region:</i> | | | |
| North Central (omitted) | | | |
| Northeast | 0.70 | 0.73 | 0.336 |
| South | 1.44 | 0.59 | 0.015 |
| West | 0.81 | 0.74 | 0.275 |
| <i>Race:</i> | | | |
| Black (Non-Latino) (omitted) | | | |
| White (Non-Latino) | 2.10 | 0.52 | 0.000 |
| Latino | -0.35 | 0.60 | 0.564 |
| Other | 1.45 | 0.79 | 0.067 |
| <i>Sex:</i> | | | |
| Female (omitted) | | | |
| Male | 0.95 | 0.46 | 0.039 |
| <i>Household Configuration:</i> | | | |
| Single-Head (omitted) | | | |
| Two-Person HH | 0.46 | 0.48 | 0.342 |
| <i>Highest Completed Education:</i> | | | |
| Less than HS Diploma (omitted) | | | |
| HS Diploma | 0.83 | 0.58 | 0.152 |
| Some College | 1.31 | 0.57 | 0.022 |
| College Degree | 3.48 | 0.94 | 0.000 |
| Constant | 29.66 | 1.11 | 0.000 |
| R-squared | | 0.481 | |
| n | | 1478 | |

Control for cohort included but not shown.