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Current Perspectives on SNAP Participation

Determinants of Supplemental Nutrition Assistance Program Participation from 2008 to 2012

Current Perspectives on SNAP Participation

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Determinants of Supplemental Nutrition Assistance Program Participation from 2008 to 2012

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EXECUTIVE SUMMARY

Participation in the Supplemental Nutrition Assistance Program (SNAP) in any month is the net result of people entering and exiting the program—what is often referred to as program “dynamics.” These can be characterized descriptively by examining rates of program entry, how long participants spend on the program, and how often those who exit the program re-enter it.¹ Using these measures, one can identify whether a sharp rise in participation, such as the one that began in 2007, resulted from either more people entering, fewer people exiting, or both. Another important area of research, and the main objective of this report, seeks to understand the factors associated with entering and exiting the program. We systematically examine how individual and family demographic and economic characteristics, as well as State economic measures and SNAP policies, were associated with SNAP entry and exit, for the period from 2008 to 2012. This is an important time period for a study of SNAP participation dynamics, particularly program entry and spell length, because the number of SNAP participants reached an all-time high in the wake of the Great Recession, the general economic downturn, and the passage of legislation from the American Recovery and Reinvestment Act (ARRA).

Several factors, alone or in combination, may lead individuals to enter, exit, and re-enter the program. Some individuals may enroll or re-enroll as a result of worsened personal financial circumstances; others who had been eligible may enroll because they recently learned about the program or about their own eligibility through program outreach or other sources; still others may enroll because they are concurrently enrolling in other public assistance programs. Once enrolled, improving personal financial circumstances, such as through an increase in hours worked or the addition of an earner into the household, may cause an individual to become ineligible. The individual may also decide that benefits are too low to be worth the effort of complying with administrative rules.

An individual’s decision to enter or exit SNAP may also change because of changes in program rules. Most recently, States have been given increasing flexibility to alter program rules and procedures. Key legislative program changes to federal SNAP rules that have occurred in the years just prior to or during the study period were (1) the temporary ARRA increase to the maximum benefit, (2) the 2008 Farm Bill increase of the minimum SNAP benefit for 1- and 2-person households to 8 percent of the maximum benefit, (3) the option, beginning with ARRA implementation in April 2009, for States to suspend time limits on benefits for certain nonelderly

¹ See Leftin et al. (2014) for a descriptive analysis of SNAP dynamics, developed in conjunction with this report.

nondisabled childless adults and (4) the indexing of the asset limits to inflation,². Other recent program changes implemented in certain States included the following:

- Changes in broad-based categorical eligibility policies intended to increase access to SNAP and to streamline the application process,
- Changes in asset limits intended to make it easier for low-income households to save while qualifying for SNAP,
- Changes in vehicle rules that were intended to make it easier for low-income workers to keep a vehicle and still receive SNAP benefits,
- Increases in program outreach so that individuals in need of assistance knew that SNAP benefits were available and how to apply,
- Increases for many States in the length of time a household has before it must effectively reapply for benefits (its certification period),
- Changes that eased requirements on reporting income changes, and
- Simplification of the application procedures and benefit calculation for individuals who are receiving Supplemental Security Income (SSI) benefits (called SSI Combined Application Projects).

Factors Associated with Program Entry

The first column of Table 1 shows the factors that were associated with higher SNAP entry rates (statistically significant at the 0.10 level or higher) and the monthly entry rate of individuals with these characteristics in comparison to their referent group's entry rate. Differences between two entry probabilities (such as those for males versus females) reflect the effects of the explanatory variable (for example, sex) on the percentage of individuals entering SNAP after accounting for the differences in a set of individual, family, and State economic and policy characteristics.

These differences across categories can be viewed in a variety of ways. For example, the regression-adjusted monthly entry rates, as shown in Table 1 were 0.31 percent for males and 0.37 percent for females—a difference of 0.06 percentage points, which in an absolute sense, appears small. However, we can also translate them into the number of entrants per 1,000 people (3.1 out of 1,000 males entered each month versus 3.7 out of 1,000 females) or the percentage difference in the entry rates (20 percent more females entered each month than males). Based on an adult population of about 235 million during this time period, that equates to about 71,000 more females having entered SNAP each month than males, after controlling for other factors.

Changes in circumstances, such as in employment or income, were highly associated with entry into SNAP (these changes are commonly called triggers). For example, 0.52 percent of

² During our study period, this legislation resulted in the asset limit for elderly and disabled households increasing from \$3,000 to \$3,250 in October 2011.

individuals in families experiencing a recent (in the last four months) job loss entered SNAP each month in 2008 to 2012, while 0.32 percent of individuals in families not experiencing a recent job loss entered; this means that individuals experiencing a recent job loss were 60 percent more likely to enter SNAP each month than individuals in families not experiencing a job loss.

In addition, as shown in Table 1, many demographic, economic, and State policy variables were associated with SNAP entry. For example, individuals were more likely to enter if they were female; black, non-Hispanic (relative to being Hispanic); unmarried; or U.S. citizens; they were less likely to enter if they were white, non-Hispanic (relative to being Hispanic). They were also less likely to enter if they had more income or net worth, but were more likely to enter if they received TANF benefits or noncash benefits such as WIC, Medicaid, or public housing subsidies. Individuals with family incomes under poverty were 24 percent more likely to enter SNAP than individuals with family income from 1.0 to 1.5 times the poverty level and 45 percent more likely to enter SNAP than individuals with family income from 1.5 to 2.0 times the poverty level. Individuals with net worth of \$25,000 or less were 83 percent more likely to enter SNAP than individuals with greater than \$25,000 in net worth. Finally, individuals that received noncash benefits through WIC, Medicaid, or housing subsidies were over 160 percent more likely to enter SNAP each month than individuals did not.

Table 1 Factors Positively Associated with Program Entry ^a

Subgroup	Monthly Entry Rate	Referent Group	Monthly Entry Rate
Trigger Variables			
Individuals in families experiencing a recent job loss	0.52	Individuals in families not experiencing a recent job loss	0.32
Individuals in families experiencing a recent decrease in income ^b	0.38	Individuals in families not experiencing a recent decrease in income	0.31
Individuals in families with a separation or divorce	0.45	Individuals in families with no separation or divorce	0.34
Individuals in families with an increase in family size	0.56	Individuals in families without a recent increase in family size	0.32
Demographic Variables			
Females	0.37	Males	0.31
Black, non-Hispanic individuals	0.47	Hispanic individuals	0.35
Hispanic individuals	0.35	White, non-Hispanic individuals	0.29
Unmarried individuals	0.41	Married individuals	0.26
Citizens	0.35	Noncitizens	0.27
Age 18 to 29	0.39	Age 50 to 64	0.28
		Age 65 and older	0.19
Less education (completed up to grade 8)	0.41	Completed more than high school	0.26
Completed at most grades 9 to 11	0.50	Less education (completed up to grade 8)	0.41

Table continues

Table 1, *continued*

Subgroup	Monthly Entry Rate	Referent Group	Monthly Entry Rate
Demographic Variables, <i>continued</i>			
More young children in the family (ages 0 to 5)	0.42	Fewer young children in the family (ages 0 to 5)	0.33
More school-age children (ages 17 and under) in the family	0.37	Fewer school-age (ages 17 and under) children in the family	0.33
Economic Variables			
More adults in the family (ages 18 to 59)	0.35	Fewer adults in the family (ages 18 to 59)	0.33
More adults in the family (ages 60 and older)	0.38	Fewer adults in the family (ages 60 and older)	0.34
Individuals receiving income through Temporary Assistance to Needy Families (TANF)	0.73	Individuals not receiving TANF income	0.33
Individuals receiving benefits through the Supplemental Nutrition Program for Women, Infants, and Children (WIC), Medicaid, or housing subsidies	0.70	Individuals not receiving benefits through WIC, Medicaid, or housing subsidies	0.26
Individuals not receiving SSI or general assistance	0.34	Individuals receiving SSI or general assistance	0.29
Individuals receiving alimony payments or child support	0.45	Individuals not receiving alimony payments or child support	0.33
Individuals with a family member in poor health	0.49	Individuals without a family member in poor health	0.29
Individuals with family income under poverty	0.61	Individuals with family income from 1.0 to 1.5 times the federal poverty level	0.49
		Individuals with family income from 1.5 to 2.0 times the federal poverty level	0.42
		Individuals with family income at least 2.0 times the federal poverty level	0.20
Individuals with net worth \$25,000 or less	0.44	Individuals with greater than \$25,000 in net worth	0.24
Individuals not working for 1 to 5 months	0.89	Individuals not working for at least a year	0.32
Individuals with out of pocket medical costs \$1,000 or less	0.35	Individuals with out of pocket medical costs greater than \$1,000	0.25
State Economic & Policy Variables			
Individuals living in states with higher unemployment rates ^c	0.34	Individuals living in states with lower unemployment rates	0.34
Individuals living in states with broad-based categorical eligibility	0.33	Individuals living in states excluding one or fewer vehicles per SNAP unit from countable assets	0.29
Individuals living in states excluding all or most vehicles from countable assets	0.36		
Individuals living in states with lower outreach expenditures ^d	0.34	Individuals living in states with higher outreach expenditures	0.33
Individuals living in states with lower 20th percentile wages	0.34	Individuals living in states with higher 20th percentile wages	0.31

Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: ^a Monthly entry rates based on individuals age 18 and older.

^b Changes in employment, income, and family composition are defined to be mutually exclusive.

^c Entry rates are statistically different despite being equal after rounding.

^d Results should be interpreted with caution as not all SNAP units in States with positive outreach expenditures may be affected by the State's outreach expenditures.

Factors Associated with Having Longer SNAP Participation Spells

In Table 2, we present factors that were associated with longer spell length (statistically significant at the 0.10 level or higher) and the median spell length for each group. Differences between two regression-adjusted medians, such as those for males and females, reflect the association of the explanatory variable (sex) on the probability of exiting SNAP after accounting for the differences in the other characteristics included in the model.

As with entry, triggers such as a change in employment, income, or family size, were highly associated with spell length. Individuals that did not experience a trigger had longer spells than individuals that did. Many other factors were associated with longer SNAP spells, including being female or married; having a greater number of children in the family; having fewer adults in the family; receiving non-cash benefits (WIC, Medicaid, or housing subsidies), having a family member in poor health, and having less income. However, receipt of TANF benefits, while associated with higher entry rates, was associated with shorter SNAP spells.

Table 2 Factors Associated with Longer Spell Length

Subgroup	Median Spell Length (Months)	Referent Group	Median Spell Length (Months)
Trigger Variables			
Individuals in families not experiencing a recent job gain	11	Individuals in families experiencing a recent job gain	8
Individuals in families not experiencing a recent increase in income	12	Individuals in families experiencing a recent increase in income	8
Individuals not experiencing a recent decrease in family size	11	Individuals experiencing a recent decrease in family size	9
Demographic Variables			
Females	11	Males	9
Noncitizens	13	Citizens	10
Age 50 to 64	11	Age 18 to 29	10
Married individuals	11	Unmarried individuals	10
More young children in the family (ages 0 to 5)	11	Fewer young children in the family (ages 0 to 5)	10
More school-age children (ages 6 to 17) in the family	11	Fewer school-age (ages 6 to 17) children in the family	10
Fewer adults in the family (ages 18 to 59)	11	More adults in the family (ages 18 to 59)	9
Fewer adults in the family (ages 60 and older)	10	More adults in the family (ages 60 and older)	8

Table continues

Table 2, continued

Subgroup	Median Spell Length (Months)	Referent Group	Median Spell Length (Months)
Economic Variables			
Individuals receiving benefits through WIC, Medicaid, or housing subsidies	15	Individuals not receiving benefits through WIC, Medicaid, or housing subsidies	9
Individuals with a family member in poor health	12	Individuals without a family member in poor health	10
Individuals with family income under poverty	13	Individuals with family income from 1.5 to 2.0 times the federal poverty level	8
		Individuals with family income at least 2.0 times the federal poverty level	8
Individuals receiving SSI or general assistance	13	Individuals not receiving SSI or general assistance	10
Individuals not receiving TANF income	10	Individuals receiving TANF income	8
Prior Participation & Spell Characteristics			
Individuals who previously participated in SNAP	11	Individuals who did not previously participate in SNAP	9

Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Factors Associated with Program Re-entry

Table 3 presents the factors associated with having shorter spells off of SNAP prior to re-entering. We show the regression-adjusted median lengths of SNAP nonparticipation spells for individuals with the given characteristic. Differences between two regression-adjusted medians, such as those for individuals living in families that have experienced a job loss and those in families that have not experienced a job loss, reflect the association of the explanatory variable (job loss) on the probability of re-entering SNAP after accounting for the differences in the other characteristics included in the model. That is, a longer nonparticipation spell reflects a lower probability of re-entering SNAP.

Several factors that were associated with a higher rate of entry were also associated with quicker re-entry, including having less income; being younger; receiving noncash benefits such as WIC, Medicaid, or public housing subsidies; and experiencing changes in employment, income, and family composition. Factors that affected entry but not re-entry included sex, citizenship, education, presence of elderly adults or children ages 6 to 17 in the family, marital status, receipt of TANF, and living in a State with broad-based categorical eligibility; these are included in Table 1, but not in Table 3.

Table 3 Factors Associated with Quicker Re-entry

Subgroup	Median Non-Participation Spell Length (Months)	Referent Group	Median Non-Participation Spell Length (Months)
Trigger Variables			
Individuals in families experiencing a recent job loss	11	Individuals in families not experiencing a recent job loss	22
Individuals in families experiencing a recent decrease in income	14	Individuals in families not experiencing a recent decrease in income	26
Individuals in families with an increase in family size	12	Individuals in families without a recent increase in family size	21
Demographic Variables			
Black, non-Hispanic individuals	15	Hispanic individuals	24
More young children in the family (ages 0 to 5)	14	Fewer young children in the family (ages 0 to 5)	20
Fewer adults in the family (ages 18 to 59)	20	More adults in the family (ages 18 to 59)	25
Age 18 to 29	16	Age 50 to 64	24
		Age 65 and older	35
Economic Variables			
Individuals receiving benefits through WIC, Medicaid, or housing subsidies	12	Individuals not receiving benefits through WIC, Medicaid, or housing subsidies	29
Individuals with family income under poverty	14	Individuals with family income from 1.0 to 1.5 times the federal poverty level	20
		Individuals with family income from 1.5 to 2.0 times the federal poverty level	24
		Individuals with family income at least 2.0 times the federal poverty level	31
Individuals with zero or negative net worth	17	Individuals with positive net worth	22
Individuals who have not worked for at least one year	18	Individuals who are currently employed	23
Individuals with out of pocket medical costs greater than \$1,000	19	Individuals with out of pocket medical costs \$1,000 or less	35
State Economic & Policy Variables			
Individuals living in states with lower unemployment rates	20	Individuals living in states with higher unemployment rates	21
Living in a state with longer certification period	19	Living in a state with shorter certification period	20
Prior Participation & Spell Characteristics			
Individuals who did not previously participated in SNAP prior to last SNAP spell	17	Individuals who did previously participated in SNAP prior to last SNAP spell	25

Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Synthesis of Entry and Duration Findings: Demographic and Economic Characteristics

One way of viewing the SNAP participation decision is that a household first considers its eligibility, and then weighs the benefits and costs of participating versus the household's need and level of resources. A household's preferences for participation, including its perceptions regarding the receipt of government assistance, also factor into the participation decision. In this section, we present the main findings of the current study using a contextual model used in related studies of SNAP participation decisions (Mabli and Ohls 2012; Gundersen and Oliveira 2001; Keane and Moffit 1998).

Changes in employment, income, and family composition were important factors of both entry and duration in 2008 to 2012. These factors can represent changes in needs and, to some extent, costs of participation and preferences for participation. Income changes may affect one's ability to purchase an adequate amount of food. Independent from any income loss, job loss could potentially free up time for individuals to travel to the administrative office to apply for SNAP benefits or recertify, thereby lowering costs to participation. Alternatively, employment changes could affect the perceived benefit to participating in the program, as when a job loss causes an individual to believe he or she would be out of work for more than a short-term period. Changes in family composition could reflect a change in need, as financing food and non-food purchases for a family that has recently become larger will likely require additional resources. It could also reflect a change in resources, if the person leaving or entering the household had income. Similarly, most economic characteristics that were positively associated with entry or spell length could be classified as a lack of resources that increase the need for SNAP benefits. In particular, having lower income and, for entry, living in a State with a lower 20th percentile wage increased the need for SNAP. The demographic factors that were associated with entry and exit included being female, being age 18 to 29 (relative to being age 65 and older), and having more young children (ages 0 to 5) or school-age children (ages 6 to 17) in the family.

We examined the association between SNAP policies in individuals' State of residence and individuals' SNAP entry and duration decisions. Policies related to vehicle rules were associated mainly with program entry decisions, whereas those related to the length of certification periods were associated only with the length of time spent on SNAP (and only for specific family composition subgroups). Compared to the entry rate in States excluding one or fewer vehicles per SNAP unit from countable assets, the average predicted entry rate was higher in States offering broad-based categorical eligibility and higher in States without broad-based categorical eligibility policies but that exclude all or most vehicles. By expanding eligibility to individuals that did not pass standard income and asset eligibility tests, these policies may have affected the household's participation decision in the very first stage when household members considered or learned of their eligibility.

Data and Methodology

This study relied on data from the 2008 panel of the Survey of Income and Program Participation (SIPP). The SIPP is a short-term longitudinal survey that collects detailed monthly data on labor force activity, earned and unearned income, cash and noncash assistance, family and household composition, and many additional items. Each interview asks panel members and everyone living with them at the time about their activities during the preceding four months. The 2008 panel included about 52,000 households and covered the time period from May 2008 to November 2013. We limited our analysis to the period August 2008 (the first month that included the full sample) to December 2012 (the last month for which a longitudinal weight was available at the time of the study).

We conducted analyses of SNAP participation dynamics by estimating multivariate models of SNAP entry, the length of SNAP participation spells, and, among participants who exited the program in the panel period, the length of time spent off SNAP. Consistent with previous studies, the sample for the analysis was limited to individuals who were at least 18 years old because SNAP participation of children is determined in most cases by the decisions of their parents. Unlike the descriptive analysis presented in Leftin et al. (2014), we did not restrict the samples to individuals that had income less than 300 percent of poverty in at least one month of the panel.

We estimated multivariate logistic regression models of SNAP entry and discrete-time hazard models of SNAP exit and re-entry using maximum likelihood estimation. In the discrete-time hazard models, the monthly hazard rate was defined as the probability that an individual left a particular status (nonparticipation, for example) in a particular month given that the individual had remained in that status up to that month. The hazard rate in the spell length model was the probability that an individual left the status of participation and exited SNAP, given that the individual participated in the program in the previous month. Similarly, the hazard rate in the re-entry model was defined as the probability that an individual (who participated previously) left the status of nonparticipation in a particular month and re-entered SNAP, given that the individual did not participate in the program in the previous month.

The set of explanatory variables included in each model consisted mostly of those that have been used in prior research on the determinants of SNAP entry and exit. These included (1) a set of demographic, economic, and family characteristics, including net worth, medical costs, health status, and receipt of income from federal and State programs; (2) a set of trigger events related to employment, income, and family composition; (3) State and regional measures; and (4) SNAP policy variables.

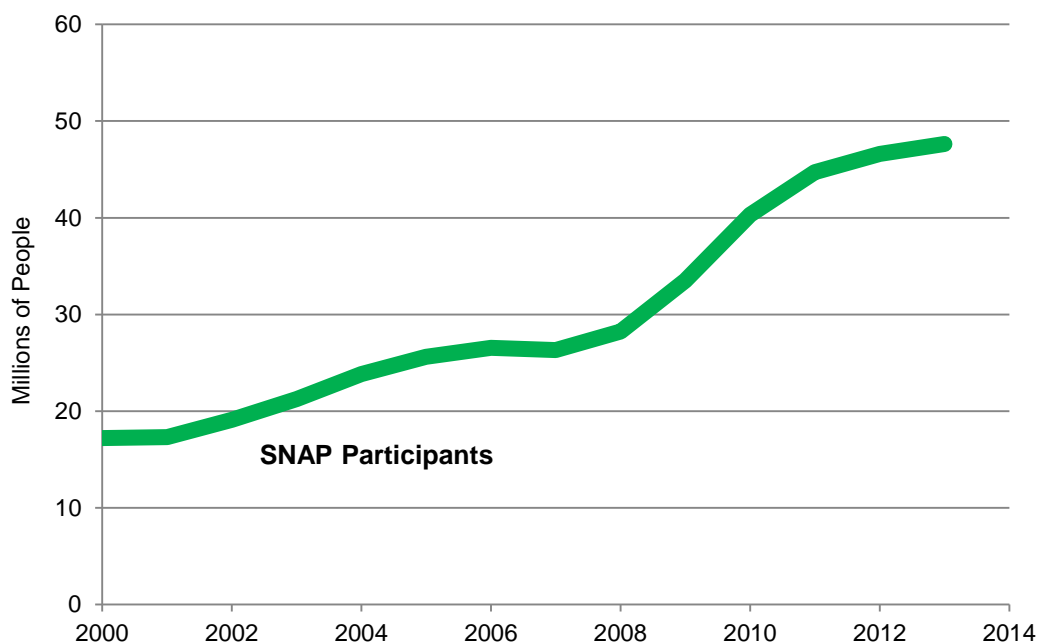
We also re-estimated the main model specification by subgroups defined by family composition, citizenship, sources of income, and the types of selected SNAP policies in the States in which individuals live.

The objective of this research was to examine the factors associated with entering and exiting SNAP. These factors include individual and family demographic and economic characteristics, State economic measures, and State SNAP policies. The estimates presented in this report should be interpreted solely as associations and not causal effects. For example, using multivariate regression models we found that the entry rate was higher for individuals living in States offering broad-based categorical eligibility, compared to those in States excluding one or fewer vehicles per SNAP unit from countable assets, after accounting for differences in individuals' demographic, economic, and geographic characteristics. We conclude that living in States offering broad-based categorical eligibility was associated with higher SNAP entry rates. We cannot conclude, however, that broad-based categorical eligibility caused an increase in SNAP entry rates because there may be factors not accounted for in the model that are associated with both SNAP entry and living in a State with broad-based categorical eligibility.

I. INTRODUCTION

As the largest Federal food assistance program in the United States, the Supplemental Nutrition Assistance Program (SNAP) is fundamental in reducing hunger and improving the well-being of low-income households through helping to ensure access to healthy foods that may otherwise be unaffordable. Against a backdrop of a changes in the national economy and the SNAP policy environment, the average monthly number of individuals participating in SNAP increased steadily from 2000 to 2006, then dipped slightly³ before rising sharply from 2007 to 2013 (Figure I.1). A record number of individuals—just under 48 million people—participated in an average month in 2013.

Figure I.1 Trends in the SNAP Caseload, 2000–2013



Source: SNAP Summary of Program Operations Data. Downloaded on April 23, 2014 from <http://www.fns.usda.gov/pd/SNAPsummary.htm>

Participation in any month is the net result of people entering and exiting the program—what is often referred to as program “dynamics.” These can be characterized descriptively by examining rates of program entry, how long participants spend on the program, and how often those who exit the program re-enter it. Using these measures, one can identify whether a sharp rise in participation, such as the one that began in 2007, resulted from either more people

³ The dip in the number of participants disappears when removing those who are participating only through disaster assistance.

entering, fewer people exiting, or both. These measures can be produced for all individuals and for groups of individuals of interest to policymakers, such as individuals in families with children. An important area of research, however, and the main objective of this report, seeks to understand the factors associated with entering and exiting the program. Although the measures above can be used to suggest how individual and family characteristics might influence entry and exit, more definitive results can be obtained through the multivariate analysis methods used in this study. We systematically examine how individual and family demographic and economic characteristics, State economic measures, and SNAP policies were associated with SNAP entry and exit for the period from 2008 to 2012.

This is an important time to study SNAP participation dynamics, particularly program entry and spell length, because the number of SNAP participants reached an all-time high in the wake of the Great Recession, the general economic downturn, and the passage of legislation from the American Recovery and Reinvestment Act (ARRA) that raised SNAP allotments. The analysis presented in this report was conducted in conjunction with the descriptive analysis presented in the report “Dynamics of Supplemental Nutrition Assistance Program from 2008 to 2012” (Leftin et al. 2014). The descriptive report found that the continued increase in the caseload from 2008 to 2012 was due to a combination of more individuals entering the program than had in previous years and current participants staying on longer. Compared to results in a similar study completed using data from 2004 to 2006, Leftin et al. (2014) found an increase in SNAP entry rates, defined as the percentage of individuals not receiving SNAP benefits in one month that participated in the next month. Participants also stayed on the program longer—half of the spells that began in 2008 ended within 12 months, compared to 10 months in 2004 to 2006 and 8 months in the early-2000s. The question remains, however, whether the factors associated with entering or staying on the program longer changed from the 2004 to 2006 period to the 2008 to 2012 period.

Our results provide evidence that changes in employment, income, and family composition were strong determinants of SNAP entry, duration, and re-entry from 2008 to 2012. Job losses, income decreases, and increases in family size were key correlates of program entry, while transitions to employment, income increases, and decreases in family size were key correlates of SNAP participation duration. Entry rates and the lengths of SNAP participation spells were also associated with an individual’s family economic status, as individuals with more family income were less likely to enter the program and, once participating, were more likely to spend less time on the program than individuals with less family income. Not being employed was associated with program entry, but not with the length of time on SNAP. Demographic characteristics (gender, race and ethnicity, marital status, family size and composition, and education) also played a role. For example, males were less likely than females to enter SNAP and, after entering, more likely to exit the program.

State economic and policy variables were associated with transitions onto SNAP, but not off of SNAP. The higher the 20th percentile wage of the State in which an individual lived, the less likely he or she was to enter the program, but it did not affect the amount of time spent participating. Compared to living in a State that excludes one or fewer vehicles per SNAP unit from countable assets, living in a State offering broad-based categorical eligibility was associated with a higher probability of entering the program, as was living in a State without broad-based categorical eligibility, but that exclude all or most vehicles. There were no significant associations between these policies and SNAP duration or re-entry rates, however. Many of the results previewed here also differed in magnitude and statistical significance across policy relevant subgroups defined by family composition and sources of income.

This rest of this chapter provides background on SNAP, reviews the previous research on the determinants of SNAP participation and SNAP dynamics, and describes the research objectives of this study. Chapter II discusses the data used for the analysis and presents an overview of the methodology. The main findings of the study are then divided into three components. We analyze the determinants of entry into SNAP in Chapter III, of the exits and length of SNAP participation in Chapter IV, and of re-entry into SNAP in Chapter V. Chapter VI summarizes and discusses the results from entry, duration, and re-entry. A detailed assessment of the 2008 SIPP panel to identify potential problems in the data that could affect estimates of SNAP participation dynamics is found in a separate Technical Appendix volume.

A. Background on SNAP

SNAP provides monthly benefits that can be used to purchase food in nearly 250,000 authorized stores across the United States. Eligibility for the program is based primarily on financial need; in general, individuals must have income and assets below specified eligibility thresholds. Under Federal rules, households without elderly or disabled members must have gross income less than 130 percent of the poverty level, net income less than 100 percent of poverty, and countable assets less than \$2,000.⁴ Households with elderly or disabled members must have net income less than 100 percent of poverty and countable assets less than \$3,250.⁵

Certain households are categorically eligible for SNAP and, therefore, are not subject to the Federal income and asset limits. Benefits for these categorically eligible households are determined under the same rules that apply to other eligible SNAP households, and the level of benefits received is based on household income. All States confer categorical eligibility to SNAP

⁴ Net income represents the amount of income that households have available to use for food. It equals gross income less a standard deduction, an earnings deduction, and deductions for dependent care, medical expenses and shelter expenses. Countable assets are primarily financial assets and in some States, some vehicle assets.

⁵ The Food, Conservation, and Energy Act of 2008 (2008 Farm Bill) indexed the asset limits to inflation, adjusting them to the nearest \$250 increment each fiscal year. Through fiscal year 2011, the asset limit for households with elderly or disabled members was \$3,000. It increased to \$3,250 beginning in fiscal year 2012.

households in which all members of the household receive or are authorized to receive Supplemental Security Income (SSI), Temporary Assistance for Needy Families (TANF), or General Assistance benefits. These households are known as pure public assistance households.

Over the past 15 years, categorical eligibility has expanded, eliminating certain verification requirements and simplifying the application and eligibility-determination process for a much larger group of households. On November 21, 2000, a broader interpretation of existing categorical eligibility rules was implemented, requiring States to confer categorical eligibility on families receiving or certified as eligible to receive benefits or services—such as employment assistance, child care, or transportation assistance—that are at least 50 percent funded by TANF or Maintenance of Effort funds.⁶

Many States have broad programs that provide a TANF/Maintenance of Effort-funded noncash benefit to confer categorical eligibility for SNAP on a large number of households. These policies are known as broad-based categorical eligibility policies. States have flexibility in setting the criteria for receiving the TANF/Maintenance of Effort-funded noncash benefit, but most apply only a gross income eligibility limit—between 130 and 200 percent of SNAP poverty guidelines—and have eliminated the net income test. Most categorically eligible households are not subject to the SNAP asset test. Additionally, in some States, households participating in more narrowly targeted noncash TANF-funded programs, such as work support, child care, diversion assistance, transportation, and other short-term assistance, may also be categorically eligible for SNAP.

Certain individuals are categorically ineligible for SNAP and cannot receive benefits even if they pass the income and asset requirements. The program's nonfinancial eligibility standards restrict the participation of certain students, strikers, individuals who are institutionalized, fleeing felons, drug felons, unauthorized immigrants, nonimmigrant visitors to the United States, and some lawful permanent resident noncitizens.

A household's SNAP benefit level equals the maximum SNAP benefit for a household's size and location, minus 30 percent of their net income. Maximum benefit levels are the same in all States, with the exception of Alaska, Hawaii, Guam, and the Virgin Islands, where cost of living adjustments are made. Through March 2009, maximum benefits were set equal to the cost of the Thrifty Food Plan, the USDA's lowest-cost food plan, and were updated annually. ARRA then temporarily raised the maximum benefit beginning in April 2009 to 113.6 percent of the June 2008 Thrifty Food Plan and held it at that level thereafter. As specified in subsequent legislation,

⁶ In addition, States have the option of conferring categorical eligibility on families receiving or certified to receive benefits or services that are less than 50 percent funded by TANF/Maintenance of Effort. They may also confer categorical eligibility on households in which at least one member receives the benefit or service; the State determines whether the entire household benefits.

the increase expired on October 31, 2013, when the maximum benefit reverted to 100 percent of the cost of the Thrifty Food Plan in the preceding June.

Several factors, alone or in combination, may lead an individual to enter the program. Some individuals may enroll as a result of a change in personal financial circumstances; others, who are already eligible to begin with, may enroll because they recently learned about the program or about their own eligibility through program outreach or other sources; still others may enroll because they are concurrently enrolling in other public assistance programs, such as TANF or SSI.

Once an individual is enrolled, the length of the participation spell can be affected by numerous circumstances. A loss of eligibility, for instance, influences spell length by triggering program exit. In general, SNAP households are required periodically to be recertified for eligibility and to report changes in income that may affect their eligibility. Thus, individuals whose income increases beyond the eligibility limits are likely to exit the program at the time of income reporting or recertification.

In addition to loss of eligibility, the following other factors may prompt program exit:

- Failure to comply with program rules, including reporting requirements and the work requirements for nonelderly nondisabled childless adults
- Life events, such as moving out of State, moving into group quarters, or death
- A household decision that benefits are too low to be worth the effort of complying with administrative requirements in the program
- Errors in the administration of the program or determination of benefits

For most SNAP participants, there are no limits on the number of times they can participate in the program or on the total amount of time they can receive benefits as long as they meet the eligibility requirements. Thus, individuals whose financial circumstances and other needs fluctuate over time may have multiple spells of participation.

Congress and SNAP administrators modify the program's rules in response to changing economic situations and State needs. Most recently, States have been given increasing flexibility to alter program rules and procedures. Key legislative program changes to federal SNAP rules that have occurred in the years just prior to or during the study period were (1) the temporary ARRA increase to the maximum benefit, (2) the 2008 Farm Bill increase of the minimum SNAP benefit for 1- and 2-person households to 8 percent of the maximum benefit, (3) the option, beginning with ARRA implementation in April 2009, for States to suspend time limits on

benefits for certain nonelderly nondisabled childless adults, and (4) the indexing of the asset limits to inflation⁷. Other program changes implemented in certain States included the following:

- **Changes in State Broad-Based Categorical Eligibility Policies, Asset Limits, and Vehicle Rules.** Broad-based categorical eligibility policies are intended to increase access to SNAP and to streamline the application process. The number of States (including the District of Columbia, Guam, and the Virgin Islands) implementing broad-based categorical eligibility policies has increased from 10 at the beginning of fiscal year 2006 (the last year of the mid-2000s Dynamics study) to 43 by the beginning of fiscal year 2012. Of the 43 States with a broad-based categorical eligibility policy in effect throughout FY 2012, only five used an asset test.

Changes in vehicle rules are intended to make it easier for low-income workers to keep a vehicle and still receive SNAP benefits. By September 2012, 29 States had adopted rules that exclude all vehicles from the asset test for non-broad-based categorically eligible households. These changes were intended to make it easier for low-income workers to keep a vehicle and still receive SNAP benefits.

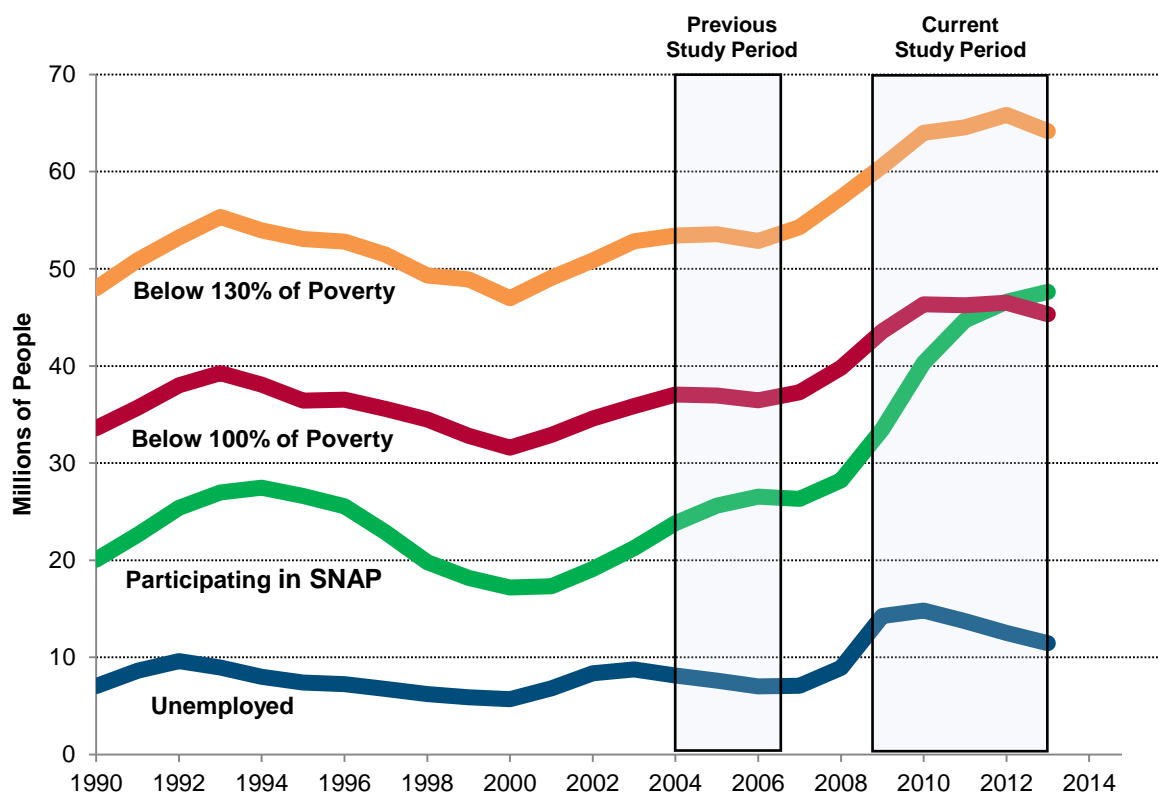
- **Outreach.** States continued to increase program outreach so that individuals in need of assistance knew that SNAP benefits were available and how to apply. The number of States with no federal or State outlays for outreach expenditure decreased from 24 in 2006 to 12 in 2012.
- **Changes in Certification Periods.** The SNAP certification period is the length of time a household has before it must effectively reapply for benefits. Certification periods differ depending on State guidelines and household circumstances. For example, beginning in the mid-2000s, and in tandem with the changes in reporting requirements described next, many States provided longer certification periods for some participants and some offered 24-month certification periods for households in which all members were elderly. Average certification periods increased slightly from 11.8 months in fiscal year 2006 to 12.6 months in fiscal year 2012.
- **Changes in Reporting Requirements.** Reporting requirements govern how a participating household must report changes in their income during certification periods. Previous SNAP rules required all income changes over \$25 to be reported. Recent policy options allow States to simplify these rules. The *simplified reporting* option allows clients not to report any changes in income during their certification period, so long as their income does not exceed 130 percent of poverty. *Status reporting* requires a client to report only when a household member has a change in jobs, receives a different rate of pay, or shifts from part-time to full-time work (or has a similar change in employment status); income changes due to different hours of work do not need to be reported. These two policy options are not mutually exclusive. By August 2012, all States except California allowed simplified reporting.
- **SSI Combined Application Projects (SSI CAP).** Some States simplify the application procedures and benefit calculation for individuals who are receiving SSI benefits.

⁷ During our study period, this legislation resulted in the asset limit for elderly and disabled households increasing from \$3,000 to \$3,250 in October 2011.

Qualified individuals (typically SSI recipients living alone or only with other elderly household members) complete a streamlined SNAP application and receive a set SNAP benefit or standardized “high” or “low” shelter expense deduction based on the limited information they provide, such as shelter expenses. The number of States with SSI CAP programs increased from 8 in fiscal year 2006 to 18 in fiscal year 2012.

Participation in SNAP has nearly doubled since the mid-2000s. The average monthly caseload increased from 24 million in 2004 to 28 million in 2008 and then to over 46 million in 2012 (Figure I.2). The caseload peaked at 47.6 million in FY 2013 before declining modestly to 46.5 million in FY 2014. The increase during the late 2000s is likely attributed to the high poverty and unemployment rates in the recession and to the ARRA increase in benefits.

Figure I.2 Trends in Poverty, the SNAP Caseload, and the Number of Unemployed Individuals, 1990–2012



Sources: **Participating in SNAP:** SNAP Summary of Program Operations Data. Downloaded on April 23, 2014 from <http://www.fns.usda.gov/pd/SNAPsummary.htm>
Below 100% of Poverty: Downloaded on October 1, 2014 from <http://www.census.gov/hhes/www/poverty/data/historical/hstpov2.xls>
Below 130% of Poverty: Special tabulations of the Current Population Survey Annual Social and Economic Supplement (CPS ASEC) by Decision Demographics.
Unemployed: Bureau of Labor Statistics. Downloaded on April 23, 2014 from <http://www.bls.gov/webapps/legacy/cpsatab13.htm>

B. Previous Research on the Determinants of SNAP Participation and SNAP Dynamics

Our paper draws on, and contributes to, a rich body of analysis on SNAP participation and SNAP dynamics which has centered around understanding the factors associated with participating in SNAP and, in some studies, with entering and exiting the program.

In the 1990's, FNS commissioned two key studies of participant dynamics in SNAP, Burstein (1993), and then, as newer data became available, Gleason et al. (1998). While the focus of both of these studies was to estimate SNAP entry rates and spell participation lengths, the latter study analyzed the factors associated with transitions on to and off of the program. Their estimates were used extensively both within USDA and by the policy and research communities as the best information available regarding the likely effects of various changes that were being considered in SNAP.

The continuing importance to government and policy researchers of having current program dynamics estimates to support the policy process is reflected in the fact that USDA continues to commission updates and enhancements of these studies, as policy interests evolve and as more current data become available. Cody et al. (2007) updated the estimates by Gleason et al. (1998) using SIPP data from 2001 to 2003, focusing on how participation patterns have changed from the early 1990s to the late 1990s, and into the early 2000s. Most recently, Mabli et al. (2011b) updated the estimates by Cody et al. (2007) using SIPP data from 2004 to 2006. Like Gleason et al. (1998), the investigations in Cody et al. (2007) and Mabli et al. (2011b), in addition to the traditional descriptive analysis, included a comprehensive examination of the factors associated with program entry and exit. The report by Cody et al. (2007) furthered the methodological approach to performing multivariate analyses of SNAP dynamics using SIPP data by testing alternative ways in which to model the association between the events that lead to program entry and exits, or "trigger events," and the program transitions themselves. Unlike previous reports, it also considered the impact of State economic conditions and SNAP policies on individuals' decisions to enter and exit the program. The report by Mabli et al. (2011b) also contributed to the study of SNAP dynamics by examining whether variables that had been found to be strong predictors of SNAP participation in cross-sectional analyses of participation in the literature, including net worth, medical costs, health status, and receipt of income from federal and State programs were also strong predictors of SNAP entry and exit in a longitudinal analysis. The findings from Gleason et al. (1998); Cody et al. (2007); and Mabli et al. (2011b) that are salient to the current study are presented throughout this report when comparing results over time. Collectively these studies contributed substantially to our understanding of the determinants of SNAP program dynamics. Table I.1 compares the time frames, data, and study objectives across several of these studies. Figure I.3 illustrates the change in the caseload size in relation to each of these study periods.

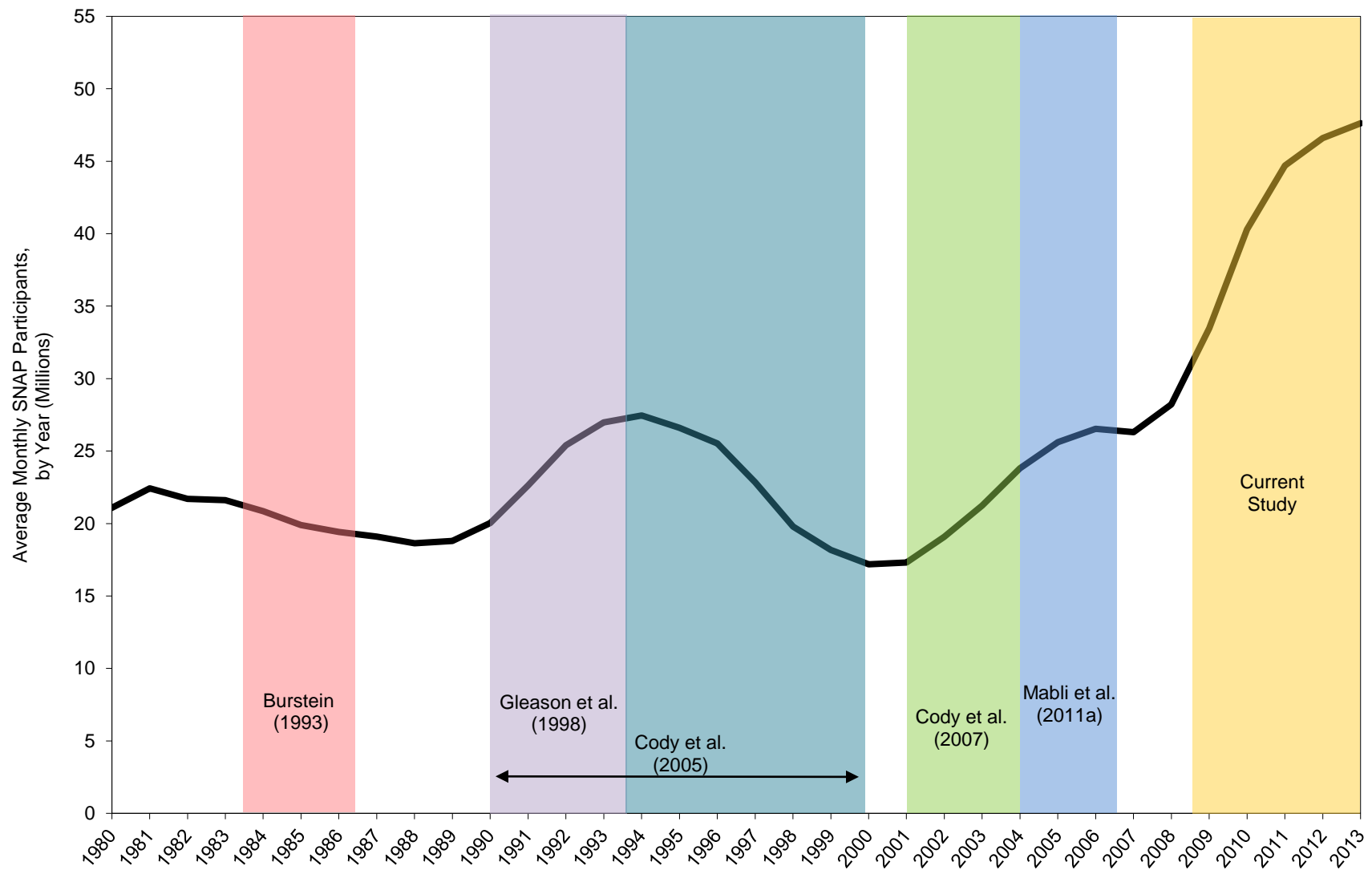
Several studies have examined whether individuals experiencing trigger events are more likely to enter or exit SNAP if they are less accustomed to experiencing these changes in

circumstances. Mabli and Ohls (2012) examine how long-term instability in employment affects the association between employment transitions and the decision to enter and exit SNAP. They found that employment changes are more strongly associated with program entry and exit for individuals who are less accustomed to experiencing fluctuations in employment. This finding is also supported by evidence presented in Cody et al. (2007) and Mabli et al. (2011b) for changes in household size, in addition to changes in employment.

Table I.1 Comparison of Previous Study Time Frames, Data, and Study Objectives with Current Study

	Burstein (1993)	Gleason et al. (1998)	Cody et al. (2005)	Cody et al. (2007)	Mabli et al. (2011a,b)	Current Study (2014)
Time Period	1983–1986	1990–1993	1990–1999	2001–2003	2004–2006	2008–2012
SIPP Panel(s)	1984	1990, 1991	1990, 1991, 1992, 1993, 1996	2001	2004	2008
Fielding began in:	October	February	February (1990–93) April 1996	February	February	September
Common Months						
First (Wave 1)	NA	Jan 1990, 91	Jan 90–93, Mar 96	Jan 2001	Jan 2004	Aug 2008
Second (Wave 2)	NA	May 1990, 91	May 90–93, Jul 96	May 2001	May 2004	Dec 2008
Waves Used in Study	Waves 4-8 (of 9 waves)	Waves 1-8 (of 8,8)	8-12 waves (of 8,8,10,9,12)	Waves 1-9 (of 9 waves)	Waves 1-8 (of 12 waves)	Waves 1-14 (of 16 waves)
Entrant At-risk Months Covered by Analysis Period(s)	NA	32	29–47 months	36 months (months 3-35)	29 months (months 3-31)	53 months (months 3-55)
Sample Size of full SIPP Panel	20,000 households	35,000 households	12,000-40,000 households	31,000 households	51,000 households	52,000 households
Historical SNAP Data	No	Yes	No	Yes	Yes	Yes
Descriptive Analysis	Entry, exit, duration, re-entry, entry and exit triggers	Entry, exit, duration, re-entry, entry and exit triggers, total time on, turnover	Growth, replacement, exit, duration	Entry, exit, duration, re-entry, entry and exit triggers, growth, replacement, total time on, turnover	Entry, exit, duration, re-entry, entry and exit triggers, growth, replacement, total time on, turnover, subgroups	Entry, exit, duration, re-entry, entry and exit triggers, growth, replacement, total time on, turnover, subgroups
Primary At-Risk Definition for Entry Analysis	Nonparticipating individuals; HH income under 300 percent of poverty	Nonparticipating individuals	NA	Nonparticipating individuals; family income under 300 percent of poverty	Nonparticipating individuals; family income under 300 percent of poverty	Nonparticipating individuals; family income under 300 percent of poverty
Multivariate Analysis	NA	Duration, re-entry	NA	Entry, duration, re-entry	Entry, duration, re-entry	Entry, duration, re-entry

Figure I.3 SNAP Caseload and SNAP Dynamics Study Periods



Note: SNAP Summary of Program Operations Data. Downloaded on April 23, 2014 from <http://www.fns.usda.gov/pd/SNAPsummary.htm>

Two recent applications of program dynamics to studying the effects of various SNAP policy provisions are provided by Ribar and Swann (2011) and Ribar et al. (2008). Ribar and Swann (2011) used administrative records for SNAP applications and benefit spells in South Carolina for the period October 1996 to November 2007 to examine SNAP households' applications and participation spell lengths. They modeled the durations of participation spells to distinguish among exits that result from missed recertifications, financial ineligibility, incomplete or missing information, and other reasons. They found that a household's application and participation history affect its subsequent application success and program tenure. For example, applicants who have recently been on SNAP are more likely to have their applications accepted than other applicants. Ribar et al. (2008) used a similar case-level administrative data set on SNAP households in South Carolina, from 1996 to 2003, to examine patterns in the timing of program exits. The study revealed a very strong influence coming from case certification lengths and timing, showing that households were more likely to leave the program during recertification months than in other months, although the authors note that the data were not sufficient to tell whether this mostly represented "cleaning" of cases by eligibility workers of those that had become ineligible or mostly represented administrative barriers to still-eligible cases.

Several studies have examined SNAP participation in relation to the 1996 welfare reform. Atasoy et al. (2010) examined the degree of persistence in SNAP after the 1996 welfare reform; Heflin (2004) examined the relationship between work status, welfare receipt, and SNAP receipt among women in the post-welfare reform era; and Mills et al. (2001) examined the factors that influenced program exit decisions of single female-headed families with children shortly after the 1996 welfare reform.

A collection of studies found in Jolliffe and Ziliak (2008) also contains several studies of SNAP dynamics, including Moffit and Ribar (2008). They find medium-term earnings variability to be negatively associated with program participation for low income households, and attribute this result partially to the variability in eligibility produced by changes in earnings.

Two other types of studies analyze participation in assistance programs but use somewhat different substantive and methodological approaches. One strand of the literature retains the microeconomic orientation of having the individual or household be the unit of analysis but does not use the types of longitudinal methods which have characterized the program dynamics work. One example of this is Ratcliffe et al. (2008) that uses individual-level data from the SIPP on SNAP participation in combination with State-determined SNAP parameters to examine the impacts on participation probabilities of a wide variety of State-level policies and procedures. While in principle the SIPP data would probably have supported some amount of longitudinal work, their focus was on the "net" effects of the policies rather than the dynamics of entry and exit into the program. Similarly, Burstein et al. (2009) summarize existing research on the determinants of SNAP participation and used the 2001 and 2004 SIPP panels to assess the

capacity of econometric models to correctly classify eligible households as participants or nonparticipants using available data.

A second set of articles on assistance program participation retains the substantive focus on reasons for observed program participation but departs more from the program dynamics literature by typically utilizing *aggregate* data—most commonly at the State level—as dependent variables. For instance, Ziliak (2013), Mabli and Ferrerosa (2010), Klerman and Danielson (2009), and Mabli et al. (2009), though varying in specific research objectives, each quantified the relationship between State-level changes in SNAP participation and changes in State economic measures and SNAP policies over time. The studies found economic factors such as the unemployment rate and State minimum wage and SNAP participant certification periods and simplified reporting policies to be strongly associated with State caseload changes. Ziliak et al. (2003) examined changing SNAP caseloads in the wake of welfare reform in the late 1990s and how they responded to States' implementation of Electronic Benefit Transfer (EBT) cards, waivers from the work requirement for unemployed able-bodied adults without dependents (ABAWDS), and administrative error rates in the late 1990s. In a variant of this approach, Kuhn et al. (1997) used aggregate *time series* data at the national level to examine economic effects on caseloads. While the use of aggregate data provided useful opportunities in terms of the availability of data, it significantly constrained the ability of these studies to examine detailed program dynamics.

C. Research Objectives

The goal of this study is to update and extend previous research examining the factors associated with SNAP participation dynamics, building primarily on the work of Gleason et al. (1998), Cody et al. (2007), and Mabli et al. (2011b). It complements the analysis in Leftin et al. (2014) which describes SNAP dynamics using the same data through examining patterns of program entry and exit, and providing descriptive statistics on participation spells observed over this period.

Our main objective is to examine the relationship between a broad set of demographic and economic characteristics, as well as State economic and SNAP policy variables, and several components of SNAP dynamics using SIPP data from 2008 through 2012. This analysis (presented in Chapters III through V) describes associations between this set of individual, family, and State characteristics and patterns of program entry, exit, and re-entry. Chapter VI synthesizes those results to provide a general picture of how these characteristics are associated with SNAP dynamics and also interprets the findings by classifying the characteristics according to factors related to perceived eligibility; expected benefit amount; costs of participation; household needs; household resources; and personal preferences and traits.

The analyses in the current report build off of the work done in prior SNAP dynamics studies. They consist of using basic model specifications that include a set of participant and

family characteristics as well as trigger event variables that look at changes in employment, income, and family composition shortly before program entry or exit.⁸ It also looks at the role of instability in employment, income, and family composition and how trigger events affect the likelihood of an individual entering or exiting SNAP differently based on that individual's past experience. Finally, it examines at how these relationships differ across SNAP population subgroups of interest to policymakers and social policy researchers.

⁸ Both this report and the companion descriptive report (Leftin et al. 2014) examine the associations between trigger events and SNAP entry and exit. Unlike Leftin et al. (2014), however, the analysis in this report is performed by accounting for differences in demographic and economic and State characteristics across individuals that experience and do not experience a trigger event.

II. DATA AND METHODOLOGY

In this chapter, we describe the data from the 2008 SIPP panel and provide an overview of an assessment of the response errors that arise from the SIPP's design and implementation. We also discuss our methodological approach for estimating the relationships between SNAP entry, exit, and re-entry and individual- and family-level demographic and economic variables, as well as State economic and policy variables. This includes a discussion of the samples used, the empirical models, explanatory variables included in the model, the presentation of model findings, and descriptive statistics for model variables.

A. Data

This study relies on data from the 2008 panel of the SIPP. This section provides background on the SIPP data and discusses key issues regarding potential response errors in the SIPP.

1. An Overview of the SIPP 2008 Panel

The SIPP is a short-term longitudinal survey that collects detailed monthly data on labor force activity, earned and unearned income, cash and noncash assistance, family and household composition, and many additional items. (See Table II.1 for a summary of the 2008 SIPP panel.) SIPP follows a representative sample of civilian noninstitutionalized persons over time, collecting monthly data by means of interviews conducted at four-month intervals. All members of the households interviewed in the first "wave" remain eligible to be interviewed in subsequent waves, even if they move away from the original sample address, provided that they remain in the survey universe.⁹

Each interview asks panel members and everyone living with them at the time about their activities during the preceding four months. Each interview includes a common set of core questions that collect information on household and family composition, personal demographic characteristics, employment, income, and participation in a wide range of government assistance programs. Periodic "topical modules" collect data on specialized subject areas, such as previous participation in public assistance programs (also called "reciprocity history"), employment history, citizenship,¹⁰ child care costs, assets and liabilities, shelter costs, and work-related expenses. The topical module that focuses on respondents' history of employment and program participation is administered in the first wave.

⁹ The exceptions are (1) children under 15 who move without an accompanying adult panel member, including those who enter the foster care system and (2) individuals who move to a location that is more than 100 miles from the nearest SIPP primary sampling unit.

¹⁰ Citizenship became part of the core questions in the 2004 panel, remaining in the 2008 panel. It was a topical module question in all earlier panels.

Table II.1 Summary of the 2008 SIPP Panel

Purpose	Collect income, labor force information, program participation, demographic characteristics
Design	Multistage-stratified sample; longitudinal
Sample Size	Approximately 52,000 households interviewed in Wave 1 Panel size by end of Wave 14 is approximately 25,000 households due to sample attrition
Interview Period	Households interviewed every four months about previous four months; September 2008 to December 2013 (This study uses the first 14 waves, interviewed through April 2013.)
Data Time Period	Four months preceding interview: May 2008–December 2012
Historical Data	Program participation (e.g., SNAP benefit receipt) prior to 1 st month of household's panel period
Universe	Civilian, noninstitutionalized population
Weighting	Full panel longitudinal weights assigned to those with data (possibly imputed) for full duration of panel or who left the universe or died before the end of the panel period; this study employs the Wave 1-14 longitudinal weight, weighted to population in January 2009; monthly cross-sectional weights available for each wave but not used in this analysis. ^a
Respondent	Household members age 15 and over; proxy interview for unavailable household members

Notes: ^a The current study uses the 14-wave longitudinal weights as released by the Census Bureau in March 2014. These weights subsequently underwent very minor revisions and were re-released in September 2014.

The length and sample size of SIPP panels has varied over time. The first SIPP panel was fielded in late 1983 with a sample of nearly 20,000 households interviewed over a period of two and one-half years. New panels of generally similar size started in nearly every year between 1984 and 1993, before a redesign replaced the overlapping panel design with an abutting panel design that allowed larger and generally longer-running panels. A four-year panel with nearly 40,000 households started in 1996 followed by a three-year panel of about 35,000 households in 2001, a four-year panel of about 51,000 households in 2004, and a five-year panel of about 52,000 households in 2008.

While the SIPP is fundamentally a longitudinal survey, it is designed to support cross-sectional as well as longitudinal analysis. To that end, the initial sample of households is divided at random into four equally sized rotation groups that are interviewed on a staggered schedule—one rotation group per month (Table II.2). For example, the first rotation group is interviewed in January, May, and September of each year and asked to provide data for the preceding four months (for example, in September, respondents are asked to provide information on May, June, July, and August). In addition to distributing the workload evenly over the calendar year and thus permitting a set of interviewers to be dedicated to the SIPP, the rotation group design ensures that the data collected for any given calendar month are obtained in roughly equal proportions from respondents reporting on their activities of one, two, three, and four months ago. Accordingly, no calendar month of data is affected more or less than any other by recall bias or other error associated with distance from the interview.

Table II.2 SIPP 2008 Panel Timing

Interview #	Wave #	Interview date	Rotation Group	Earliest Reference Month of Wave	Common Month of Wave	Notes	Interview Refers to (previous 4 months):			
							1 month ago	2 months ago	3 months ago	4 months ago
1	1	Sep 08	1	May 08	Aug 08	1st at-risk/ entrant month: July 2008	Aug 08	Jul 08	Jun 08	May 08
2	1	Oct 08	2	Jun 08			Sep 08	Aug 08	Jul 08	Jun 08
3	1	Nov 08	3	Jul 08			Oct 08	Sep 08	Aug 08	Jul 08
4	1	Dec 08	4	Aug 08			Nov 08	Oct 08	Sep 08	Aug 08
5	2	Jan 09	1	Sep 08	Dec 08	Cross-section sample: December 2008	Dec 08	Nov 08	Oct 08	Sep 08
6	2	Feb 09	2	Oct 08			Jan 09	Dec 08	Nov 08	Oct 08
7	2	Mar 09	3	Nov 08			Feb 09	Jan 09	Dec 08	Nov 08
8	2	Apr 09	4	Dec 08			Mar 09	Feb 09	Jan 09	Dec 08
9	3	May 09	1	Jan 09	Apr 09		Apr 09	Mar 09	Feb 09	Jan 09
10	3	Jun 09	2	Feb 09			May 09	Apr 09	Mar 09	Feb 09
11	3	Jul 09	3	Mar 09			Jun 09	May 09	Apr 09	Mar 09
12	3	Aug 09	4	Apr 09			Jul 09	Jun 09	May 09	Apr 09
13	4	Sep 09	1	May 09	Aug 09		Aug 09	Jul 09	Jun 09	May 09
14	4	Oct 09	2	Jun 09			Sep 09	Aug 09	Jul 09	Jun 09
15	4	Nov 09	3	Jul 09			Oct 09	Sep 09	Aug 09	Jul 09
16	4	Dec 09	4	Aug 09			Nov 09	Oct 09	Sep 09	Aug 09
17	5	Jan 10	1	Sep 09	Dec 09		Dec 09	Nov 09	Oct 09	Sep 09
18	5	Feb 10	2	Oct 09			Jan 10	Dec 09	Nov 09	Oct 09
19	5	Mar 10	3	Nov 09			Feb 10	Jan 10	Dec 09	Nov 09
20	5	Apr 10	4	Dec 09			Mar 10	Feb 10	Jan 10	Dec 09
21	6	May 10	1	Jan 10	Apr 10		Apr 10	Mar 10	Feb 10	Jan 10
22	6	Jun 10	2	Feb 10			May 10	Apr 10	Mar 10	Feb 10
23	6	Jul 10	3	Mar 10			Jun 10	May 10	Apr 10	Mar 10
24	6	Aug 10	4	Apr 10			Jul 10	Jun 10	May 10	Apr 10
25	7	Sep 10	1	May 10	Aug 10		Aug 10	Jul 10	Jun 10	May 10
26	7	Oct 10	2	Jun 10			Sep 10	Aug 10	Jul 10	Jun 10
27	7	Nov 10	3	Jul 10			Oct 10	Sep 10	Aug 10	Jul 10
28	7	Dec 10	4	Aug 10			Nov 10	Oct 10	Sep 10	Aug 10
29	8	Jan 11	1	Sep 10	Dec 10		Dec 10	Nov 10	Oct 10	Sep 10
30	8	Feb 11	2	Oct 10			Jan 11	Dec 10	Nov 10	Oct 10
31	8	Mar 11	3	Nov 10			Feb 11	Jan 11	Dec 10	Nov 10
32	8	Apr 11	4	Dec 10			Mar 11	Feb 11	Jan 11	Dec 10
33	9	May 11	1	Jan 11	Apr 11		Apr 11	Mar 11	Feb 11	Jan 11
34	9	Jun 11	2	Feb 11			May 11	Apr 11	Mar 11	Feb 11
35	9	Jul 11	3	Mar 11			Jun 11	May 11	Apr 11	Mar 11
36	9	Aug 11	4	Apr 11			Jul 11	Jun 11	May 11	Apr 11

Table continues

Table II.2, *continued*

Interview #	Wave #	Interview date	Rotation Group	Earliest Reference Month of Wave	Common Month of Wave	Notes	Interview Refers to (previous 4 months):			
							1 month ago	2 months ago	3 months ago	4 months ago
37	10	Sep 11	1	May 11	Aug 11		Aug 11	Jul 11	Jun 11	May 11
38	10	Oct 11	2	Jun 11			Sep 11	Aug 11	Jul 11	Jun 11
39	10	Nov 11	3	Jul 11			Oct 11	Sep 11	Aug 11	Jul 11
40	10	Dec 11	4	Aug 11			Nov 11	Oct 11	Sep 11	Aug 11
41	11	Jan 12	1	Sep 11	Dec 11		Dec 11	Nov 11	Oct 11	Sep 11
42	11	Feb 12	2	Oct 11			Jan 12	Dec 11	Nov 11	Oct 11
43	11	Mar 12	3	Nov 11			Feb 12	Jan 12	Dec 11	Nov 11
44	11	Apr 12	4	Dec 11			Mar 12	Feb 12	Jan 12	Dec 11
45	12	May 12	1	Jan 12	Apr 12		Apr 12	Mar 12	Feb 12	Jan 12
46	12	Jun 12	2	Feb 12			May 12	Apr 12	Mar 12	Feb 12
47	12	Jul 12	3	Mar 12			Jun 12	May 12	Apr 12	Mar 12
48	12	Aug 12	4	Apr 12			Jul 12	Jun 12	May 12	Apr 12
49	13	Sep 12	1	May 12	Aug 12		Aug 12	Jul 12	Jun 12	May 12
50	13	Oct 12	2	Jun 12			Sep 12	Apr 12	Jul 12	Jun 12
51	13	Nov 12	3	Jul 12			Oct 12	Sep 12	Apr 12	Jul 12
52	13	Dec 12	4	Aug 12			Nov 12	Oct 12	Sep 12	Apr 12
53	14	Jan 13	1	Sep 12	Dec 12	Longitudinal Weight: through Wave 14	Dec 12	Nov 12	Oct 12	Sep 12
54	14	Feb 13	2	Oct 12			Jan 13	Dec 12	Nov 12	Oct 12
55	14	Mar 13	3	Nov 12			Feb 13	Jan 13	Dec 12	Nov 12
56	14	Apr 13	4	Dec 12			Mar 13	Feb 13	Jan 13	Dec 12
57	15	May 13	1	Jan 13	Apr 13	Wave 15 not included in this study	Apr 13	Mar 13	Feb 13	Jan 13
58	15	Jun 13	2	Feb 13			May 13	Apr 13	Mar 13	Feb 13
59	15	Jul 13	3	Mar 13			Jun 13	May 13	Apr 13	Mar 13
60	15	Aug 13	4	Apr 13			Jul 13	Jun 13	May 13	Apr 13
61	16	Sep 13	1	May 13	Aug 13	Wave 16 not included in this study	Aug 13	Jul 13	Jun 13	May 13
62	16	Oct 13	2	Jun 13			Sep 13	Aug 13	Jul 13	Jun 13
63	16	Nov 13	3	Jul 13			Oct 13	Sep 13	Aug 13	Jul 13
64	16	Dec 13	4	Aug 13			Nov 13	Oct 13	Sep 13	Aug 13

Source: Table based on information available at <http://www.census.gov/SIPP>.

2. SIPP Data Challenges

Since the earliest panel, SIPP users have had to grapple with the potential impact of response errors that arise from the SIPP's design and implementation. We examined the extent to which sample loss, seam bias, under-reporting, topical module problems, and SNAP churning are apparent in the 2008 SIPP panel. The results for these analyses, which are discussed in detail in Appendix A, are summarized briefly here:

- **Sample Loss.** We examined potential bias stemming from sample loss in the SIPP. Sample loss generally occurs when members of a household sampled for the survey either cannot be located or refuse to participate. The 2008 SIPP panel suffered from higher rates of sample loss than the 2004 panel. However, the analysis file is six waves longer than that of the 2004 panel, so a greater degree of sample loss was expected. The full panel analysis weights created by the Census Bureau tend to correct for this sample loss, and estimates of general population characteristics appear unbiased.
- **Seam Bias.** In the SIPP, the “seam effect” reflects the tendency of individuals to report changes in status on seams—the months that represent the start or end of each four-month reference period. The “seam effect” in the 2008 SIPP is pronounced, as it was in previous panels, with most of the key changes of interest to this study occurring on the seams between SIPP Waves. Therefore, estimates of changes over time must allow for the fact that many changes may be observed on a seam month instead of the month that they actually occurred. By defining variables measuring changes in employment, income, and family composition using four months of data, as in prior dynamics studies, we continue to allow for this.
- **Gaps in SNAP Participation.** We examined gaps in SNAP participation including the incidence of gaps of different sizes; the lengths of spells prior to and following the gaps; characteristics associated with having a gap; and other data features related to gaps. The analysis was conducted to help inform the decision about whether to recode one- or even two-month gaps in participation by closing them up. We found evidence that one- and especially two-month gaps could be due not only to misreporting but also to actual program churning, with individuals exiting and re-entering the program soon thereafter. After considering the results of this assessment, we decided to close up one-month SNAP participation gaps in the 2008 panel primarily for two reasons. First, it helps maximize comparability of study findings with five prior studies of SNAP dynamics (Mabli et al. 2011a, Cody et al. 2007, Cody et al. 2005, Gleason et al. 1998, and Burstein 1993) that closed up one-month gaps. Second, from a SNAP policy standpoint, States and policymakers may generally consider the churners to be longer-term participants, and closing one-month gaps may help policymakers use the study results to learn about entries, durations, and triggers among those who are not simply churning.

B. Methodological Approach

We conducted multivariate analyses of SNAP participation dynamics consisting of estimating multivariate models of initial SNAP entry, the length of SNAP participation spells, and, among participants who exit the program in the panel period, the length of time spent off SNAP or the time before SNAP re-entry. The SNAP entry analysis enables us to identify the short-term and long-term factors that cause individuals to enter the program. In the SNAP spell length analysis we examine the factors associated with long periods of SNAP benefit receipt and how these factors differ from those that influence the decision to enter the program. And in the

SNAP re-entry analysis, we explore whether the characteristics associated with longer durations of SNAP participation also lead to greater likelihoods of re-entry.

1. Unit of Observation

The analysis of the determinants of participation dynamics is based on a sample of *individuals* from the 2008 SIPP panel. Alternatively, we could have examined SNAP dynamics of *households*. However, examining SNAP household dynamics is difficult because the composition of a household can (and often does) change over time. For example, individuals can move into or out of a household, two separate households can merge to form a single household, or a single household can split and become more than one household. Because of the challenges posed by these changes, and consistent with earlier studies of SNAP participation dynamics, this report focuses on the dynamics of individuals.

A marked departure from previous studies that was initially made in Cody et al. (2007) and that we have maintained in Mabli et al. (2011a) and in the current study is the grouping of individuals by families rather than households to determine some of their characteristics, including income and family composition. Neither group reflects the actual SNAP unit, which is defined based on the food purchase and preparation practices of the household members. Immediate family members (spouses, children under age 22, and the immediate family members of children under age 22) are required to be in the same unit, but other family members and unrelated household members may be in separate households. The largest impact of this change will likely be for measures that look at family characteristics (such as families with earnings or families with elderly members). However, descriptive comparisons of entry rates using households and families in Cody et al. (2007) show very little difference between the two measures.

2. Samples

SNAP entry. The sample for the multivariate entry analysis includes all individuals who are at least 18 years old, have a positive 14-wave longitudinal weight, and experienced a SNAP nonparticipation spell between the fifth SIPP panel month and the end of the panel. Consistent with previous studies, we have excluded individuals under age 18 from the sample because SNAP participation of children is determined in most cases by the decisions of their parents.¹¹ Characteristics of individuals under age 18 do enter into the analysis, however, through variables defined at the family level (such as family composition, family income, and health status of family members).

As with the multivariate analyses using the 1990 and 1991 SIPP panels (Gleason et al. 1998), the 2001 SIPP panel (Cody et al. 2007), and the 2004 SIPP panel (Mabli et al. 2011b), we do not restrict the samples to individuals that have income less than 300 percent of poverty in at least

¹¹ In fiscal year 2012, 45 percent of all SNAP participants were children, 46 percent were nonelderly adults, and 9 percent were elderly people (Farson Gray and Eslami 2014).

one month of the panel. This differs from the descriptive analysis presented in Leftin et al. (2014) examining rates of entry and re-entry.

SNAP duration. For the analysis of the duration of participation spells, the sample includes all individuals who are at least 18 years old and entered SNAP in or after month 6 of the 2008 SIPP panel. Individuals could have participated in the program previously, but they had to have a non-left-censored SNAP participation spell at some point in the panel in or after the sixth month in order to be included in the sample.

SNAP re-entry. The sample for the multivariate re-entry analysis includes all SNAP participants who exited the program in the panel period and had at least one month of nonparticipation in or after the sixth SIPP panel month and the month in which they left the panel.

3. Empirical Models

We estimate multivariate logistic regression models of SNAP entry and discrete-time hazard models of SNAP exit and re-entry using maximum likelihood estimation (the maximum likelihood estimator is presented in Appendix F). In the discrete-time hazard models, the monthly hazard rate is defined as the probability that an individual leaves a particular behavioral state (nonparticipation, for example) in a particular month given that the individual has remained in that state up to that month. The hazard rate in the spell length model is the probability that an individual leaves the state of participation and exits SNAP, given that the individual participated in the program in the previous month. Similarly, the hazard rate in the re-entry model is defined as the probability that an individual (who participated previously) leaves the state of nonparticipation in a particular month and enters SNAP, given that the individual did not participate in the program in the previous month.

While it is possible to estimate the models using person-level observations (one observation per person), we choose to create a *person-month sample* instead (up to one observation per person per month). This more easily allows us to include time-varying covariates in each model. Each individual in the sample can contribute one or more observations to the sample depending on how long they remain in the program (in the duration analysis) or out of the program (in the entry and re-entry analyses). In the duration model, for example, an individual who remains in SNAP for seven months will contribute seven observations to the sample: six non-exit months and one exit month.

4. Explanatory Variables

The dependent variable in the entry and re-entry models is a binary variable equal to 0 in each month an individual was not participating in SNAP and equal to 1 in the month that an individual entered the program (if that event occurred). It is not defined in other months that the individual was participating in SNAP; these months fall outside the sample for these models. The dependent variable in the duration model is similarly defined but in the reverse direction. It

is a binary variable equal to 0 in each month an individual was participating in SNAP and equal to 1 in the month that an individual exited the program (if that event occurred). This variable is not defined in months in which the individual was not participating in the program.

The set of explanatory variables included in each model consists mostly of those that have been used in prior research on the determinants of SNAP entry and exit. These include (1) a set of demographic, economic, and family characteristics; (2) a set of trigger events related to employment, income, and family composition; (3) State and regional measures; and (4) SNAP policy variables. The full set of variables, which are described in detail in Appendix B includes:

- **Demographic Characteristics of Individuals.** We include variables measuring individuals' gender, race and ethnicity, age, U.S. citizenship, and education.
- **Economic Characteristics of Individuals and Families.** We include variables measuring individuals' employment status, consisting of both full-time and part-time work, and, if not working, duration of nonemployment; family income-to-poverty level; TANF receipt; net worth; other income sources; and health status and medical costs.
- **Family Characteristics.** We include variables measuring family size (number of nonelderly adults, number of elderly adults, and number of young children and older children) and individuals' marital status.
- **Trigger Events (for SNAP entry).** We include variables measuring whether there was an employment change within the family in the last four months (whether a member of the individual's family experienced a transition from employment to unemployment); an income change within the family (whether a member of the individual's family experienced a decrease in earned income of at least 10 percent or other non-TANF income of at least 10 percent or a decrease in TANF income of any amount); a marital status change within the family (whether a member of the individual's family experienced a divorce or separation from a spouse); and a family composition change (whether there was an increase in family size or an increase in the number of dependents in the family).¹²
- **Trigger Events (for SNAP exit).** We include variables measuring whether there was an employment change within the family in the last four months (whether a member of the individual's family experienced a transition from unemployment to employment); an income change within the family (whether a member of the individual's family experienced an increase in earned income of at least 10 percent or other non-TANF income of at least 10 percent or an increase in TANF income of any amount); a marital status change within the family (whether a member of the individual's family got

¹² We did not disaggregate family composition changes further according to whether an adult or child entered the family, for example, due to the low number of individuals experiencing these events. Instead, we attempted to maintain a sufficiently large amount of variation in each variable by keeping the trigger events defined more generally.

married); or a family composition change (whether there was a decrease in family size or a decrease in the number of dependents in the family¹³).

- **State and Regional Measures.** Because employment opportunities play such an important role in SNAP participation decisions, we include several variables that measure the labor market conditions in the State in which an individual lives. These include the nonseasonally adjusted unemployment rate and the 20th percentile wage in the State. These variables are time-varying by month and change over the nonparticipation spell.¹⁴ We also include FNS region of residence. This variable should capture additional differences in factors affecting SNAP entry rates across regions that are not captured by other State-level variables.
- **SNAP Policy Variables.** We include variables that measure whether an individual's State of residence offers specific SNAP policies or has certain State-specific conditions (such as longer average certification periods). This includes an indicator of whether a State offers broad-based categorical eligibility; whether a State excludes all or most vehicles from countable assets (for example, whether a State excludes one vehicle per adult or per driver); or whether a State does not have policies listed in the first two groups. We also include program outreach expenditures per capita (the sum of federal and nonfederal outlays)¹⁵ and mean SNAP certification periods.
- **Spell Length (for SNAP exit).** We test the degree to which an individual's probability of exiting the program depends on how long he or she already has been in the program. This is often referred to as duration dependence in survival analysis. We include five binary variables indicating whether an individual has received SNAP benefits for 1 to 4 months, 5 to 8 months, 9 to 12 months, 13 to 16 months, and more than 16 months. These breakpoints are identical to those used in prior studies of SNAP dynamics.
- **Spell Length (for SNAP re-entry).** We test for duration dependence by including five binary variables indicating whether an individual who was participating has *not* received SNAP benefits for 1 to 4 months, 5 to 8 months, 9 to 12 months, 13 to 16 months, and more than 16 months. These breakpoints are identical to those used in prior studies of SNAP dynamics.
- **Prior Participation (for SNAP exit and re-entry).** A binary variable that indicates whether an individual is in his or her first participation spell ever (in the SNAP exit model) or whether the previous participation spell was his or her first participation spell ever (in the SNAP re-entry model). This variable was created using the SNAP benefit history information in the Reciprocity History Topical Module.
- **Duration of Previous SNAP Spell (for SNAP re-entry).** A variable that measures the length of the SNAP spell preceding the current nonparticipation spell.

¹³ While both increases and decreases in family size could trigger SNAP entry, we consider only decreases in family size to maintain consistency with previous SNAP dynamics studies, including Gleason et al. (1998), Cody et al. (2007), and Mabli et al. (2011a).

¹⁴ We use the Current Population Survey basic monthly survey to estimate State unemployment rates and all characteristics of the wage distributions.

¹⁵ Because outreach grants may not be covering the entire State but only a certain section of the State, the coefficients on this variable should be interpreted with caution.

The timing of when the value of an explanatory variable is defined, relative to the month in which an individual is at risk of entering SNAP in the entry model or exiting SNAP in the duration model, is an important consideration in the modeling framework.

Some variables such as race and ethnicity naturally remain constant over time, while others vary, such as employment status. As in prior studies of SNAP dynamics (Gleason et al. 1998; Cody et al. 2007; Mabli et al. 2011b), we artificially hold constant the values of many time-varying variables in our models in order to try to include only exogenous explanatory variables. These are variables that, to the best of our knowledge, are independent from unobservable factors influencing SNAP entry rates in the entry model and SNAP exit decisions in the duration model. For example, we do not include current employment in the model because it is likely that individuals make employment and SNAP participation decisions jointly and these concurrent changes may be attributed to a third, unobserved factor. Instead, we hold the value of the variable constant over the nonparticipation spell in the entry and re-entry models at its value from the start of the spell to ensure that these variables are exogenous to future SNAP entry decisions.¹⁶

For similar reasons, we hold the value of the current employment variable constant over the participation spell in the duration models. All variables except trigger event variables, region of residence, and State economic and SNAP policy variables are held constant over the spell. Finally, the variables measuring health status, high medical costs, and net worth were taken from the Wave 4, 7, and 10 topical modules and thus are only available once per year. The values of these variables are taken from Wave 4 for spells starting in the first four waves of the SIPP, from Wave 7 for spells starting in the fifth through seventh waves, and from Wave 10 for spells starting in the eighth wave or later.

5. Model Specifications and Subgroups

The main model specification in this study is one which examines the associations between (1) SNAP entry, duration, or re-entry and (2) individual- and family demographic and economic characteristics, trigger event variables, and State economic variables and SNAP policies. We also re-estimate the main model specification by subgroups defined by family composition, citizenship, sources of income, and the types of selected SNAP policies in the States in which individuals live. The subgroups¹⁷ consist of:

- Individuals in single-adult families with children
- Individuals in multiple-adult families with children
- Individuals in families with elderly members

¹⁶ All time-invariant variables are measured at the start of the nonparticipation spell or in month 1 of the SIPP panel if the nonparticipation spell is left-censored. In the latter case, variables such as employment status remain exogenous because the earliest month in the panel in which we analyze participation decisions is month 5.

¹⁷ Subgroups are not mutually exclusive.

- Individuals in families containing nonelderly nondisabled childless adults
- Individuals in families containing nonelderly disabled childless adults
- Individuals in families containing citizen adults and citizen children
- Individuals in families containing noncitizen adults and citizen children
- Individuals in families with earnings
- Individuals in families without earnings
- Individuals in families with Social Security or SSI
- Individuals in families without Social Security or SSI
- Individuals in families with TANF income
- Individuals in families without TANF income
- Individuals in States with certification periods less than or equal to the median
- Individuals in States with certification periods greater than the median
- Individuals in States offering broad-based categorical eligibility
- Individuals in States not offering broad-based categorical eligibility but excluding all or most vehicles from countable assets
- Individuals in States not offering broad-based categorical eligibility and not excluding all or most vehicles from countable assets

We also examine how individuals' usual circumstances affect the association between experiencing entry trigger events and entering or re-entering SNAP, and experiencing exit trigger events and exiting SNAP (these results are presented in Appendix E). In addition, we examine whether results differ according to whether the SIPP interviewee responds by "self" or proxy, as information on the timing and extent of changes in employment, income, family composition, and SNAP may differ depending on the type of respondent (these results are presented in Appendix F). In the SNAP spell length and SNAP re-entry models, we also examine subgroups defined by whether participants are first-time users or repeaters who cycle on and off the program. All characteristics are measured at the start of spells (participation and nonparticipation).

6. Exploratory Analyses

In Appendix G, we re-estimate the model specified above with some additional explanatory variables. The subgroups listed below were included in the tables for Leftin et al. (2014) and measure occurrence of a mortgage foreclosure event, neighborhood characteristics, and food access. The subgroups are as follows:

- Individuals in housing units affected by foreclosure event
- Individuals not in housing units affected by foreclosure event
- Individuals living in high poverty neighborhood
- Individuals not living in high poverty neighborhood

- Individuals living in high SNAP participation neighborhood
- Individuals not living in high SNAP participation neighborhood
- Individuals in low food access census tracts
- Individuals not in low food access census tracts

7. Use of Survey Weights

We estimate all models by using weighted data so that the results are representative of the survey universe. For longitudinal analysis, the SIPP includes two types of weights: longitudinal panel weights and calendar year weights. The longitudinal panel weight has a reference period that begins with January 2009 and runs through the end of a specified wave, whereas the calendar year weights have calendar year reference periods. This study uses a longitudinal panel weight for all analyses. The Census Bureau assigns longitudinal weights to persons who have data (reported or imputed) for all months of a specified reference period (that is, the period covered by the longitudinal weight). The Census Bureau also assigns longitudinal weights to persons who left the survey universe (by dying, being admitted to an institution, or moving abroad, primarily) during the reference period, provided that they have data for all months that they were in the survey universe. The longitudinal sample is weighted to represent the population eligible for the SIPP in the month to which the longitudinal weight is calibrated (January 2009 for the 2008 panel). For this analysis, we use the Wave 1-14 longitudinal weight.¹⁸

8. Descriptive Statistics for Model Variables

This section describes the demographic, economic, family, and State economic and policy characteristics of the individuals in the samples used for the entry, duration, and re-entry models. Table II.3 presents relative frequencies of the explanatory variables for the full sample for each model. We calculate these statistics using a data set that contains one observation for each spell month an individual spends in the sample. With the exceptions of trigger events, region of residence, and State economic and SNAP policy variables, all characteristics are measured at the start of the nonparticipation spells (in the entry and re-entry analyses) or the start of the participation spell (in the duration analysis).^{19,20} Trigger events, region of residence, and State economic and policy variables are measured in the same month as SNAP participation.

¹⁸ The current study uses the 14-wave longitudinal weights as released by the Census Bureau in March 2014. These weights subsequently underwent very minor revisions and were re-released in September 2014.

¹⁹ Individuals not participating at the start of the SIPP panel that are included in the entry analysis have characteristics measured in the first month of the panel.

²⁰ All statistics are calculated using data that have been weighted with the longitudinal panel weights. Thus, these are population estimates.

Table II.3 Composition of the Entry, Duration, and Re-entry Analysis Samples

Characteristic	Entry Sample (Percentage)	Duration Sample (Percentage)	Re-entry Sample (Percentage)
Sex			
Male	49.0	40.4	46.3
Female	51.0	59.6	53.7
Race/Ethnicity			
White, Non-Hispanic	72.0	47.4	48.4
Black, Non-Hispanic	9.6	23.0	21.4
Other, Non-Hispanic	6.3	6.4	6.5
Hispanic	12.1	23.2	23.6
Age			
18 to 29	20.3	32.8	30.5
30 to 49	37.4	40.3	42.4
50 to 64	26.0	18.2	18.6
65 and older	16.3	8.7	8.5
Citizenship			
Citizens	93.4	88.1	89.3
Education			
Highest Grade Completed			
0 to 8	4.5	10.1	9.8
9 to 11	4.5	16.0	13.0
12	25.0	37.8	33.1
13 and above	66.0	36.2	44.0
Family Composition			
Mean number of adults age 18-59	1.6	1.8	2.1
Mean number of adults age 60+	0.5	0.3	0.4
Mean number of children less than age 6	0.2	0.4	0.4
Mean number of children between ages 6 to 18	0.4	0.7	0.7
Marital Status			
Currently married ^a	57.2	35.2	37.7
Employment Status			
Currently employed	67.1	43.5	56.3
Have not worked 1 to 5 months	0.2	9.5	5.7
Have not worked 6 to 11 months	3.9	6.1	4.7
Have not worked at least 12 months	28.8	41.0	33.3

Table continues

Table II.3, continued

Characteristic	Entry Sample (Percentage)	Duration Sample (Percentage)	Re-entry Sample (Percentage)
Ratio of Family Income to Poverty Level			
Less than 100 percent	9.3	44.8	27.7
100 percent to less than 150 percent	7.8	22.8	21.8
150 percent to less than 200 percent	9.1	12.7	16.9
200 percent and above	73.7	19.6	33.6
Net Worth			
Greater than \$0	85.7	64.6	69.3
Greater than \$25,000	70.7	29.1	36.1
Other Income			
Receive TANF	0.4	3.2	4.6
Receive SSI or general assistance	2.8	12.5	9.2
Receive WIC, Medicaid or housing subsidies	8.0	46.2	27.7
Receive alimony or child support	3.5	7.7	8.3
Health Status and Medical Costs			
In fair or poor health	17.7	23.5	28.2
Out-of-pocket medical costs greater than \$1000	21.0	6.9	11.5
Entry and Exit Trigger Events			
Job loss within family (for entry and re-entry); Job gain within family (for duration)	8.0	10.7	9.6
Decrease in income within family (for entry and re-entry); Increase in income within family (for duration)	40.1	34.5	36.3
Separation or divorce within family (for entry and re-entry); New marriage within family (for duration)	0.5	0.8	0.7
Increase in family size within family (for entry and re-entry); Decrease in income within family (for duration)	4.7	25.5	6.6
State and Regional Measures			
State Economic Measures			
Mean state unemployment rate	8.9	8.9	8.7
20th percentile wage	\$8.80	\$8.80	\$8.80
Region of Residence			
Northeast	11.3	11.0	7.1
Mid-Atlantic	13.0	10.5	9.8
Midwest	17.0	16.3	14.8
Southeast	19.4	24.2	23.3
Southwest	11.5	15.2	17.6
Mountain Plains	8.2	5.8	8.0
Western	19.5	17.2	19.4

Table continues

Table II.3, continued

Characteristic	Entry Sample (Percentage)	Duration Sample (Percentage)	Re-entry Sample (Percentage)
SNAP Policy Variables			
Vehicle Rules			
State offers broad-based categorical eligibility	74.4	83.4	82.6
State excludes all or most vehicles	21.7	14.6	15.1
State excludes one or fewer vehicles for SNAP unit	3.9	2.0	2.3
Certification Period			
State average period under 10 months	24.5	24.5	26.5
State average period 10-12.9 months	39.2	34.9	36.2
State average period at least 13 months	36.3	40.6	37.3
Program Outreach Expenditures			
State has positive program outreach expenditures	84.0	85.2	84.6
Number of Spell Month observations	1,497,510	74,208	67,240
Unweighted sample size	31,264	4,236	3,355

Sources: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: ^a Individuals not currently married include those who are divorced, widowed, or never-married.

Entry Sample. The entry sample contained 31,264 individuals and generated 1,497,510 person-month observations that we used to estimate the model. Among this sample of adults, 51 percent were female and 57 percent were married. About 72 percent were non-Hispanic whites, 10 percent were non-Hispanic blacks, and 12 percent were Hispanic. Approximately 20 percent of the sample members were between 18 and 29 years old, 37 percent were between 30 and 49 years old, 26 percent were between 50 to 64 years old, and 16 percent were 65 years old or older. Approximately 57 percent of the sample members were married.

Because this sample contains many individuals who did not enter SNAP within the panel period, education and income levels for the sample were not as low as we observe in the duration and re-entry samples (which contained individuals who received SNAP benefits at some point in the panel period). For example, 74 percent were in families with incomes above 200 percent of the poverty line and 91 percent had completed at least grade 12.

In terms of employment and labor market characteristics, 67 percent of the sample members were currently employed; most of those who did not work in a given month had not worked for at least 12 months. The mean State unemployment rate was 8.9 percent and the average 20th percentile across State wage distributions was \$8.80.

Within the four-month period prior to SNAP entry, 8 percent of individuals experienced or had a family member experience a loss of employment; 40 percent had a decrease in income in the form of a decrease in earned income or non-TANF other income of at least 10 percent or a

decrease in TANF income of any amount; 0.5 percent transitioned from being married to being separated or divorced; and 5 percent had a change in family composition.²¹

Duration Sample. The duration sample contained 4,236 individuals and generated 74,208 person-month observations that we used to estimate the models. Sixty percent of the full sample was female and 35 percent were married. 47 percent were white and non-Hispanic, 23 percent are black and non-Hispanic, and 23 percent were Hispanic. Education and income levels for this sample were both fairly low. More than 26 percent of the sample had less than a high school education and the family income of 45 percent of the sample was less than 100 percent of the poverty line. Over 80 percent of the sample had family income that was less than twice the poverty line. The percentage employed was also low in this sample, with only 44 percent of the sample working at the start of the SNAP participation spell.

Turning to exit trigger events, 11 percent of families contained an individual who transitioned from not working to working, 35 percent had an increase in family income (an increase of at least 10 percent in earned income or non-TANF other income, or an increase of any amount in TANF income), 1 percent contain an individual who married, and 26 percent had a change in family composition.

Re-entry Sample. The re-entry sample contained 3,355 individuals and generated 67,240 person-month observations that we used to estimate the models. Approximately 46 percent of the full sample was male and 38 percent were married. About 48 percent were white and non-Hispanic, 21 percent were black and non-Hispanic, and 24 percent were Hispanic. Nearly 23 percent of the sample had less than a high school education and the family income of 28 percent of the sample was below the poverty line. Fifty-six percent of the sample was working at the start of the SNAP nonparticipation spell. Finally, in the prior four months, 10 percent of families had a loss of employment, 36 percent had a decrease in income in the form of a decrease in earned income or non-TANF other income of at least 10 percent or a decrease in TANF income of any amount, 1 percent contained an individual who separated or divorced, and 7 percent had a change in family composition.

9. Presentation of Findings

The SNAP entry, spell duration, and re-entry analyses use the same methodology as in prior SNAP dynamics studies. That is, we estimate logistic regression models to determine the association between the explanatory variables (demographic and economic characteristics; trigger event variables, and so on) and the probability that the individual enters or exits SNAP. Compared to an ordinary least squares regression, the raw coefficients from the logistic regression model are more difficult to interpret because of the models' nonlinear framework. In order to report results that are accessible to a broad audience of policymakers and policy

²¹ Changes in employment, income, marital status, and family composition were not defined to be mutually exclusive.

researchers, we have transformed the raw regression coefficients into “regression-adjusted” estimates of entry and re-entry probabilities and SNAP spell lengths. For the entry and re-entry models, we present the average predicted probability of entering or re-entering SNAP. For the duration model, we present the predicted median spell length or cumulative SNAP exit rate. For comparability to prior studies, however, we also include tables of regression coefficients for selected multivariate analyses in Appendix C.

Regression-adjusted estimates of the associations between explanatory variables and the likelihood of program entry or exit are obtained by using the regression equation to make predictions. The general steps consist of:

1. Estimating the logistic regression and obtaining the coefficient estimates
2. Evaluating the regression equation using both the coefficient estimates and the values of the explanatory variables for each sample member. This produces a probability of program entry (or exit) for each sample member.
3. Averaging the probabilities of program entry (or exit) across all sample members to get the predicted probability of program entry (or exit).

To produce the regression-adjusted estimates such as the predicted probability of program entry for families with and without children, Steps 2 and 3 are performed once assuming all families have children and again assuming all families do not have children. Next, the results are compared with one another to determine if there is a statistical difference in the predicted probabilities of program entry across the two groups.

When producing regression-adjusted estimates of the association between program entry (or exit) and binary variables, such as whether a respondent is married or whether a respondent lives in a family with children, we evaluate the prediction equation assuming the variable takes a value of “1” (for example, the family has children) and “0” (for example, the family does not have children). For continuous variables, however, such as the State unemployment rate we compare the predicted probability of entry or exit assuming the mean value of the variable (such as the mean rate of unemployment) and then repeat this assuming one unit more than the mean (such as one percentage point greater than the mean rate of unemployment). These assumptions are noted in the regression-adjusted tables in Chapters III through V.

III. THE DETERMINANTS OF SNAP ENTRY

In this chapter we examine the determinants of SNAP entry in the 2004 SIPP panel. As described in Chapter II, the model relates the probability of entering SNAP with individuals' demographic and economic characteristics; changes in employment, income, and family composition; State economic conditions; and SNAP policy measures. To make the findings more accessible to a policy audience, we translate all model results to regression-adjusted SNAP entry rates (the predicted probabilities of entering SNAP); the raw regression coefficients are found in tables in Appendix C. Below, we present findings for the full sample of individuals not participating in SNAP and then discuss how the findings differ across subgroups. We only discuss findings that were statistically significant at the 0.10 level or higher.

A. Entry Model Estimation Results for the Full Sample

We begin by examining findings for the full population of individuals currently not participating in the program. Table III.1 contains the regression-adjusted probabilities of entering SNAP for each of the characteristics included in the model. Differences between two entry probabilities, such as those for males and females, reflect the effects of the explanatory variable (sex) on the SNAP entry rate after accounting for differences in the other characteristics included in the model. We can discuss these differences across categories in a variety of ways. For example, the regression-adjusted monthly entry rates, as shown in Table III.1 were 0.31 percent for males and 0.37 percent for females—a difference of 0.06 percentage points, which in an absolute sense, appears small. However, we can also translate them into the number of entrants per 1,000 people (3.1 out of 1,000 males entered each month versus 3.7 out of 1,000 females) or the percentage difference in the entry rates (20 percent more females entered each month than males). Based on an adult population of about 235 million during this time period, that equates to about 71,000 more females having entered SNAP each month than males, after controlling for other factors.

Table III.1 Regression-Adjusted Monthly Rates of Entry into SNAP by Participant Characteristic, 2008 SIPP Panel

Characteristic	SNAP Entry Rate
All Individuals	0.34
Sex	
Male	0.31***
Female (referent group)	0.37
Race/Ethnicity	
White, Non-Hispanic	0.29***
Black, Non-Hispanic	0.47***
Other, Non-Hispanic	0.35
Hispanic (referent group)	0.35
Age	
18 to 29 (referent group)	0.39
30 to 49	0.39
50 to 64	0.28***
65 and older	0.19***
Citizenship	
Citizen	0.35***
Noncitizen (referent group)	0.27
Education	
Highest Grade Completed	
0 to 8 (referent group)	0.41
9 to 11	0.50***
12	0.40
13 and above	0.27***
Family Composition	
Mean number of adults age 18-59 (referent group)	0.33
One adult more than the mean number of adults age 18-59	0.35***
Mean number of adults age 60+ (referent group)	0.34
One adult more than the mean number of adults age 60+	0.38***
Mean number of children less than age 6 (referent group)	0.33
One child more than the mean number of children less than age 6	0.42***
Mean number of children between ages 6 to 17 (referent group)	0.33
One child more than the mean number of children between ages 6 to 17	0.37***
Marital Status	
Currently married	0.26***
Not currently married (referent group)	0.41

Table continues

Table III.1, continued

Characteristic	SNAP Entry Rate
Employment Status	
Currently employed	0.34
Have not worked 1 to 5 months	0.89***
Have not worked 6 to 11 months	0.35
Have not worked at least 12 months (referent group)	0.32
Ratio of Family Income to Poverty Level	
Less than 100 percent (referent group)	0.61
100 percent to less than 150 percent	0.49***
150 percent to less than 200 percent	0.42***
200 percent and above	0.20***
Net Worth	
Greater than \$0	0.33
\$0 or negative (referent group)	0.35
Greater than \$25,000	0.24***
\$25,000 or less (referent group)	0.44
Other Income	
Receive TANF	0.73***
No TANF (referent group)	0.33
Receive SSI or general assistance	0.29***
No SSI or general assistance (referent group)	0.34
Receive WIC, Medicaid or housing subsidies	0.70***
No WIC, Medicaid or housing subsidies (referent group)	0.26
Receive alimony or child support	0.45***
No receipt of alimony or child support (referent group)	0.33
Health Status and Medical Costs	
In fair or poor health	0.49***
Health good or better (referent group)	0.29
Out-of-pocket medical costs greater than \$1000	0.25***
Out-of-pocket medical costs \$1000 or less (referent group)	0.35
Entry Trigger Events	
Job loss within family	0.52***
No job loss within family (referent group)	0.32
Decrease in income within family	0.38***
No decrease in income within family (referent group)	0.31
Separation or divorce within family	0.45*
No separation or divorce within family (referent group)	0.34
Increase in family size within family	0.56***
No increase in family size within family (referent group)	0.32

Table continues

Table III.1, continued

Characteristic	SNAP Entry Rate
State and Regional Measures	
State Economic Measures	
Mean state unemployment rate (referent group)	0.34
One percentage point above the mean state unemployment rate	0.34***
20th percentile wage (referent group)	0.34
One dollar more than the 20th percentile wage	0.31***
Region of Residence	
Northeast	0.32***
Mid-Atlantic	0.33***
Midwest	0.35***
Southeast	0.37***
Southwest	0.40***
Mountain Plains	0.39***
Western (referent group)	0.26
SNAP Policy Variables	
Vehicle Rules	
State offers broad-based categorical eligibility	0.33*
State excludes all or most vehicles	0.36***
State excludes one or fewer vehicles for SNAP unit (referent group)	0.29
Certification Period	
State average certification period (referent group)	0.34
State average certification period plus 1 month	0.34
Program Outreach Expenditures ^a	
Mean outreach expenditures per capita (referent group)	0.34
One additional cent to mean outreach expenditures per capita	0.33***
Number of Spell Month observations	1,497,510

Sources: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: *Significantly different from entry rate for referent group at the .10 level, two-tailed test.

**Significantly different from entry rate for referent group at the .05 level, two-tailed test.

***Significantly different from entry rate for referent group at the .01 level, two-tailed test.

^a Results should be interpreted with caution as not all SNAP units in states with positive outreach expenditures may be affected by the state's outreach expenditures.

1. Demographic Characteristics

The probability of entering SNAP varied according to many demographic characteristics. Individuals were more likely to enter if they were female; black, non-Hispanic (relative to being Hispanic); unmarried; a U.S. citizen, or had more children of any age in the family. For example, the predicted entry rate was 0.41 for unmarried individuals versus 0.26 for those who were married, 0.47 for black, non-Hispanic individuals versus 0.35 for Hispanic individuals, and 0.35 for citizens versus 0.27 for noncitizens.

Individuals were less likely to enter if they were white, non-Hispanic (relative to being Hispanic) or were age 50 and older (relative to being younger). The predicted entry rates were 0.28 and 0.19 for individuals ages 50 to 64 and ages 65 and over, respectively, compared to 0.39 for younger individuals. Thus, individuals under age 50 were more than twice as likely to enter SNAP than were elderly individuals age 65 and older. Finally, relative to individuals who have completed at most eighth grade, SNAP entry was more likely for individuals who had completed ninth to eleventh grade (but had not graduated from high school) and was less likely for individuals with more than a high school education.

2. Economic Characteristics

Individuals were less likely to enter SNAP if they had more income, net worth over \$25,000, or received SSI or general assistance, and were more likely to enter if they had not been employed for up to five months (in other words, they had been unemployed or out of the labor force for one to five months); received TANF benefits; received noncash benefits such as WIC, Medicaid, or public housing subsidies; received alimony and child support payments; had a family member in fair or poor health (compared to in good or better health); or had high out-of-pocket medical costs.

Individuals that had not been employed for one to five months were 177 percent more likely to enter SNAP than individuals that had not been employed for over one year (the entry rates were 0.89 and 0.32 percent, respectively). The likelihood of entering SNAP decreased with income: 6.1 out of 1,000 individuals with family incomes below 100 percent of the federal poverty threshold entered SNAP compared to 4.9 out of 1,000 individuals with family incomes between 100 percent to less than 150 percent of poverty; 4.2 out of 1,000 individuals with family incomes between 150 to less than 200 percent of poverty; and 2.0 out of 1,000 individuals with family incomes of at least 200 percent of poverty. The monthly entry rate for individuals living in families in which a member received TANF was 120 percent larger than for those in families in which no one received TANF benefits, with predicted entry rates of 0.73 and 0.33 percent, respectively. Similarly, individuals who lived in families receiving WIC, participating in Medicaid, or receiving a public housing subsidy had an entry rate of 0.70, while those that did not receive these benefits had an entry rate of 0.26 percent—a 168 percent difference. There was a smaller difference in entry rates for individuals who received SSI or general assistance (0.29 percent) compared those that did not (0.34 percent).

3. Trigger Events

Changes in employment, income, and family composition were associated with SNAP entry. Individuals in families that experienced a job loss had a monthly entry rate that was 63 percent greater than for individuals living in families with no job loss, with a predicted entry rate of 0.52 versus 0.32 percent. Individuals living in families that experienced an increase in family size, including the addition of a new dependent, were also much more likely to enter SNAP compared to those without a change in family size (0.56 versus 0.32 percent). Individuals living in families that experienced a decrease in income (not necessarily through the total loss of a job) were more likely to enter SNAP, relative to those without an income loss, but the difference in entry rates was smaller compared to the employment and family composition trigger differences—0.38 versus 0.31 percent. Finally, individuals in families that experienced a separation or divorce within the family were more likely to enter SNAP, relative to those that did not experience one (0.45 versus 0.34 percent).

4. State Economic and Policy Variables

Even after controlling for personal circumstances, labor market conditions in the State in which individuals resided were associated with SNAP entry decisions, though the sizes of the associations were small. The probability of entering SNAP was greater in States with higher unemployment rates, with a one percentage-point increase in the mean unemployment rate increasing the SNAP entry rate from 0.337 to 0.343 percent. Focusing on the low-wage labor market, States with higher wages had smaller SNAP entry rates. A one-dollar increase in the 20th percentile wage decreased the average predicted SNAP entry rate from 3.4 in 1,000 people to 3.1 in 1,000 people.

SNAP policies implemented at the State level also affected an individual's likelihood of entering the program. Compared to the entry rate in States excluding one or fewer vehicles per SNAP unit from countable assets, the average predicted entry rate was 17 percent higher in States offering broad-based categorical eligibility (0.33 versus 0.29 percent) and 25 percent higher in States without broad-based categorical eligibility policies but that exclude all or most vehicles (0.36 versus 0.29 percent).

Greater SNAP outreach expenditures were associated with lower SNAP entry rates, though the association was exceptionally small. Individuals living in States with the mean amount of per capita outreach expenditures, about 13 cents per person, had an entry rate of 0.34 percent. Individuals living in States spending one cent more per person than the mean amount had an entry rate of 0.33 percent, translating into a 0.4 percent decrease.²² This is a small change considering that an additional one cent per person is a sizable increase in the distribution of outreach expenditures per capita—equivalent to moving from the 50th percentile to about the

²² The unrounded entry rates are 0.3359 percent and 0.3346 percent, respectively. Like all percent changes presented in this chapter, the percent change is calculated using the unrounded entry rates.

75th percentile. We note that results should be interpreted with caution as not all SNAP units in States with positive outreach expenditures may have been affected by the State's outreach expenditures.

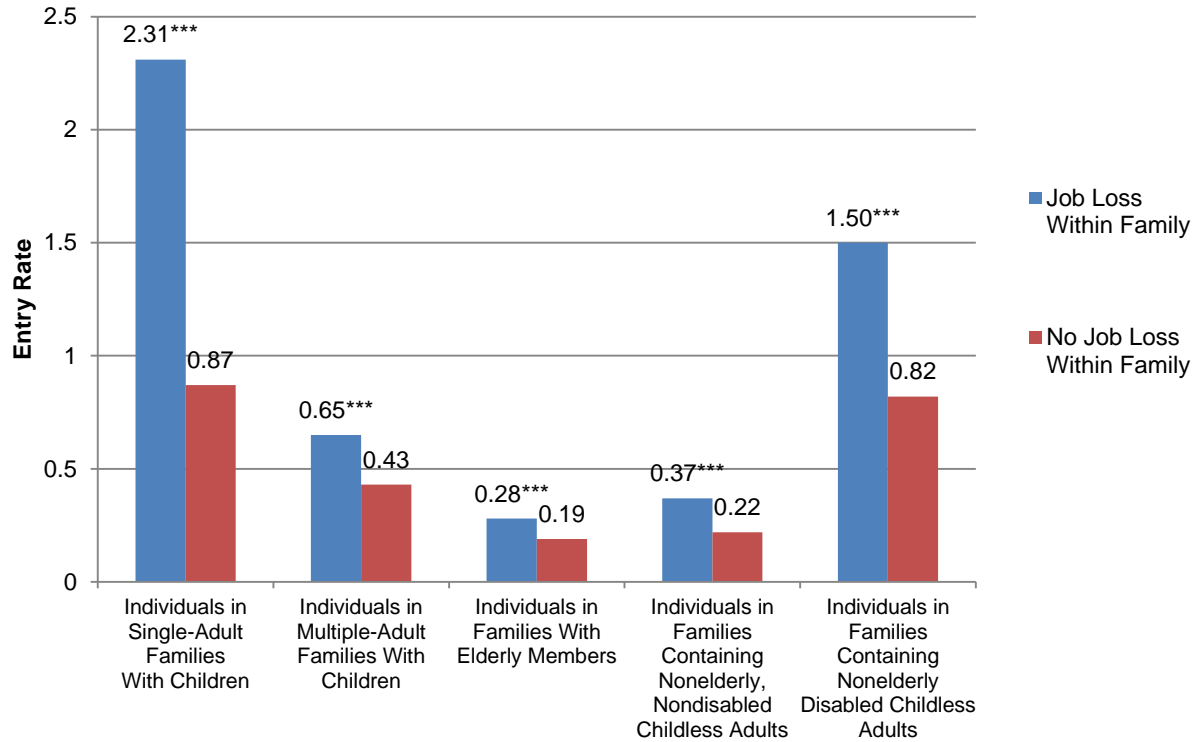
B. Entry Model Estimation Results for Subgroups

Factors associated with SNAP entry differed across subgroups defined by family composition, sources of income, citizenship, and SNAP policies. We focus on cross-subgroup differences in the associations between SNAP entry and (1) trigger events and (2) SNAP policies in this section because changes in employment, income, and family composition have historically been the main determinants of SNAP entry and because few studies have examined the associations between SNAP policies and entry. The full set of results, including differences across subgroups in the associations of entry with demographic and economic factors, can be found in Appendix D.

1. Family Composition Subgroups

As in the full sample, higher SNAP entry rates among different family composition subgroups were associated with experiencing changes in employment, income, and family size. The largest absolute differences among the family subgroups in the regression-adjusted entry rates related to experiencing a job loss were for individuals in single-adult families with children and individuals in families with nonelderly disabled childless adults. The differences in entry rates were 1.44 and 0.68 percentage points, respectively (Figure III.1 and Table III.2). The smallest, but still statistically significant, absolute difference in the entry rate occurred for families with elderly members (a difference of 0.09 percentage points).

Figure III.1 Regression-Adjusted Monthly Entry Rates for Individuals, by Job Loss and Their Family Composition Subgroup



Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: *** Difference in entry rate among those with and without a job loss significantly different from zero at the 0.01 level, two-tailed test.

Table III.2 Regression-Adjusted Rates of Entry into SNAP by Occurrence of Trigger Event in Previous Four Months, by Subgroup, 2008 SIPP Panel

	Job Loss Within Family	No Job Loss Within Family	Income Decrease Within Family	No Income Decrease Within Family	Divorce or Separation Within Family	No Divorce or Separation Within Family	Increase in Family Size	No Increase in Family Size
Individuals in single-adult families with children	2.31***	0.87	1.04	0.91	0.00	0.97	1.06	0.95
Individuals in multiple-adult families with children	0.65***	0.43	0.51***	0.42	0.66*	0.46	0.74***	0.44
Individuals in families with elderly members	0.28***	0.19	0.22**	0.19	0.34**	0.20	0.43***	0.19
Individuals in families containing nonelderly nondisabled childless adults	0.37***	0.22	0.26***	0.21	0.07*	0.23	0.45***	0.21
Individuals in families containing nonelderly disabled childless adults	1.50***	0.82	1.08***	0.78	3.10***	0.87	1.04	0.86
Individuals in families containing citizen adults and citizen children	0.72***	0.45	0.54***	0.43	0.72**	0.48	0.78***	0.46
Individuals in families containing noncitizen adults and citizen children	1.30*	0.91	0.93	0.99	0.58	0.96	0.67	0.99
Individuals in families with earnings	0.49***	0.29	0.35***	0.28	0.38	0.31	0.56***	0.29
Individuals in families without earnings	0.60***	0.41	0.45*	0.41	0.82***	0.42	0.51**	0.42

Table continues

Table III.2, continued

	Job Loss Within Family	No Job Loss Within Family	Income Decrease Within Family	No Income Decrease Within Family	Divorce or Separation Within Family	No Divorce or Separation Within Family	Increase in Family Size	No Increase in Family Size
Individuals in families with Social Security or SSI	0.57***	0.40	0.44*	0.40	0.63**	0.42	0.71***	0.40
Individuals in families without Social Security or SSI	0.49***	0.28	0.35***	0.27	0.36	0.31	0.49***	0.29
Individuals in families with TANF income	4.57**	2.68	2.37*	3.32	5.20	2.84	7.31***	2.53
Individuals in families without TANF income	0.51***	0.31	0.37***	0.30	0.43*	0.33	0.54***	0.31
Individuals in states with certification periods longer than the average certification period	0.54***	0.32	0.37***	0.31	0.41	0.34	0.55***	0.32
Individuals in states with certification periods at or below the average certification period	0.51***	0.32	0.38***	0.31	0.46*	0.34	0.56***	0.32
Individuals in states offering broad-based categorical eligibility	0.48***	0.31	0.37***	0.30	0.39	0.33	0.52***	0.31
Individuals in states that exclude all or most vehicles	0.68***	0.34	0.40*	0.36	0.63*	0.38	0.68***	0.35
Individuals in states that exclude one or fewer vehicles for SNAP unit	0.36	0.28	0.37***	0.23	0.81**	0.29	0.73***	0.26

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: Referent groups

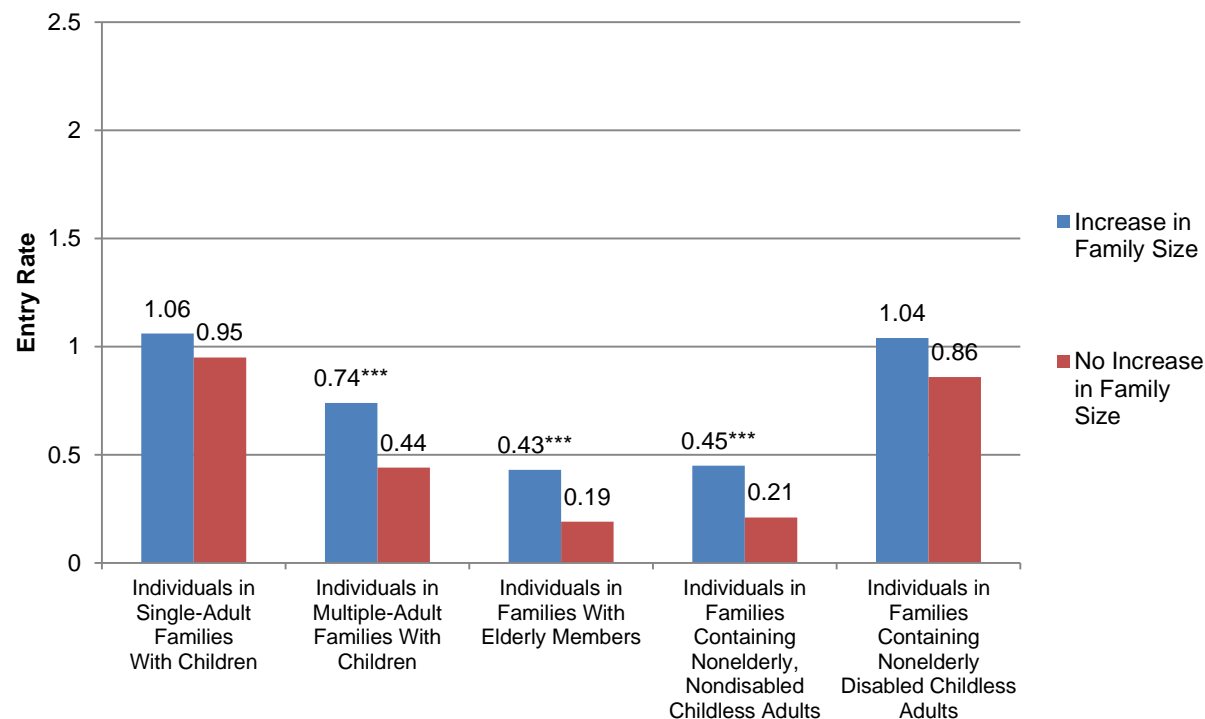
*Significantly different from entry rate for referent group at the .10 level, two-tailed test.

**Significantly different from entry rate for referent group at the .05 level, two-tailed test.

***Significantly different from entry rate for referent group at the .01 level, two-tailed test.

An increase in family size was associated with higher entry rates for most subgroups, with the exception of individuals in single-adult families with children and individuals in families containing nonelderly disabled childless adults. The difference in entry rates from experiencing and not experiencing an increase in family size was largest for individuals in multiple-adult families with children (Figure III.2 and Table III.2).

Figure III.2 Regression-Adjusted Monthly Entry Rates for Individuals, by Increase in Family Size and Their Family Composition Subgroup

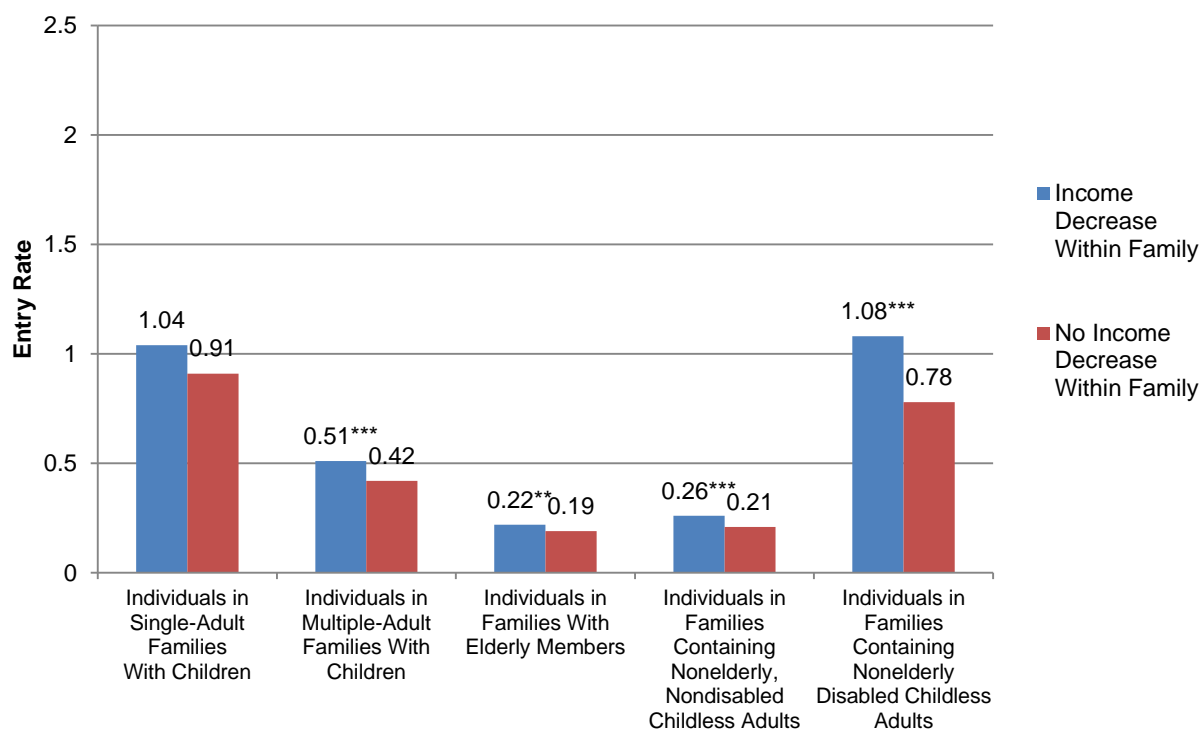


Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: *** Difference in entry rate among those with and without an increase in family size significantly different from zero at the 0.01 level, two-tailed test.

Decreases in income were also associated with SNAP entry for all family composition subgroups except individuals in single-adult families with children. The difference in the entry rate related to experiencing a decrease in income was largest for individuals in families with nonelderly disabled childless adults, with 10.8 out of 1,000 people entering SNAP whose family income decreased compared to 7.8 out of 1,000 people entering SNAP whose family income did not decrease (Figure III.3). The associations for the other subgroups were noticeably smaller.

Figure III.3 Regression-Adjusted Monthly Entry Rates for Individuals, by Decrease in Family Income and Their Family Composition Subgroup



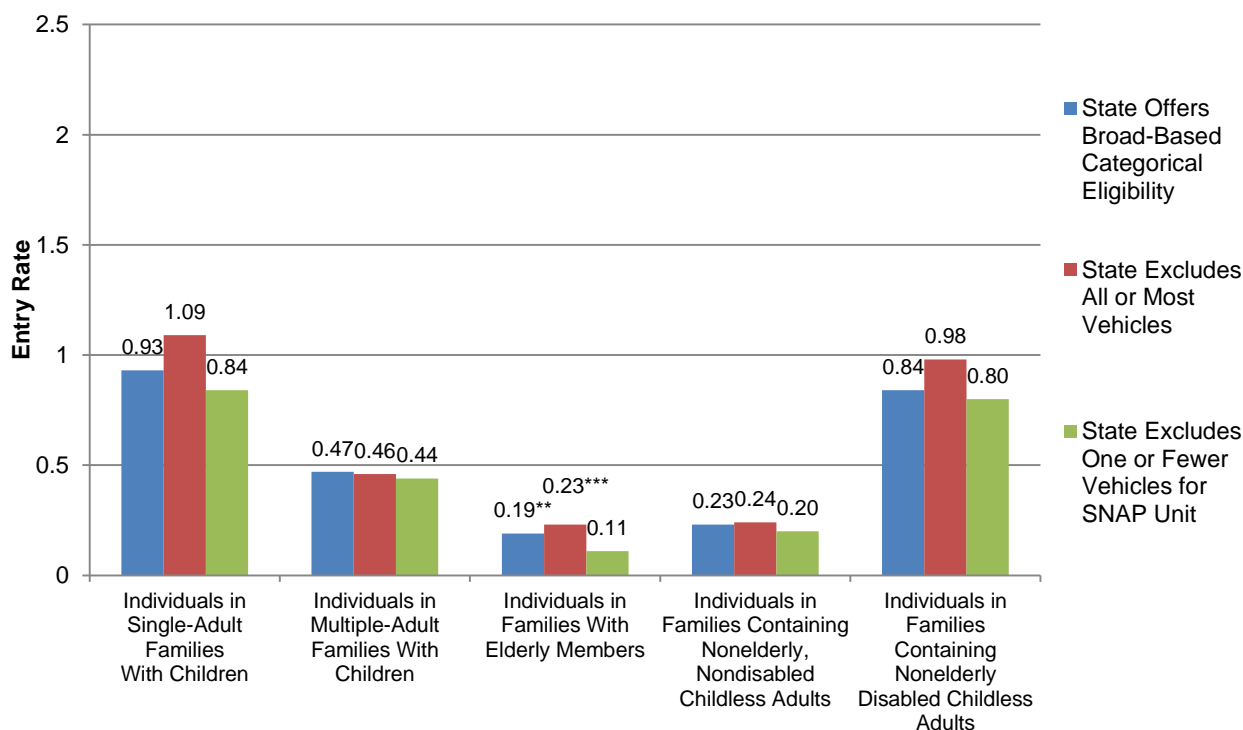
Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: ** Difference in entry rate among those with and without a decrease in income significantly different from zero at the 0.05 level, two-tailed test.

*** Difference in entry rate among those with and without a decrease in income significantly different from zero at the 0.01 level, two-tailed test.

Associations between SNAP entry and SNAP policies also differed by family composition subgroup. Living in a State that offers broad-based categorical eligibility, compared to living in a State that excludes one or no vehicles per SNAP unit from countable assets, was associated with higher regression-adjusted entry rates for individuals in families with elderly members (Figure III.4 and Table III.3). This was also true for individuals living in a State that excludes all or most vehicles from countable assets, compared to living in a State that excludes one or no vehicles per SNAP unit. For example, for individuals in families with elderly members, 1.9 out of 1,000 people entered SNAP each month in States with broad-based categorical eligibility, compared to 1.1 out of 1,000 in States excluding one or no vehicles per unit from countable assets.

Figure III.4 Regression-Adjusted Monthly Entry Rates for Individuals, by Residence in State with Vehicle Rule Policies and by Family Composition Subgroup



Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: ** Difference in entry rate among those living in States offering broad-based categorical eligibility and living in States that exclude one or fewer vehicles per SNAP unit significantly different from zero at the 0.05 level, two-tailed test.

*** Difference in entry rate among those living in States that exclude all or most vehicles and living in States that exclude one or fewer vehicles per SNAP unit significantly different from zero at the 0.01 level, two-tailed test.

Table III.3 Regression-Adjusted Monthly Rates of Entry into SNAP by SNAP Policy Variables by Subgroup, 2008 SIPP Panel

	State Offers Broad-Based Categorical Eligibility	State Excludes All or Most Vehicles	State Excludes One or Fewer Vehicles for SNAP Unit	State Average Certification Period	State Average Certification Period Plus 1 Month	Mean Outreach Expenditures Per Capita	One Additional Cent to Mean Outreach Expenditures Per Capita
Individuals in single-adult families with children	0.93	1.09	0.84	0.98	1.02*	0.97	0.97
Individuals in multiple-adult families with children	0.47	0.46	0.44	0.47	0.47	0.46	0.46
Individuals in families with elderly members	0.19**	0.23***	0.11	0.20	0.20	0.20	0.19**
Individuals in families containing nonelderly nondisabled childless adults	0.23	0.24	0.20	0.23	0.23	0.23	0.23
Individuals in families containing nonelderly disabled childless adults	0.84	0.98	0.80	0.88	0.93**	0.86	0.85*
Individuals in families containing citizen adults and citizen children	0.48	0.52	0.44	0.49	0.50**	0.48	0.48
Individuals in families containing noncitizen adults and citizen children	1.01	0.84	0.48	0.94	0.89	0.96	0.96
Individuals in families with earnings	0.31*	0.34***	0.26	0.32	0.32	0.31	0.31
Individuals in families without earnings	0.42	0.45	0.41	0.42	0.43	0.42	0.41***

Table continues

Table III.3, continued

	State Offers Broad-Based Categorical Eligibility	State Excludes All or Most Vehicles	State Excludes One or Fewer Vehicles for SNAP Unit	State Average Certification Period	State Average Certification Period Plus 1 Month	Mean Outreach Expenditures Per Capita	One Additional Cent to Mean Outreach Expenditures Per Capita
Individuals in families with Social Security or SSI	0.41**	0.44***	0.29	0.42	0.41	0.41	0.41***
Individuals in families without Social Security or SSI	0.30	0.32*	0.27	0.31	0.32***	0.31	0.30*
Individuals in families with TANF income	2.93	2.95	0.00	2.83	2.90	2.85	2.85
Individuals in families without TANF income	0.32**	0.35***	0.28	0.33	0.33*	0.33	0.33**
Individuals in states with certification periods longer than the average certification period	0.33	0.36	0.31	0.27	0.29***	0.34	0.33***
Individuals in states with certification periods at or below the average certification period	0.33	0.37**	0.30	0.30	0.28***	0.33	0.33***
Individuals in states offering broad-based categorical eligibility	NA	NA	NA	0.33	0.33	0.33	0.33***
Individuals in states that exclude all or most vehicles	NA	NA	NA	0.39	0.41**	0.39	0.39
Individuals in states that exclude one or fewer vehicles for SNAP unit	NA	NA	NA	0.30	0.31	1.19	1.37***

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: Referent groups

*Significantly different from entry rate for referent group at the .10 level, two-tailed test.

**Significantly different from entry rate for referent group at the .05 level, two-tailed test.

***Significantly different from entry rate for referent group at the .01 level, two-tailed test.

NA: Not applicable because all sample members within each vehicle rule subgroup has the same value of the policy variable.

Living in States with longer certification periods was associated with higher SNAP entry rates for individuals in single-adult families with children and individuals in families containing nonelderly disabled childless adults; for other family subgroups there were no associations with the length of certification periods (Table III.3). For individuals in single-adult families with children, the entry was 1.02 percent if they lived in States with a certification period one month longer than the average certification period (13 months), compared to 0.98 percent if they lived in States with the average certification period (12 months).

Greater SNAP outreach expenditures were associated with lower SNAP entry rates for individuals in families with elderly members and individuals in families containing nonelderly disabled childless adults, though, as in the full sample, the associations were exceptionally small; there were no associations for other family composition subgroups (Table III.3). For individuals in families with elderly members, the entry rate was 0.19 percent for individuals living in States with the mean amount of per capita outreach expenditures plus one additional cent (about 14 cents per person), and 0.20 percent for individuals living in States with the mean amount of outreach expenditures (about 13 cents per person). This translates into a 0.6 percent decrease.²³

2. Citizenship Subgroups

The associations between the likelihood of entering SNAP and (1) trigger events and (2) SNAP policies generally differed according to the citizenship of adults in families with citizen children (Tables III.2 and III.3). Changes in employment were important in both groups, but decreases in income and increases in family size were associated with higher SNAP entry rates only for individuals in families with citizen adults and citizen children. For these individuals, 5.4 out of 1,000 were predicted to enter SNAP if they experienced a decrease in income, compared to 4.3 out of 1,000 for those that did not experience a decrease in income.

Living in States with longer certification periods was associated with entry rates only for individuals in families with citizen adults and citizen children; there was no association with entry for individuals in families with noncitizen adults and citizen children (Table III.3). For individuals in families with citizen adults and citizen children, the entry rate was 0.50 percent if they lived in States with a certification period one month longer than the average certification period (13 months), compared to 0.49 percent if they lived in States with the average certification period (12 months).

²³ The unrounded entry rates are 0.19475 percent and 0.19599 percent, respectively. Like all percent changes presented in this chapter, the percent change is calculated using the unrounded entry rates.

3. Income Sources Subgroups

We re-estimated the model for individuals differentiated by the presence of earnings, Social Security or SSI, and TANF.

Presence of earnings. The findings for individuals in families with earnings were similar to those for individuals in families without earnings, with SNAP entry associated with experiencing a job loss, decrease in income, or increase in family size (Table III.2). However, living in a State that offers broad-based categorical eligibility, compared to living in a State that excludes one or no vehicles per SNAP unit from countable assets, was associated with higher regression-adjusted entry rates for individuals in families with earnings, but not for those in families without earnings (Table III.3). This was also true for individuals living in a State that excludes all or most vehicles from countable assets, compared to living in a State that excludes one or no vehicles per SNAP unit. For example, for individuals in families with earnings, 3.1 out of 1,000 people entered SNAP each month in States with broad-based categorical eligibility, compared to 2.6 out of 1,000 in States excluding one or no vehicles per unit.

Social Security Income or SSI. The findings for individuals in families with Social Security or SSI were similar to those for individuals in families without Social Security or SSI, with SNAP entry associated with experiencing a job loss, decrease in income, or increase in family size (Table III.2). However, living in a State that offers broad-based categorical eligibility, compared to living in a State that excludes one or no vehicles per SNAP unit from countable assets, was associated with higher regression-adjusted entry rates for individuals in families with Social Security or SSI, but not for those in families without Social Security or SSI (Table III.3). For example, for individuals in families with Social Security or SSI, 4.1 out of 1,000 people entered SNAP each month in States with broad-based categorical eligibility, compared to 2.9 out of 1,000 in States excluding one or no vehicles per unit. For the average length of certification periods in the State, the opposite is true: the SNAP entry rate was higher for individuals in States with longer certification periods only for individuals in families without Social Security or SSI.

TANF. The findings for individuals in families with TANF income were similar to those for individuals in families without TANF income, with SNAP entry associated with experiencing a job loss or increase in family size, though the associations were noticeably larger for individuals in families with TANF income (Table III.2). For example, for individuals in families with TANF income, the entry rate was 7.31 percent for individuals experiencing an increase in family size and 2.53 percent for individuals not experiencing an increase in family size. This compares to 0.54 and 0.31 percent, respectively, for individuals without TANF income. Living in a State that offers broad-based categorical eligibility, compared to living in a State that excludes one or no vehicles per SNAP unit from countable assets, was associated with higher regression-adjusted entry rates for individuals in families without TANF income; there was no similar association for individuals in families with TANF income (Table III.3).

4. SNAP Policy Subgroups

The associations between trigger events and SNAP entry differed according to whether an individual lived in a State that offers broad-based categorical eligibility. SNAP entry was associated with experiencing a job loss for individuals in States that offer broad-based categorical eligibility and in States that exclude all of most vehicles from countable assets, but was not associated with experiencing a job loss for individuals in States that exclude one or no vehicles per unit (Table III.3). In contrast, the presence of an association between decreases in family income and SNAP entry and between increases in family size and SNAP entry did not differ by vehicle rule policies.

IV. THE DETERMINANTS OF THE DURATION OF SNAP PARTICIPATION SPELLS

In this chapter we examine the determinants of SNAP duration in the 2008 SIPP panel. We estimate a model that relates the duration of SNAP participation spells (through probability of exiting SNAP) with individuals' demographic and economic characteristics; changes in employment, income, marital status, and family size; State economic conditions; and SNAP policy measures. To make the findings more accessible to a policy audience, we translate all model results to regression-adjusted SNAP median spell lengths; the raw regression coefficients are found in tables in Appendix C. Below, we present our main findings for the full sample of SNAP participants and then discuss how the findings differ across subgroups. We only discuss findings that were statistically significant at the 0.10 level or higher.

A. Duration Model Estimation Results for the Full Sample

We begin by examining the regression-adjusted median length of SNAP participation spells for the full population of individuals currently participating in the program. Table IV.1 contains the regression-adjusted spell lengths for each of the characteristics considered in the model.²⁴ Differences between two regression-adjusted medians, such as those for males and females, reflect the effect of the explanatory variable (sex) on the probability of exiting SNAP after accounting for the differences in the other characteristics included in the model.

²⁴ The construction of regression-adjusted spell lengths is discussed in Chapter II.

**Table IV.1 Regression-Adjusted Median SNAP Spell Length (Months)
by Participant Characteristic, 2008 SIPP Panel**

Characteristic	Median SNAP Spell Length
All Individuals	10
Sex	
Male	9***
Female (referent group)	11
Race/Ethnicity	
White, Non-Hispanic	11
Black, Non-Hispanic	10
Other, Non-Hispanic	11
Hispanic (referent group)	10
Age	
18 to 29 (referent group)	10
30 to 49	10
50 to 64	11*
65 and older	11
Citizenship	
Citizen	10***
Noncitizen (referent group)	13
Education	
Highest Grade Completed	
0 to 8 (referent group)	10
9 to 11	11
12	12
13 and above	9
Family Composition	
Mean number of adults age 18-59 (referent group)	11
One adult more than the mean number of adults age 18-59	9***
Mean number of adults age 60+ (referent group)	10
One adult more than the mean number of adults age 60+	8***
Mean number of children less than age 6 (referent group)	10
One child more than the mean number of children less than age 6	11***
Mean number of children between ages 6 to 17 (referent group)	10
One child more than the mean number of children between ages 6 to 17	11***
Marital Status	
Currently married	11***
Not currently married (referent group)	10

Table continues

Table IV.1, continued

Characteristic	Median SNAP Spell Length
Employment Status	
Currently employed	10
Have not worked 1 to 5 months	10
Have not worked 6 to 11 months	11
Have not worked at least 12 months (referent group)	11
Ratio of Family Income to Poverty Level	
Less than 100 percent (referent group)	13
100 percent to less than 150 percent	12
150 percent to less than 200 percent	8***
200 percent and above	8***
Net Worth	
Greater than \$0	11
\$0 or negative (referent group)	10
Greater than \$25,000	10
\$25,000 or less (referent group)	11
Other Income	
Receive TANF	8***
No TANF (referent group)	10
Receive SSI or general assistance	13***
No SSI or general assistance (referent group)	10
Receive WIC, Medicaid or housing subsidies	15***
No WIC, Medicaid or housing subsidies (referent group)	9
Receive alimony or child support	11
No receipt of alimony or child support (referent group)	10
Benefit History	
Spell is first ever	9***
Spell is not first ever (referent group)	11
Health Status and Medical Costs	
In fair or poor health	12***
Health good or better (referent group)	10
Out-of-pocket medical costs greater than \$1000	9
Out-of-pocket medical costs \$1000 or less (referent group)	10

Table continues

Table IV.1, continued

Characteristic	Median SNAP Spell Length
Exit Trigger Events	
Job gain within family	8***
No job gain within family (referent group)	11
Income increase within family	8***
No income increase within family (referent group)	12
New marriage within family	13
No new marriage within family (referent group)	10
Decrease in family size	9***
No decrease in family size (referent group)	11
State and Regional Measures	
State Economic Measures	
Mean state unemployment rate (referent group)	10
One percentage point above the mean state unemployment rate	10
20th percentile wage (referent group)	10
One dollar more than the 20th percentile wage	10
Region of Residence	
Northeast	11
Mid-Atlantic	9
Midwest	11
Southeast	13*
Southwest	8***
Mountain Plains	8***
Western (referent group)	11
SNAP Policy Variables	
Vehicle Rules	
State offers broad-based categorical eligibility	10
State excludes all or most vehicles	10
State excludes one or fewer vehicles for SNAP unit (referent group)	13
Certification Period	
State average certification period (referent group)	11
State average certification period plus 1 month	11***
Number of Spell Month observations	74,208

Sources: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: *Significantly different from median SNAP spell length for referent group at the .10 level, two-tailed test.
**Significantly different from median SNAP spell length for referent group at the .05 level, two-tailed test.
***Significantly different from median SNAP spell length for referent group at the .01 level, two-tailed test.

1. Demographic Characteristics

Several demographic characteristics were associated with the length of SNAP participation spells. Individuals had shorter regression-adjusted spells (that is, were more likely to exit SNAP) if they were male; ages 18 to 29 (relative to ages 50 to 64); unmarried; or a U.S. citizen. The regression-adjusted median spell length was 9 months for males versus 11 months for females and was 10 months for individuals who were unmarried versus 11 months for those who were married. Individuals ages 50 to 64 had a regression-adjusted median of 11 months compared to individuals ages 18 to 29 with a median lengths of 10 months. Finally, the regression-adjusted spell length was 10 months for citizens and 13 months for noncitizens.

2. Economic Characteristics

SNAP spell length was also associated with a number of economic characteristics. Individuals had shorter spells if they had more income; were receiving TANF benefits; were not receiving noncash benefits such as WIC, Medicaid, or public housing subsidies; were not receiving SSI or general assistance; and did not have a family member in fair or poor health. Individuals with family incomes below 100 percent of the federal poverty threshold had a median spell of 13 months compared to 8 months for participants with family incomes between 150 and 200 percent of poverty or at least 200 percent of poverty. Spells were shorter for TANF recipients than those with no TANF benefits (8 months versus 10 months); for individuals who did not receive noncash benefits such as WIC, Medicaid, or public housing subsidies compared to those with these benefits (9 months versus 15 months); and for individuals who did not receive SSI or general assistance compared to those with these sources of income (10 versus 13 months). Finally, individuals in families that did not have a family member in fair or poor health had a median length of 10 months while those with a family member in fair or poor health had a median length of 12 months.

3. Trigger Events

Changes in employment, income, and family composition were associated with SNAP spell lengths. Individuals in families that experienced a job gain (measured as a transition from not being employed to being employed) had a regression-adjusted median spell length of 8 months compared to 11 months for individuals living in families with no job gain. Individuals living in families that experienced an increase in income (either a 10 percent increase in earned or non-TANF other income or an increase of any amount in TANF income) were also much more likely to exit SNAP compared to those without an income increase (median spell lengths were 8 and 12 months, respectively). Finally, individuals living in families that experienced a decrease in family size were more likely to exit SNAP compared to those without a decrease in family size (median spell lengths were 9 and 11 months, respectively).

4. State Economic and Policy Variables

After controlling for personal circumstances, labor market conditions measured by the State unemployment rate and the 20th percentile wage in the State in which individuals reside were not associated with SNAP spell lengths. Similarly, SNAP policies implemented at the State level, consisting of vehicle rule policies and the length of SNAP certification periods, were not associated with an individual's likelihood of exiting the program.²⁵

5. Prior Participation in SNAP and Spell Characteristics

Those who participated in SNAP prior to the current spell were less likely to exit the program. Individuals for whom the current participation spell was their first time on SNAP as an adult had regression-adjusted median spell lengths of 9 months, compared to "repeaters" who had previously participated in the program, who stayed on an average of 11 months.²⁶

B. Duration Model Estimation Results for Subgroups

Factors associated with SNAP duration or exiting SNAP differed across subgroups defined by family composition, sources of income, citizenship, and SNAP policies. We focus on cross-subgroup differences in the associations between SNAP spell lengths and (1) trigger events and (2) SNAP policies in this section because changes in employment, income, and family composition have historically been the main determinants of SNAP durations and because few studies have examined the associations between SNAP policies and duration. The full set of results, including the associations with demographic and economic factors, can be found in Appendix D.

1. Family Composition Subgroups

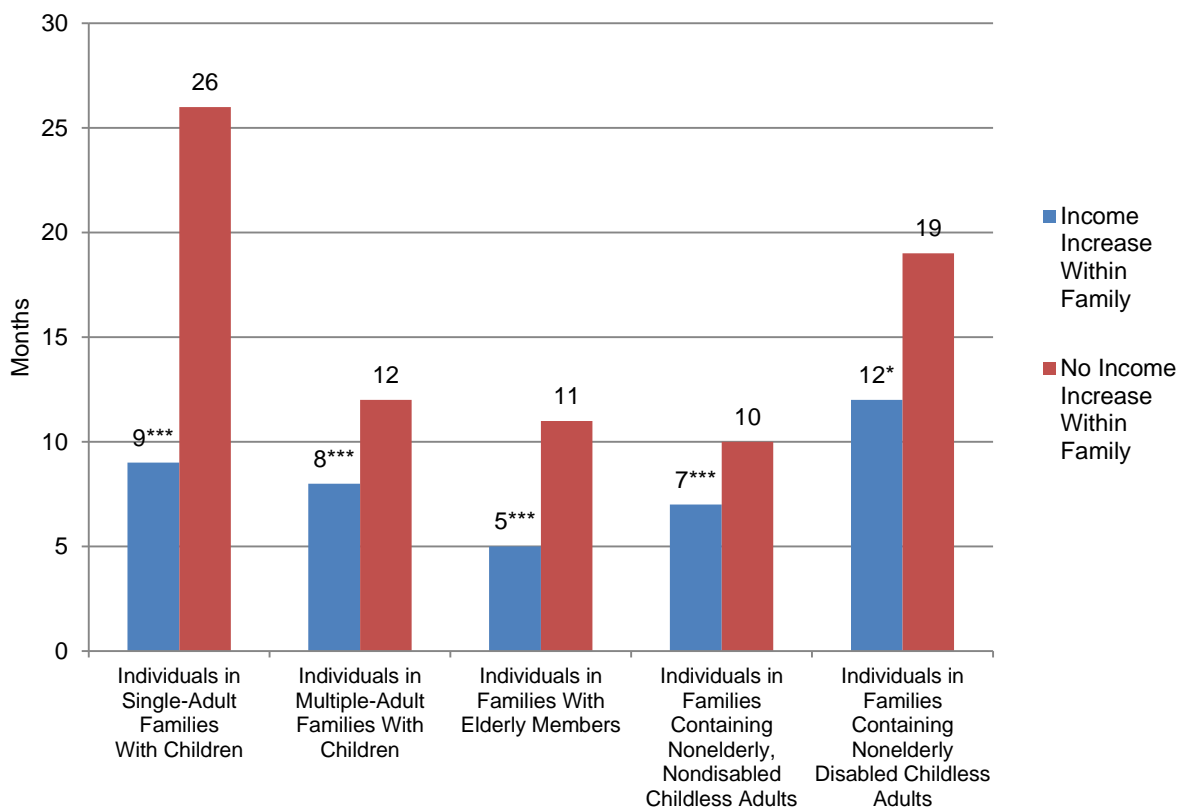
As in the full sample, SNAP spells were shorter for individuals that experienced an increase in income. As shown in Figure IV.1 and Table IV.2, the largest difference in spell lengths for participants that experienced and did not experience an increase in income existed for individuals in single-adult families with children (9 months for those with an increase in income and 26 months for those without an increase in income). The next largest differences in median spell lengths were for individuals in families containing nonelderly disabled childless adults (12 and 19 months, respectively) and individuals in families with elderly members (5 and 11 months,

²⁵ The median spell length for individuals living in States with longer certification periods is statistically different from the median spell length for individuals living in States with shorter certification periods; however, the difference is very small and is not shown when rounded.

²⁶ Though not included in the table, we also found that during the first year of participation, the longer amount of time an individual spent on SNAP, the less likely the individual was to leave the program. While we have included regression-adjusted medians in the table that are based on these spell durations to be consistent with the other table rows, it is more natural to present evidence of duration dependence using the association between spell length and the likelihood of exiting SNAP. That is, by using the raw hazard regression coefficients. These are available in Appendix C.

respectively). Finally, individuals in multiple-adult families with children (8 and 12 months, respectively) and individuals in families with nonelderly nondisabled childless adults (7 and 10 months, respectively) had smaller, but still sizable, differences.

Figure IV.1 Regression-Adjusted Median SNAP Spell Lengths for Individuals, by Increase in Income and Their Family Composition Subgroup



Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: * Difference in median spell length among those with and without an increase in income significantly different from zero at the 0.10 level, two-tailed test.
 *** Difference in median spell length among those with and without an increase in income significantly different from zero at the 0.01 level, two-tailed test.

Table IV.2 Regression-Adjusted Median SNAP Spell Length (Months) by Occurrence of Trigger Event, by Subgroup, 2008 SIPP Panel

	Job Gain within Family	No Job Gain within Family	Income Increase within Family	No Income Increase within Family	New Marriage within Family	No New Marriage within Family	Decrease in Family Size	No Decrease in Family Size
Individuals in single- adult families with children	16	14	9***	26	6**	15	19	13
Individuals in multiple- adult families with children	9	10	8***	12	16	10	9**	11
Individuals in families with elderly members	5***	10	5***	11	7	9	5***	11
Individuals in families containing nonelderly nondisabled childless adults	5***	9	7***	10	27	8	8	9
Individuals in families containing nonelderly disabled childless adults	10*	17	12*	19	44	16	13	18
Individuals in families containing citizen adults and citizen children	9	11	8***	12	9	10	10*	11
Individuals in families containing noncitizen adults and citizen children	17	13	5***	26	> 51	13	12	14
Individuals in families with earnings	8**	9	6***	11	12	9	8***	9
Individuals in families without earnings	8***	16	12**	16	13	14	13*	15
Individuals in families with Social Security or SSI	8***	11	8***	12	10	11	7***	12
Individuals in families without Social Security or SSI	8***	11	8***	13	15	10	10	10

Table continues

Table IV.2, continued

	Job Gain within Family	No Job Gain within Family	Income Increase within Family	No Income Increase within Family	New Marriage within Family	No New Marriage within Family	Decrease in Family Size	No Decrease in Family Size
Individuals in families with TANF income	4	7	4**	8	4	7	5	8
Individuals in families without TANF income	8***	11	8***	13	12	11	9***	11
Individuals in states with certification periods longer than the average certification period	9**	12	8***	14	12	12	11	12
Individuals in states with certification periods at or below the average certification period	8***	10	7***	12	10	10	8***	11
Individuals in states offering broad-based categorical eligibility	8***	11	8***	13	12	11	9***	11
Individuals in states that exclude all or most vehicles	8	9	6***	12	49	9	9	9
Individuals in states that exclude one or fewer vehicles for SNAP unit	5**	13	18**	7	4	10	6**	15
Individuals participating in SNAP for first time	7***	9	6***	11	7	8	8*	9
Individuals that have participated in SNAP previously	9***	12	8***	13	16	11	10***	12

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: Referent groups

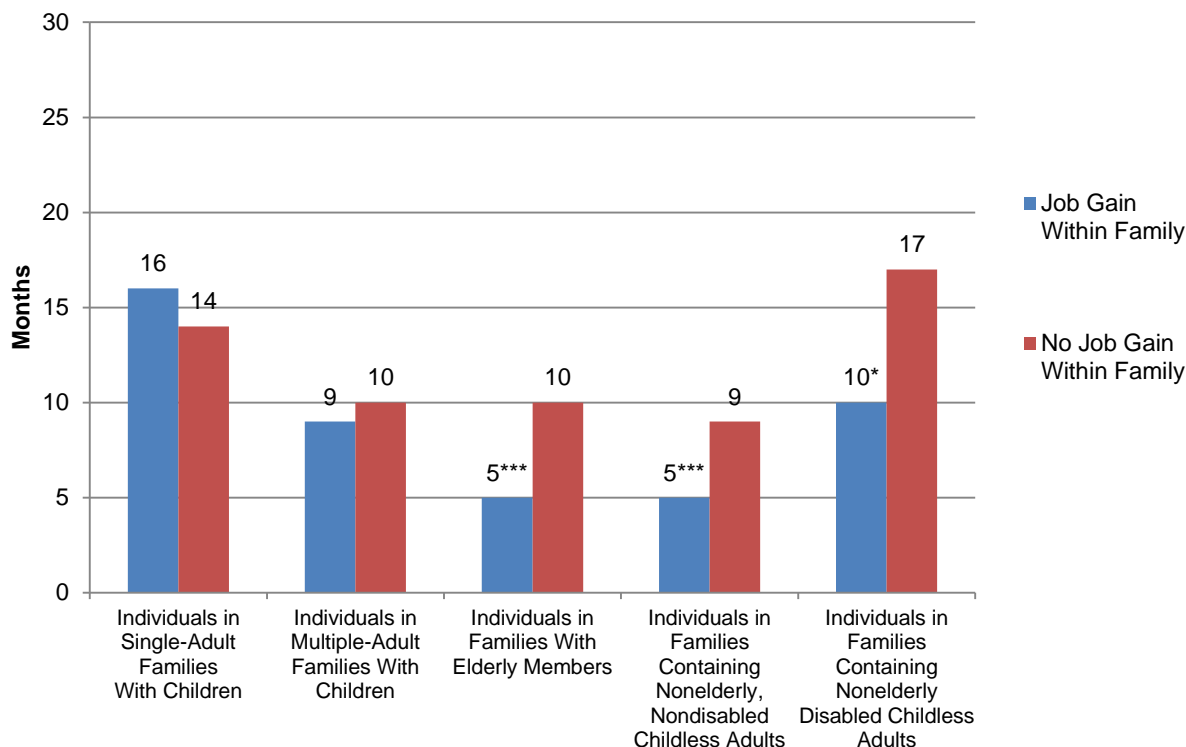
*Significantly different from median SNAP spell length for referent group at the .10 level, two-tailed test.

**Significantly different from median SNAP spell length for referent group at the .05 level, two-tailed test.

***Significantly different from median SNAP spell length for referent group at the .01 level, two-tailed test.

Having a family member gain a job was associated with shorter SNAP durations for several subgroups (Figure IV.2). The difference in median spell lengths from experiencing and not experiencing a job gain was largest for individuals in families with nonelderly nondisabled childless adults (10 and 17 months, respectively) and individuals in families with elderly members (5 and 10 months, respectively).

Figure IV.2 Regression-Adjusted Median SNAP Spell Lengths for Individuals, by Job Gain and Their Family Composition Subgroup



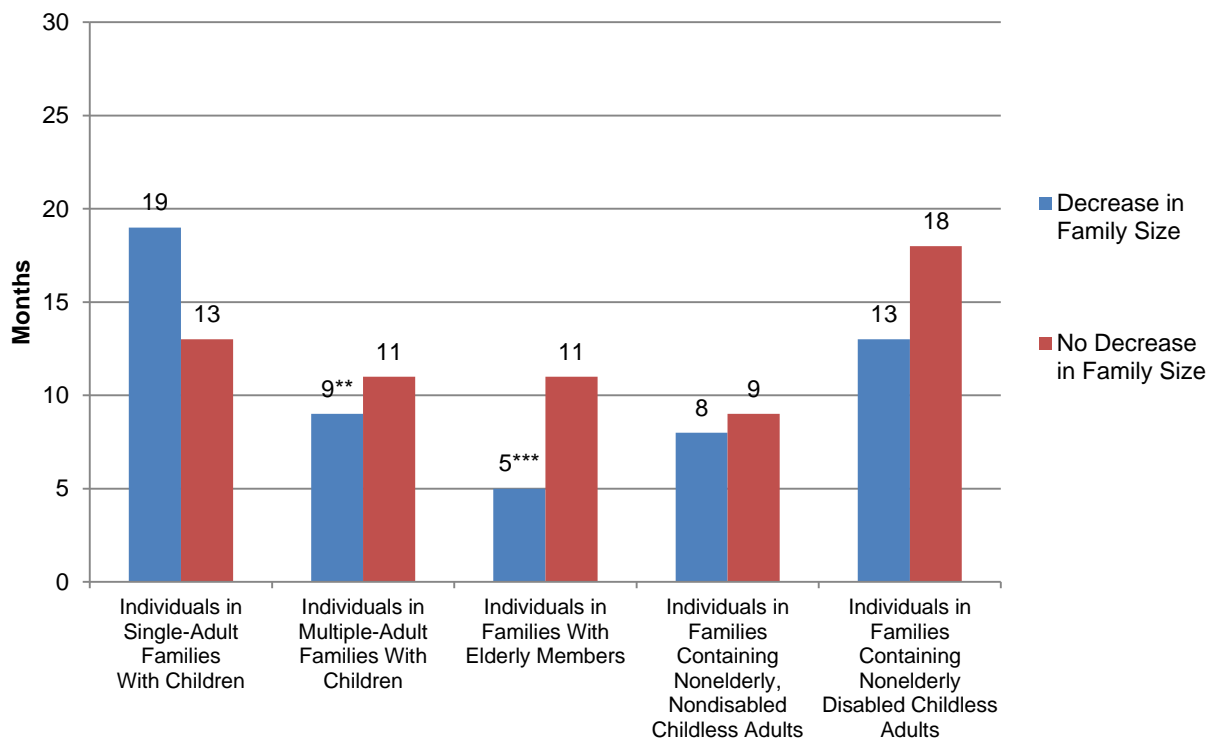
Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: * Difference in median spell length among those with and without a job gain significantly different from zero at the 0.10 level, two-tailed test.

*** Difference in median spell length among those with and without a job gain significantly different from zero at the 0.01 level, two-tailed test.

Decreases in family size were also typically associated with shorter SNAP spell lengths in several subgroups. Individuals in families with elderly members that experienced a decrease in family size had a median spell of 5 months compared to those without a decrease that had a spell of 11 months (Figure IV.3). Associations also existed for individuals in multiple-adult families with children (9 and 11 months, respectively).

Figure IV.3 Regression-Adjusted Median SNAP Spell Lengths for Individuals, by Decrease in Family Size and Their Family Composition Subgroup



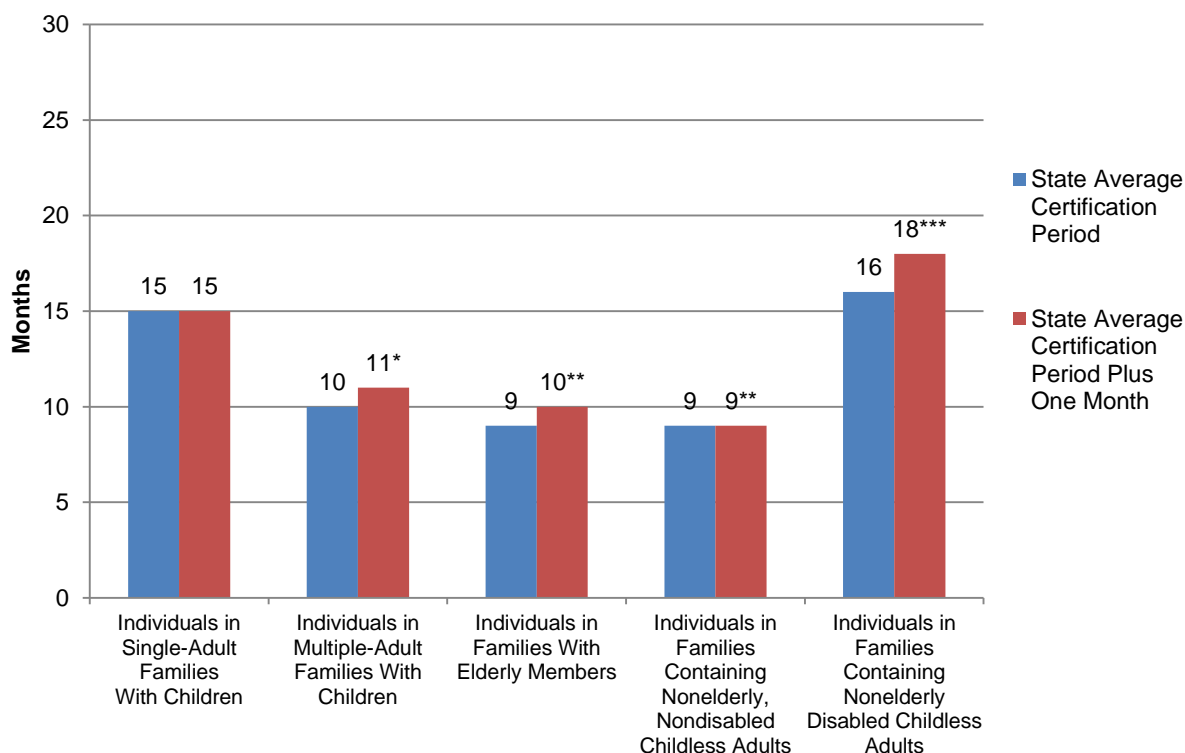
Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: ** Difference in median spell length among those with and without a decrease in family size significantly different from zero at the 0.05 level, two-tailed test.

*** Difference in median spell length among those with and without a decrease in family size significantly different from zero at the 0.01 level, two-tailed test.

Associations between SNAP spell length and certain SNAP policies also differed by family composition subgroup. SNAP spells were longer in States with longer certification periods for individuals in multiple-adult families with children, individuals in families with elderly members, and individuals in families with nonelderly nondisabled childless adults (Figure IV.4). The largest difference was for individuals in families with nonelderly disabled childless adults, who had a median SNAP spell length of 16 months in States with the average certification period and 18 months in States with a certification period one month longer than the average certification period. Smaller (one-month) differences existed for individuals in multiple-adult families with children and individuals in families with elderly members.

Figure IV.4 Regression-Adjusted Median SNAP Spell Lengths for Individuals, by Length of Certification Period in State and the Individual's Family Composition Subgroup



Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: * Difference in median spell length among those living in a State with the average certification period and those living in a state with the average certification period plus an additional month significantly different from zero at the 0.10 level, two-tailed test

** Difference in median spell length among those living in a State with the average certification period and those living in a state with the average certification period plus an additional month significantly different from zero at the 0.05 level, two-tailed test.

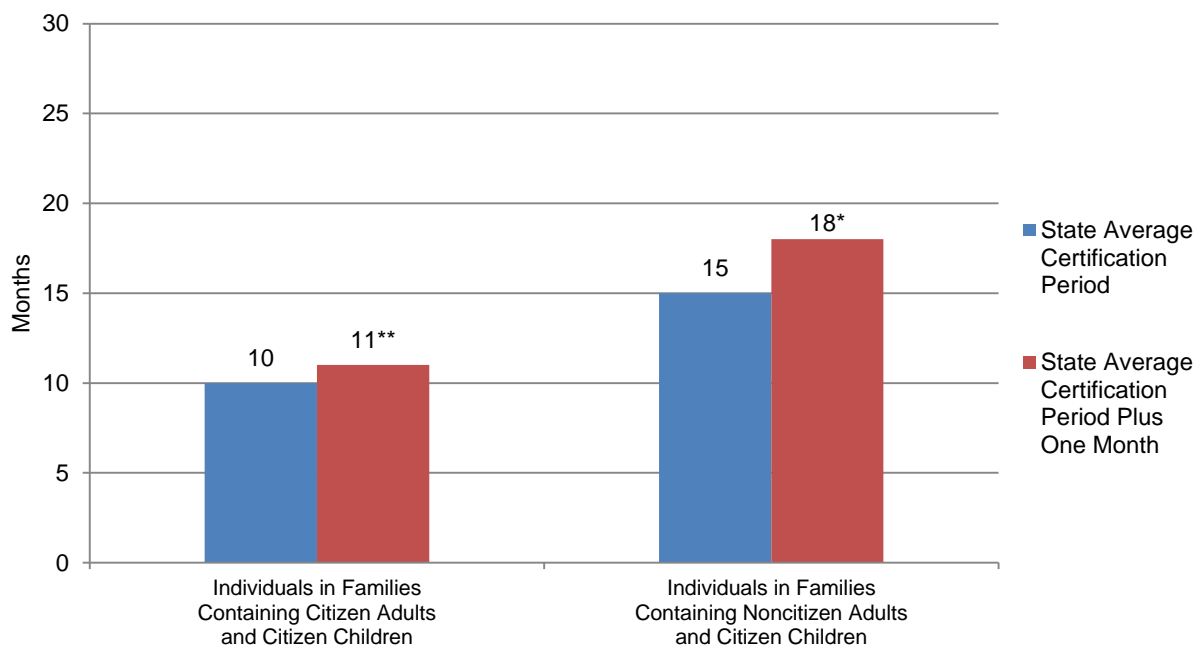
*** Difference in median spell length among those living in a State with the average certification period and those living in a state with the average certification period plus an additional month significantly different from zero at the 0.01 level, two-tailed test.

2. Citizenship Subgroups

The associations between the amount of time spent on SNAP and trigger events were generally similar for subgroups defined according to the citizenship of adults in families with citizen children (Table IV.2) in that for most subgroups, the differences were not statistically significant. A notable exception was for changes in income. Individuals in families with citizen adults and citizen children had a regression-adjusted median spell length of 8 months if they had an increase in income and 12 months if not (Table IV.2). For individuals in families containing noncitizen adults and citizen children, the difference was strikingly larger (5 versus 26 months, respectively).

SNAP spell lengths were longer in States with longer certification periods for individuals in families with citizen adults and citizen children and for individuals in families containing noncitizen adults and citizen children. The difference was three times larger, however, for individuals in families containing noncitizen adults and citizen children (3-month difference versus 1-month difference) (Figure IV.5).

Figure IV.5 Regression-Adjusted Median SNAP Spell Lengths for Individuals, by Length of Certification Period in State and the Adult and Children Citizen Status in Family



Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: * Difference in median spell length among living in a State with the average certification period and those living in a state with the average certification period plus an additional month significantly different from zero at the 0.10 level, two-tailed test.

** Difference in median spell length among those living in a State with the average certification period and those living in a state with the average certification period plus an additional month significantly different from zero at the 0.05 level, two-tailed test.

3. Income Sources Subgroups

We re-estimated the model for individuals differentiated by the presence of earnings, Social Security or SSI, and TANF.

Presence of earnings. The difference in spell lengths from a job gain was larger for individuals in families without earnings than for individuals in families with earnings (Table IV.2). Individuals in families with earnings had a median spell length of 8 months if they had recently experienced a job gain and 9 months if they had not. This compared to median spells that were 8 and 16 months long, respectively, for individuals without earnings. The difference from an increase in income was more comparable for individuals in families with earnings (6 months for those with an increase in income and 11 months for those without one) and individuals in families without earnings (12 and 16 months, respectively). The same was true for a decrease in family size, with differences of 1 month for individuals in families with earnings (8 months for those with a decrease in family size and 9 months for those with no decrease in family size), and 2 months for individuals in families without earnings (13 and 15 months, respectively).

Social Security Income or SSI. Recently experiencing a job gain or an increase in income were associated with having shorter SNAP spells for individuals living in families receiving Social Security income or SSI and individuals in families who did not receive this income (Table IV.2). The differences among individuals that experience these events were similar for both groups. Experiencing a decreasing a family size was associated with shorter spells only for individuals that received Social Security or SSI. Individuals who received this income had a median spell length of 7 months if they had recently had a decrease in family size and 12 months if they had not. This compares to spells that were 10 months long for individuals without Social Security income or SSI regardless of whether they had experienced a decrease in family size.

TANF. Increases in income were associated with having shorter SNAP durations both for individuals living in families that received TANF benefits and individuals in families that did not receive TANF benefits. The difference in median spell lengths, however, was slightly larger for those not receiving TANF. For individuals in families receiving TANF, the medians were 4 and 8 months for individuals that did and did not experience an increase in family income, respectively. For individuals in non-TANF families, these estimates were 8 and 13 months. In addition, a job gain and a decrease in family size were each associated with having shorter SNAP durations, but only for individuals in non-TANF families; there were no observed associations for those receiving TANF.

4. SNAP Policy Subgroups

There were few differences in the associations between trigger events and SNAP spell lengths according to whether an individual lived in a State that offers broad-based categorical eligibility. Individuals that lived in families that experienced a job gain had shorter SNAP spell

lengths than those who did not experience a job gain if they lived in States offering broad-based categorical eligibility or in States that excluded one or no vehicles per SNAP unit from countable assets (Table IV.2). There was no significant difference for individuals in States that exclude all or most vehicles.

The associations between trigger events and SNAP spell length generally did not differ by the average length of certification period in the State. Individuals that lived in families that experienced a job gain or increase in income had shorter spell lengths than those that did not experience a job gain or increase in income regardless of whether the individuals lived in States with longer certification periods. A decrease in family size was associated with shorter SNAP spell lengths only for individuals in States with shorter certification periods.

5. Subgroups Defined by Prior Participation in SNAP

The associations between trigger events and SNAP spell lengths differ according to whether an individual lived in a family that had participated in SNAP prior to their current spell. Job gains, income decreases, and decreases in family size were associated with shorter median SNAP durations both for individuals that had participated previously and for first-time participants. For job gains and decreases in family size, the difference in regression-adjusted median spell lengths for individuals that had experienced an increase in income and those who had not was slightly smaller for first-time participants. For first-time participants, the difference from experiencing a job gain was a 2-month difference (7 versus 9 months, respectively), compared to a 3-month difference (9 versus 12 months, respectively) for those who had participated in SNAP previously. Similarly, the difference from experiencing a decrease in family size was a 1-month difference for first-time participants, compared to a 2-month difference for individuals that had participated in SNAP previously.

V. THE DETERMINANTS OF SNAP RE-ENTRY

In this chapter we examine the determinants of re-entering SNAP in the 2008 SIPP panel. Although re-entry is a special case of SNAP entry examined in chapter II, the analysis more closely mirrored that of SNAP duration. We estimated a model that related the probability of entering SNAP with individuals' demographic and economic characteristics; changes in employment, income, marital status, and family size; State economic conditions; and SNAP policy measures. We translated all model results to regression-adjusted median lengths of spells off SNAP and regression-adjusted percentages of individuals with spells lasting 12 months or less.²⁷ The raw regression coefficients are found in tables in Appendix C. Below, we present our main findings for the full sample of SNAP exiters and then discuss how the findings differ across subgroups. We only discuss findings that were statistically significant at the 0.10 level or higher.

A. Re-entry Model Estimation Results for the Full Sample

We begin by examining the regression-adjusted median length of SNAP nonparticipation spells for the full population of nonparticipants that have participated previously in the panel. Table V.1 contains the regression-adjusted spell lengths for each of the characteristics considered in the model. Differences between two regression-adjusted medians, such as those for individuals ages 18-29 and those age 65 or older, reflect the effect of the explanatory variable (age) on the probability of re-entering SNAP after accounting for the differences in the other characteristics included in the model.

²⁷ For some variables in the subgroup analyses, the regression-adjusted median nonparticipation spell length may be beyond the length of the observation period (51 months). When this is the case and the medians for both groups were greater than 51 months, we examine the left tails of the nonparticipation spell distributions and compare the percentages of each group that re-entered SNAP as of 12 months into their nonparticipation spells. The group for which a smaller percentage of individuals re-entered SNAP as of 12 months was likely to have longer nonparticipation spell lengths.

Table V.1 Regression-Adjusted Median SNAP Nonparticipation Spell Lengths by Participant Characteristic, 2008 SIPP Panel

Characteristic	Median	Percentage of Individuals with Spells Lasting 12 Months or Less
All Individuals	20	42
Sex		
Male	22	41
Female (referent group)	19	43
Race/Ethnicity		
White, Non-Hispanic	22	41
Black, Non-Hispanic	15***	47
Other, Non-Hispanic	20	42
Hispanic (referent group)	24	40
Age		
18 to 29 (referent group)	16	45
30 to 49	20	42
50 to 64	24**	40
65 and older	35***	34
Citizenship		
Citizen	20	42
Noncitizen (referent group)	17	44
Education		
Highest Grade Completed		
0 to 8 (referent group)	19	43
9 to 11	16	46
12	17	44
13 and above	26	39
Family Composition		
Mean number of adults age 18-59 (referent group)	20	42
One adult more than the mean number of adults age 18-59	25***	39
Mean number of adults age 60+ (referent group)	20	42
One adult more than the mean number of adults age 60+	17	44
Mean number of children less than age 6 (referent group)	20	42
One child more than the mean number of children less than age 6	14***	48
Mean number of children between ages 6 to 17 (referent group)	20	42
One child more than the mean number of children between ages 6 to 17	19	43

Table continues

Table V.1, continued

Characteristic	Median	Percentage of Individuals with Spells Lasting 12 Months or Less
Marital Status		
Currently married	23	40
Not currently married (referent group)	19	43
Employment Status		
Currently employed	23*	40
Have not worked 1 to 5 months	17	44
Have not worked 6 to 11 months	15	46
Have not worked at least 12 months (referent group)	18	44
Ratio of Family Income to Poverty Level		
Less than 100 percent (referent group)	14	48
100 percent to less than 150 percent	20***	42
150 percent to less than 200 percent	24***	39
200 percent and above	31***	36
Net Worth		
Greater than \$0	22*	41
\$0 or negative (referent group)	17	44
Greater than \$25,000	22	41
\$25,000 or less (referent group)	19	43
Other Income		
Receive TANF	15	47
No TANF (referent group)	20	42
Receive SSI or general assistance	21	42
No SSI or general assistance (referent group)	20	42
Receive WIC, Medicaid or housing subsidies	12***	52
No WIC, Medicaid or housing subsidies (referent group)	29	37
Receive alimony or child support	21	41
No receipt of alimony or child support (referent group)	20	42
Benefit History		
Spell is first ever	25***	39
Spell is not first ever	17	44
Health Status and Medical Costs		
In fair or poor health	16***	46
Health good or better (referent group)	22	41
Out-of-pocket medical costs greater than \$1000	35***	34
Out-of-pocket medical costs \$1000 or less (referent group)	19	43

Table continues

Table V.1, continued

Characteristic	Median	Percentage of Individuals with Spells Lasting 12 Months or Less
Entry Trigger Events		
Job loss within family	11***	53
No job loss within family (referent group)	22	41
Decrease in income within family	14***	48
No decrease in income within family (referent group)	26	39
Separation or divorce within family	16	46
No separation or divorce within family (referent group)	20	42
Increase in family size within family	12***	51
No increase in family size within family (referent group)	21	41
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	20	42
One percentage point above the mean state unemployment rate	21**	42
20th percentile wage (referent group)	20	42
One dollar more than the 20th percentile wage	18	43
Region of Residence		
Northeast	33	35
Mid-Atlantic	28	37
Midwest	18	44
Southeast	17	44
Southwest	16	45
Mountain Plains	16	45
Western (referent group)	23	41
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	19	43
State excludes all or most vehicles	23	40
State excludes one or fewer vehicles for SNAP unit (referent group)	31	36
Certification Period		
State average certification period (referent group)	20	42
State average certification period plus 1 month	19**	43
Program Outreach Expenditures ^a		
Mean outreach expenditures per capita (referent group)	20	42
One additional cent to mean outreach expenditures per capita	20	42
Number of Spell Month observations	67,240	

Sources: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: *Significantly different from median nonparticipation spell length (or percentage of individuals with spell lasting 12 months or less) for referent group at the .10 level, two-tailed test.
 **Significantly different from median nonparticipation spell length (or percentage of individuals with spell lasting 12 months or less) for referent group at the .05 level, two-tailed test.
 ***Significantly different from median nonparticipation spell length (or percentage of individuals with spell lasting 12 months or less) for referent group at the .01 level, two-tailed test.
 ^a Results should be interpreted with caution as not all SNAP units in states with positive outreach expenditures may be affected by the state's outreach expenditures.

1. Demographic Characteristics

Several demographic characteristics were associated with the length of time spent off SNAP. Individuals had shorter regression-adjusted off spells (i.e., were more likely to re-enter SNAP) if they were black, non-Hispanic (relative to being Hispanic) or had a larger number of children ages 0 to 6. Individuals had longer off spells (that is, are less likely to re-enter SNAP) if they were ages 50 and older (relative to those ages 18 to 29). For example, the regression-adjusted median nonparticipation spell length was 15 months for black, non-Hispanic individuals versus more than 24 months for Hispanics. The median nonparticipation spell length was 24 months for individuals that were between 50 and 64 years old and 35 months for individuals that were age 65 and older, compared to 16 months for individuals that were age 18 to 29.

2. Economic Characteristics

The length of time spent off SNAP prior to re-entering was also associated with a number of economic characteristics. Individuals had longer nonparticipation spells (that is, were less likely to re-enter SNAP) if they had more income; had a positive net worth; or were employed. They had shorter nonparticipation spells (that is, were more likely to re-enter) if they were receiving noncash benefits such as WIC, Medicaid, or public housing subsidies or had a family member in fair or poor health. For example, individuals with family incomes below 100 percent of the federal poverty threshold had a median nonparticipation spell of 14 months compared to 20 months for nonparticipants with family incomes between 100 and 150 percent, 24 months for nonparticipants with family incomes between 150 and 200 percent, and 31 months for nonparticipants with family incomes 200 percent of poverty or greater. Regression-adjusted median nonparticipation spells were longer for individuals employed at the time of the panel relative to those who had not worked for more than a year (23 months versus 18 months, respectively) and for individuals with positive net worth relative to those with zero net worth (22 months versus 17 months). Individuals who received noncash benefits such as WIC, Medicaid, or public housing subsidies had a median SNAP nonparticipation spell length of 12 months compared to 29 months for those without these benefits. Finally, individuals in families that had a family member in fair or poor health had a median nonparticipation spell length of 16 months, compared to the 22 months for participants whose families were in “good or better” health.

3. Trigger Events

Changes in employment, income, and family composition were strongly associated with the length of time spent off SNAP prior to re-entry. Individuals in families that experienced a job loss had a regression-adjusted median nonparticipation spell length of 11 months compared to 22 months for individuals living in families with no job loss. Individuals living in families that experienced an increase in family size were also more likely to re-enter SNAP compared to those without an increase in family size (median nonparticipation spell lengths were 12 and 21 months, respectively). Similarly, individuals living in families that experienced a decrease in income were also more likely to re-enter SNAP compared to those without a decrease in income—median nonparticipation spell lengths were 14 and 26 months, respectively.

4. State Economic and Policy Variables

The findings were mixed regarding whether labor market conditions in the State in which individuals resided were associated with SNAP nonparticipation spell lengths. States with higher unemployment rates were associated with slightly longer nonparticipation spell lengths. A one-percentage-point increase in the unemployment rate was associated with a 1-month longer nonparticipation spell (21 versus 20 months). There was no association between nonparticipation spell length and the 20th percentile wage in the State, however.

SNAP certification periods were also associated with nonparticipation spell lengths. Individuals in States with longer certification periods had shorter nonparticipation spell lengths. For example, individuals in States with the mean certification period spent 20 months off SNAP, compared to 19 months for individuals in States with a certification period that was one month longer.

5. Spell Characteristics

Individuals for whom the previous spell was their first time participating in SNAP had longer nonparticipation spell lengths than “repeaters” who had previously participated in the program. Those whose previous participation spell was their first time on SNAP had median nonparticipation spell lengths of 25 months, compared to “repeaters” who stayed off SNAP an average of 17 months.²⁸

B. Re-entry Model Estimation Results for Subgroups

The determinants of SNAP re-entry differed across subgroups defined by family composition, sources of income, and SNAP policies. We focus on cross-subgroup differences in

²⁸ Though not presented in the table, the longer amount of time an individual spent off SNAP, the less likely the individual was to re-enter the program. While we have included regression-adjusted medians in the table that are based on these spell durations to be consistent with the other table rows, it is more natural to present evidence of duration dependence using the association between spell length and the likelihood of re-entering SNAP. That is, by using the raw hazard regression coefficients. These are available in Appendix C.

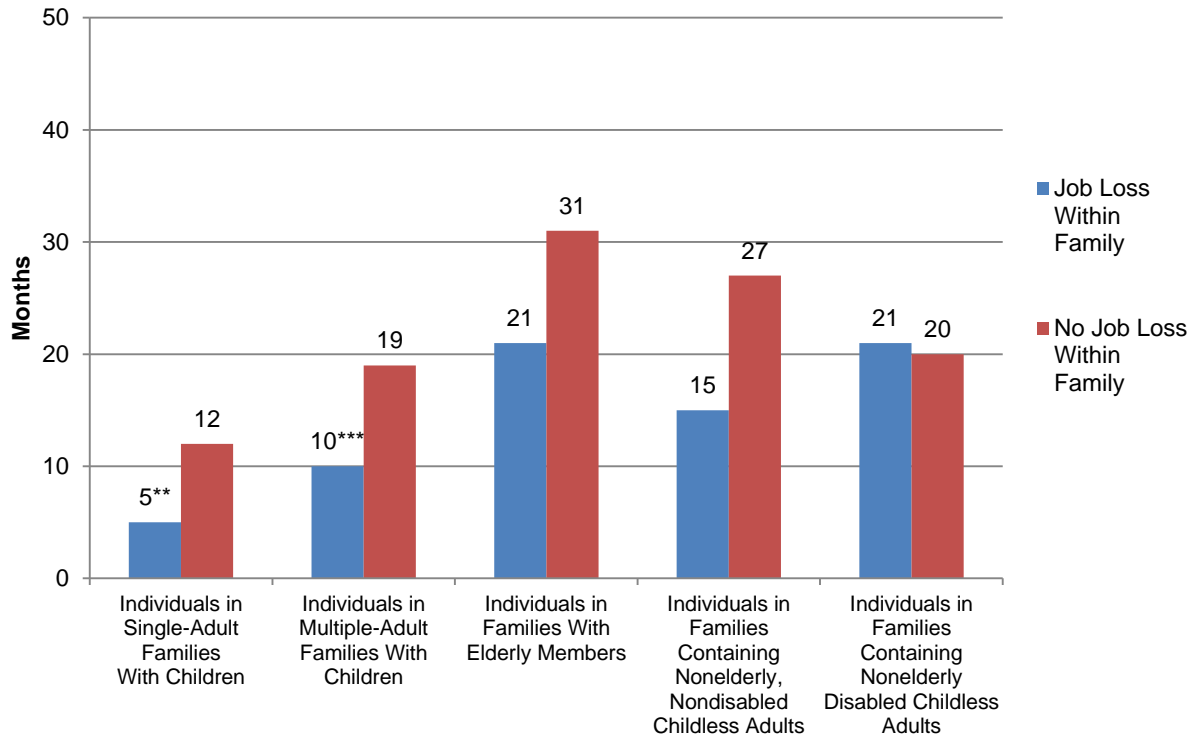
the associations between SNAP nonparticipation spell lengths and trigger events in this section because changes in employment, income, and family composition have historically been the main determinants of SNAP re-entry and because few studies have examined the associations between SNAP policies and nonparticipation spell lengths.²⁹ The full set of results, including the associations with demographic and economic factors, can be found in Appendix D.

1. Family Composition Subgroups

Experiencing a job loss in the family was associated with shorter SNAP nonparticipation spells for individuals in single-adult families with children and individuals in multiple-adult families with children (Figure V.1; Table V.2). The difference in median nonparticipation spell lengths from experiencing and not experiencing a job loss was 7 months for individuals in families with single-adult families with children (5 and 12 months, respectively) and 9 months for individuals in families with multiple-adult families with children (10 and 19 months, respectively).

²⁹ Although in the entry and duration analyses we also focused on the associations between SNAP entry and SNAP policies, there were very few significant associations between SNAP policies and the length of SNAP nonparticipation spells in most subgroup analyses.

Figure V.1 Regression-Adjusted Median SNAP Nonparticipation Spells Lengths for Individuals, by Job Loss and Their Family Composition Subgroup



Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: ** Difference in median spell length among those with and without a job loss significantly different from zero at the 0.05 level, two-tailed test

*** Difference in median spell length among those with and without a job loss significantly different from zero at the 0.01 level, two-tailed test

Table V.2 Regression-Adjusted Median SNAP Nonparticipation Spells Lengths by Occurrence of Trigger Event, by Subgroup, 2008 SIPP Panel

	Job Loss Within Family	No Job Loss within Family	Income Decrease within Family	No Income Decrease within Family	Divorce or Separation within Family	No Divorce or Separation within Family	Increase in Family Size	No Increase in Family Size
Individuals in single-adult families with children	5**	12	7**	16	> 51	11	11	11
Individuals in multiple-adult families with children	10***	19	14**	20	21	16	9***	18
Individuals in families with elderly members	21	31	29	31	8*	31	> 51	30
Individuals in families containing nonelderly nondisabled childless adults	15	27	13***	37	>51	26	15	27
Individuals in families containing nonelderly disabled childless adults	21	20	9***	36	4	21	27	20
Individuals in families containing citizen adults and citizen children	8***	19	13***	20	18	16	10***	17
Individuals in families containing noncitizen adults and citizen children	9	12	11	12	23	12	11	12
Individuals in families with earnings	11***	28	20**	29	21	25	11***	27
Individuals in families without earnings	13	13	6***	18	15	13	15	13
Individuals in families with Social Security or SSI	12**	20	18	19	8*	19	8***	20
Individuals in families without Social Security or SSI	11***	24	12***	33	> 51	21	15	22

Table continues

Table V.2, continued

	Job Loss Within Family	No Job Loss Within Family	Income Decrease Within Family	No Income Decrease Within Family	Divorce or Separation Within Family	No Divorce or Separation Within Family	Increase in Family Size	No Increase in Family Size
Individuals in families with TANF income	8	12	12	10	> 51	11	7*	12
Individuals in families without TANF income	12***	23	14***	27	16	21	13***	22
Individuals in states with certification periods longer than the average certification period	8***	21	13***	23	44	18	8***	20
Individuals in states with certification periods at or below the average certification period	13**	23	14***	28	8**	22	18	22
Individuals in states offering broad-based categorical eligibility	12***	22	14***	27	16	20	12***	22
Individuals in states that exclude all or most vehicles	11*	20	14	21	11	18	12	19
Individuals in states that exclude one or fewer vehicles for SNAP unit	12	25	7***	35	> 51	24	27	24
Individuals for whom last SNAP spell was first participation spell ever	21	28	15***	37	10	28	12***	30
Individuals for whom last SNAP spell was not first participation spell ever	8***	20	13***	22	27	18	13*	18

Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: Referent groups

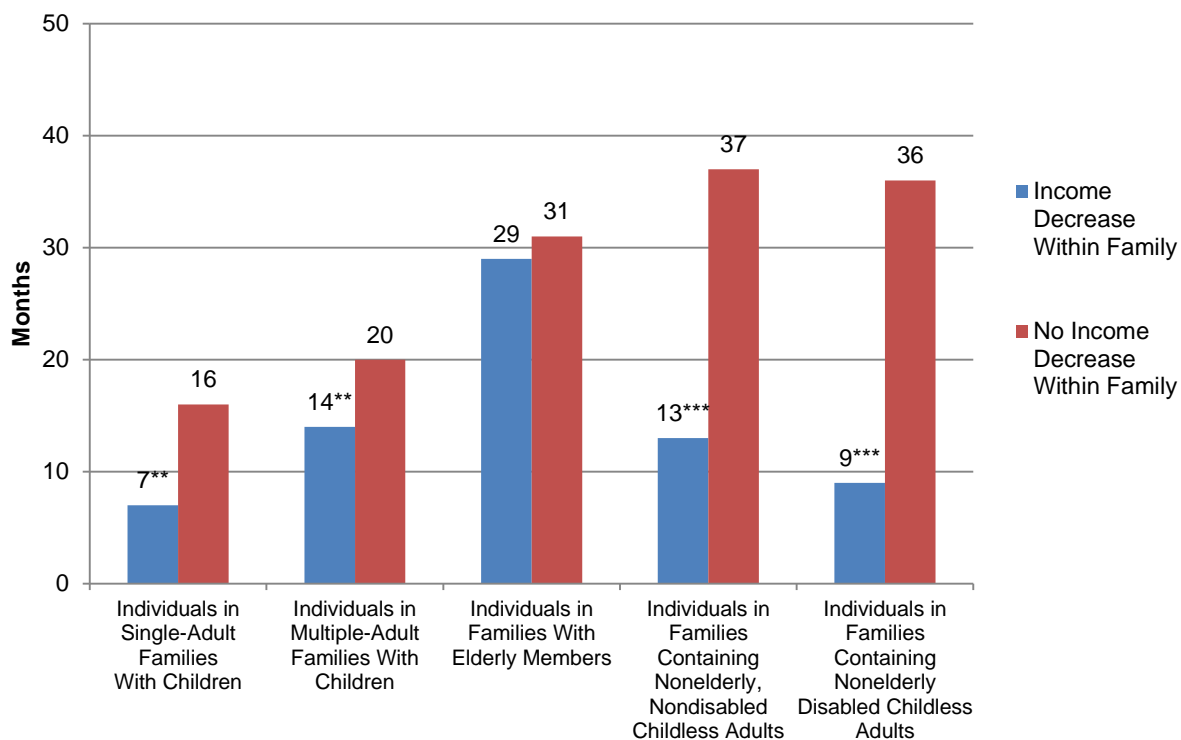
*Significantly different from median nonparticipation spell length for referent group at the .10 level, two-tailed test.

**Significantly different from median nonparticipation spell length for referent group at the .05 level, two-tailed test.

***Significantly different from median nonparticipation spell length for referent group at the .01 level, two-tailed test.

The length of time spent off SNAP prior to re-entering was shorter for individuals that experienced a decrease in income for all family composition subgroups except individuals in families with elderly members. The largest differences among the family subgroups in the median nonparticipation spell length to experiencing a decrease in income were for individuals in families containing nonelderly disabled childless adults (9 and 36 months, respectively) (Figure IV.2 and Table V.2). The smallest, but still statistically significant, difference occurred for individuals in multiple-adult families with children (a difference of 6 months).

Figure V.2 Regression-Adjusted Median SNAP Nonparticipation Spells Lengths for Individuals, by Decrease in Family Income and Their Family Composition Subgroup



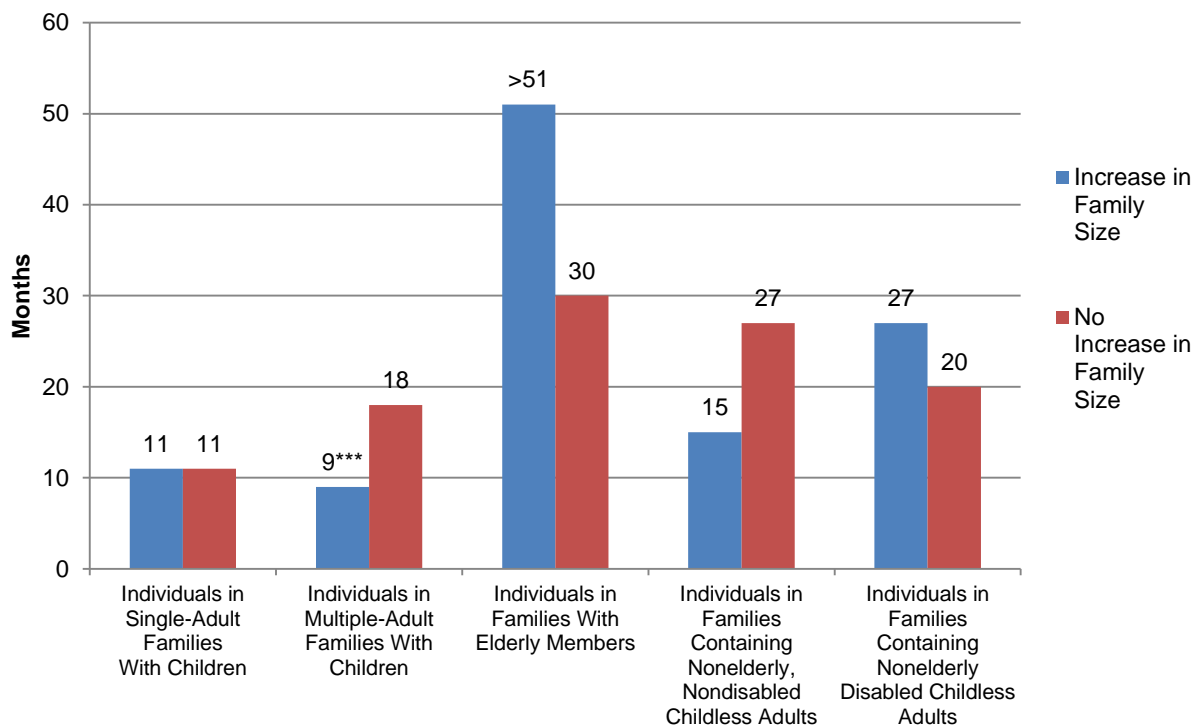
Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: ** Difference in median spell length among those with and without a decrease in income significantly different from zero at the 0.05 level, two-tailed test

*** Difference in median spell length among those with and without a decrease in income significantly different from zero at the 0.01 level, two-tailed test

Increases in family size were also associated with shorter lengths of time off SNAP, but only for individuals in multiple-adult families with children. The median nonparticipation spell length was 9 months for individuals that experienced an increase in family size and 18 months for individuals that did not experience an increase in family size (Figure V.3; Table V.2).

Figure V.3 Regression-Adjusted Median SNAP Nonparticipation Spells Lengths for Individuals, by Increase in Family Size and Their Family Composition Subgroup



Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: *** Difference in median spell length among those with and without an increase in family size significantly different from zero at the 0.01 level, two-tailed test

2. Citizenship Subgroups

The associations between the likelihood of re-entering SNAP and trigger events differed according to the citizenship of adults in families with citizen children (Table V.2). A job loss, a decrease in income, and an increase in family size were each associated with shorter lengths of time off SNAP, compared to individuals who did not experience these events, but only for individuals in families with citizen adults and citizen children. For example, for individuals in families with citizen adults and citizen children, the median nonparticipation spell length was 8 months for those that experienced a job loss and 19 months for those that did not. These trigger events were not associated with SNAP re-entry for individuals in families containing noncitizen adults and citizen children.

3. Income Sources Subgroups

We re-estimated the model for individuals broken out by the presence of earnings, Social Security or SSI, and TANF.

Presence of earnings. Although decreases in income were associated with the length of SNAP nonparticipation spell lengths for individuals in families with earnings and individuals in families without earnings, job losses and increases in family size were associated with nonparticipation spell lengths only for individuals in families with earnings. The differences were 17 months for those with and without a job loss (nonparticipation median spell lengths of 11 and 28 months, respectively) and 16 months for those with and without an increase in family size (nonparticipation spell lengths of 11 and 27 months, respectively) (Table V.2).

Social Security income or SSI. Job losses and decreases in income affected individuals differently based on whether or not they lived in families receiving Social Security income or SSI. While recently experiencing a decrease in income was associated with having shorter nonparticipation spells prior to re-entering the program only for individuals in families without Social Security income or SSI (median spells were 12 and 33 months for those with and without a decrease in income), experiencing an increase in family size was associated with having shorter nonparticipation spells only for individuals in families with Social Security income or SSI (median nonparticipation spells were 8 and 20 months for those with and without an increase in family size) (Table V.2).

TANF. Job losses and decreases in income were associated with having shorter SNAP nonparticipation spells only for individuals living in families that did not receive TANF benefits; there were no significant associations for individuals in families that did receive them. The medians for individuals in TANF families were 12 months versus 23 months for individuals that did and did not experience a job loss and 14 months versus 27 months for individuals that did and did not experience a decrease in family income, respectively (Table V.2). In addition, increases in family size were associated with SNAP re-entry for individuals in families with or without TANF, but the difference in median nonparticipation spell lengths was much larger for individuals in families without TANF.

3. SNAP Policy Subgroups

The associations between trigger events and the length of time spent off SNAP differed according to whether an individual lived in a State that offers broad-based categorical eligibility. SNAP nonparticipation spell lengths were associated with experiencing a job loss for individuals in States that offer broad-based categorical eligibility or in States that exclude all of most vehicles from countable assets, but were not associated with experiencing a job loss for individuals in States that exclude one or no vehicles per unit (Table V.2). For individuals living that lived in a State that offers broad-based categorical eligibility, the median nonparticipation

spell lasted 12 months for those that experienced a job loss compared to 22 months for those that did not.

Similarly, SNAP nonparticipation spell lengths were associated with experiencing an increase in family size for individuals in States that offer broad-based categorical eligibility, but were not associated with an increase in family size for individuals in States that exclude one or no vehicles per unit from countable assets or that exclude all or most vehicles from countable assets.

The associations between trigger events and the length of time spent off SNAP also differed according to whether an individual lived in a State with longer certification periods. Increases in family size were associated with spell length only for individuals in States with certification periods greater than the average certification period.

4. Subgroups Defined by Prior Participation in SNAP

The association between a job loss and SNAP nonparticipation spell lengths differed according to whether the last SNAP participation spell that the individual exited was his or her first time participating in the program. The difference in regression-adjusted median nonparticipation spell lengths was 12 months for individuals that were not first-time participants in their previous SNAP spell (8 months for those with a job loss and 20 months for those without a job loss); there was no association for first-time participants.

VI. SUMMARY AND DISCUSSION

In this chapter we synthesize our results from chapters III, IV, and V to provide a general picture of how individual, family, and State characteristics were associated with SNAP dynamics from 2008 to 2012. We also interpret these findings by classifying the characteristics according to factors related to perceived eligibility, expected benefit amount, costs of participation, household needs, household resources, and personal preferences and traits.

A. Summary of Entry Findings

The first column of Table VI.1 highlights the factors that we found to be positively associated with program entry (statistically significant at the 0.10 level or higher) and the monthly entry rate of individuals with these characteristics in comparison to their referent group's entry rate. Trigger events were highly associated with entry into SNAP. For example, 0.52 percent of individuals in families experiencing a recent (in the last four months) job loss entered SNAP each month from 2008 to 2012, compared to 0.32 percent of individuals in families not experiencing a recent job loss entered; this means that individuals experiencing a recent job loss were 60 percent more likely to enter SNAP each month than individuals in families not experiencing a job loss (Table VI.1).

Many demographic, economic, and State policy variables were associated with SNAP entry. For example, individuals were more likely to enter if they were female; black, non-Hispanic (relative to being Hispanic); unmarried; or a U.S. citizen. They were less likely to enter if they were white, non-Hispanic (relative to being Hispanic). They were also less likely to enter if they had more income or net worth, but were more likely to enter if they received TANF benefits or noncash benefits such as WIC, Medicaid, or public housing subsidies.

SNAP entry was more likely in States with worse labor market conditions, measured by the unemployment rate and the typical wage in the low-wage labor market. For example, a one-dollar increase in the 20th percentile wage decreased the average predicted SNAP entry rate from 3.4 in 1,000 people to 3.1 in 1,000 people.

Finally, certain SNAP policies implemented at the State level also affected an individual's likelihood of entering the program. Compared to the entry rate in States excluding one or fewer vehicles per SNAP unit from countable assets, the average predicted entry rate was 17 percent higher in States offering broad-based categorical eligibility and 25 percent higher in States without broad-based categorical eligibility policies but that exclude all or most vehicles.

Table VI.1 Factors Positively Associated with Program Entry ^a

Subgroup	Monthly Entry Rate	Referent Group	Monthly Entry Rate
Trigger Variables			
Individuals in families experiencing a recent job loss	0.52	Individuals in families not experiencing a recent job loss	0.32
Individuals in families experiencing a recent decrease in income ^b	0.38	Individuals in families not experiencing a recent decrease in income	0.31
Individuals in families with a separation or divorce	0.45	Individuals in families with no separation or divorce	0.34
Individuals in families with an increase in family size	0.56	Individuals in families without a recent increase in family size	0.32
Demographic Variables			
Females	0.37	Males	0.31
Black, non-Hispanic individuals	0.47	Hispanic individuals	0.35
Hispanic individuals	0.35	White, non-Hispanic individuals	0.29
Unmarried individuals	0.41	Married individuals	0.26
Citizens	0.35	Noncitizens	0.27
Age 18 to 29	0.39	Age 50 to 64	0.28
		Age 65 and older	0.19
Less education (completed up to grade 8)	0.41	Completed more than high school	0.26
Completed at most grades 9 to 11	0.50	Less education (completed up to grade 8)	0.41
More young children in the family (ages 0 to 5)	0.42	Fewer young children in the family (ages 0 to 5)	0.33
More school-age children (ages 17 and under) in the family	0.37	Fewer school-age (ages 17 and under) children in the family	0.33
Economic Variables			
More adults in the family (ages 18 to 59)	0.35	Fewer adults in the family (ages 18 to 59)	0.33
More adults in the family (ages 60 and older)	0.38	Fewer adults in the family (ages 60 and older)	0.34
Individuals receiving income through Temporary Assistance to Needy Families (TANF)	0.73	Individuals not receiving TANF income	0.33
Individuals receiving benefits through the Supplemental Nutrition Program for Women, Infants, and Children (WIC), Medicaid, or housing subsidies	0.70	Individuals not receiving benefits through WIC, Medicaid, or housing subsidies	0.26
Individuals not receiving SSI or general assistance	0.34	Individuals receiving SSI or general assistance	0.29
Individuals receiving alimony payments or child support	0.45	Individuals not receiving alimony payments or child support	0.33
Individuals with a family member in poor health	0.49	Individuals without a family member in poor health	0.29

Table continues

Table VI.1, *continued*

Subgroup	Monthly Entry Rate	Referent Group	Monthly Entry Rate
Economic Variables, <i>continued</i>			
Individuals with family income under poverty	0.61	Individuals with family income from 1.0 to 1.5 times the federal poverty level	0.49
		Individuals with family income from 1.5 to 2.0 times the federal poverty level	0.42
		Individuals with family income at least 2.0 times the federal poverty level	0.20
Individuals with net worth \$25,000 or less	0.44	Individuals with greater than \$25,000 in net worth	0.24
Individuals not working for 1 to 5 months	0.89	Individuals not working for at least a year	0.32
Individuals with out of pocket medical costs \$1,000 or less	0.35	Individuals with out of pocket medical costs greater than \$1,000	0.25
State Economic & Policy Variables			
Individuals living in states with higher unemployment rates ^c	0.34	Individuals living in states with lower unemployment rates	0.34
Individuals living in states with broad-based categorical eligibility	0.33	Individuals living in states excluding one or fewer vehicles per SNAP unit from countable assets	0.29
Individuals living in states excluding all or most vehicles from countable assets	0.36		
Individuals living in states with lower outreach expenditures ^d	0.34	Individuals living in states with higher outreach expenditures	0.33
Individuals living in states with lower 20th percentile wages	0.34	Individuals living in states with higher 20th percentile wages	0.31

Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: ^a Monthly entry rates based on individuals age 18 and older.

^b Changes in employment, income, and family composition are defined to be mutually exclusive.

^c Entry rates are statistically different despite being equal after rounding.

^d Results should be interpreted with caution as not all SNAP units in States with positive outreach expenditures may be affected by the State's outreach expenditures.

B. Summary of Duration Findings

In the first column of Table VI.2, we present factors, as measured at the start of their spell, that are positively associated with longer spell length (statistically significant at the 0.10 level or higher) and the median spell length. As with entry, triggers such as a change in employment or income were highly associated with spell length. Several demographic and economic characteristics were associated with the length of SNAP participation spells. Individuals had longer regression-adjusted spells (i.e., were less likely to exit SNAP), for example, if they were female; age 50 to 64 (relative to ages 18 to 29); or married. Individuals also had longer spells if they had less income; were not receiving TANF benefits; were receiving noncash benefits such as WIC, Medicaid, or public housing subsidies; and were receiving SSI or general assistance. Unlike SNAP entry, the length of time on SNAP was not associated with State labor market conditions and SNAP policies in the State. Whether an individual had participated in SNAP previously, however, was an important determinant of spell length.

Table VI.2 Factors Associated with Longer Spell Length

Subgroup	Median Spell Length (Months)	Referent Group	Median Spell Length (Months)
Trigger Variables			
Individuals in families not experiencing a recent job gain	11	Individuals in families experiencing a recent job gain	8
Individuals in families not experiencing a recent increase in income	12	Individuals in families experiencing a recent increase in income	8
Individuals not experiencing a recent decrease in family size	11	Individuals experiencing a recent decrease in family size	9
Demographic Variables			
Females	11	Males	9
Noncitizens	13	Citizens	10
Age 50 to 64	11	Age 18 to 29	10
Married individuals	11	Unmarried individuals	10
More young children in the family (ages 0 to 5)	11	Fewer young children in the family (ages 0 to 5)	10
More school-age children (ages 6 to 17) in the family	11	Fewer school-age (ages 6 to 17) children in the family	10
Fewer adults in the family (ages 18 to 59)	11	More adults in the family (ages 18 to 59)	9
Fewer adults in the family (ages 60 and older)	10	More adults in the family (ages 60 and older)	8

Table continues

Table VI.2, continued

Subgroup	Median Spell Length (Months)	Referent Group	Median Spell Length (Months)
Economic Variables			
Individuals receiving benefits through WIC, Medicaid, or housing subsidies	15	Individuals not receiving benefits through WIC, Medicaid, or housing subsidies	9
Individuals with a family member in poor health	12	Individuals without a family member in poor health	10
Individuals with family income under poverty	13	Individuals with family income from 1.5 to 2.0 times the federal poverty level	8
		Individuals with family income at least 2.0 times the federal poverty level	8
Individuals receiving SSI or general assistance	13	Individuals not receiving SSI or general assistance	10
Individuals not receiving TANF income	10	Individuals receiving TANF income	8
Prior Participation & Spell Characteristics			
Individuals who previously participated in SNAP	11	Individuals who did not previously participate in SNAP	9

Source: Decision Demographics tabulations of the 2008 SIPP Panel.

C. Summary of Re-entry Findings

Table VI.3 presents the factors that we found to be positively associated with a shorter spell off SNAP prior to re-entering (that is, quicker re-entry). We show the regression-adjusted median lengths of SNAP nonparticipation spells for individuals with the given characteristic at the start of the nonparticipation spell. Several factors that were associated with a higher rate of entry were also associated with quicker re-entry, including having less income, being younger, receiving noncash benefits such as WIC, Medicaid, or public housing subsidies, and experiencing changes in employment, income, and family composition. However, there were several factors that affected entry, but not re-entry, evidenced by the characteristics included in Table VI.1 that are not in Table VI.3. These include sex, citizenship, education, presence of elderly adults or children ages 6 to 17 in the family, marital status, receipt of TANF, and living in a State with broad-based categorical eligibility.

Table VI.3 Factors Associated with Quicker Re-entry

Subgroup	Median Non-Participation Spell Length (Months)	Referent Group	Median Non-Participation Spell Length (Months)
Trigger Variables			
Individuals in families experiencing a recent job loss	11	Individuals in families not experiencing a recent job loss	22
Individuals in families experiencing a recent decrease in income	14	Individuals in families not experiencing a recent decrease in income	26
Individuals in families with an increase in family size	12	Individuals in families without a recent increase in family size	21
Demographic Variables			
Black, non-Hispanic individuals	15	Hispanic individuals	24
More young children in the family (ages 0 to 5)	14	Fewer young children in the family (ages 0 to 5)	20
Fewer adults in the family (ages 18 to 59)	20	More adults in the family (ages 18 to 59)	25
Age 18 to 29	16	Age 50 to 64	24
		Age 65 and older	35
Economic Variables			
Individuals receiving benefits through WIC, Medicaid, or housing subsidies	12	Individuals not receiving benefits through WIC, Medicaid, or housing subsidies	29
Individuals with family income under poverty	14	Individuals with family income from 1.0 to 1.5 times the federal poverty level	20
		Individuals with family income from 1.5 to 2.0 times the federal poverty level	24
		Individuals with family income at least 2.0 times the federal poverty level	31
Individuals with zero or negative net worth	17	Individuals with positive net worth	22
Individuals who have not worked for at least one year	18	Individuals who are currently employed	23
Individuals with out of pocket medical costs greater than \$1,000	19	Individuals with out of pocket medical costs \$1,000 or less	35
State Economic & Policy Variables			
Individuals living in states with lower unemployment rates	20	Individuals living in states with higher unemployment rates	21
Living in a state with longer certification period	19	Living in a state with shorter certification period	20
Prior Participation & Spell Characteristics			
Individuals who did not previously participated in SNAP prior to last SNAP spell	17	Individuals who did previously participated in SNAP prior to last SNAP spell	25

Source: Decision Demographics tabulations of the 2008 SIPP Panel.

D. Synthesis of Entry and Duration Findings: Demographic and Economic Characteristics

Tables VI.1 and VI.2 summarized our findings by type of characteristic (demographic, economic, trigger event, State economic and policy, and prior participation and spell type) for SNAP entry and duration. Some characteristics were associated with both entry and duration during this period. Individuals that were more likely to enter SNAP and more likely stay on longer included those that

- were female (relative to male)
- had a greater number of young children (ages 0 to 5)
- had a greater number of older children (ages 6 to 17)
- had lower income as a percentage of poverty (relative to higher income)
- received noncash benefits such as WIC, Medicaid, or public housing subsidies
- had a family member in fair or poor health (relative to not having a family member in fair or poor health)

In contextual models of SNAP participation decisions (Mabli and Ohls 2012; Gundersen and Oliveira 2001; Keane and Moffit 1998), a household first considers its eligibility, then weighs the anticipated SNAP benefit and the cost of participating such as paying for transportation to get to the SNAP office, while considering the household's need and level of resources available to meet that need. A household's preferences for participation--including its perceptions regarding the receipt of government assistance--also factor into the participation decision.

Most of the factors in the bulleted list above reflected low levels of resources that increased the need for SNAP benefits. In particular, having lower income and a greater number of children increases the need for SNAP. To the extent that having a family member in fair or poor health may have limited the ability to work, health could have been considered a resource factor in the participation decision. The greater likelihood of entry and lower likelihood of exit for individuals with noncash benefits such as WIC, Medicaid, or public housing subsidies may have reflected both informational networks among participants in those other programs as well as dual enrollment capabilities of program centers. For example, WIC participants may have often learned about SNAP eligibility at local WIC agencies from mothers that participated in both WIC and SNAP. Strategies focused on getting people enrolled for the full range of services and programs for which they are eligible were also becoming more common as States improved and integrated their eligibility systems.

Non-resource factors that increased the likelihood of participation included being female, which may reflect having different preferences for participating (for example, a lower degree of stigma among females). They also included being age 18 to 29; these individuals were more likely to enter compared to those ages 50 and older, and were slightly less likely to stay on longer compared to those ages 50 to 64. Age likely reflected differences in costs to participation, as those who were older may have had a more difficult time traveling to an administrative office

to enroll or to recertify. It may also reflect younger participants being earlier in their careers and facing more uncertain income trajectories over time.

E. Synthesis of Entry and Duration Findings: Trigger Events

Changes in employment, income, and family composition are also important factors of both entry and duration. Individuals that were more likely to enter SNAP included those that lost their job, had a decrease in income, or had an increase in family size. Individuals that were more likely to stay on longer included those who were not employed and did not find a new job, did not have an increase in income, or did not have a decrease in family size after entering. Following the same contextual model as the previous section, these factors represented changes in resources and needs and, to some extent, costs of participation and preferences for participation. Certainly income changes affected resources and the ability to purchase an adequate amount of food. Aside from the accompanying loss of income, however, a loss of employment may have freed up time for individuals to travel to the administrative office to apply for SNAP benefits or recertify, thereby lowering costs to participation. Alternatively, employment changes may have affected the perceived benefit to participating in the program, as when a job loss caused an individual to believe he or she would be out of work for more than a short-term period. Changes in family composition may reflect a change in need, as financing food and non-food purchases for a family that recently became larger may require additional resources.

F. Synthesis of Entry and Duration Findings: SNAP Policies

Policies offered in the State in which an individual lives related to vehicle rules and lengths of certification periods mainly affected program entry decisions; they affected the length of time spent on SNAP only for specific family composition subgroups. Compared to the entry rate in States excluding one or fewer vehicles per SNAP unit from countable assets, the average predicted entry rate was higher in States offering broad-based categorical eligibility and those without broad-based categorical eligibility policies but which exclude all or most vehicles. Vehicle rule policies were not associated with the length of time spent on SNAP.

Longer certification periods were associated with entry (but not spell length) for individuals in single-adult families with children. Longer certification periods were associated with longer SNAP spells (but not entry) for individuals in multiple-adult families with children, individuals in families with elderly members, and individuals in families with nonelderly disabled childless adults.

SNAP policies could have influenced the household's participation decision in the very first stage when it considered or learned of its eligibility by expanding eligibility to individuals that did not pass the standard income and asset eligibility tests (through broad-based categorical eligibility). Other policies, such as the length of certification periods, could decrease the transactional costs from participating in terms of needing to visit the administrative office to

recertify less often, although during the 2008–2012 period some States began to reduce the need for individuals to travel to an office to apply or recertify. Although we expect the length of certification periods to influence the decision to stay on SNAP more than the decision to enter the program, the positive association with entry for certain subgroups may reflect the experiences of those who have previously participated, as well as information passed by word of mouth from friends, neighbors, and community-based organization staff.

G. Comparison of Findings from mid-2000s to the 2008–2012 Period

The 2008–2012 period is a particularly important time for a study of SNAP participation dynamics, particularly program entry and spell length, because the number of SNAP participants reached an all-time high in the wake of the Great Recession, the general economic downturn, and the passage of legislation from ARRA that raised SNAP allotments and allowed States to suspend time limits through September 2010 for those nonelderly nondisabled childless adults who had previously been subject to the time limit. The time period for the study that preceded the current study was 2004–2006. During that time, the number of SNAP participants also increased despite an improving economy. This raises the question of whether the factors associated with entering or staying on the program longer changed from the 2004 to 2006 period to the 2008 to 2012 period.

Because very similar methodologies were used in Mabli et al. (2011b) and the current study, we can compare findings across the studies. In this section, we highlight some of the main similarities and differences between the two sets of findings. We focus on SNAP entry and spell length due to the high prevalence of right-censored nonparticipation spells in the re-entry analysis in Mabli et al. (2011b), which was due to the fact that a relatively shorter (three-year) panel was used.

SNAP Entry. Mirroring what was found in the descriptive analysis of SNAP entry in Leftin et al. (2014), the regression-adjusted monthly entry rates were higher in 2008–2012 than in 2004–2006 for all subgroups. For example, the entry rates were 0.37 and 0.31 percent for females and males, respectively, in 2008–2012, compared to 0.28 and 0.22 percent for females and males, respectively, in 2004–2006.

Many of the same characteristics were associated with entering SNAP in 2008–2012 as in 2004–2006. This include being female, being age 18 to 29 (relative to 50 or older), having income below the poverty level (compared to higher income relative to poverty), having a greater number of children less than 18 years old, not being married, not being employed for 1 to 5 months (relative to not having worked for at least 12 months), receiving TANF, receiving WIC, Medicaid, or public housing subsidies, and having fair or poor health (relative to having “good or better” health). SNAP entry was also associated with changes in employment, income, and family composition, and with State economic conditions in both time periods.

There were several characteristics that were important determinants of entry in 2008–2012, however, that were not associated with entry in 2004–2006. These include receiving SSI or general assistance (associated with a lower entry rate); having completed grades 9 to 11, relative to at most grade 8 (associated with a higher entry rate); having a greater number of adults 18 to 59 and adults ages 60 and above (associated with higher entry rates), and having a net worth at or less than \$25,000 (associated with higher entry rates). In contrast, few characteristics were important determinants in 2004–2006 and not in 2008–2012, including having living in a State with greater per capita outreach expenditures (associated with higher entry rates in 2004–2006).³⁰

Not only were entry rates greater in 2008–2012 than in 2004–2006, but the magnitudes of the differences in entry rates between subgroups were larger in 2008–2012 than in 2004–2006 for many groups. For example, the difference in entry rates for individuals with income at or above 200 percent of poverty and individuals with income less than 100 percent of poverty was 0.41 percentage points in 2008–2012 (0.20 and 0.61 percent, respectively), compared to 0.25 percentage points in 2004–2006 (0.15 and 0.40 percent, respectively). This was also evident in the entry rates for those that did and did receive TANF. The difference in entry rates for individuals that did and did not receive TANF was 0.40 percentage points in 2008–2012 (0.73 and 0.33 percent, respectively), compared to about half that, 0.21 percentage points, in 2004–2006 (0.45 and 0.21 percent, respectively).

SNAP Duration. Also mirroring what was found in the descriptive analysis of SNAP spell lengths in Leftin et al. (2014), the regression-adjusted median SNAP spell lengths were longer in 2008–2012 than in 2004–2006 for almost all subgroups. For example, females and males spent 11 and 9 months on the program, respectively, in 2008–2012, compared to 9 and 8 months, respectively, in 2004–2006.

Although several of the same characteristics were associated with spell length in 2008–2012 as in 2004–2006, there were a greater number of differences in the findings for SNAP duration between 2008–2012 and 2004–2006, compared to SNAP entry. Characteristics that were associated with longer spell lengths in both time periods include being female, being age 18 to 29 (relative to 50 to 64), being married, having income below the poverty level (compared to higher income relative to poverty), not receiving TANF, receiving WIC, Medicaid, or public housing subsidies, having fair or poor health (relative to having “good or better” health). SNAP spell length, in both time periods, was also associated with changes in employment, income, and family composition, and with not being a first-time SNAP participant.

Characteristics that were important determinants of longer spell lengths in 2008–2012 that were not associated with spell length in 2004–2006 include being a noncitizen, having fewer

³⁰ SNAP entry rates were lower in 2008–2012 for individuals living in States with higher per capita outreach expenditures, but the magnitude of the association was very small.

adults or elderly in the family, having more children in the family, and receiving SSI or general assistance. This compares to the number of characteristics that were important determinants of longer spell lengths in 2004–2006 and not in 2008–2012. These include being Hispanic (relative to white, non-Hispanic), being 18 to 29 years old (relative to age 65 and older), completing less than 8th grade compared to higher grades, not being employed for more than a year (relative to being employed), having zero or negative net worth (relative to positive net worth), and living in a State with a lower 20th percentile wage.

Some of the magnitudes of the differences in spell lengths were greater in 2008–2012 than in 2004–2006. For example, the difference in spell lengths for individuals with income at or above 200 percent of poverty and individuals with income less than 100 percent of poverty was 5 months in 2008–2012 (8 and 13 months, respectively), compared to 3 months in 2004–2006 (7 and 10 months, respectively). This was also true for individuals that did and did not experience job gains. In 2008–2012, the median spell length was 3 months longer for individuals that did not experience a job gain compared to those that did (11 and 8 months, respectively), whereas in 2004–2006, the difference was slightly shorter at 2 months (9 and 7 months, respectively).

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APPENDICES

Appendix A: Data Assessment

Appendix B: Definitions of Explanatory Variables

Appendix C: Raw Regression Coefficients

Appendix D: Regression-Adjusted Tables

Appendix E: Trigger Events and SNAP Dynamics

Appendix F: Empirical Model

Appendix G: Determinants of SNAP Participation, Geographic Access to Food, and
Neighborhood Characteristics

Appendix H: Raw Regression Coefficients for Determinants of SNAP Participation, Geographic
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Appendix I: Cross-Study Table Crosswalk

Appendix A

Data Assessment: Longitudinal File Assessment, Reciprocity History Topical Module Assessment, and Analysis of One- and Two-Month Gaps

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The analysis was conducted to identify potential problems in the data that could affect estimates of SNAP participation dynamics. Our assessment identifies several issues in the 2008 SIPP panel—most of which are similar to problems observed in previous panels. While attrition will affect this 14-wave analysis to a greater extent than any previous SNAP dynamics study, we did resolve an important problem that affected the past three dynamics reports—negative SNAP spell lengths. While some problems persist or degrade further, we believe the 2008 SIPP data can still be used to generate reasonable estimates of SNAP participation dynamics. However, adjustments to the data that were made in the study of SNAP dynamics in Cody et al. (2007) and Mabli et al. (2011a) will also be required here. As was the case in those studies, the estimates of participation dynamics in the current study must be considered in the context of the potential bias created by these problems.

I. Overview

The analysis of the dynamics of participation in SNAP is based on data from the 2008 SIPP panel. In general, we use these data to examine participation dynamics in two ways:

- (1) **Descriptive Analysis of Program Entry, Duration, and Exit.** We conduct a descriptive analysis of patterns of entry into SNAP, the duration of participation spells, and patterns of exit from and re-entry into the program. As in previous dynamics studies, a central tool used in this analysis is the life table, which examines the distribution of participation spells by their duration. We also will examine how the incidence of trigger events such as changes in income or changes in household size are correlated with program entry and program exit.
- (2) **Multivariate Analysis of Program Entry, Duration, and Re-Entry.** We conduct multivariate modeling of program entry, spell duration, and program re-entry. This analysis examines how trigger events affect participation dynamics while controlling for other individual characteristics. For each individual, we examine whether the trigger event is a deviation from the individual's usual circumstances.

These analyses use the SIPP data longitudinally. For most individuals in our analysis file, we have 56 months of monthly data on income, program participation, and household characteristics. With this information, we compute entry and exit statistics for each month and examine whether triggers occurring in one month are associated with program participation changes in a subsequent month.

The analysis presented in this Appendix was developed in advance of the main studies, using 11 of the 14 waves upon which we base our full analysis. Our intent to identify problems that may bias our estimates of participation dynamics. Some problems in the data can make the data less representative of the populations of interest, such as those individuals receiving SNAP benefits. Other problems can introduce erroneous information and false changes into an individual's information over time. These problems can create biased estimates of dynamics.

Aside from this brief Overview, our assessment of the SIPP data is presented in six parts:

Section II discusses the application of analysis weights in this appendix and the main study, and development of weights for infants. Because the SIPP panel longitudinal panel weights had not yet been published for the full Wave 1-14 analysis period when we conducted this assessment of the data, we used the then-released longitudinal panel weights for Waves 1-11 in lieu of the Wave 1-14 longitudinal weights. The main study in the body of this report was conducted with a subset of those included in this data assessment, omitting those who leave the SIPP universe after Wave 11. On another weighting topic, we describe the construction of new longitudinal panel weights for infants born to households during the panel period for this appendix and the full study.

Section III examines potential bias stemming from sample loss and seam reporting in the SIPP. The 2008 SIPP panel suffers from higher rates of sample loss than any previous SIPP panel. The full panel analysis weights created by the Census Bureau tend to correct for this sample loss and estimates of general population characteristics appear unbiased. Having a smaller sample than the previous study, which was already evident by Wave 11, will lead to reduced precision for subgroups, and for entry and exit analyses. The “seam effect” in the 2008 SIPP is pronounced, as it was in 2004, but not as severe as in previous panels. Most of the key changes of interest to this study occur on the seams between SIPP waves. Therefore, estimates of changes over time must allow for the fact that many changes may be observed on a seam month instead of the month that they actually occurred. Defining trigger event variables using four or eight months of data, as in the prior studies, continues to allow for this.

Section IV examines inconsistencies in the SIPP data. One key problem is that program participation is underreported in Wave 1 compared with Waves 2 and following. We decompose wave-to-wave changes in SNAP participation for Waves 1 through 5. As in previous panels, we theorize that respondents are learning the SIPP survey in the early waves. Other issues identified include the way that some SNAP and TANF assistance units are constructed, and variation in how employment is measured.

Section V examines how SIPP estimates of SNAP participation compare with those from administrative data. Estimates of SNAP participants in the SIPP differ from administrative estimates in that SIPP data have proportionately too many adults, a known problem that tracks to SIPP not permitting child-only SNAP units. SIPP data also have fewer households with zero earnings than administrative data.

Section VI examines data from the principal SIPP topical modules that are used in our analysis: data on reciprocity history and employment history from Wave 1. Due to confidentiality restrictions imposed on the data, we conducted this analysis within the Census Bureau. The Wave 1 Reciprocity History Topical Module (RHTM) items on SNAP underwent significant redesign prior to the 2004 SIPP. Some data were collected throughout the 2008 panels, and other SNAP items in the RHTM were improved, but the net effect on dynamics analysis was small. However, the 2004 phrasing changes combined with the calendar change in the 2008 panel eliminated the irrational negative SNAP spell lengths that affected prior studies. That, in turn, helped

us discover the root causes of the negative spells. Overall, the results of this evaluation place the 2008 RHTM data within a normal range of what can be expected from the 2004, 2001, and 1991 data, and the data appear to be reliable and not in need of adjustment. Data from the employment history module also appear useful for our analysis.

Section VII examines gaps in SNAP participation in the 2004 SIPP panel. We examine the incidence of gaps of different sizes, the lengths of spells prior to and following the gaps, characteristics associated with having a gap, and other data features related to gaps. The analysis will help inform the decision about whether to recode one- or even two-month gaps in participation by closing them up. We found evidence that one- and especially two-month gaps could be due not only to misreporting but also to actual program churning, with individuals exiting and re-entering the program soon thereafter. We recommend the closing of one-month gaps in participation, consistent with prior studies.

Section VIII presents a preliminary look at three supplemental data sets we have merged to our SIPP analysis file to create additional subgroups: (1) the ACS summary files, (2) the Food Access Research Atlas, and (3) a proprietary mortgage foreclosure data resource. These data sources enable us to define subgroups by neighborhood contextual factors, geographic access to food, and foreclosure experience.

In the end, we believe that the dynamics analysis encompassed in this full report yields useful and informative estimates of the dynamics of participation in SNAP, despite any shortcomings.

II. Weighting

This section describes the application of weights in this appendix and the main study, and another weighting topic—the construction of new longitudinal panel weights for infants born to households during the panel period.

A. Application of Longitudinal Weights

The primary analysis sample for this project consists of original sample members who were not lost to attrition through the first 14 waves of the 2008 SIPP panel. The Census Bureau assigns *longitudinal weights* to individuals who have reported or imputed data for all months of a reference period covered by a particular longitudinal weight. The Census Bureau also assigns longitudinal weights to individuals who left the survey universe (by dying, being admitted to an institution, or moving abroad, primarily) during the panel reference period, providing that they have data for all months that they were in the survey universe. At several points through the panel period of SIPP studies, the Census Bureau develops longitudinal panel weights that span the period from Wave 1 through selected subsequent waves, often roughly corresponding to calendar years. These longitudinal or “full-panel” weights compensate for the loss of respondents due to attrition. We analyze the *quality* of that compensation in Section III, and describe which weights were used in this section.

This assessment uses the 2008 SIPP Wave 1-11 longitudinal panel weights, although this and the main study use person-month data from Waves 1 to 14. However, the longitudinal weights for that full analysis period were still in development when this assessment was carried out. Ultimately, the complete analysis will employ the Wave 1-14 longitudinal weights, and the universe of individuals included in that study will be a subset of those included in this data assessment; those individuals who leave the SIPP universe in Waves 12, 13, or 14 will be excluded.

Three key points with regard to weighting:

- All of the weighting quality tests in Section III are restricted to the first 11 waves of the 2008 panel, so they are precise and compatible with the Wave 1-11 weights.
- The main study will use weights that are designed to compensate for cumulative sample loss through Wave 14, and
- Those weights will be applied to a smaller universe because of attrition after Wave 11.

B. Assigning Panel Weights to Children Born after the Start of the Panel

In the Census Bureau-provided longitudinal weights, infants born after the start of the 2008 SIPP panel lack both Wave 1-11 and Wave 1-14 longitudinal panel weights. For Wave 1-11 and, when they become available, the Wave 1-14 weights we identify which panel members with valid panel weights had children who were born after the start of the panel, and we assign longitudinal weights derived from their mothers, fathers, or guardians. We use a method identical to that employed in the SNAP dynamics studies of the 2001 and 2004 SIPP panels.

For any infant born after May 2008 (or born in May 2008 but not listed as a household member in that month), we assign panel weights according to a scheme that gives priority to the mother's weight, as detailed below.

If the child's mother (biological or adoptive) was present at any point, we assign the mother's weight to the child, except when one parent (either the mother or the father) was an original member of the panel and the other parent joined the SIPP household after Wave 1. If the father joined the household after Wave 1, we assign one-half the mother's weight. If the mother joined the household after Wave 1, we assign one-half the father's weight. This strategy of assigning half-weights in some cases is designed to increase the number of sample infants who receive panel weights. It should not affect the weighted number of infants significantly. In all cases, weights are assigned without regard to whether they were positive versus zero. If the appropriate weight for a child is the mother's weight and the mother's weight happens to be zero, then the assignment of a zero weight to the child is appropriate as well.

If an infant's biological or adoptive mother was never present, we assign the weight from the child's father, guardian, or household reference person. If the child's father (biological or adoptive) was present, we assign the weight (including values of zero) from the father. If neither parent was present, but someone in the household was identified as the child's guardian, we assign the weight from the guardian. If no one was identified as the child's guardian, we assign

the weight from the household reference person.¹ We follow this sequence regardless of the values of the weights.

Children who were adopted after May 2008 are eligible to receive panel weights, but only if they were also born after May 2008. Adopted children born in or before May 2008 are treated the same way as other individuals who moved in with panel members after Wave 1; they cannot be assigned panel (longitudinal) weights, but their data contributes to the family and household characteristics of panel members in the months that they shared such membership. In addition, while present they receive cross-sectional weights. In total, 2,211 children born between Wave 1 and the end of Wave 11 are assigned positive 11-wave weights. When they were finally released in March 2014, the 14-wave longitudinal weights were assigned to children in the same manner.

III. Sample Loss and Seam Reporting

In this section, we explore the effects of sample loss and seam bias on SIPP-based estimates of participation dynamics. We then examine how response patterns in Wave 1 differ from patterns in Wave 2 and later. The key findings discussed in this section are as follows:

- The rates of sample loss in the 2008 panel are high, even relative to previous panels. About half of the households responding in the first wave of the SIPP are excluded from the dynamics analysis because they stop participating or otherwise have incomplete data. However, when we look at key individual characteristics, there is no evidence of substantial bias resulting from this sample loss.
- Patterns of seam reporting are evident across many characteristics. Among SNAP participants, over three quarters of program entries and over half of program exits occur on the first month of a wave. Seam reporting patterns are also apparent among potential trigger events such as changes in employment and changes in other income. As in prior SNAP dynamics analyses, this suggests that analyses of participation spell durations and trigger events need to allow for the fact that seam reporting can affect our analysis of short-term transitions, namely our ability to correlate changes in participation status and changes in employment, family composition, and income.

A. Sample Loss

Sample loss generally occurs when members of a household sampled for the survey either cannot be located or refuse to participate. In the 2008 SIPP panel, about 19 percent of households originally sampled did not respond or could not be identified for the Wave 1 interview (this is higher than the Wave 1 nonresponse rates from prior SIPP panels, where nonresponse rates ranged from about 5 percent in 1984 to 15 percent in 2004).² Among those individuals who were interviewed, a marked 51 percent stopped participating in the survey by the end of eleventh wave of the 2008 panel (the “effective” end of the survey for our analysis).

¹ A child could receive a weight from a stepparent only through either of these last two alternatives.

² These estimates are taken from http://www.census.gov/sipp/usrguide/ch2_nov20.pdf and [http://www.census.gov/sipp/sourceac/S&A08_W1toW6\(S&A-13\).pdf](http://www.census.gov/sipp/sourceac/S&A08_W1toW6(S&A-13).pdf).

This section examines the extent of sample loss and the implications that it may have for analysis of participation dynamics. If the individuals who left the SIPP sample are different from the individuals who do not leave, then estimates generated from the SIPP could be biased. The longitudinal “full panel” analysis weights described in the previous section are designed by the Census Bureau in part to address this bias. In this section, we examine weighted SIPP estimates to identify evidence of bias, and conclude that for broad characteristics, the SIPP weights appear to account for sample loss.

The SIPP observations used in the study of participation dynamics are limited to those that have complete data for every month that they are in the SIPP universe through the eleventh wave of the survey (these observations receive the full panel weights). Most of these are individuals with reported data available for each of the 44 months in the panel. However, some are cases that missed one wave of SIPP interviews and had the missing data from that wave imputed based on responses in the previous and subsequent waves. Others are observations for people who enter or exit the SIPP universe during the panel for reasons such as birth or death, moving into or out of the country, becoming institutionalized, and so forth. Individuals who enter or exit the universe receive full panel weights (and are included in the analysis) so long as they have complete information for those months in which they are in the universe. It should be noted that some individuals who leave the SIPP universe do return later in the panel.

In this context, sample loss (sampled individuals excluded from the analysis) is comprised of individuals that do not have complete information for those months for which they are in the SIPP universe. This includes individuals who stop responding to the SIPP (for instance, people who move and cannot be located, or people who refuse to participate in the SIPP in later waves), and individuals for whom at least two consecutive waves of the SIPP are missed, and therefore missing wave imputations cannot be completed. We refer to these two types of sample loss as attrition.

Table A.1 shows the total sample loss in the SIPP among individuals interviewed in Wave 1. Of the 105,451 individuals responding in Wave 1, 51 percent are lost due to attrition by the end of Wave 11. The remaining sample of 51,204 reflects those individuals who receive a full panel weight (for Waves 1 to 11) and are included in the analysis of program participation dynamics. Sample loss in waves 1 to 11 of the 2008 panel is greater than in waves 1 to 8 of the 2004 panel (51 percent compared to 38 percent). These person-level sample loss comparisons are only possible for waves with full panel weights. An examination of published wave-by-wave household sample loss rates permits direct comparison of Wave 8 sample loss rates in both 2004 to 2008. In 2004 the Wave 8 household sample loss was 33 percent compared to 38 percent in 2008. We would expect sample loss to be higher the longer the length of the panel (11 waves in 2008 versus eight waves in 2004), though the 2008 panel was already running at a higher loss rate by Wave 8.

Differential rates of sample loss are apparent when we look at broad population characteristics such as income and age. Table A.1 shows that rates of sample loss are higher among SIPP respondents with low income than for other respondents. While the overall combined sample loss rate is 51 percent, the sample loss rate for individuals below 10 percent of poverty is 61 percent. Table A.1 also shows that total sample loss rates are highest among individuals age 19 to 39—59 percent of all individuals and 62 percent of individuals below 100 percent of poverty in this age

group leave the sample—and lowest among individuals age 65 or older (37 and 36 percent, respectively). If not correctly accounted for, this type of differential sample loss could lead to biased estimates of participation dynamics.

Comparing cross-sectional and full panel estimates of the remaining population in January 2009 can provide some insight into the Census Bureau’s ability to adjust for sample loss in their analysis weights. While full panel estimates only include those individuals with data for every month they are in the SIPP universe in Waves 1 to 11, cross sectional estimates include all individuals present in January 2009, regardless of subsequent SIPP response status. Because the full panel weights are calibrated to January 2009 population characteristics, full panel estimates of January 2009 characteristics should be similar to cross-sectional estimates if those full panel estimates are unbiased by sample loss. Differences between cross-sectional and full panel estimates, on the other hand, reflect potential bias introduced by sample loss.

Table A.2 presents estimates of key characteristics that are analyzed in the study of participation dynamics. In this table, estimates derived from the cross-sectional weights are compared with estimates derived from the full panel weights. While for most characteristics, such as SNAP participation, the full panel estimates appear similar to the cross sectional estimates, some estimates are different. Estimates of the number of Asian, non-Hispanic individuals are higher when using the full panel weights, but there is general agreement between the sets of weighted estimates for individuals in the other race and ethnicity categories. Estimates of individuals employed 35+ hours in some weeks are lower when using the full panel weights, though the sets of weighted estimates are similar for those who worked full time in all weeks.³ Finally, there are several differences in the eleven-wave panel estimates versus those in the cross-sectional sample across participation in government assistance programs. The estimates of individuals receiving SSI benefits in January 2009 are higher when using the full panel weights and the estimates of both individuals receiving TANF and individuals receiving veterans disability payments are lower when using the full panel weights. Although there are differences between the cross-sectional and eleven-wave panel estimates, many differences are small or exist for uncommon categories of variables such as “with job, did not work” that pertain to few households.

We also compared the distribution of individuals by monthly income when using the cross-sectional and full panel weights (Table A.3). The decile values of the distributions of total family income are similar in the cross-sectional and full panel estimates for all income levels at or above the 30th percentile, but differ slightly below this level. The 10th percentile value for the distribution of individuals by total family income is about \$44 higher in the full panel estimates—\$920 compared with \$876 in the cross-sectional estimates. As a result, the 10th percentile of the distribution of the full panel estimate as a percentage of the cross-sectional estimate is 105.0 percent. For the 20th percentile value, the difference is 102 percent. For the 30th percentile and above, the full panel estimate differs from the percentage of the cross-sectional estimate by less than 2 percent. This indicates that the bottom 20 percent of the distribution is skewed towards lower income amounts in the full panel estimates. Because both sets of weights produce similar estimates of the lower end of the distribution of family earnings, the differences in the lower tail of the total family income distribution may suggest that the full panel weights do not fully

³ Additionally, estimates of individuals who report having a job but not working are much lower when using the full panel weights. However, this group is a very small subset of the SIPP population.

account for the disproportionate loss of individuals with various sources of unearned income from the sample. Indeed, a similar comparison of deciles of unearned family income (not shown) found all income levels at each decile equal or higher for the full panel estimates—peaking in the 8 to 10 percent range for the 40th to 60th deciles. We came to a similar conclusion when assessing the 2004 panel.

While there are differences apparent in the January 2009 population between the full panel and cross-sectional estimates, we are most concerned about whether these differences affect estimates over the life of the panel. Therefore, we examine the effects of sample loss a second way by comparing SIPP full panel estimates to estimates from an independent source at different points over the life of the panel. In Table A.4, we compare the distribution of population characteristics in the SIPP with the distribution observed in the Annual Social and Economic (ASEC) supplement, administered as part of the Current Population Survey (CPS) each March. The SIPP and ASEC estimates are similar in 2009, and for many characteristics, the SIPP captures changes over time as they are observed in the CPS. However, estimates of some characteristics trend away from estimates in the CPS. Key differences include:

- Both SIPP and ASEC estimates of the proportion of individuals under age 19 decline over time, but the SIPP estimates decline by a greater amount. SIPP estimates of the proportion ages 19 to 39 decrease over time, while ASEC do not. For individuals age 40 and older, SIPP estimates increase by more than ASEC estimates, resulting in a larger relative increase for SIPP estimates.
- ASEC estimates of the white, non-Hispanic population decrease over time, while those from the SIPP increase very slightly over time. At the same time, SIPP estimates of the Hispanic population decrease slightly over time, while those from the ASEC increase.
- SIPP estimates of individuals receiving SNAP benefits are higher than the ASEC estimates, though they both increase over time at a similar rate.
- SIPP estimates of adults receiving SSI increase slightly over time; the ASEC estimates remain constant through most years, but increase slightly in the 2012 ASEC.
- SIPP estimates of the proportion of individuals living in two-parent families increase over time, while ASEC estimates decrease.

If we assume that the ASEC estimates are unbiased estimates of the full population over time, then we can conclude that there is some bias in the SIPP estimates, but that the bias is relatively small. For example, most of the differences between the January 2012 SIPP estimates and the March 2012 ASEC estimates were one percentage point or less. Given this small magnitude, we would not anticipate that bias in SIPP-based estimates of these characteristics over time would lead to meaningful bias of estimates of program dynamics.

In summary, our analysis of sample loss in the 2008 SIPP panel leads us to conclude that there is some evidence of bias from sample loss, and the extent of bias is similar to past SIPP panels, but such bias is not a significant concern. While just over half of the Wave 1 sample is not included in the full panel analysis file, the full panel weights appear to adequately correct for this sample loss when we examine key characteristics for January 2009. The correction is generally similar to that in the 2004 SIPP panel.

It should still be stressed that while there is no large bias in the characteristics we examined, it is a concern that the full panel analysis file is substantially smaller than the original 2008 SIPP sample. Having a smaller set of observations leads to reduced precision in the estimates of participation patterns and in estimates of what factors affect entry and exit. Furthermore, the 2008 panel sample size is slightly smaller than that in the 2004 panel. However, like the 2004 panel, the 2008 panel did not suffer from a large-scale cut between Waves 1 and 2 as did the 2001 panel. Additionally, the final 2008 panel SNAP dynamics analysis file will be six waves longer than that of the 2004 panel, so a greater degree of sample loss is expected.

B. Seam Bias

In the SIPP, the “seam effect” reflects the tendency of individuals to report changes in status on seams—the months that represent the start or end of each four-month reference period. This has important implications for the study of participation dynamics, which is focused primarily on individuals’ reported changes in program participation. The seam effect can affect the estimated duration of participation spells as well as the timing of program entry and exit relative to other changes. In this section, we examine patterns of seam reporting to determine which transitions are affected. Unfortunately, on a given seam month, it is not possible to determine which reported transitions are “real” and which actually occurred in a different month. Therefore, as in prior Dynamics studies, we must conduct the analysis of participation dynamics in a way that does not rely on the short-term timing of transitions.

Table A.5 shows the distribution of key transition events by the months that those transitions are reported in the SIPP.⁴ For most events, the transitions disproportionately occur on the left seam (the first month of the reference period). For example, 76 percent of reported entries into SNAP and 56 percent of exits occur on the first month. If there were no bias, we would expect each seam to account for about 25 percent of reported transitions.⁵ This suggests that individuals who enter SNAP in a given wave tend to report that they started receiving SNAP benefits in the first month of that wave, and individuals who exit in a given wave also tend to report that they no longer received benefits in the first month of that wave. All else being equal, this would have the effect of lengthening estimated spell durations. The percent of reported entries at the left seam is larger than in the 2004 panel (76 percent in 2008 versus 69 percent in 2004), as is the percent of reported exits at the left seam (56 percent in 2008 versus 47 percent in 2004). However, the percent of reported exits at the left seam is substantially lower than it was in the 2001 panel (56 percent in 2008 versus 74 percent in 2001), indicating that while the level of the apparent seam bias is large, the extent is not unprecedented. The larger incidence of seam reporting in the 2001 panel, compared to 2004 and 2008, is likely attributable to the introduction of the Census Bureau’s most extensive dependent interviewing in the 2004 panel, in which respondents who had reported receiving SNAP in the previous wave were reminded of this fact.

⁴ Left seams from Wave 1 and right seams from Wave 14 are excluded from the estimates in Table A.5. In Wave 1, the left-seam transitions cannot be observed since there are no data on the month prior to the left seam. In Wave 14, while right-seam transitions can be observed if they occurred after reference months 1, 2, or 3, but not after month 4 in our analysis dataset which is restricted to Waves 1 to 14.

⁵ Because the SIPP sample is split into 4 random rotation groups, with each rotation group having a different four-month reference period, seasonal bias or other factors would not affect the distribution of transition events across reference months.

Transitions in other events that could affect SNAP entry and exit are also subject to seam bias. For example, among all individuals age 16 and over, just less than half of job entries and exits occur on the left-seam. Similarly, individuals disproportionately report changes in earnings of more than 5 percent on left seams. The seam effect for changes in earnings is less than that of changes in TANF or SSI. For TANF, 70 percent of changes greater than 5 percent are reported on the left seam, while for SSI, 87 percent of changes greater than 5 percent are reported on the left seam. Changes in household size appear to be only slightly affected by seam reporting.

To determine whether patterns of seam reporting are associated with characteristics of the SIPP household, we compare left seam reporting of transition events for different subgroups in Table A.6. For individuals who report receipt of SNAP at some point during the 2008 panel, rates of seam reporting reflect those of the population as a whole. However, when we limit the analysis to individuals whose household respondent for the wave changed (and only examining those waves where the household respondent is different), seam reporting for most transitions approaches 100 percent. The seam effect is higher for both SNAP entries and exits when a proxy responds for the individual than for all individuals. Finally, the seam effect is higher for records where the entire month is imputed, relative to the full sample. These findings were similar in the 2004 panel.

The extent of seam bias in the 2008 SIPP panel constrains our ability to examine how program participation is affected by the timing of other events. Because of seam reporting, an observed transition could have occurred in the reported month or in any other month of a wave. Indeed, it is even possible that a trigger event that precedes a SNAP transition is reported after that transition is reported. As a result, as in prior SNAP dynamics analyses, our analysis accounted for the SIPP seam effect. We used trigger “windows” of 4 and 8 months to capture transition events that may have been reported on a seam, rather than attempting to correlate transition events and SNAP participation changes over two months.

IV. Data Inconsistencies

In this section, we provide a summary of inconsistencies we identified in the 2008 SIPP panel data. Inconsistencies may reflect reporting errors or data processing errors, and using data with errors could lead to biased estimates of participation dynamics. We discuss our analysis of two types of inconsistencies: (1) cross-sectional inconsistencies, where some respondent or household information conflicts with other information in the same month; and (2) longitudinal inconsistencies, where a respondent’s information in one month is inconsistent with information provided in a subsequent month.

Our major conclusions and decisions were as follows:

- As in earlier panels, we found conflicting information for some individuals about whether or not the individual was employed in a given month. We assessed the implications of using the same recode of the SIPP’s employment summary variable in the 2008 panel as we used in 2004 and 2001 and decided to continue using it.
- Some SNAP and TANF assistance units have conflicting information on the amount of benefits received in that unit. Moreover, in some cases, it is difficult to determine whether the one unit observed in the SIPP actually represents two separate assistance

units. We will use an algorithm developed for earlier studies to resolve these inconsistencies based on a set of simple assumptions.

- Underreporting of program participation is significantly greater in Wave 1 than in Wave 2. One possible explanation of this behavior is that respondents are “learning” how to respond accurately to the survey instrument. This could bias estimates of participation spells that are active in the first wave, as well as estimates of spells that start in the second wave. As in prior studies, we will reduce this bias by estimating entry and duration for all waves in the study panel, allowing individuals in the sample to contribute multiple SNAP spells to the analysis.

A. Cross-Sectional Inconsistencies

There are two key sets of cross-sectional inconsistencies we identified in the 2008 SIPP data. The first arises in determining which individuals are employed, unemployed, and out of the labor force in a given month. The second arises in the formation of SNAP and TANF units in the SIPP data.

1. Employment Status Indicators

In the 2001 SIPP panel, Mathematica identified a number of inconsistencies with key variables that determine employment status. In particular, some individuals had conflicting information on whether they were employed, and if so, the number of hours that they worked. Mathematica worked with Census Bureau staff to investigate these issues and determined that there were multiple reasons for these inconsistencies. As a result, for many of these inconsistencies it was difficult to determine which variables should be trusted and which should be ignored or modified. After a comprehensive assessment of the SIPP’s employment status summary variable, RMESR, and other variables such as hours worked and job start and end dates, Mathematica decided on a recoding procedure that preserved the employment status value from RMESR for most of the sample, but recoded it using additional information from the “usual hours worked per week” variable (RMHRSWK) to form a new employment summary measure, EMPCAT.

Using the 2008 panel we cross-tabulated in month 1 of the panel the constructed EMPCAT variable with the RMESR and RMHRSWK SIPP variables to identify how many sample members would have their employment status recoded if EMPCAT were used in place of RMESR in the current study. We found that:

- The constructed EMPCAT variable generates slightly lower estimates of employment and higher estimates of unemployment than does the SIPP RMESR variable. Using the EMPCAT variable, about 46 percent of the sample would be categorized as employed, 4 percent are unemployed, 29 percent are out of the labor force, and the remaining 21 percent are not in the universe. In comparison, 47 percent of the sample is categorized as employed using the RMESR variable, 3 percent are unemployed, 29 percent are out of the labor force, and 21 percent are not in the universe.
- Over half of sample members that would be categorized as employed using RMESR but unemployed using EMPCAT have (1) a RMESR variable that indicates that they had a job in all months but were absent from work without pay for at least one week

and the absence was not due to a layoff; and (2) a RMHRSWK value that indicates he or she did not work.

- Only 60 individuals in the sample (less than 0.1 percent) are categorized as employed using EMPCAT but out of the labor force using RMESR. In all but two of those cases, the sample members reported working 1 to 34 hours in all weeks. In the other two cases, the individual reported working 1 to 34 hours in at least one week but not all weeks, and worked zero hours in the remaining weeks.

The employment status variables are important to our analysis because we investigate the role that changes in employment status have on program entry and exit. Based on this tabulation (and similar tabulations in other months of the panel), we will use EMPCAT in place of RMESR to define monthly employment measures. This is the same approach we used in the prior two studies.

2. SNAP and TANF Unit Formation Problems

In some cases, individuals who are members of the same SNAP or TANF unit have information that conflicts with other members of that unit.⁶ In terms of SNAP units, we identified a handful of cases with one of two inconsistencies:

- (1) **The program unit had extra SNAP benefits.** In each SNAP unit, the SIPP is only supposed to record the SNAP benefit amount on one individual's record – that of the unit reference person. However, we find that in some units, the benefit amount is assigned to multiple people—the unit reference person and one or more non-reference persons. Often, the individuals in the same unit have SNAP benefits of different amounts. It is unclear why these inconsistencies occur. It could be that the benefit amount assigned to non-reference people is superfluous (and should be ignored), that the unit's benefits have been pro-rated across multiple unit members (and should be summed across members of the unit), or that the unit has been incorrectly formed (and should be split into two units).
- (2) **The SNAP unit reference person was a participant in another SNAP unit.** The SIPP records include “pointers” that indicate, for each individual, which other household member is their SNAP unit reference person. In some households, some members point to one individual as the unit reference person, who in turn points to another individual as the unit reference person. This second reference person is also covered by SNAP and points to him/herself as the reference person of his/her unit. In these cases, it could be that there is only one SNAP unit and the first set of pointers is erroneous. Alternatively, it could be that the household has multiple units with two reference persons, and the pointer on the first reference person is erroneous.

Each month, between 3 and 8 percent of SNAP units (unweighted) have one of these two inconsistencies (Table A.7). Similar problems exist for TANF units, where the same SIPP procedures for identifying unit reference people and income are used. For TANF units, the rates of inconsistencies are generally smaller than those for SNAP units. Although the TANF

⁶ In this section, we refer to “units” as those members of a dwelling unit that receive benefits under the same case. We use the term “household” to refer to the SIPP household.

inconsistencies range from 3 to 8 percent of TANF units (unweighted) each month, they are lower than the SNAP rates in most months by several percentage points. These percentages are higher than those in the 2004 panel (2 to 5 percent of SNAP units and 3 to 7 percent of TANF units).

The percentage of SNAP units with inconsistencies is fairly constant at around 3 percent from month 1 to month 4, then jumps to 7 percent in month 5 and remains fairly constant (ranging from 6 to 8 percent) from month 5 onward. The extent of the jump between Waves 1 and 2 was also present in the 2004 panel. In the earlier panel, we performed additional diagnostic tabulations on the cases with inconsistencies. We concluded that the introduction of dependent interviewing beginning in the 2004 panel, in conjunction with changes in interview status from “self” to “proxy” between waves, may be responsible for a large proportion of the inconsistencies—the reporting of two SNAP benefit amounts within one SNAP unit.

The effect of dependent interviewing on the increase in inconsistencies between Wave 1 and 2 appears to be compounded by an increase use of proxy respondents in Wave 2. The increase in the use of proxy respondents may be due to Wave 1 interviews being conducted in person and Wave 2 interviews being conducted by telephone, as the SIPP tries to do only one in-person interview per year (and Wave 1 interviews are always in person).

These inconsistencies are a concern in part because they could affect our estimates of the number of SNAP units experiencing certain events and potential TANF trigger events. We developed basic assumptions to resolve these inconsistencies. In units where multiple individuals have income, we will assume that there is only one program unit (not multiple units for each individual with income), and we will assume that the only income to be counted is that of the designated reference person. In cases where one reference person points to another reference person, we again will assume that there is only one program unit, and that the individual that points to him/herself is the reference person of the unit.

B. Longitudinal Inconsistencies Between Wave 1 and Wave 2 Responses

In the 2008 SIPP panel, as well as in prior panels, patterns of responses between Waves 1 and 2 suggest a “learning” of the SIPP instrument. Underreporting of program participation is substantially larger in Wave 1 than Wave 2. It could be that individuals in Wave 1 are more likely to underreport—intentionally or unintentionally—because they are not familiar with the interview procedures; then as they learn the procedures, they provide more accurate information. This type of response pattern has two key implications for the analysis of participation dynamics. First, it would lead to an under-representation of participation spells in the first wave of the SIPP (and the participants that report may be systematically different from the participants that do not report). Second, it would lead to an overcount of new spells in the second wave of the SIPP. Unfortunately, this problem cannot be fixed in the data. Instead, we can at best use sensitivity analysis to explore how our estimates of participation dynamics might be affected by the differences between Wave 1 and Wave 2 responses.

Table A.8 shows that program participation in SNAP and TANF is underreported in Waves 1 and 2 when considering all participants. Participation is also underreported for children, but is generally overreported for adults. In the 2004 panel, SNAP and TANF receipt were underreported for adults. For all participants and for children, the underreporting is lower in the 2008 panel than in the 2004 panel.

Underreporting of program participation is consistently larger in Wave 1 than in Wave 2 (Table A.8). For each wave, we examine the number of participants in the common month of that wave.⁷ For example, the number of individuals reporting SNAP receipt in the common month of Wave 1 (August 2008) is 15 percent below administrative totals for that month, while the number in the common month of Wave 2 (December 2008) is only 6 percent below administrative totals. The difference between Wave 1 and Wave 2 is larger for SNAP and TANF than for employment.

The increase in reported SNAP participation between Waves 1 and 2 could be the result of a number of factors. First, individuals who are present in both waves may report participation at higher rates in Wave 2. Second, it is possible that individuals who enter the SIPP sample in Wave 2 (for instance, individuals that move into a SIPP household) are disproportionately SNAP participants. Finally, the weighting adjustments in Wave 2 may disproportionately increase the weights of SNAP participants.

Table A.9 decomposes the observed change in SNAP participation from wave to wave by these various factors. For each wave, we estimate the number of SNAP participants in the common month (using cross-sectional weights). The estimated number of participants increased by 4.9 million between August and December 2008, 2.1 million between December 2008 and April 2009, 2.2 million between April and August 2009, and 2.1 million between August and December 2009. We decompose these changes into three categories: **(A)** changes in reporting of SNAP participation status among individuals present in the common months of the current and previous wave; **(B)** changes in reporting among individuals who are present in the current wave but were not in the SIPP sample in the common month of previous wave,⁸ and **(C)** residual growth. Residual growth is the difference between the observed change and the sum of the first two categories. This growth can be explained by changes made to individuals' weights across waves to account for movement of other individuals into and out of the SIPP sample.

The estimates in Table A.9 support the theory that individuals are learning the SIPP survey between Waves 1 and 2. The large increase in participation between Waves 1 and 2 is driven not only by the large increase in actual SNAP participation, but also by a relatively large number of people who did not report participation in Wave 1 but reported participation in Wave 2. It does not appear that the change is driven by SNAP participants entering the SIPP sample in Wave 2, or by weighting adjustments between the two waves. The number of individuals present in both waves that report participation in Wave 2 but not Wave 1 (7.6 million) is higher than the analogous number observed in subsequent Waves (between 5.6 and 6.1 million). At the same time, the number reporting SNAP participation in Wave 1 but not Wave 2 (3.2 million) is relatively more consistent with the analogous number observed in subsequent Waves (3.8 million to 4.0 million). The net increase due to changes in reporting status among individuals present in both Waves is 4.5 million, higher than the net increase observed in later waves.

⁷ The common month refers to the one month of each Wave that is common to each SIPP rotation group. Using the common month allows us to simplify the analysis to reflect one month of each Wave.

⁸ Individuals are considered absent from the SIPP sample in a common month even if they were present in other months of that or prior waves. For example, an individual can respond in Wave 2, not respond in Wave 3, and respond again in Wave 4. For this analysis, we would consider that individual absent from the sample in Wave 3. Note that there are 221,015 (weighted) individuals in Wave 2 who were not present in the common month of Wave 1. These individuals were present in at least one other month of Wave 1 besides the common month.

Based on our assessment, we conclude that there appears to be some factor that leads individuals to underreport program participation in Wave 1, and correct that underreporting in Wave 2. This could lead to biased estimates of program participation dynamics if the spells that are unreported in Wave 1—in particular, spells that begin in Wave 1 but are unreported—are systematically different from those spells that are reported. In our analysis, we will test the sensitivity of our results to whether or not Wave 1 spells are included.

V. Comparisons of SIPP Characteristics of SNAP Participants with Administrative Data

The SNAP QC administrative data file provides data on a random sample of SNAP units. To assess the SIPP data, we compared the characteristics of SNAP participants in the SIPP with the characteristics of participants in the SNAP QC data file for calendar years 2009-2012 (Table A.10). In general, the SIPP data align closely to the SNAP QC data. However, there are some notable differences:

- The age distribution of SNAP participants in the SIPP is inconsistent with the distribution in the SNAP QC data. In particular, a higher proportion of individuals in SNAP units in the SIPP are adults than in the SNAP QC file. This is a known problem with the SIPP data. It is due, in part, to the fact that the SIPP unit formation procedures do not permit child-only SNAP units to exist. Instead, the SIPP forces adults to be part of the SNAP unit. Unfortunately, it is not possible to determine which units should be child-only units. The difference in the proportion of individuals in SNAP units that are adults between the 2008 SIPP panel and the SNAP QC files is about the same as it was in the 2004 panel.
- SIPP data have proportionately fewer households with zero earnings than SNAP QC data, and among households with income, levels are higher in the SIPP than in the QC data. These inconsistencies were also present in the 2004 panel, though differences are greater in the 2008 panel than they were in the previous one.

VI. SIPP Topical Module Data

Data from SIPP topical modules are essential to a study of program participation dynamics. Two topical modules inform our program participation research: (1) the Wave 1 Reciprocity History Topical Module, which provides essential data on reciprocity timing and history, and (2) the Wave 1 Employment History Topical Module, which provides data on labor force participation, employment, and unemployment.

These particular topical module data have been well vetted over two decades of SIPP-based dynamics research; concerns regarding accuracy of reciprocity start dates and overall data accuracy are well documented. This section presents our continuation of this tradition, as we revisit specific topical module data concerns addressed in past SNAP dynamics research and assess comparability of these data across studies based on the 2008, 2004, 2001, and 1996 SIPP panels.

This section examines and addresses specific concerns that are fundamental to using SIPP topical module data. We find that while some data problems persist, topical module data on SNAP reciprocity and employment history are actually improved in several areas from past panels. Overall, the topical module data for the 2008 SIPP panel are certainly sufficient to support our SNAP dynamics research. Further, we find the 2008 panel data to be strongly comparable to those collected in the 2004 panel and largely comparable to the other SIPP panels, with some caveats, which we discuss below.

The Census Bureau imposes confidentiality restrictions on data items that may reveal participant identity. However, some of these data elements are necessary for our analysis. In particular, beginning with the 2004 SIPP panel, the Wave 1 Reciprocity History Topical Module public use data file no longer includes the start date for SNAP spells that begin prior to the interview month and the Employment History Topical Module no longer includes the month a respondent last worked. Because these data elements are critical to research on SNAP spell length, a key aspect of this dynamics research, Decision Demographics arranged for special permission to analyze these data within the Census Bureau. The study team is grateful to the Census Bureau for this access and support of USDA's research. In keeping with privacy concerns, we include only summary tables that sufficiently safeguard participant privacy.

A. Reciprocity History Topical Module

A main objective of SIPP is to provide accurate and comprehensive information about the income and program participation of individuals and households in the United States. Since the 1986 SIPP panel, a Reciprocity History Topical Module (RHTM) supplements the survey's core questions on program participation, collecting key information on the length of time persons have participated in government income transfer programs such as SNAP.

Historically, questions persist around quality of the RHTM data. Specific concerns have focused on missing data, imputation problems, and accuracy of data, particularly the SNAP start date. This section examines and addresses specific concerns that are fundamental to using RHTM data. Specific data quality issues that we analyze and discuss include:

1. Design changes between panels that affect comparability of findings
2. Quality of algorithms used to allocate SNAP start dates
3. Accuracy of SNAP spell duration data

We examine these items and also assess the extent of comparability of data across panels.

Many participation spells reported in the core survey are "left-censored," that is, they are spells that are in progress at the start of the panel, and thus we do not observe their start date during the panel period. RHTM questions mitigate left-censoring, gathering start dates for SNAP and other assistance program participation spells that began prior to the start of the longitudinal study period.

The RHTM is administered in the first wave of the 2008 SIPP panel. As shown in Table A.11, interview months were from September 2008 to December 2008, and the primary reference period for core questionnaire items was the four calendar months preceding the interview month (in this

case, May 2008 through November 2008). In the case of left-censored spells, respondents are asked when their active SNAP spell began.

Looking at these issues for the 1991 SIPP panel, Gleason et al. (1998) found evidence of data concerns with the RHTM data. They attributed problems to the fact that, for the 1991 SIPP panel, the reciprocity history data were collected in Wave 2, eight months after the first reference month of the panel; they decided to exclude the month 1 spells from the main spell analysis. In contrast, Cody et al. (2005) found fewer problems with the 2001 panel topical module data. Specific tests, which we replicate for 2008 data, found that the 2001 reciprocity history data were markedly better than the 1991 data and suitable for analysis for all waves. Mabli et al. (2011a) applied similar tests to the 2004 data and found that while problems persist, the data were indeed suitable for their dynamics analysis.

The analyses that follow largely build upon assessments of RHTM data made by these earlier studies.

1. Design Changes Across SIPP Panels And Resulting Comparability Issues

The key FNS objective of this dynamics study is, to “Develop measures of recent SNAP participation dynamics, including entry rates, spell lengths, exit rates, and re-entry rates, *comparable to previous estimates.*” Since comparability across dynamics studies is core to our analysis objectives, our aim of this data assessment study is to produce analysis tables comparable to those presented in dynamics studies over the past two decades. This section discusses design changes that may affect comparability of findings.

Based on our analyses, the 2004- and 2008-based analyses are largely comparable. For the 2004 panel, the Census Bureau redesigned several aspects of the RHTM in response to a series of recommendations from the SIPP Continuous Instrument Improvement Group.⁹ As discussed in Mabli et al. (2011a), we found that the 2004 SIPP panel incorporated several redesign elements to topical modules that improved the data quality but may have slightly compromised the comparability of findings across studies. These changes were maintained in 2008. Further, the 2008 SIPP introduced no significant methodological changes.

A detailed description of the 2004 panel changes can be found in Appendix A of Mabli et al. (2011a). Items that changed beginning in 2004 that make the 2004 and 2008 panel data slightly different in nature from the 2001 and earlier panel data include the following:

- The 2004 and 2008 RHTM SNAP reciprocity questions are near the end of the interview to allow probes for categorical eligibility for SNAP based on questions about cash assistance. This should represent an improvement to the quality of the SNAP participation data over the 2001 and earlier panels, but may compromise comparability in that SNAP participation may be relatively underreported in the earlier panels compared.
- The 2004 redesign changed the nature of the SNAP start month and year questions for left-censored spells active in month 1. By changing the phrasing from “When did

⁹ Moore (2007) provides a complete report on the changes and their effects on data quality, and Mabli et. al (2011a) discusses the implications for dynamics research in his Appendix A.

[NAME/you] **apply** for the Food Stamps you *received*? to “When did [NAME/you] start **receiving** Food Stamps CONTINUOUSLY, every month [.../through [month]]?” the requested date changed from the initial application date to the initial receipt date. Receipt dates may lag application dates by one or more months. The phrasing subtleties concerning application and receipt dates could cause the 2004 and 2008 reported spells to be slightly shorter than spells in the 2001 and earlier panels (for spells beginning before the first reference month). However, this possible one-month lag will not unduly affect our analysis of spell length duration because it is unlikely to change the median spell length. Accurate recall of SNAP start month for longer spells is likely to be challenging in any case.

- The redesign slightly adjusted the universe for the RHTM to compensate for previous minor omissions due to CAPI branching issues. This improves the overall quality of the SNAP reciprocity data in 2004 and 2008 compared to earlier panels.
- The 2004 panel was the first to probe for SNAP start dates that came before a recipient’s 18th birthday; this is employed again in the 2008 survey. This slightly increases coverage in 2004 and 2008 studies compared to earlier studies.
- To protect against the possibility that a user might recognize the identity of a SIPP respondent with a very old SNAP initiation date, the start year is “bottom-coded” on the public use files so that no dates before a certain point (1970 for the 2008 panel) are revealed. Beginning with the 2004-based study, and continuing in this 2008-based study, because we use in-house data to gain access to key variables not on the public use data files, we took the opportunity to employ the more accurate non-bottom-coded data.¹⁰ As such, the spell lengths are more accurate in the 2004 and 2008 studies, relative to prior studies. However, because no more than the bottom 3 percent of data are suppressed, this caveat is not likely to affect comparability of spell length analyses between the 2004 and 2008 studies and the earlier studies; neither the median spell length nor even the top quintile is likely to be affected.

2. Results of Algorithms Used To Assign SNAP Start Dates

Because dynamics studies examine participation patterns, including spell lengths, we need to identify the start dates of left-censored spells for all members of recipient households. SIPP asks RHTM history questions only of sample members age 18 or older who are authorized to receive SNAP benefits; we refer to these respondents as “SNAP reference persons.”¹¹

The left-censored start date questions were restricted to those with active month 1 SNAP spells. In this study, which uses the individual as the unit of analysis, we need to know the start dates of left-censored spells for all members of recipient households (including both SNAP reference persons and other household members).

We used the same approach we employed in the 2004-based study¹² to determine the start date of a left-censored spell for an individual who was not the SNAP reference person but who lived in

¹⁰ The two variables affected by use of real instead of bottom-coded data are EFBG120Y (Year started SNAP receipt for active month 1 spells), and EFSSTRYR (Year first received SNAP).

¹¹ The respondent can be 18 in any month of the four-month reference period.

¹² Also used by Gleason et al. (1998) and Cody et al. (2005).

the same household as the SNAP reference person during the first panel month. In general, this approach assigns parents' start dates to children, and assumes adults in the SNAP household had the same start date as the reference person unless they moved in after the reference person's start date.¹³

Sufficient Sample of SNAP Reference Persons

Table A.12 summarizes the start date status of individuals who report active SNAP spells in their first month of the survey.¹⁴ These spells are all left-censored by definition and thus require the RHTM to collect the date when this active month 1 spell began. The table shows weighted and unweighted samples and the extent to which the start date of the month 1 spell is missing.

The 2008 SIPP panel has an unweighted sample of 4,076 active SNAP spells in month 1. This sample size is a fifth smaller than that of our 2004-based study, but is substantially more than the 2,700 found in 2001. The 4,000 cases represent a sufficient sample for our analysis. Compared to the 2004 study, our 2008 sample includes 16 percent fewer SNAP reference persons and 22 percent fewer other members of SNAP units.

Assessing Extent of Missing and Imputed SNAP Start Dates

Because this study looks extensively at spell length it is critical to understand how long an individual has been on SNAP. Table A.12 shows that all SNAP reference persons have information available about when they began receiving SNAP, although about a third of those start dates were imputed. (This finding is highly comparable to findings from 2004, in which 33 percent of 2004 SNAP reference person start dates were imputed.)

Most imputed dates are missing only the start month; the respondent provided the start year (72 percent of the unweighted imputations). In total, just 10 percent of unweighted reference persons in our study required full imputation of the SNAP starting date and 22 percent of other members of the SNAP household required full imputation.

Although we are able to assign a start date to all SNAP reference persons, we are unable to do so for about 5 percent of other members of SNAP units. Either start dates are missing for these cases

¹³ Specifically, the four rules are: (1) If the individual was a child of a SNAP reference person and under age 18, the child's start date was the start of the reference person's spell if the spell began after the child was born; otherwise, the start date is the child's birth date. (2) If the individual was at least age 18, we determined when the individual and the SNAP reference person moved into their current residence using information in the Wave 2 topical module. The spell start date of the individual was then calculated using information on order of the move dates and the spell start date. For example, if the individual moved into his or her month 1 address after the reference person did but before the reference person's spell started, the spell start date of the individual was set to the start date of the reference person's spell. In some instances, we also used Wave 2 topical module information on the prior residence of household members before they moved into their current address. (3) If the individual was a child of an adult in the household who was not a reference person but has SNAP, the start date of the child was the start date of the parent (as calculated using rule 2) if the child was born before that start date. (4) If the individual was a child unrelated to any household member, then we used rule 2 if the child was at least age 15, and rule 1 otherwise. We used this procedure because the residence history questions were not asked of children who were under age 15.

¹⁴ All of the topical module data in Tables A.12-A.21 are reported only for panel members to whom we have assigned a longitudinal panel weight, with the addition of newborns who join SIPP households during the study period. We assign those newborns their parents' or a surrogate's weight.

because we do not know when the person moved into the month-1 SNAP household or we do not know, with certainty, the order of a move date and a spell start date. Start dates for other unit members are imputed either because their pre-panel residence information was imputed or because the spell start dates of the SNAP reference person were imputed. Imputation patterns among the other members of SNAP units for whom we have provided start dates are similar to those of the reference persons, with most having only the month imputed. This is expected since other unit members were largely assigned data from the SNAP reference persons they live with. Overall, the percentage unallocated in 2008 is lower than the 8 percent of other members with unassigned dates in the 2004 panel.

3. Accuracy/Reasonableness of Spell Length Data

Because the Census Bureau only collects start dates from the SNAP reference person and we assign start dates to all others in SNAP units through the process described above, our analysis of underlying data quality is focused primarily on SNAP reference persons. This section presents our analysis of data issues surrounding the SNAP start date and sheds light on a two decades-old SIPP mystery.

Negative Spell Lengths in Past Dynamics Studies: No Longer Observed in 2008 Data

A concern with RHTM data that has beset past dynamics studies, but is resolved for this 2008 study, is the presence of negative SNAP spell lengths. A negative SNAP duration occurred in past studies when the SIPP core-based questions revealed that an individual was receiving SNAP in month 1, but the response to the RHTM question about the starting date of the month 1 spell was *after month 1*. In the 2004 SIPP panel, about 7 percent of the SNAP reference persons' month 1 spells started after month 1, resulting in *negative* elapsed durations. This is the same level documented by Cody et al. for the 2001 panel, while Gleason et al. found as many as 10 percent of reference persons had negative durations in the 1991 panel. While past authors posited theories, no definitive explanation existed.

As shown in Table A.13, which presents the elapsed length of the month-1 active spells for SNAP reference persons, our sample contains no individuals with negative spell lengths. Because we no longer observe negative-duration SNAP spells, we sought to better understand what caused these negative spells in the first place. With generous assistance from Census Bureau staff, we investigated their imputation routines from 2004 and earlier panels and learned that negative spell durations were the result of faulty start year editing procedures in the Census Bureau's imputation process. Specifically, in 2004, a cold-deck imputation procedure, used to correct missing and invalid SNAP start months, fixed the start month, but inadvertently assigned 171 respondents to a start year of 2004 that should have been 2003.¹⁵ This analysis supports the theory purported in previous studies, that the Census Bureau meant to impute the previous year, but did not alter the year variable.

¹⁵ Not all 171 cases were included in the 2004 analysis sample, as not all had valid Wave 1-8 longitudinal panel weights.

We also discovered that the SIPP editing routines for left-censored cases reset the RHTM reported month 1 start dates to one month prior to a respondent's first reference month.¹⁶ This editing program, used to "clean" the interview data, does not allow a respondent to report that they began receiving SNAP in their first panel month. Rather, reported start dates equal to panel month 1 are reset to one month prior. This editing routine is likely a vestige of the former reciprocity question (2001 and earlier panels), which asked when a respondent *applied for* their current SNAP benefits. The one-month date offset may have been intended to correct for an expected one-month lag between application for, and receipt of, SNAP assistance. However, when the question changed in 2004 to ask when a respondent first *received* SNAP benefits, this imposed one-month lag remained. As such, no respondents have a start month equal to their first reference month. This data artifact will cause us to measure these specific spells as one month longer than they probably actually are.

Left-censored spell respondents who report a SNAP start year equal to the interview year but do not provide a start month are also imputed to begin receiving SNAP one month prior to their first panel month. These respondents might have first received SNAP any time between January and November of 2008, depending on their rotation group (and thus with an elapsed spell duration of 1 to 4 months). However, the imputation routine assigns all of these cases an elapsed spell duration of just one month. This may bias our spell length estimate downward for these cases for 1 to 3 months per participant. The calendar month shift for the 2008 SIPP panel (first interview took place in September instead of February as in the 2004 and 2001 panels), inadvertently mitigated this imputation error, resulting in no negative spell durations. Imputation routines were the same, but no year lines were crossed, so no artificial negative spells resulted.

Table A.13 also captures the relationship between imputed start and spell duration, as the lower panels of the table compare elapsed spell lengths for individuals with imputed, non-imputed, and month-only imputed start dates. As one would expect, forgetting a start month is correlated with longer elapsed spells; 29 percent of those with only months imputed (meaning the respondent recalled the start year) have elapsed spell lengths of five or more years, compared to 25 percent of individuals with non-imputed spells. Our analysis suggests that Census Bureau imputation algorithms appear to favor longer spell lengths, a pattern present in the 2004 SIPP as well. Half of imputed start date cases have been on SNAP for three years or more, compared with 42 percent of non-imputed cases.

Assessing Whether Spell Lengths are Reasonable

To assess whether allocation procedures for other SNAP unit members result in reasonable spell lengths, Table A.14 compares elapsed durations of *all* SNAP participants with those of SNAP reference persons. SNAP reference persons have slightly longer spells than all participants do: 25 percent have been in progress for just 6 months or less and about a third have been in progress for 1 year or less, compared to 27 percent and 38 percent of all participants. These differences are very similar to those from 2004 and 2001.

¹⁶ This procedure does not apply to respondents who supplied a start year earlier than the interview year or no start year at all; those start dates are allocated using hot deck and logical imputation procedures.

At the other extreme of duration, 28 percent of SNAP reference person spells have been in progress for more than 6 years, fewer than observed in 2004 and 2001. However, the median elapsed time for 2008 reference persons is 2 years, and the mean elapsed time is 5 years, nearly identical to 2004 (and 10 percent higher than 2001, as expected based on business cycle patterns). The large difference between the mean and median observed in all the studies reflects the predominance of long spells. As expected, the elapsed spell durations were greater for reference persons than for all persons, at least partly because elderly reference persons, who have longer spell durations, are less likely to have children or others present in the household to whom their long spell durations are assigned.

Using In-Sample Methods to Assess the Accuracy of the Reciprocity History Data

In assessing the accuracy of the SNAP start dates and reciprocity history profiles, we also use five “in-sample” assessment methods.¹⁷ To assess our allocation procedures for the full SNAP sample, this analysis, presented in Tables A.15 through A.20, is based on SNAP spells among all persons who received SNAP (not just SNAP reference persons).

1. In-Sample Assessment Method 1: Compare the proportion of spells that began in month 1 with the proportion of spells that began in other panel months (Table A.15).

This analysis, repeated over the past three dynamics studies, had been intended to determine whether the proportion of month 1 spells that began in month 1 is similar to the proportion of ongoing spells that began in each of the other panel months. If the Wave 1 topical module information is accurate, then the month 1 proportions should be similar to the proportions in the other panel months, particularly those that correspond to the first month of each wave (e.g., months 5, 9, 13, 17, 21, 25, and 29).

However, we cannot conduct comparisons with Month 1, because, as described above, the 2008 data include no SNAP reference persons with spells that began in the first panel month.¹⁸ Indeed, the RHTM data editing procedures, as described above, do not allow for start dates equal to month 1, and such comparisons conducted in past dynamics studies were based on artificial month 1 spells.

In the 2004 SIPP panel, 5 percent of ongoing SNAP spells appeared to begin in month 1. In actuality, when the procedures described above resulted in negative spell durations, Mabli et al. (2011a) reassigned RHTM start dates to month 1, an otherwise impossible date due to the Census Bureau’s editing procedures. Indeed, for the three previous SIPP panels, this negative spell phenomenon led the authors to create artificial month-1 cases, masking the editing procedures that eliminated all month 1 starts.

Our investigation brings a new understanding of the data, however, it also introduces a complication in that 2008 findings are not be completely comparable to those of the prior studies. For example, mean 2008 spell length should be longer than it would have been had this data

¹⁷ We used these same approaches to assess the 2004 panel RHTM data, and they were also employed by Gleason et al. (1998) and Cody et al. (2005).

¹⁸ To be precise, this sample of month 1 starters does include five babies born in this month to families already receiving SNAP; thus, their birth date becomes their SNAP start date

element not changed; now there will be neither spells with zero length, nor spells of negative length, included in the duration analysis. In the two previous analyses, the negative spells were reassigned to zero elapsed length and retained. We do not anticipate that this change will affect median spell length.

Other than the revelation that past studies may have incorrectly identified spells as beginning in month 1, this table also shows that on average, 14 percent of on-going spells begin in each seam month. The variation we see – ranging from a low of 10 percent beginning in month 45 to a high of 19 percent beginning in month 5 – may in part reflect fluctuations in the business cycle.

2. In-Sample Assessment Method 2: Compare spell durations by start month (Tables A.16 and A.17).

Table A.16 shows a comparison of the cumulative duration of three types of left-censored and non-left-censored month 1 spells:

- Non-left-censored spells that started after month 1
- Non-left-censored spells that started in month 5
- Month 1 spells that began one to six months prior to the first panel month (i.e., left-censored spells with an elapsed duration of one to six months)

The median spell duration for non-left censored spells starting after month 1 is 11 months, compared with 13 months for non-left censored spells starting in month 5. We are encouraged that these medians are very close to one another given their different universes and that the data follow a pattern similar to that observed in the 2004-based study. These different universe medians in the 2008 study are closer to one another than those of either Cody et al. (2005) or Gleason et al. (1998), indicating sustained improvements in quality over time.

Table A.17 summarizes differences observed across the four key dynamics studies. In the analysis conducted by Gleason et al., with the 1991 panel, the difference between month 1 spells and other spells was substantially greater than found in the 2001 and 2004 studies; the median spell length for month 1 spells with zero elapsed duration was 28 months compared with 8 months for other non-left censored spells. This led Gleason et al. to conclude the data on spells with zero elapsed duration in month 1 were likely biased and not usable. Assessment analyses conducted with the 2001 and 2004 panels saw marked improvement in these data and the month 1 data were included.

Compared to earlier studies, the 2008 data show longer median spell durations for left-censored month-1 spells with elapsed durations of 1 to 6 months – 31 months compared to 19 months in 2004, 14 months in 2001, and 23 months in 1991. This may reflect an overall trend toward longer participation durations during The Great Recession, or it may reflect the longer observation period of the 2008 SIPP.

3. In-Sample Assessment Method 3: Compare spell durations by elapsed pre-panel time (Table A.18).

We compared the cumulative duration *during the panel* of left-censored month 1 spells (spells that started prior to the panel). Table A.18 shows the comparison of these durations across five subgroups defined by their duration prior to the panel:

- Month 1 spells with an elapsed duration of 1 to 6 months
- Month 1 spells with an elapsed duration of 7 to 12 months
- Month 1 spells with an elapsed duration of 13 to 24 months
- Month 1 spells with an elapsed duration of more than 24 months
- All month 1 spells that began before month 1 (all left-censored spells)

The results show that left-censored spells with longer pre-panel durations have longer durations within the panel. The median spell length during the panel for spells with the shortest elapsed pre-panel durations (1 to 6 months) is 28 months, compared to 41 months for those with pre-panel durations of 7 to 12 months. Those with pre-panel durations of 13 to 24 months and more than 24 months have median durations not measured with the panel observation period (but therefore in excess of 54 months). This pattern is expected since people with spells that were in progress for a long time prior to the start of the panel are less likely to stop participating. This indicates that our data are falling within patterns similar to those found in previous studies, only with longer observed durations.

4. In-Sample Assessment Method 4: Examine “artificial” cohort of left-censored spells (Table A.19).

We compared a cohort of left-censored spells in month 1 with a cohort of “artificial” left-censored spells. The artificial left-censored spells were created from all active spells in month 12 that started between panel months 2 and 12. We compared the duration (subsequent to month 12) of the artificial cohort spells to the duration (subsequent to month 1) of month 1 spells that were reported to begin 1 to 11 months before the panel. The distributions of spell durations should be similar for the two samples if the start dates in the topical module are accurate.

The duration of artificial left-censored spells is shorter than the duration of month 1 left-censored spells. For the artificial cohort, the median spell length is 27 months (compared to 20 months in 2004) months, and for the month 1 left-censored cohort, the median spell length is 35 months (compared to 26 months in 2004). This is a differential of eight months between the two cohorts, similar to the 6-month differential found in 2004 (Mabli et al.) and about halfway between the differentials found by Cody et al. and Gleason et al.

In the 1991 data, Gleason et al. found that the artificial cohort spells were shorter than the Wave 1 cohort spells by nine months, and concluded that individuals in the Wave 1 cohort were under-reporting their pre-panel duration. With the 2001 panel, Cody et al. found the smallest differential, and in the opposite direction: the median spell for the 2001 artificial cohort was 21 months and the median spell for the month 1 cohort was 18 months. Buoyed by the similarity between the two cohorts, Cody et al. concluded that the 2001 data quality was good. The 2004

study found a difference of 6 months between the two medians, and in the same direction as the 1991 study.

The distinct historic and economic contexts of the four panels, and indeed of the two individual cohorts within each panel, have the potential to create significant differentiation in addition to whatever unique qualities the SIPP instruments may have created. With results from four panels available, it appears that the 2008 patterns are within a reasonable range, though show a slight weakening compared to 2004.

5. In-Sample Assessment Method 5: Compare elapsed duration with subsequent duration (Table A.20).

Finally, we compare the cumulative elapsed spell duration of month 1 spells that began before month 1 with the cumulative spell duration of these spells during the panel. Assuming that the distribution of SNAP spell durations has not changed over time and that the economic and policy climates were constant, these spells should be, on average, in the middle of their spells in month 1. Thus, the backward and forward spell duration distributions should be similar if this “stationarity” assumption is valid and if the Wave 1 topical module reciprocity history information is accurate.

As was the case in the 2004 panel, the 2008 analysis finds that forward spell durations are shorter than backward spell durations. About 26 percent cases exited their forward spells within one year, whereas 23 percent of spells track backwards for one year or less. This 3-point differential rises to 8 percentage points by 36 months, when 44 percent of forward spells had ended versus only 36 percent of spells track backwards for 36 months or less. Backward durations do not reach the median level of spells within our 54-month observation period months, but the forward durations reach the median level at 52 months. This is likely mostly a function of differential recall -- providing information every 4 months for the forward-looking spell segments versus just once for the backward looking segment. Or, it could just be that there are longer spells going backwards, and previous SNAP dynamics studies have found that existing spells (spells defined by the 5th-month cross-sectional sample) have a much longer length than new spells. The spells in progress at month 1 of the reference period that form the basis of this table are analogous to a cross-sectional sample drawn at month 1.

Mabli et al. also found forward spells to be shorter than backward for the 2004 panel, but neither forward nor backward durations reached the median level of spells within the 30-month observation period. Cody et al. observed the median duration of 2001-panel forward spells (24 months) to be shorter than the median of backward spells (more than 30 months). Both these findings are counter to what was observed in the 1991 data by Gleason et al., who found that the forward durations were longer than the backward durations, supporting their conclusion that respondents reported their pre-panel durations to be shorter than they actually were.

Five In-Sample Approaches: Conclusion

These five in-sample approaches to assessing the topical module data demonstrate that the reciprocity history data could be materially different from within-panel measures of SNAP participation begin dates. The recall demands for within-panel measures are limited to the immediate past four months, the SIPP reference period, and even within that short time

respondents display considerable seam bias in their responses. For the RHTM, however, the majority of left-censored spells required greater recall on the part of respondents. One effect of the recall demands is evident in the rising level of month-only imputations with rising left-censored spell length—respondents simply cannot remember back that far. Also, when comparing backward with forward spells, we can expect that the backward spells—all left-censored—are not measured as accurately as the forward spells.

Our 2008 data do not include spells with negative or zero elapsed duration as did previous panels. This lack of negative spells, which in the past were reassigned to zero elapsed duration, will improve the quality of the current analysis while making it somewhat incompatible with previous studies.

Two changes in the character of the 2004 SNAP RHTM data also had the potential to bias the results: the lack of bottom-coding and the change in phrasing in favor of SNAP receipt date rather than application date. Overall length of spells increased in 2004 compared with 2001, however both the median and mean spell length increased by about ten percent. Had the lack of bottom-coding had a significant effect, the mean spell length would have increased more than the median. The change in phrasing should have resulted in 2004 and 2008 spells being shorter than 2001 spells, other things being equal. Any change due to phrasing change probably would have been small, limited to the gap between application and receipt among successful SNAP applicants in 2001. If there was such a depressing influence on the change in spell length from 2001 to 2004, it cannot be identified.

Overall, the results of this evaluation place the 2008 RHTM data within a normal range of what can be expected from the 2004 and earlier. The RHTM data appear to be reliable and not in need of adjustment. However, whether the longer observation period of the 2008 panel will result in a shorter median spell length due to a preponderance of short spells (since the median length of new spells in previous studies has been relatively short), or longer spell length from new spells having the opportunity to persist for more months before becoming right-censored (possibly compounded by the Great Recession) is something that we will monitor carefully in the main study.

B. Employment History Topical Module

In the Wave 1 Employment History Topical Module (EHTM), respondents are asked about their employment history. Individuals who are unemployed in the first month of the panel are asked about any previous employment. In the 2001 panel there was some evidence that the information was biased, showing lower rates of historic employment for individuals in month 1 than later in the panel (Cody et al. 2005). As such, this was investigated for the 2004 panel and now again for the 2008 data. Our assessment of the most recent study found no bias apparent in the 2004 panel. As described below, while the data for 2008 show more variation than the 2004 data, we believe that EHTM data are suitable for constructing measures of “usual circumstances.”

Table A.21 examines the proportion of individuals unemployed in month 1 (column 1) that were employed within the past 6 and 12 months. It also shows analogous rates for individuals unemployed in months 12, 24, 36, 48, and 56 (columns 2 – 6) that were employed in the past 6 and 12 months.

As the economy grew worse in month 12, 24, and 36 of the SIPP, as evidenced by the increasing unemployment rate (based on the CPS), we see a greater percentage of unemployed individuals that were recently employed. This may reflect greater turnover (greater job loss rates) during tough economic times. We cannot determine employment history for 9 percent of month 1 unemployed individuals. This is substantially higher than the 3 percent for which we could not determine employment history with the 2004 data.

Based on the consistency of the employment history data with a jump from relatively low unemployment to high unemployment, we believe that the employment history topical module data provide a sound basis for creating measures of “usual circumstances.” For instance, for a given individual, we can determine whether being unemployed in month 6 was typical or not typical relative to the past year by combining their employment information during the first 5 months with either (a) the start date of their job(s) in month 1 (reported in the core data), if employed, or (2) their employment history from the topical module data). These estimates can be used to assess the relationship between usual circumstances and participation dynamics.

VII. Gaps in SNAP Participation

This section presents the results of our assessment of gaps in SNAP participation in the 2008 SIPP panel. We examine the incidence of gaps of different sizes; the lengths of spells prior to and following the gaps; characteristics associated with having a gap; and other data features related to gaps. The analysis was conducted to help inform the decision of whether to recode one-month gaps, or even two-month gaps, in participation by “closing them up.” In the most recent previous reports, we have closed up one-month gaps but not two-month gaps.

A. Incidence of Gaps and Distribution across Reference Months

In the 2008 SIPP panel, 5 million families participating in SNAP had a one- or two-month gap in their participation spell (845 families, unweighted) (Table A.22). This makes up 8 percent of all families participating in SNAP, slightly more than in the 2004 panel (7 percent). The percentage with at least one one-month gap (5 percent) is larger than the percentage with at least one two-month gap (4 percent).¹⁹ No families have three or more one-month gaps or three or more two-month gaps, though some have a mix of one- and two-month gaps.

Each SIPP interview takes place in the month following the end of the wave. The Wave 1 interview takes place in what could be referred to as month 5, for example. The respondent is most likely to report the month 4 information accurately because it was only one month prior to the interview. We find that nearly half of one-month gaps (47 percent) occur in the fourth month of the wave (Table A.23)—the month for which we expect the most accurate reporting. This is a sizable decrease from the 2004 panel (68 percent).

On the other hand, the information reported for the beginning of the next wave is likely to be the least accurate, which could lead to over-reporting of one-month gaps. Continuing with the example above, even if an individual reports SNAP participation in months 1 to 3 of Wave 1, and

¹⁹ Because some families have both a one- and a two-month gap within the panel, these numbers sum to a percentage greater than the 7.9 percent of families with gaps.

no SNAP participation in month 4 of Wave 1, their interview for month 5 (month 1 of Wave 2) does not occur until four months later. If the respondent returned to SNAP in the middle of Wave 2, they may erroneously report participation for all months of Wave 2. (The seam bias analysis clearly shows that people do tend to report in this way.) Therefore, it may be that a gap did, in fact, begin in the fourth reference month, but it may be less likely that the gap truly ended after one month. The gaps in months 1 to 3, however, are likely to have been accurately reported, as they do not occur on a seam month.

Most two-month gaps occur in the middle (months 2 and 3) or the end (months 3 and 4) of the wave (Table A.23). Thirty percent of two-month gaps start in month 2, and 57 percent start in month 3. In the 2004 panel, these percentages were 41 and 44 percent, respectively. If we use the same argument above, that recall bias is present in the data, then the two-month gaps starting in month 2 should be the most accurate, as the start and end date do not occur on a seam month of the wave. The two-month gaps starting in month 3 would suffer from the same recall problem, namely that while the gap start month is accurate, the end month (month 4) might be inaccurate if recall bias affected responses for the next wave.

Taken as a whole, Table A.23 provides fairly reassuring evidence that the start months of one- and two-month gaps are being reported accurately, though it is uncertain whether the end months are accurate as well.

B. Duration of Participation Spells With and Without Closing Gaps

To assess the implication of closing gaps on the average spell length of SNAP participation for participants with gaps, we estimate lengths of SNAP spells prior to and following the gap. We then close the gap and re-estimate the average spell length. We first focus on one-month gaps and then describe whether closing up two-month gaps yields similar conclusions (Table A.24).

The average length of spells preceding the gap, among non-left-censored spells, is 10 months, nearly twice as long as the analogous duration in the 2004 panel (6 months). A non-left-censored spell is one that begins after the respondent's first month in the panel. We focus on non-left-censored spells because they comprise the majority of SNAP spells prior to the gap, with 71 percent of these spells being non-left-censored, and because spell lengths for left-censored spells can only be estimated using SIPP topical module data that are confidential, and that are somewhat different in nature than the monthly, within-panel observations of SNAP participation.

The average length of spells following the gap is 12 months, up from 7 months in the 2004 panel. While all spells following the gap are by definition not left-censored because they begin in the month after the gap, nearly half of them are right-censored, meaning that the respondent exits the SIPP panel while still participating in SNAP. The average length of the non-right-censored spells following the gap is 10 months.

The average spell length, among non-left-censored spells, once the gap is closed is 23 months. We note that all non-left-censored spells prior to the gap remain non-left-censored spells once the gap is closed. Thus, closing one-month gaps more than doubles the average spell length of non-left-censored spells for individuals with one month gaps. This is a sizable difference, but the impact on the average spell length among *all* SNAP participants, including those without gaps, is much smaller because less than 5 percent of participants have one-month gaps.

The average length of non-left-censored spells prior to the gap of about 10 months is interesting because it is not far off from the mean SNAP certification period of 12 months in FY 2010, and is even closer to the mean certification length of 9 months for households with children.²⁰ This finding supports the idea that one-month gaps truly reflect churning as States have described, with cases being closed due to failure to recertify and participants re-entering shortly after re-applying.

For participants with two-month gaps, the average spell length is 9 months prior to the gap (among non-left-censored spells), almost 15 months following the gap (including both right-censored and non-right-censored spells), and 29 months once both the two-month gaps and the one-month gaps are closed. While the length of the spell prior to the two-month gap is similar to the spell length prior to the one-month gap, the length of spell after the two-month gap is longer than the spell length after the one-month gap. This may suggest that there are different types of participants with two-month gaps than with one-month gaps. However, the length of the spell once the gap is closed is similar in magnitude to the one-month gap case.

C. Characteristics of Participants With and Without Gaps

Tabulating characteristics of SNAP participants with and without participation gaps of one to two months shows that individuals with gaps are more likely to have characteristics associated with shorter recertification periods than other SNAP participants (Table A.25). For example, individuals with gaps disproportionately live in families without elderly members as opposed to families with elderly members. We find that 85 percent of individuals with a one-month gap live in families without elderly members, compared to 81 percent of individuals without gaps. And, the average certification period for households with elderly members (20 months) is higher than the overall average certification period for the SNAP caseload (12 months).²¹

We find this same relationship for most other subgroups; characteristics associated with gaps are also associated with shorter certification periods. This includes families with children, with earned income, without SSI, and without Social Security. However, we find little association between living in a family with TANF or unemployed compensation and experiencing a gap.

The percentage of individuals with an increase in family income at the break in participation is slightly higher among individuals with a two-month gap than a one-month gap (Table A.25). It is also higher among individuals with multiple gaps (of either one- or two-month) than a single one- or two-month gap. Overall, the characteristics associated with having a gap in participation in the 2008 panel are similar to those in the 2004 panel.

D. Timing of Changes in Individuals' Family Characteristics

In Table A.26 we compare how characteristics of participating individuals differ before, during, and after the gap. We determine how often an individual with a one- or two-month gap in participation experiences a change in his or her family characteristics around the time of the gap (before the gap to within the gap, before the gap to after the gap, or within the gap to after the gap). This information is presented in the first column of Table A.26. This compares to the

²⁰ Eslami, Esa. "Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2010." Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, September 2011.

²¹ Eslami, Esa. "Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2010." Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, September 2011.

percentage of individuals that experience such changes within a participation spell (indicating the change may not lead to a break in participation) in the second column or during a longer gap in participation of three or more months in the third column.

We learn from the table that changes in circumstances are common within spells. Eleven percent of individuals in families with no gaps in participation have an increase within the spell in the number of children, and 13 percent have a decrease in the number of children. Similarly, about 16 percent have an increase in the number of family members and 13 percent have a decrease in the number of family members. Fifty-one percent have an increase in earned income and 50 percent have a decrease in earned income.

However, changes are even more prevalent around the gap, for individuals in families with a relatively long gap in participation (three or more months). We generally accept that individuals with these long gaps are truly experiencing a gap in participation. For example, about two-thirds have either an increase or a decrease in earned income, 69 percent have a change in unearned income, and around half have a change in family size.

If the individuals in families with shorter gaps were also exiting and re-entering because of changes in circumstances, we would expect to see a relatively high prevalence of these changes in the first column. In other words, we would expect them to look more like the people with longer gaps than the people with shorter gaps. However, only about 11 percent of these individuals have changes in family size and 35 percent have changes in earned income (relative to two-thirds of those with gaps of 3 months or longer). We must note that the opportunities for such changes are fewer for individuals in families with these shorter gaps relative to individuals in the other two columns—the changes are measured over at most four months (one month before the gap, up to two months of the gap, and one month after the gap) for individuals in the first column. The changes can be captured over longer periods in the other columns. Although the difference in the number of months over which the changes can be captured is so different across columns, the percentages of changes in circumstances for the individuals in families with one- and two-month gaps suggests that a change in circumstances is not the cause of their participation gap.

E. Amount of Income Change Around Participation Gap

The previous table examined the extent of increases or decreases in income and income components. Because many individuals in the panel experience changes in income throughout the panel, however, it is useful to look at the *magnitudes* of changes in selected variables. Table A.27 presents the magnitude of income changes just prior to a one- or two-month gap in participation (from two months before the gap to one month before the gap), at the gap (from the month prior to the gap to the month(s) of the gap), or after the gap (the last month of the gap to the first month of the new spell).

Table A.27 is the first table to indicate that some of the individuals with gaps in participation may actually be gaps related to changes in circumstances. In particular, we see that 29 percent of individuals experience a change in earnings just before the gap, 24 percent at the gap, and 32 percent at the end of the gap. Major changes at any time during these months could trigger SNAP exits and entry, although changes of a few dollars would probably not lead to an exit or entry. In fact, we see that over half of the gaps with changes in earnings were changes of more than \$400.

The distribution of magnitudes for changes in other income types is more widely distributed, often with the highest percentages of changes at the smallest and highest amounts.

F. Conclusions Regarding Gaps

To avoid overestimating the entry rate, researchers conducting the previous studies opted to “close up” one-month gaps (not two-month gaps), assuming that the respondent made a mistake in reporting and did not experience an actual break in participation. Anecdotal evidence from State SNAP agencies, however, indicates that “churning,” short-term nonparticipation in the program, is somewhat common.

In assessing whether to close one-month gaps in this current analysis, we focused on three possible explanations for short-term gaps:

1. Individuals had a change in circumstances that led them to exit and then another change that led them to re-enter, within a very short time period.
2. Individuals reached the end of their certification period without completing the recertification process, leading them to exit the program; then within a month or two, reapplied and entered back into the program (what we refer to as churning below).
3. The gap is misreported and participation continued across this period.

If we had found solid evidence that the first case was most prevalent, we would suggest not closing the gaps, as the exits and entries would then appear real. Aside from the last table, concerning the magnitudes of the changes, however, we did not find much evidence to support this. Table A.26 showed us that individuals with short-term gaps do not seem to experience a similarly high level of changes in circumstances as seen with those with longer gaps. The same was true in the 2004 panel.

Thus we were left trying to identify if the gaps are due to churning or misreporting. From Table A.23, we find that although the percentage of one-month gaps reported in the last month of the wave decreased from 2004 to 2008 (68 to 47 percent), a disproportionately high number of one-month gaps continue to be reported in the last month of the wave – the month we expect to be most accurately reported, relative to the first three waves. Although reporting bias in the next wave may lead to an underrepresentation of the gap, it appears likely that there was a gap. From Table A.24 we see that the gap often occurs about ten months into a spell, which is not far off from the mean SNAP certification period of 12 months in FY 2010, and is even closer to the mean certification length of 9 months for households with children. Then, in Table A.25, we find that individuals who are more likely to have short gaps in participation are also the ones with the shorter certification periods. In other words, they come up for recertification more often, and have more opportunities to experience a short-term break in participation.

Because the tabulations are consistent with an explanation of churning, and the highest incidence is in a month that we expect to be most accurate, we believe, like in the 2004 panel, that the gaps in the 2008 panel may in fact be due to churning rather than misreporting.

The question that remains, then, is whether to close the gaps or not. On one hand, the gaps appear to be true breaks in participation—individuals exited the program and re-entered very quickly. On

the other hand, the exits and entries were not triggered by changes in circumstances, but instead by an end of the certification period. If we were to close the one-month gaps, our analysis would include longer single spells and examine trigger events only around their entry before the long spell. If we were not to close the one-month gaps, we would have multiple shorter spells and will include triggers for individuals who did not experience a change in circumstances that led to their entry. In other words, closing the gap would result in longer median participation spells, lower entry rates, and an entry trigger analysis based on a more reasonable set of entries. Not closing the gaps would result in shorter median participation spells and have an entry trigger analysis that has been diluted by families that entered without a change in circumstances. Given the percentage of individuals with gaps in Table A.22, however, this dilution is likely to be minimal.

While we believe that either approach is appropriate and defensible methodologically, we chose to close the gaps in the 2008 panel. If States and policymakers generally consider the churners to be longer-term participants, then closing the gaps allows the analysis to focus on entries, durations, and triggers among those who are not simply churning. Closing gaps in the 2008 panel will also maximize the comparability between the 2008 dynamics findings and those from the 2001 and 2004 panels.

VIII. Supplemental Data Sources

There is a long history in Dynamics reports of exploring how SNAP dynamics differ by characteristics of households, such as family composition, and presence of and sources of income. In past Dynamics studies, these subgroups have been created exclusively from data available on the public use SIPP files. To further enrich our understanding of SNAP caseloads, for the first time, this Dynamics study draws from three additional data sources: (1) the ACS summary files, (2) the Food Access Research Atlas, and (3) a proprietary mortgage foreclosure data resource. These data sources enable us to define subgroups by neighborhood contextual factors, geographic access to food, and foreclosure experience. Including subgroups formed from these additional data sources has the potential to add depth to our understanding of how participant contextual characteristics affect such program dynamics as SNAP spell length duration, entry and exit rates, and reentry patterns.

We have merged each new data source to our SIPP-based analysis file and conducted analyses to verify data quality and construct preliminary summary analysis variables. In this section we describe these data and how well they matched and merged to our existing analysis files. We also present a first look at the variables from which we will create the new analysis subgroups. This work is exploratory; as such, we will consult with FNS as to final subgroup construction. We provide a variety of preliminary subgroup cuts here to begin discussions.

1. American Community Survey Neighborhood Contextual Data

To create subgroups that describe the income and program participation levels of individuals' neighborhoods (in this case neighborhood is denoted by a sample member's census tract), we employ the 2008 to 2012 Census Bureau ACS population characteristics summary files (public

use data) tabulated according to the 2010 census tract geographic boundaries.²² We link the ACS data to our SIPP-based analysis file by census tract.

While the public-use SIPP data contain no geographic identifiers below the State level, we have secured permission to use monthly census tract of residence information for SIPP respondents from within the Census Bureau. The 2010 census tracts assignments for SIPP are available only through Wave 10, so we held respondents' Wave 10 residence constant through Wave 14. The 2008 SIPP panel was created under the 2000 census tract system which is available for all waves, but the ACS data for the analysis period uses 2010 tracts. While we analyze characteristics at the tract level internally at the Census Bureau, we report results only at the national level with summary categories of tracts.

As described in Table A.28, the 2008 to 2012 ACS neighborhood summary data was successfully merged to 99 percent of the person-level records in our analysis file. Unmatched records are mainly due to missing census tract identifiers on the SIPP files, which could occur when a respondent's address cannot be geocoded, or when a respondent replies to SIPP via telephone and does not supply an address. No census tract identifiers for which we have participants on our SIPP panel are missing on the ACS summary file. As such, any potential bias introduced will be small because it is only 1 percent of the sample.

Our primary neighborhood-based variables of interest are low income/poverty status and level of SNAP reciprocity of a neighborhood. These two local area characteristics will add depth to our knowledge about a SNAP dynamics. In particular, we examined the percentage of families with income below 100 percent of the federal poverty threshold, the percentage of families with income below 200 percent of the federal poverty threshold, and the percentage of individuals who receive SNAP benefits. Table A.29 provides results of our initial exploration of these data. The estimates look reasonable and the data are complete. As expected, relative to all individuals, SNAP participants live in census tracts in which their "neighbors" (individuals residing within their same census tract) are more likely to receive SNAP and have incomes under the poverty level.

Our first look at these variables uses the characteristics of the census tract in which an individual resides in Month 1. However, subgroup membership status can change from month to month as individuals move between tracts. When we pull the final sample, we will assign subgroup status using SNAP dynamics procedures as employed by Mabli et al. (2011a). As shown in Table A.28, an average of 7 percent of families in the 2008 SIPP moved each wave.

We will consult with FNS as we construct specific subgroup definitions. We provide initial examples in Table A.29 for a first look and to facilitate discussion. Two subgroup variables denoting neighborhood SNAP participation levels are shown:

- Percent living within a neighborhood in which at least 25 percent of residents receive SNAP benefits (the approximate median), and

²² The ACS is a part of the U.S. Census Bureau's Decennial Census Program and is designed to provide current demographic, social, economic, and housing estimates throughout the decade. Annually, the survey randomly samples around 3.5 million addresses and produces statistics that cover 1-year, 3-year, and 5-year periods for geographic areas. Here, we use the 5-year estimates that are available for census tracts.

- Percent living within a neighborhood in which at least 33 percent of residents receive SNAP benefits.

We will also create a subgroup variable denoting income status of the census tract. Nearly half of SNAP participants' neighbors have incomes below 200% of the poverty thresholds, compared to a third of non-SNAP respondents in our analysis file. One in four individuals who are receiving SNAP when the SIPP panel begins live in a neighborhood in which at least a third of residents are poor, compared to just 7 percent of non-respondents individuals in our sample. Again, to facilitate discussion, we provide examples of subgroup variables for this exploratory analysis. These include:

- Percent living within a tract in which at least 25 percent of residents have incomes under the poverty level
- Percent living within a tract in which at least 33 percent of residents have incomes under the poverty level
- Percent who live in a Low Income Neighborhood. This variable, which is derived in part from the ACS, comes to us from the ERS Food Atlas data, described below. Here, a low-income census tract is one in which: the poverty rate is 20 percent or greater; or the median family income is less than or equal to 80 percent of the State-wide median family income; or the tract is in a metropolitan area and has a median family income less than or equal to 80 percent of the metropolitan area's median family income.

2. ERS 2010 Food Access Research Atlas Data

To create subgroups that describe the degree to which individuals have access to food, we turn to the 2010 Food Access Research Atlas, a food access data file produced by the Economic Research Service, USDA.²³ This dataset defines geographic areas in which households have limited food access, in order to provide a spatial overview of a community's ability to access healthy food. The atlas is created from several integrated data sources: the 2010 Decennial Census, the 2006-10 American Community Survey, and a 2010 list of supermarkets (derived from merging the 2010 Store Tracking and Redemption System (STARS) directory of stores authorized to accept SNAP benefits and the 2010 Trade Dimensions TDLinx directory of stores).

Like the ACS data, the food access data are linked to our SIPP-based analysis file by census tract. As described in Table A.28, the food access census tract-level data were successfully merged to 99 percent of the person-level records in our analysis file, and 98 percent of the SNAP participants in our sample. As such, we anticipate little bias due to missing data particularly since only such a small share did not merge. Again, because we have census tracts assignments for SIPP respondents only through Wave 10, we held respondents' Wave 10 residence constant

²³ We originally proposed to use a food access database developed by Jones and Mabli (2012) that was constructed with 2009 STARS data to examine the retail food environment for emergency food pantry clients. However, as we described in our October 2013 study plan, the ERS data boast four advantages: (1) they contain distance-based measures of access, whereas Jones and Mabli (2012) used only density-based measures consisting of counts of stores within a census tract. (2) Separate measures of food access are available for urban and rural geographies, which allow for sensitivity testing to geographic demarcations. (3) The time period more closely maps to the 2008 SIPP panel period and has more comprehensive store information. (4) ERS data will allow for greater comparability across studies.

through Wave 14. While we analyze characteristics at the tract level, we report only national summaries.

ERS defines low access to healthy food as being far from a supermarket, supercenter, or large grocery store ("supermarket" for short). A census tract is considered to have low access if a significant number or share of individuals in the tract is far from a supermarket. We will characterize households living in census tracts with low access to food, primarily by using the variable "LA1and10," which is a binary indicator of whether a low-income tract has at least 500 people or 33 percent of the population living more than 1 mile (in urban areas) or more than 10 miles (in rural areas) from the nearest supermarket, supercenter, or large grocery store. We will also test the sensitivity to demarcations of 1 and 10 miles in urban and rural areas by using the binary variables "LA1and20" and "LAhalfand10", which base access on 1 and 20 miles and on 0.5 and 10 miles.

Table A.29 presents our initial exploration of these data, based on the census tract in which an individual resides in Month 1. (Again, when we assign subgroups for the final analysis file, we will do so based on precise residence at time of the SNAP event.²⁴) These estimates look reasonable and the data are complete. As expected, relative to all individuals, fewer SNAP participants have ready access to healthy food; 37 percent of SNAP participants have such access, compared to 43 percent of all individuals in our sample.

3. Mortgage Foreclosure Data

In addition to the SIPP restricted-use geographic identifiers, the Census Bureau generously granted us access to a unique internal mortgage foreclosure data set. Privately collected mortgage foreclosure actions were collected via *RealtyTrac*. Specifically, *RealtyTrac* mined nationwide foreclosure events from registers of Deeds offices across the country from the period January 2005 through December 2011, and the Census Bureau identified SIPP respondents each month by matching foreclosure event address for each month (O'Donnell 2005-2011).

The Census Bureau linked the mortgage data to our SIPP respondents by addresses. Because these data are developed specifically for SIPP respondents, we achieved a 100 percent match rate of the household-level mortgage data to the person-level analysis sample (Table A.28). The foreclosure data do not cover the whole study period, so we limit analysis of these subgroups to the associated first 10 waves.

The Census Bureau has analyzed three basic pre-foreclosure and foreclosure events, which we present in the bottom panel of Table A.29, along with a summary variable that specifies whether any of these three events occurred (not shown on table):

- Notices of defaults
- Notices of foreclosure sales or auctions, and
- Final notices of bank ownership.

²⁴ Our October 2013 study plan details procedures for subgroup assignment to examine spell length, as well as entry, exit, and reentry events.

There are circumstances that could contribute to a significant left censorship of the default process, including the gradual build-up of *RealtyTrac* to a truly national service. Those circumstances, plus a lack of confidence in strict temporal accuracy, lead us to treat foreclosure as a simple binary characteristic, whereby individuals have either experienced or not experienced a foreclosure event during the SNAP Dynamics study period. While the percentages affected and the differences between SNAP participants and nonparticipants are small, our initial assessment of the data indicate that SNAP participants were more likely than nonparticipants to experience foreclosure events during the panel period.

There are two caveats to these data. First, there are 16 States that do not require a lender to file a notice of default in the public records: Alabama, Arizona, Colorado, Georgia, Minnesota, Mississippi, Missouri, Montana, New Hampshire, Oregon, Tennessee, Texas, Virginia, Washington, West Virginia, and Wyoming. By comparison, data for these States may be incomplete. While our initial analysis shows events recorded for respondents in these States, it is possible that foreclosure events are underreported and that biases exist by State of residence. When creating our final foreclosure subgroups, we will test whether to exclude these States from the comparison analysis. Second, we find that foreclosure events occurred for property owners and nonowners; we will investigate this interaction and variable definitions further before creating the final subgroup variable.

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Attachment 1

Tables for the
Dynamics of SNAP Participation from 2008 to 2012
Data Assessment Appendix

Table A.1

Sample Loss Rates, by Select Characteristics in 2008 SIPP Panel ^a

	Initial Sample Size	Percentage of Initial Sample Lost	Remaining Sample Size
Total	105,451	51.4%	51,204
Income as Percent of Poverty ^b			
Under 10 Percent	4,437	61.3	1,716
10 to Less than 50 Percent	4,317	56.7	1,871
50 to Less than 100 Percent	9,591	53.1	4,501
100 to Less than 150 Percent	10,641	52.3	5,078
150 to Less than 200 Percent	10,378	51.9	4,994
200 to Less than 300 Percent	18,041	50.7	8,891
300 to Less than 400 Percent	14,185	50.2	7,070
400 to Less than 500 Percent	10,218	49.4	5,168
500 Percent or More	23,461	49.5	11,854
Age (All Individuals)			
Under 19	28,542	55.5	12,702
19 to 39	28,205	58.7	11,638
40 to 64	35,112	47.8	18,332
65+	13,592	37.2	8,532
Total	105,451	51.4	51,204
Age (Individuals with Income Less Than 100 Percent of Poverty)			
Under 19	6,923	58.6	2,863
19 to 39	5,450	62.2	2,062
40 to 64	4,597	50.3	2,285
65+	1,375	36.1	878
Total	18,345	55.9	8,088

Universe: Initial Sample is all Wave 1 respondents in the panel as of August 2008; remaining sample is all respondents still in the sample as of Wave 11 (Dec 2011-Mar 2012, depending on rotation group).

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: ^a These estimates exclude infants born after Wave 1, but before the end of Wave 11 of the panel. A subset of these infants who had mothers, fathers, or guardians with positive 11-wave weights was assigned positive 11-wave panel weights. In all, 2,211 infants were assigned positive 11-wave panel weights, for a total sample size of 53,415 individuals.

^b Income and age characteristics are taken from the first panel month.

Table A.2

Demographic and Economic Characteristics of Sample Members, using Cross-Sectional and 11-Wave Panel Weights, 2008 SIPP Panel

Characteristic ^a	Cross-Sectional Estimates	11-Wave Panel Estimates	11-Wave Panel as Percentage of Cross-Section
Weighted Sample Size	300,057,076	300,108,407	100.0%
Age			
Under 19	78,499,841	78,853,541	100.5
19 - 39	84,594,974	84,352,496	99.7
40 - 64	99,282,679	99,222,879	99.9
65 +	37,679,582	37,679,491	100.0
Race/Ethnicity			
White Alone Non-Hispanic	197,034,414	196,468,299	99.7
Black Alone Non-Hispanic	35,356,159	35,713,087	101.0
Hispanic	47,309,093	47,438,458	100.3
Asian/Pacific Islander Alone Non-Hispanic	11,206,603	11,588,421	103.4
Other Non-Hispanic	9,150,808	8,900,143	97.3
Employment Status			
No Time on Layoff, No Time Looking for Work			
Employed 35+ Hours All Weeks	107,397,295	108,040,497	100.6
Employed 35+ Hours Some Weeks	1,556,631	1,405,533	90.3
Employed 1-34 Hours per Week	31,104,413	32,313,655	103.9
Some Time Laid Off and/or Looking for Work			
Employed 35+ Hours Some Weeks	1,695,482	1,594,126	94.0
Employed 1-34 Hours Some Weeks	1,264,005	1,296,271	102.6
No Time Working	12,113,015	11,992,608	99.0
Did Not Work, Not Laid Off, Not Looking for Work	82,219,032	81,335,529	98.9
With Job, Did Not Work	1,994,790	1,366,768	68.5
Disability Status			
Had Work-Preventing Physical/Mental/Health Condition	16,416,030	16,881,273	102.8
Had Work-Limiting Physical/Mental/Health Condition	26,119,875	27,042,851	103.5
Participants of Government Assistance Programs			
TANF	3,589,445	3,428,219	95.5
SNAP	29,730,802	29,123,436	98.0
SSI	7,616,171	8,354,371	109.7
Social Security	47,700,654	47,956,048	100.5
Veterans Disability Payments	3,815,045	3,508,376	92.0
WIC	7,366,081	7,390,240	100.3

Table continues

Table A.2, continued

Characteristic ^a	Cross-Sectional Estimates	11-Wave Panel Estimates	11-Wave Panel as Percentage of Cross-Section
Individuals In Households of this Size			
1	32,990,331	33,690,055	102.1
2	80,392,996	81,421,491	101.3
3	57,080,360	56,819,408	99.5
4	62,197,776	62,654,508	100.7
5+	67,395,613	65,522,945	97.2
Individuals In Families of this Type			
Two-Parent Families	187,525,743	189,690,150	101.2
Families Headed by Single Female	40,113,543	39,272,244	97.9
Families Headed by Single Male	72,417,791	71,146,014	98.2

Universe: "Cross-Sectional Estimates" provides weighted counts of individuals in the January 2009 cross-sectional sample.
 "11-Wave Panel Estimates" provides weighted counts in January 2009 of individuals with 11-wave panel weights.

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: ^a Characteristics are as of January 2009.

Table A.3

**Decile Values of Selected Monthly Income Distributions for January 2009,
Using Cross-Sectional and 11-Wave Panel Weights, 2008 SIPP Panel**

Characteristic ^a	Cross-Sectional Estimates	11-Wave Panel Estimates	11-Wave Panel as Percentage of Cross-Section
Individuals by Total Family Income			
10th Percentile	876	920	105.0%
20th Percentile	1,680	1,721	102.4
30th Percentile	2,431	2,450	100.8
40th Percentile	3,252	3,268	100.5
50th Percentile	4,162	4,170	100.2
60th Percentile	5,228	5,238	100.2
70th Percentile	6,537	6,504	99.5
80th Percentile	8,340	8,230	98.7
90th Percentile	11,247	11,036	98.1
100th Percentile	73,493	73,271	99.7
Individuals by Family Earnings			
10th Percentile	0	0	—
20th Percentile	0	0	—
30th Percentile	1,244	1,280	102.9
40th Percentile	2,165	2,168	100.1
50th Percentile	3,197	3,167	99.1
60th Percentile	4,320	4,300	99.5
70th Percentile	5,700	5,659	99.3
80th Percentile	7,500	7,396	98.6
90th Percentile	10,407	10,202	98.0
100th Percentile	71,300	71,300	100.0
Individuals Age 60 or Older by Family Social Security			
10th Percentile	0	0	—
20th Percentile	0	0	—
30th Percentile	707	701	99.2
40th Percentile	993	993	100.0
50th Percentile	1,196	1,200	100.3
60th Percentile	1,426	1,430	100.3
70th Percentile	1,696	1,696	100.0
80th Percentile	2,002	2,009	100.3
90th Percentile	2,417	2,418	100.0
100th Percentile	5,675	5,675	100.0

Universe: "Cross-Sectional Estimates" provides weighted counts of individuals in the January 2009 cross-sectional sample.

"11-Wave Panel Estimates" provides weighted counts in January 2009 of individuals with 11-wave panel weights

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: ^a Characteristics are as of January 2009.

Table A.4

Comparison of Percentage Distribution of Population Characteristics in the 2008 SIPP Panel and CPS ASEC, 2009-2012

	Jan 2009 SIPP vs. 2009 CPS ASEC			Jan 2010 SIPP vs. 2010 CPS ASEC			Jan 2011 SIPP vs. 2011 CPS ASEC			Jan 2012 SIPP vs. 2012 CPS ASEC		
	SIPP ^a	ASEC ^b	SIPP Minus ASEC	SIPP	ASEC	SIPP Minus ASEC	SIPP	ASEC	SIPP Minus ASEC	SIPP	ASEC	SIPP Minus ASEC
Age												
Under 19	26.0%	26.1%	-0.1%	25.7%	26.1%	-0.4%	25.3%	25.9%	-0.6%	24.6%	25.4%	-0.8%
19 - 39	28.1	28.4	-0.3	27.5	28.3	-0.8	27.1	28.1	-1.0	27.0	27.9	-0.9
40 - 64	33.3	33.0	0.3	33.9	33.0	0.9	34.2	33.2	1.1	34.3	33.3	1.0
65 +	12.6	12.5	0.1	13.0	12.7	0.3	13.4	12.8	0.6	14.1	13.4	0.7
Gender												
Male	49.0	49.1	-0.1	48.8	49.1	-0.4	48.7	49.2	-0.5	48.6	49.0	-0.3
Female	51.0	50.9	0.1	51.2	50.9	0.4	51.3	50.8	0.5	51.4	51.0	0.3
Marital Status												
Married	41.5	41.5	0.0	41.3	40.8	0.5	41.2	40.5	0.7	41.0	40.7	0.3
Divorced	8.1	7.7	0.4	8.2	7.8	0.4	8.2	8.0	0.2	8.3	8.1	0.2
Separated	1.4	1.8	-0.4	1.5	1.8	-0.3	1.4	1.8	-0.4	1.3	1.8	-0.5
Widowed	4.7	4.7	-0.1	4.7	4.7	0.0	4.8	4.7	0.1	4.9	4.6	0.3
Never Married	44.2	44.3	0.0	44.3	44.8	-0.5	44.4	45.1	-0.7	44.5	44.8	-0.3
Race/Ethnicity												
White Non-Hispanic	65.6	65.4	0.2	65.9	64.9	1.0	66.1	64.5	1.6	66.1	63.2	3.0
Black Non-Hispanic	11.8	12.1	-0.3	11.9	12.1	-0.3	11.9	12.1	-0.3	11.8	12.0	-0.2
Hispanic	15.7	15.8	0.0	15.5	16.1	-0.5	15.4	16.3	-1.0	15.3	17.0	-1.6
Asian/Pacific Islander	3.9	4.3	-0.4	3.8	4.5	-0.7	3.7	4.6	-0.8	3.7	5.0	-1.3
American Indian	3.0	2.4	0.6	3.0	2.4	0.6	3.0	2.5	0.5	3.0	2.9	0.1

Table continues

Table A.4, continued

	Jan 2009 SIPP vs. 2009 CPS ASEC			Jan 2010 SIPP vs. 2010 CPS ASEC			Jan 2011 SIPP vs. 2011 CPS ASEC			Jan 2012 SIPP vs. 2012 CPS ASEC		
	SIPP ^a	ASEC ^b	SIPP Minus ASEC	SIPP	ASEC	SIPP Minus ASEC	SIPP	ASEC	SIPP Minus ASEC	SIPP	ASEC	SIPP Minus ASEC
Participants of Government Assistance Programs												
TANF												
All Adults and Children	1.9	1.5	0.4	1.8	1.6	0.2	1.6	1.7	-0.1	1.5	1.8	-0.3
SNAP												
All Adults and Children	11.6	9.2	2.4	13.7	11.3	2.4	14.6	12.8	1.9	15.2	13.1	2.1
All Children ^c	6.1	6.9	-0.8	7.6	8.4	-0.8	8.3	9.7	-1.3	8.7	9.7	-1.0
SSI												
All Adults	2.5	1.8	0.7	2.6	1.8	0.8	2.7	1.8	0.9	2.8	2.0	0.8
Social Security												
All Adults	15.5	14.3	1.3	16.2	14.3	1.9	16.7	14.5	2.2	17.3	15.2	2.1
Veterans Disability Payments	1.2	0.9	0.3	1.3	0.9	0.4	1.2	0.9	0.3	1.3	1.0	0.2
WIC	2.4	1.2	1.3	2.5	1.3	1.3	2.2	1.2	1.0	2.0	1.3	0.8
Individuals In Families of this Type												
Two-Parent Families	63.3	62.8	0.5	63.6	61.9	1.7	64.1	61.2	2.8	64.2	60.8	3.4
Families Headed by Single Male	13.1	13.5	-0.4	12.6	14.0	-1.5	12.3	14.2	-1.9	12.2	14.3	-2.0
Families Headed by Single Female	23.6	23.7	-0.1	23.9	24.1	-0.3	23.7	24.6	-0.9	23.6	24.9	-1.3

Universe: SIPP: All individuals in SIPP panel in January of given year, weighted by adjusted (includes infants) 11-panel longitudinal weight

ASEC: All individuals in given year's March CPS ASEC, weighted by March supplement weight

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: ^a SIPP estimates were generated using 11-wave panel weights.

^b CPS ASEC program participation measures refer to the full calendar year preceding the ASEC year, e.g., the 2009 ASEC reflects the March 2009 population according to their calendar year 2008 participation.

^c March CPS ASEC estimates of SNAP children were based on HFOODNO * HSUP-WGT.

Table A.5

Distribution of Transition Events by Reference Month, 2008 SIPP Panel ^a

Transition Event	Total	Percentage of Transitions from Prior Month to Indicated Month			
		Month 1	Month 2	Month 3	Month 4
SNAP					
Entry	75,070,655	76.1%	5.9%	8.4%	9.7%
Exit	58,841,814	56.2	19.2	12.9	11.7
Employment Among Individuals 16 and Over					
Entry	141,051,780	46.6	17.1	17.3	19.0
Exit	143,815,204	42.2	17.1	19.6	21.1
More than 5% Change in Income Among Individuals 16 and Older					
Earnings	1,146,379,307	56.1	14.2	13.7	16.0
TANF	11,966,225	69.7	12.8	8.5	9.1
SSI	51,024,193	86.8	5.3	3.6	4.2
Household Composition					
Different Household (Total)	129,844,526	27.9	22.6	24.7	24.8
Different Household (Adult)	98,578,134	27.7	22.8	25.0	24.6
Different Household (Child Under 15)	31,266,392	28.3	21.9	24.0	25.7

Universe: All individuals in first 14 waves of SIPP (includes infants) weighted by 11-wave longitudinal weight
Left-censored spells and spells beginning in Wave 1 are excluded from the entry estimates.
Right-censored spells and spells ending in Wave 14 are excluded from the exit estimates.

Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Notes: ^a Changes in income and household composition in Wave 1 are excluded.

Table A.6

Rates of Seam Reporting For Select Subgroups, 2008 SIPP Panel ^a

Transition Event	All Individuals	Adults Receiving SNAP Benefits During Panel	Individuals in Households with Change in Household Respondent	Interview Status (Adults only)		
				Interview (Self)	Proxy	Individual's Month Imputed
SNAP						
Entry	76.1%	76.6%	97.0%	72.9%	79.8%	89.1%
Exit	56.2	56.3	93.3	49.7	62.0	77.7
Employment Among Individuals 16 and Over						
Entry	46.6	44.3	97.0	45.5	47.4	50.7
Exit	42.2	42.9	97.2	39.4	44.9	55.2
More than 5% Change in Income Among Individuals 16 and Older						
Earnings	56.1	54.0	98.1	54.1	58.9	62.6
TANF	69.7	69.4	99.1	66.5	79.7	77.6
SSI	86.8	86.9	99.9	85.1	89.8	96.5
Household Composition						
Different Household (Total)	27.9	28.8	43.3	27.1	28.4	42.8
Different Household (Adult)	27.7	28.8	41.5	27.1	28.2	42.7
Different Household (Child Under 15)	28.3	30.3	51.3	100.0	56.9	100.0

Universe: All individuals in first 14 waves of SIPP (includes infants) weighted by 11-wave longitudinal weight
Left-censored spells and spells beginning in Wave 1 are excluded from the entry estimates.
Right-censored spells and spells ending in Wave 14 are excluded from the exit estimates.

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: ^a Changes in income and household composition in Wave 1 are excluded.

Table A.7

**Frequency of Within-Unit Inconsistencies for SNAP and TANF,
 2008 SIPP Panel, Unweighted**

Reference Month	Units with SNAP	Percentage of SNAP Units with Problems	Units with TANF	Percentage of TANF Units with Problems
1	3,633	2.5%	593	5.2%
2	3,721	2.5	596	4.7
3	3,817	2.5	608	4.6
4	3,910	2.6	618	4.7
5	3,940	6.6	595	4.7
6	3,893	6.4	570	4.7
7	3,923	6.1	573	4.7
8	3,967	5.9	568	4.9
9	4,074	6.8	539	4.6
10	4,010	6.5	516	4.5
11	4,042	6.5	520	4.8
12	4,090	6.4	536	5.4
13	4,117	7.5	512	4.5
14	4,087	7.1	499	4.8
15	4,117	7.0	509	4.7
16	4,151	6.9	501	4.4
17	4,356	7.7	519	4.4
18	4,287	7.3	508	4.5
19	4,300	7.1	509	4.5
20	4,325	6.9	511	4.3
21	4,372	8.1	465	3.2
22	4,328	7.9	454	3.7
23	4,330	7.8	460	3.9
24	4,365	7.5	459	3.7
25	4,326	7.4	454	4.4
26	4,272	7.1	433	4.2
27	4,289	6.9	430	4.0
28	4,298	7.0	433	4.2
29	4,409	7.4	447	5.4
30	4,354	7.2	434	4.6
31	4,357	7.1	433	3.9
32	4,373	7.0	422	4.0
33	4,365	8.1	439	4.3
34	4,311	7.4	426	4.9
35	4,310	7.3	425	4.7
36	4,327	7.1	428	4.7
37	4,348	7.7	420	7.1
38	4,288	7.3	397	6.0
39	4,307	7.1	399	6.3
40	4,303	7.2	403	5.7

Table continues

Table A.7, continued

Reference Month	Units with SNAP	Percentage of SNAP Units with Problems	Units with TANF	Percentage of TANF Units with Problems
41	4,307	6.8	380	4.5
42	4,249	6.4	360	4.4
43	4,245	6.3	365	5.2
44	4,238	6.4	361	5.3
45	4,296	7.2	340	5.9
46	4,265	6.5	329	6.4
47	4,249	6.4	329	6.1
48	4,262	6.1	332	6.3
49	4,304	7.3	339	7.4
50	4,243	6.7	341	7.6
51	4,233	6.5	338	7.7
52	4,241	6.5	340	7.6
53	4,287	7.1	341	4.7
54	4,247	6.7	332	4.8
55	4,215	6.6	334	4.5
56	4,211	6.5	337	4.7

Universe: SIPP Waves 1-14, all unweighted households with SNAP or TANF income in given month

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Table A.8

Difference in Program Participation Levels Between Waves 1 and 2 of the 2008 SIPP Panel

Transition Event	Aug. 2008			Dec. 2008			Difference in Wave 1 and Wave 2 Differences
	SIPP (Wave 1)	Administrative Data	Percentage Difference	SIPP (Wave 2)	Administrative Data	Percentage Difference	
SNAP Participants							
Total	24,507,616	28,662,205	-14.5%	29,393,999	31,109,106	-5.5%	-9.0%
Adult	13,604,081	14,781,356	-8.0	16,544,850	16,179,466	2.3	-10.2
Children (under age 18)	10,903,536	13,880,849	-21.4	12,849,149	14,929,640	-13.9	-7.5
TANF Participants							
Total	3,060,026	3,947,195	-22.5	3,579,560	4,145,601	-13.7	-8.8
Mothers	971,214	933,164	4.1	1,161,739	993,664	16.9	-12.8
Children (under age 6)	2,088,812	3,014,031	-30.7	2,417,821	3,151,937	-23.3	-7.4
Employment	133,927,632	158,576,800	-15.5	136,353,395	158,576,800	-14.0	-1.5

Universe: SIPP: All Wave 1 or Wave 2 SNAP or TANF participants, weighted with August (Wave 1) and December (Wave 2) 2008 cross-sectional weights; Employment row "Administrative Data" column: CPS ASEC estimate is of those who "ever-had" earnings during 2008; Administrative Data: SNAP participants are all SNAP QC cases eligible and participating weighted to administrative totals; TANF participants is caseload as reported by Office of Family Assistance, Office of the Administration for Children & Families.

Source: Decision Demographics, tabulations of the 2008 SIPP Panel; the FY 2008 and FY 2009 SNAP QC data, limited to August 2008 and December 2008, exclusive of Guam and the Virgin Islands; the March 2009 CPS ASEC data (for employment "administrative" estimates). TANF estimates, exclusive of Guam, Puerto Rico, and the Virgin Islands, from <http://www.acf.hhs.gov/programs/ofa/resource/caseload2008>

Notes: Employment reflects all individuals with earnings and is compared with estimates from the CPS (CPS employment is shown in administrative data column).

Table A.9

Decomposition of Changes in SNAP Participation Estimates across the Common Months of Waves 1 through 5 in the 2008 SIPP

	Aug. 2008	Dec. 2008	April 2009	Aug. 2009	Dec. 2009
Total Participants in Wave	24,521,852	29,414,280	31,469,558	33,713,006	35,861,976
Net Increase Over Prior Wave		4,892,429	2,055,277	2,243,449	2,148,970
Decomposition of Change					
Participants Present During Common Months of Current and Previous Wave					
SNAP participant during the current wave but not during the previous wave		7,641,082	6,149,500	5,961,654	5,629,629
SNAP participant during the previous wave but not during current wave		3,158,051	3,814,464	4,049,917	3,767,640
Net increase in reporting (A)		4,483,031	2,335,036	1,911,737	1,861,989
Participants Present During the Current Wave but not in the SIPP Sample in the Common Month of Previous Wave					
SNAP participant not in sample in prior wave, not new to sample this wave ^a		221,015	1,895,566	2,110,413	2,820,753
SNAP participant new to sample this wave		714,018	440,754	653,700	522,779
Subtotal (B)		935,033	2,336,321	2,764,113	3,343,532
Summary of Growth					
Combined Net Growth (A + B)		5,418,064	4,671,357	4,675,849	5,205,521
Residual Growth ^b (C) (Net prior wave increase - Combined net growth)		-525,635	-2,616,079	-2,432,401	-3,056,551
SNAP Reporting Rates					
Percentage of Participants not in Sample in Prior Wave, not New This Wave		24.3%	13.7%	13.6%	13.0%
Percentage of Participants New to Sample This Wave		15.7%	12.5%	16.3%	13.1%

Universe: Cross-sectionally weighted SNAP participants for month indicated

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: ^a There are 221,015 (weighted) participants in Wave 2 who were not present in the common month of Wave 1. These participants were present in at least one other month of Wave 1 besides the common month.

^b A positive residual growth would suggest a relatively greater increase in weights among participants than nonparticipants. The observed negative residual growth implies a smaller increase in weights among participants than among nonparticipants.

Table A.10

SNAP Participants by Percentage Distribution of Characteristics in Administrative Data and in the 2008 SIPP Panel

Characteristic	Monthly Average, 2009			Monthly Average, 2010			Monthly Average, 2011			Monthly Average, 2012		
	SNAP QC ^a	SIPP	Difference	SNAP QC ^a	SIPP	Difference	SNAP QC ^a	SIPP	Difference	SNAP QC ^a	SIPP	Difference
Age												
0-4	16.5%	13.8%	-2.7%	15.7%	13.2%	-2.5%	15.3%	12.2%	-3.1%	14.6%	10.9%	-3.7%
5-17	30.8	27.8	-3.0	30.4	27.2	-3.2	29.8	27.2	-2.6	29.8	27.3	-2.6
18-59	44.6	48.9	4.3	45.9	50.2	4.3	46.3	50.5	4.2	46.5	50.7	4.1
60+	8.1	9.5	1.4	8.0	9.5	1.5	8.7	10.1	1.5	9.1	11.2	2.1
Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SNAP Unit Benefit Amount												
\$1 - 25	2.6	3.2	0.7	2.5	2.6	0.1	2.9	3.1	0.2	3.2	3.7	0.5
\$26-\$75	3.9	5.8	1.9	3.2	4.7	1.5	3.2	4.4	1.2	3.9	5.4	1.5
\$76-\$150	7.1	12.3	5.2	7.1	11.8	4.7	7.7	11.8	4.1	7.6	12.1	4.5
\$151-\$200	15.7	14.5	-1.2	17.5	16.5	-1.1	18.4	17.1	-1.3	18.5	16.5	-2.0
\$201-\$300	9.9	17.2	7.3	9.6	15.3	5.7	9.2	14.5	5.3	9.4	14.4	5.0
\$301-\$400	18.1	17.2	-0.9	17.5	17.6	0.1	17.7	18.1	0.3	17.4	17.8	0.4
\$401-\$499	11.3	10.5	-0.8	10.1	10.9	0.8	9.1	10.4	1.2	9.3	10.5	1.2
\$500+	31.5	19.3	-12.2	32.4	20.6	-11.8	31.6	20.7	-11.0	30.7	19.7	-11.0
SNAP Unit Earnings												
\$0	60.4	51.0	-9.4	59.0	48.8	-10.1	58.7	48.2	-10.5	57.5	48.3	-9.1
\$1-199	2.6	1.4	-1.2	2.5	1.0	-1.5	2.5	1.1	-1.4	2.6	1.1	-1.5
\$200-399	3.2	2.7	-0.5	3.1	2.3	-0.8	3.0	2.1	-0.8	3.0	2.2	-0.7
\$400-599	3.5	2.8	-0.7	3.7	3.1	-0.6	3.4	2.9	-0.5	3.7	2.6	-1.1
\$600-799	4.5	3.5	-1.0	4.3	2.8	-1.5	4.2	3.2	-1.1	4.2	3.2	-1.0
\$800-999	4.5	4.2	-0.3	4.6	3.7	-0.9	4.4	3.3	-1.1	4.2	3.3	-0.9
\$1000-1199	4.5	3.9	-0.6	4.4	4.2	-0.2	4.1	4.6	0.5	4.7	3.6	-1.1
\$1200-1399	4.5	5.3	0.8	4.7	5.2	0.5	4.4	5.0	0.6	4.4	4.8	0.5
\$1400-1599	3.7	3.9	0.3	3.7	4.7	1.1	3.9	5.3	1.4	3.8	4.6	0.7
\$1600-1999	4.7	6.2	1.6	4.9	6.5	1.6	5.3	6.1	0.8	5.4	6.9	1.5
\$2000-2499	2.6	5.6	3.0	3.4	6.1	2.8	3.6	6.0	2.5	3.9	6.5	2.6
\$2500+	1.4	9.5	8.1	2.0	11.6	9.6	2.4	12.1	9.7	2.6	12.8	10.2

Table continues

Table A.10, continued

Characteristic	Monthly Average, 2009			Monthly Average, 2010			Monthly Average, 2011			Monthly Average, 2012		
	SNAP QC ^a	SIPP	Difference	SNAP QC ^a	SIPP	Difference	SNAP QC ^a	SIPP	Difference	SNAP QC ^a	SIPP	Difference
SNAP Unit TANF Benefits												
\$0	86.9	87.7	0.8	88.8	90.1	1.3	89.0	90.8	1.8	89.8	91.9	2.1
\$1-200	2.1	2.8	0.7	1.7	2.5	0.7	1.7	2.6	0.9	1.7	2.4	0.7
\$201-\$400	4.5	4.6	0.1	3.7	3.5	-0.2	3.6	2.9	-0.7	3.5	2.6	-0.9
\$401+	6.5	4.9	-1.7	5.7	3.9	-1.8	5.6	3.7	-1.9	5.0	3.1	-1.9
Covered by TANF ^b												
Total	13.1	12.3	-0.8	11.2	9.9	-1.3	11.0	9.2	-1.8	10.2	8.1	-2.1
Adult	4.6	5.4	0.8	4.0	4.6	0.6	3.8	4.3	0.5	3.6	4.0	0.4
Child	8.5	6.8	-1.6	7.2	5.3	-1.9	7.2	4.9	-2.3	6.6	4.1	-2.5
Covered by SSI ^c												
Total	11.4	13.2	1.8	10.9	13.1	2.2	12.2	13.0	0.9	12.5	13.4	0.9
Adult	9.9	11.3	1.4	9.3	11.3	2.0	10.0	11.2	1.2	10.2	11.6	1.3
Child	1.4	1.9	0.5	1.7	1.9	0.2	2.1	1.8	-0.4	2.3	1.8	-0.5

Universe: All individuals in the 2008 SIPP Panel during months of specified year, weighted by adjusted (includes infants) 11-panel longitudinal weight

Source: Decision Demographics tabulations of the 2008 SIPP panel; tabulations from Fiscal Year (FY) 2009-2012 SNAP QC data files, exclusive of Guam and the Virgin Islands; from http://www.acf.hhs.gov/programs/ofa/data-reports/caseload/caseload_current.htm

Notes: ^a Using the FY 2009-2012 SNAP QC data files, we constructed calendar year (CY) files that are representative of average months in CY 2009, CY 2010, CY 2011, and January-September, 2012. The 2012 data are cut off at September because the FY 2013 data (covering October 2012 through September 2013) are not yet available.

^b TANF assigned to all individuals in the SNAP unit.

^c Individuals with missing age in the SNAP QC data file are categorized as adults in this panel.

Table A.11
SIPP 2008 Panel Timing

Interview No.	Wave No.	Interview Date	Rotation Group	Earliest Reference Month of Wave	Common Month of Wave	Notes	Interview Refers to (previous 4 months):			
							1 Month ago	2 Months ago	3 Months ago	4 Months ago
1	1	Sep 08	1	May 08	Aug 08	1st at-risk/new entrant month: July 2008	Aug 08	Jul 08	Jun 08	May 08
2	1	Oct 08	2	Jun 08			Sep 08	Aug 08	Jul 08	Jun 08
3	1	Nov 08	3	Jul 08			Oct 08	Sep 08	Aug 08	Jul 08
4	1	Dec 08	4	Aug 08			Nov 08	Oct 08	Sep 08	Aug 08
5	2	Jan 09	1	Sep 08	Dec 08	Cross-sectional sample: December 2008	Dec 08	Nov 08	Oct 08	Sep 08
6	2	Feb 09	2	Oct 08			Jan 09	Dec 08	Nov 08	Oct 08
7	2	Mar 09	3	Nov 08			Feb 09	Jan 09	Dec 08	Nov 08
8	2	Apr 09	4	Dec 08			Mar 09	Feb 09	Jan 09	Dec 08
9	3	May 09	1	Jan 09	Apr 09		Apr 09	Mar 09	Feb 09	Jan 09
10	3	Jun 09	2	Feb 09			May 09	Apr 09	Mar 09	Feb 09
11	3	Jul 09	3	Mar 09			Jun 09	May 09	Apr 09	Mar 09
12	3	Aug 09	4	Apr 09			Jul 09	Jun 09	May 09	Apr 09
13	4	Sep 09	1	May 09	Aug 09		Aug 09	Jul 09	Jun 09	May 09
14	4	Oct 09	2	Jun 09			Sep 09	Aug 09	Jul 09	Jun 09
15	4	Nov 09	3	Jul 09			Oct 09	Sep 09	Aug 09	Jul 09
16	4	Dec 09	4	Aug 09			Nov 09	Oct 09	Sep 09	Aug 09
17	5	Jan 10	1	Sep 09	Dec 09		Dec 09	Nov 09	Oct 09	Sep 09
18	5	Feb 10	2	Oct 09			Jan 10	Dec 09	Nov 09	Oct 09
19	5	Mar 10	3	Nov 09			Feb 10	Jan 10	Dec 09	Nov 09
20	5	Apr 10	4	Dec 09			Mar 10	Feb 10	Jan 10	Dec 09
21	6	May 10	1	Jan 10	Apr 10		Apr 10	Mar 10	Feb 10	Jan 10
22	6	Jun 10	2	Feb 10			May 10	Apr 10	Mar 10	Feb 10
23	6	Jul 10	3	Mar 10			Jun 10	May 10	Apr 10	Mar 10
24	6	Aug 10	4	Apr 10			Jul 10	Jun 10	May 10	Apr 10

Table continues

Table A.11, continued

Interview No.	Wave No.	Interview Date	Rotation Group	Earliest Reference Month of Wave	Common Month of Wave	Notes	Interview Refers to (previous 4 months):			
							1 Month ago	2 Months ago	3 Months ago	4 Months ago
25	7	Sep 10	1	May 10	Aug 10		Aug 10	Jul 10	Jun 10	May 10
26	7	Oct 10	2	Jun 10			Sep 10	Aug 10	Jul 10	Jun 10
27	7	Nov 10	3	Jul 10			Oct 10	Sep 10	Aug 10	Jul 10
28	7	Dec 10	4	Aug 10			Nov 10	Oct 10	Sep 10	Aug 10
29	8	Jan 11	1	Sep 10	Dec 10		Dec 10	Nov 10	Oct 10	Sep 10
30	8	Feb 11	2	Oct 10			Jan 11	Dec 10	Nov 10	Oct 10
31	8	Mar 11	3	Nov 10			Feb 11	Jan 11	Dec 10	Nov 10
32	8	Apr 11	4	Dec 10			Mar 11	Feb 11	Jan 11	Dec 10
33	9	May 11	1	Jan 11	Apr 11		Apr 11	Mar 11	Feb 11	Jan 11
34	9	Jun 11	2	Feb 11			May 11	Apr 11	Mar 11	Feb 11
35	9	Jul 11	3	Mar 11			Jun 11	May 11	Apr 11	Mar 11
36	9	Aug 11	4	Apr 11			Jul 11	Jun 11	May 11	Apr 11
37	10	Sep 11	1	May 11	Aug 11		Aug 11	Jul 11	Jun 11	May 11
38	10	Oct 11	2	Jun 11			Sep 11	Aug 11	Jul 11	Jun 11
39	10	Nov 11	3	Jul 11			Oct 11	Sep 11	Aug 11	Jul 11
40	10	Dec 11	4	Aug 11			Nov 11	Oct 11	Sep 11	Aug 11
41	11	Jan 12	1	Sep 11	Dec 11	Wave 1-11 Longitudinal Weight Used in Data Assessment Memo	Dec 11	Nov 11	Oct 11	Sep 11
42	11	Feb 12	2	Oct 11			Jan 12	Dec 11	Nov 11	Oct 11
43	11	Mar 12	3	Nov 11			Feb 12	Jan 12	Dec 11	Nov 11
44	11	Apr 12	4	Dec 11			Mar 12	Feb 12	Jan 12	Dec 11
45	12	May 12	1	Jan 12	Apr 12		Apr 12	Mar 12	Feb 12	Jan 12
46	12	Jun 12	2	Feb 12			May 12	Apr 12	Mar 12	Feb 12
47	12	Jul 12	3	Mar 12			Jun 12	May 12	Apr 12	Mar 12
48	12	Aug 12	4	Apr 12			Jul 12	Jun 12	May 12	Apr 12

Table continues

Table A.11, continued

Interview No.	Wave No.	Interview Date	Rotation Group	Earliest Reference Month of Wave	Common Month of Wave	Notes	Interview Refers to (previous 4 months):			
							1 Month ago	2 Months ago	3 Months ago	4 Months ago
49	13	Sep 12	1	May 12	Aug 12		Aug 12	Jul 12	Jun 12	May 12
50	13	Oct 12	2	Jun 12			Sep 12	Aug 12	Jul 12	Jun 12
51	13	Nov 12	3	Jul 12			Oct 12	Sep 12	Aug 12	Jul 12
52	13	Dec 12	4	Aug 12			Nov 12	Oct 12	Sep 12	Aug 12
53	14	Jan 13	1	Sep 12	Dec 12	Longitudinal Weight: through Wave 14	Dec 12	Nov 12	Oct 12	Sep 12
54	14	Feb 13	2	Oct 12			Jan 13	Dec 12	Nov 12	Oct 12
55	14	Mar 13	3	Nov 12			Feb 13	Jan 13	Dec 12	Nov 12
56	14	Apr 13	4	Dec 12			Mar 13	Feb 13	Jan 13	Dec 12
57	15	May 13	1	Jan 13	Apr 13	Wave 15 not included in this study	Apr 13	Mar 13	Feb 13	Jan 13
58	15	Jun 13	2	Feb 13			May 13	Apr 13	Mar 13	Feb 13
59	15	Jul 13	3	Mar 13			Jun 13	May 13	Apr 13	Mar 13
60	15	Aug 13	4	Apr 13			Jul 13	Jun 13	May 13	Apr 13
61	16	Sep 13	1	May 13	Aug 13	Wave 16 not included in this study	Aug 13	Jul 13	Jun 13	May 13
62	16	Oct 13	2	Jun 13			Sep 13	Aug 13	Jul 13	Jun 13
63	16	Nov 13	3	Jul 13			Oct 13	Sep 13	Aug 13	Jul 13
64	16	Dec 13	4	Aug 13			Nov 13	Oct 13	Sep 13	Aug 13

Source: Table based on information available at <http://www.census.gov/sipp/>

Table A.12**Extent of Missing and Imputed Start Dates of Month 1 Spells by SNAP Reference Person Status, 2008 SIPP Panel**

	Number						Percentage					
	All Individuals		SNAP Reference Persons		Other Members of the SNAP Unit		All Individuals		SNAP Reference Persons		Other Members of the SNAP Unit	
	Weighted	Sample Size	Weighted	Sample Size	Weighted	Sample Size	Weighted	Sample Size	Weighted	Sample Size	Weighted	Sample Size
SNAP Participants in Month 1	23,204,655	4,076	9,884,869	1,793	13,319,785	2,283	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Begin Date Provided	22,564,143	3,971	9,884,869	1,793	12,679,274	2,178	97.2	97.4	100.0	100.0	95.2	95.4
Missing Begin Date	640,512	105	0	0	640,512	105	2.8	2.6	0.0	0.0	4.8	4.6
SNAP Participants in Month 1 with Begin Date Provided	22,564,143	3,971	9,884,869	1,793	12,679,274	2,178	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Begin Date Provided	14,873,465	2,557	6,488,045	1,149	8,385,420	1,408	65.9	64.4	65.6	64.1	66.1	64.6
Imputed Begin Date	7,690,678	1,414	3,396,825	644	4,293,853	770	34.1	35.6	34.4	35.9	33.9	35.4
SNAP Participants in Month 1 with Imputed Begin Date	7,690,678	1,414	3,396,825	644	4,293,853	770	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Only Month is Imputed	3,928,374	723	2,472,772	464	1,455,602	259	51.1	51.1	72.8	72.0	33.9	33.6
Both Month and Year Imputed	3,762,304	691	924,053	180	2,838,251	511	48.9	48.9	27.2	28.0	66.1	66.4
Full Imputation Required (Percentage)	16.2%	17.0%	9.3%	10.0%	21.3%	22.4%						

Universe: Month 1 SNAP participants weighted by 11-wave panel weights

Source: Decision Demographics tabulations of Wave 1 of the 2008 SIPP Panel

Table A.13

Elapsed Length of Month 1 Spells and Imputation Status, 2008 SIPP Panel

	SNAP Reference Persons		
	Weighted Estimate	Sample Size	Weighted Percentage
All Individuals			
Number of Elapsed Years Spell was in Progress (up to Month 1)	9,884,869	1,793	100.0%
Less than Zero (began after Month 1) ^a	0	0	0.0
Zero (began in month 1) ^a	0	0	0.0
Less than 1 Year	3,248,289	538	32.9
1 Year	1,154,646	189	11.7
2 Years	1,089,286	197	11.0
3 Years	643,955	117	6.5
4 Years	566,226	102	5.7
5 Years	393,141	75	4.0
More than 5 Years	2,789,326	575	28.2
Imputed Begin Date			
Number of Elapsed Years Spell was in Progress (up to Month 1)	3,396,825	644	100.0%
Less than Zero (began after Month 1) ^a	0	0	0.0
Zero (began in month 1) ^a	0	0	0.0
Less than 1 Year	1,103,799	189	32.5
1 Year	291,853	52	8.6
2 Years	311,131	56	9.2
3 Years	246,997	44	7.3
4 Years	157,776	32	4.6
5 Years	127,640	29	3.8
More than 5 Years	1,157,628	242	34.1
Nonimputed Begin Date			
Number of Elapsed Years Spell was in Progress (up to Month 1)	6,488,045	1,149	100.0%
Less than Zero (began after Month 1) ^a	0	0	0.0
Zero (began in month 1) ^a	0	0	0.0
Less than 1 Year	2,144,490	349	33.1
1 Year	862,793	137	13.3
2 Years	778,155	141	12.0
3 Years	396,958	73	6.1
4 Years	408,451	70	6.3
5 Years	265,501	46	4.1
More than 5 Years	1,631,698	333	25.1

Table continues

Table A.13, continued

	SNAP Reference Persons		
	Weighted Estimate	Sample Size	Weighted Percentage
Only Imputed Begin Month			
Number of Elapsed Years Spell was in Progress (up to Month 1)	2,472,772	464	100.0%
Less than Zero (began after Month 1) ^a	0	0	0.0
Zero (began in month 1) ^a	0	0	0.0
Less than 1 Year	944,194	161	38.2
1 Year	199,116	34	8.1
2 Years	214,974	41	8.7
3 Years	167,066	31	6.8
4 Years	112,488	21	4.5
5 Years	110,111	24	4.5
More than 5 Years	724,823	152	29.3

Universe: Month 1 SNAP Reference Persons weighted by 11-wave panel weights

Source: Decision Demographics tabulations of Wave 1 of the 2008 SIPP Panel

Notes: ^a These rows are retained in this table, despite the zero values, because negative and zero-length spells have been a consistent problem in past SNAP dynamics studies, and this resolution marks an important improvement of these data.

Table A.14

Elapsed Length of Month 1 Spells Beginning before Month 1, 2008 SIPP Panel

	All Individuals		SNAP Reference Persons	
	Percentage	Cumulative Percentage	Percentage	Cumulative Percentage
Number of Elapsed Years				
0.5 or less	27.2%	27.2%	24.8%	24.8%
> 0.5 - 1.0	10.8	38.1	9.2	34.0
> 1.0 - 1.5	8.7	46.8	7.5	41.5
> 1.5 - 2.0	4.8	51.6	4.0	45.6
> 2.0 - 3.0	10.0	61.6	10.5	56.1
> 3.0 - 4.0	6.5	68.1	6.4	62.5
> 4.0 - 5.0	5.9	74.0	5.8	68.2
> 5.0 to 6.0	3.7	77.7	4.0	72.2
> 6.0 to 10	10.4	88.0	10.8	83.1
More than 10	12.0	100.0	16.9	100.0
Median	1.9		2.3	
Mean	4.1		5.2	

Universe: Month 1 SNAP participants weighted by 11-wave panel weights
 Source: Decision Demographics tabulations of Wave 1 of the 2008 SIPP Panel

Table A.15

**SNAP Spells Beginning in that Panel Month as a Percentage of On-Going Spells,
2008 SIPP Panel**

Panel Month	On-Going SNAP Spells	SNAP Spells that Began in this Month ^a	
Month 1	22,564,143	30,588	0.1%
Month 2	23,786,455	866,412	3.6
Month 3	24,380,152	926,243	3.8
Month 4	25,133,785	1,156,090	4.6
Month 5	28,373,672	5,477,119	19.3
Month 6	28,077,328	393,019	1.4
Month 7	28,359,458	872,938	3.1
Month 8	28,693,892	926,596	3.2
Month 9	31,483,388	5,100,027	16.2
Month 10	31,024,838	657,246	2.1
Month 11	30,667,493	404,377	1.3
Month 12	30,891,859	745,703	2.4
Month 13	32,774,834	4,952,595	15.1
Month 17	34,261,186	4,632,654	13.5
Month 21	35,660,246	4,602,501	12.9
Month 25	35,772,894	4,346,850	12.2
Month 29	36,006,116	4,253,527	11.8
Month 33	36,440,902	4,001,376	11.0
Month 37	36,824,738	4,194,498	11.4
Month 41	37,084,908	4,194,245	11.3
Month 45	34,471,428	3,427,147	9.9
Month 49	32,380,642	3,580,435	11.1
Month 53	31,843,422	3,590,827	11.3
Average: Months 5, 9, 13, 17, 21, 25, 29, 33, 37, 41, 45, 49, & 53	34,106,029	4,766,468	14.4

Universe: All SNAP participants in given month weighted by 11-wave panel weights

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: ^a Month 1 includes only infants born in Month 1 to families already receiving SNAP.

Table A.16

Cumulative Exit Rate for Three Samples of Spells, by Duration, 2008 SIPP Panel ^a

Duration of Spell (Months)	Non-Left-Censored Spells		Left-Censored Spell
	Non-Left Censored Spells Starting After Month 1	Non-Left Censored Spells Starting in Month 5	Month 1 Spells with Elapsed Durations of 1 to 6 Months
1	4.5	4.4	0.0
2	9.3	8.4	1.5
3	12.7	11.4	3.3
4	29.4	24.7	4.7
5	33.5	30.3	10.1
6	36.9	32.1	14.5
7	38.5	33.0	17.0
8	45.2	38.3	18.3
9	47.3	40.9	21.2
10	49.2	42.6	24.7
11	<u>51.2</u>	44.4	26.4
12	55.2	48.1	30.6
13	56.6	<u>50.2</u>	32.3
14	57.5	50.3	34.2
15	58.4	50.9	35.4
16	61.1	53.0	36.6
17	62.1	55.2	38.2
18	62.9	55.5	39.2
19	63.7	55.6	39.8
20	66.0	60.7	40.6
21	66.7	60.8	41.7
22	67.2	61.0	42.9
23	67.6	61.0	43.2
24	69.7	63.9	44.0
25	70.0	64.0	44.9
26	70.4	64.2	46.3
27	70.8	64.7	47.3
28	71.9	66.0	48.0
29	72.9	66.0	49.7
30	73.4	67.0	49.9
31	73.5	67.0	<u>50.9</u>
32	74.6	68.0	52.3
33	74.9	68.1	53.5
34	75.0	68.1	53.7
35	75.3	68.5	54.1
36	76.3	70.6	54.3
37	76.8	70.8	55.0
38	76.9	70.8	55.5
39	77.0	70.9	55.7
40	77.6	71.7	55.8

Table continues

Table A.16, continued

Duration of Spell (Months)	Non-Left-Censored Spells		Left-Censored Spell
	Non-Left Censored Spells Starting After Month 1	Non-Left Censored Spells Starting in Month 5	Month 1 Spells with Elapsed Durations of 1 to 6 Months
41	77.9	71.8	56.3
42	78.3	72.4	57.5
43	78.7	72.6	57.6
44	79.3	73.8	57.8
45	79.9	74.8	58.2
46	79.9	74.8	58.4
47	80.2	75.4	58.9
48	80.9	76.2	59.0
49	81.0	76.5	59.6
50	81.6	77.5	59.9
51	81.6	77.5	60.3
52	81.6		61.2
53	81.6		62.7
54	81.6		62.7
Sample Size	12,441	895	1,045

Universe: SNAP participants weighted by 11-wave panel weights
Source: Decision Demographics tabulations of the 2008 SIPP Panel
Notes: ^a Median duration in bold.

Table A.17

**Median Spell Durations for Five Samples of Non-Left Censored Spells:
2008, 2004, 2001, & 1991 SIPP Panels**

	Month 1 Spells with Zero Elapsed Duration	Non-Left Censored Spells Starting After Month 1	Non-Left Censored Spells Starting in Month 5	Month 1 Spells with Negative Elapsed Durations	Month 1 Spells with Elapsed Durations of 1 to 6 Months
2008 SIPP Data ^a	NA	11	13	NA	31
2004 SIPP Data (Mabli et al.)	10	8	10	10	19
2001 SIPP Data (Cody et al.)	12	8	8	19	14
1991 SIPP Data (Gleason et al.)	28	8	8	16	23
Universe:	SNAP participants weighted by panel weights; 2008 SIPP weighted by 11-wave panel weight				
Source:	Decision Demographics tabulations of the 2008 SIPP Panel; Mabli et al.; Cody, et al.; Gleason, et al.				
Notes:	^a Sample for 2008 does not include any SNAP reference persons with Month 1 spells with zero duration.				

Table A.18

Cumulative Exit Rates for Month 1 Left-Censored Spells, by Panel Month and Elapsed Duration, 2008 SIPP Panel ^a

Duration of Spell (Months)	Month 1 Spells with Elapsed Durations of 1 to 6 Months	Month 1 Spells with Elapsed Durations of 7 to 12 Months	Month 1 Spells with Elapsed Durations of 13 to 24 Months	Month 1 Spells with Elapsed Durations of More than 24 Months	All Left-Censored Spells
1	2.0	2.9	1.1	0.4	1.2
2	4.3	4.4	1.1	0.8	2.2
3	6.4	4.4	2.5	2.0	3.5
4	15.0	14.5	6.9	8.8	10.8
5	19.3	18.0	9.7	10.7	13.7
6	20.8	18.1	11.5	11.8	14.9
7	22.2	19.4	12.3	12.5	15.8
8	27.1	24.6	15.8	16.6	20.2
9	30.2	26.1	16.0	18.0	21.9
10	32.1	27.2	16.0	18.2	22.6
11	33.4	27.2	16.6	18.5	23.2
12	35.0	29.4	19.2	22.7	26.3
13	36.5	30.0	20.4	23.7	27.4
14	37.2	30.0	20.4	24.1	27.8
15	38.1	30.3	21.4	24.6	28.5
16	40.0	31.9	23.2	26.2	30.1
17	40.4	33.0	24.8	26.7	30.8
18	40.7	33.4	25.2	27.1	31.2
19	41.5	33.6	25.2	27.5	31.6
20	43.1	35.1	26.7	28.8	33.1
21	43.6	36.4	27.4	29.0	33.5
22	44.8	36.4	28.9	29.1	34.1
23	45.3	36.4	29.1	29.1	34.3
24	46.5	40.3	32.1	31.0	36.4
25	47.2	42.0	32.4	31.1	36.8
26	48.3	42.8	32.6	31.5	37.4
27	48.7	43.0	33.1	31.5	37.6
28	51.6	44.9	33.5	33.1	39.4
29	51.8	46.2	33.5	34.0	40.1
30	52.6	46.9	33.7	34.7	40.7
31	53.3	46.9	35.4	34.8	41.2
32	53.8	47.9	36.8	35.6	42.3
33	53.4	47.9	37.0	35.4	42.6
34	53.9	48.6	37.0	35.6	42.7
35	53.4	48.6	37.2	35.7	42.9
36	55.2	48.6	38.3	37.4	44.2
37	53.4	48.6	39.2	36.4	44.7
38	55.2	48.6	39.7	37.5	44.8
39	53.5	48.6	40.1	36.6	45.0
40	56.2	49.7	41.2	39.1	46.3

Table continues

Table A.18, continued

Duration of Spell (Months)	Month 1 Spells with Elapsed Durations of 1 to 6 Months	Month 1 Spells with Elapsed Durations of 7 to 12 Months	Month 1 Spells with Elapsed Durations of 13 to 24 Months	Month 1 Spells with Elapsed Durations of More than 24 Months	All Left-Censored Spells
41	54.5	51.6	41.9	36.8	46.9
42	56.2	51.6	41.9	39.5	47.1
43	54.7	51.6	41.9	37.1	47.3
44	56.6	52.4	43.3	40.5	48.1
45	55.1	52.4	44.5	37.3	48.5
46	56.6	52.4	44.8	40.8	48.7
47	55.2	52.4	44.8	37.7	48.9
48	58.5	53.9	47.2	42.5	50.7
49	55.7	54.1	47.4	38.2	51.0
50	58.9	54.4	47.4	42.8	51.2
51	55.9	54.4	48.0	38.7	51.6
52	60.8	55.2	48.6	44.1	52.9
53	56.1	55.2	48.6	38.8	52.9
54	60.8	55.2	48.6	44.2	53.0
Sample Size	1,045	388	503	2,030	3,966

Universe: Left-censored month 1 SNAP participants weighted by 11-wave panel weights
Source: Decision Demographics tabulations of the 2008 SIPP Panel
Notes: ^a Median duration in bold.

Table A.19

Cumulative Exit Rates for Artificial and Month 1 Left-Censored Spells, 2008 SIPP Panel ^a

Duration of Spell (Months)	Artificial Left-Censored Spells	Month 1 Left-Censored Spells with Elapsed Durations of 1 to 11 months	Difference
1	0.0	0.0	0.0
2	0.3	1.1	0.8
3	0.6	2.5	1.8
4	1.4	3.5	2.1
5	5.4	7.5	2.1
6	8.6	10.8	2.1
7	9.7	12.6	2.9
8	13.7	13.6	-0.1
9	16.6	16.2	-0.3
10	18.4	19.5	1.1
11	21.3	21.5	0.2
12	26.7	25.9	-0.8
13	28.7	27.2	-1.5
14	30.0	28.9	-1.2
15	31.2	30.2	-1.1
16	33.7	31.5	-2.2
17	35.5	33.7	-1.8
18	36.6	35.0	-1.6
19	37.2	35.5	-1.7
20	41.8	36.1	-5.7
21	43.3	36.9	-6.4
22	44.2	37.9	-6.3
23	45.0	38.5	-6.5
24	48.3	39.2	-9.1
25	48.7	40.3	-8.4
26	49.7	41.6	-8.1
27	<u>50.9</u>	42.4	-8.5
28	52.2	43.2	-8.9
29	52.8	44.7	-8.1
30	54.3	44.9	-9.4
31	54.5	46.3	-8.3
32	55.8	47.9	-7.8
33	56.4	49.0	-7.3
34	56.6	49.4	-7.2
35	57.4	<u>50.0</u>	-7.3
36	59.2	50.4	-8.8
37	59.8	51.7	-8.1
38	59.9	52.1	-7.8
39	60.1	52.6	-7.6
40	61.0	52.7	-8.3

Table continues

Table A.19, continued

Duration of Spell (Months)	Artificial Left-Censored Spells	Month 1 Left-Censored Spells with Elapsed Durations of 1 to 11 months	Difference
41	61.5	53.2	-8.2
42	62.3	54.4	-7.9
43	62.8	54.5	-8.4
44	64.0	54.6	-9.3
45	65.0	54.9	-10.1
46	65.1	55.1	-10.0
47	65.6	55.4	-10.2
48	66.7	55.7	-11.0
49	67.0	56.4	-10.6
50	68.0	56.7	-11.3
51	68.0	57.2	-10.8
52	68.0	57.9	-10.1
53	68.0	59.0	-9.0
54	68.0	59.2	-8.8
Sample Size	1,778	1,377	

Universe: Artificial Left-Censored Spells: Month 12 SNAP participants with spells that started between months 2 and 12 weighted by 11-wave panel weights

Month 1 Left-Censored Spells: Month 1 SNAP participants with a spell that began 1 to 11 months prior to the panel weighted by 11-wave panel weights

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: ^a Median duration in bold.

Table A.20

**Forward and Backward Spell Duration Distributions of Month 1 Left-Censored Spells,
 2008 SIPP Panel ^a**

Duration of Spell (Months)	Backward Elapsed Duration (Cumulative Distribution)	Forward (Within Panel) Cumulative Exit Rates	Difference
1	1.2	1.2	0.0
2	1.9	2.2	0.3
3	3.1	3.5	0.4
4	10.0	10.8	0.9
5	12.1	13.7	1.5
6	13.0	14.9	1.8
7	13.8	15.8	2.0
8	17.6	20.2	2.7
9	18.4	21.9	3.5
10	18.8	22.6	3.8
11	19.1	23.2	4.1
12	22.7	26.3	3.6
13	23.5	27.4	3.9
14	23.8	27.8	4.0
15	24.2	28.5	4.2
16	25.8	30.1	4.3
17	26.3	30.8	4.5
18	26.6	31.2	4.6
19	27.0	31.6	4.7
20	28.4	33.1	4.7
21	28.5	33.5	5.1
22	28.6	34.1	5.5
23	28.6	34.3	5.7
24	30.2	36.4	6.1
25	30.3	36.8	6.5
26	30.6	37.4	6.9
27	30.6	37.6	7.0
28	31.8	39.4	7.7
29	32.5	40.1	7.6
30	33.0	40.7	7.7
31	33.1	41.2	8.1
32	33.8	41.8	8.1
33	34.2	42.2	8.0
34	34.2	42.3	8.1
35	34.4	42.5	8.0
36	35.7	43.8	8.1
37	34.8	43.0	8.1
38	34.9	43.1	8.1
39	35.1	43.2	8.1
40	36.2	44.6	8.3

Table continues

Table A.20, continued

Duration of Spell (Months)	Backward Elapsed Duration (Cumulative Distribution)	Forward (Within Panel) Cumulative Exit Rates	Difference
41	36.3	45.2	8.9
42	36.5	44.7	8.3
43	36.7	44.9	8.2
44	38.5	45.8	7.3
45	38.5	46.2	7.6
46	38.6	46.4	7.8
47	38.7	46.4	7.7
48	41.4	48.3	6.8
49	41.7	48.6	6.9
50	41.7	48.9	7.2
51	42.1	49.3	7.2
52	43.3	50.2	6.9
53	43.3	50.3	7.0
54	43.3	50.3	7.0
Sample Size	3,966	3,966	

Universe: Left-censored month 1 SNAP participants weighted by 11-wave panel weights

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: ^a Median duration in bold.

Table A.21**Distribution of Adults by Employment History, 2008 SIPP Panel**

	Percentage of Adults					
	Month 1 ^a	Month 12	Month 24	Month 36	Month 48	Month 56
Average Unemployment Rate (CPS)	5.8	9.3	9.5	9.0	8.2	8.1
Total Not Employed Adults (Age 18-75)	69,232,874	67,729,858	70,036,130	70,536,461	67,118,653	64,791,546
Employed within Previous 6 Months	11.0%	18.2%	14.0%	12.9%	12.3%	12.7%
Employed within Previous 12 Months	16.5	26.3	25.1	22.6	21.5	21.6
Don't Know	8.9	0.0	0.0	0.0	0.0	0.0
Total Employed Adults (Age 18-75)	138,109,089	139,555,050	135,798,999	135,452,153	129,035,715	121,975,067
Employed All of Previous 6 Months	NA	91.2	91.3	91.6	91.5	91.9
Employed All of Previous 12 Months	NA	82.1	83.1	83.3	84.0	84.1

Universe: All panel adults age 18-75 in given month weighted by 11-wave panel weights

Source: Decision Demographics tabulations of the 2008 SIPP Panel and Current Population Survey 2008-2013, data from <http://www.bls.gov/data/#employment>, Series ID LNU04000000

Notes: ^a Age at Month 4

Table A.22

Percentage of SNAP Participants with One- and Two-Month Gaps, 2008 SIPP Panel

Number of One-Month Gaps	Percentages				Number of One-Month Gaps	Weighted Counts				Number of One-Month Gaps	Unweighted Counts			
	Number of Two-Month Gaps					Number of Two-Month Gaps					Number of Two-Month Gaps			
	0	1	2	3+		0	1	2	3+		0	1	2	3+
0	92.1%	2.8%	0.4%	0.0%	0	61,975,830	1,854,774	235,949	0	0	10,344	296	30	0
1	4.2	0.4	0.1	0.0	1	2,798,641	281,370	38,672	0	1	455	43	5	0
2	0.1	0.0	0.0	0.0	2	76,693	0	9,930	0	2	14	0	2	0
3+	0.0	0.0	0.0	0.0	3+	0	0	0	0	3+	0	0	0	0

Universe: All individuals, excluding infants born after Wave 1, with one or more SNAP spells during first 14 waves of SIPP panel, weighted by 11-wave longitudinal weight
 Source: Decision Demographics tabulations of the 2008 SIPP Panel

Table A.23

Distribution of One-Month and Two-Month Gaps within the Reference Period, 2008 SIPP Panel

	Weighted Number	Percentage
One-Month Gaps		
Gap at Month 1	449,788	13.7%
Gap at Month 2	739,784	22.5
Gap at Month 3	552,631	16.8
Gap at Month 4	1,549,726	47.1
Two-Month Gaps		
Gap Starting in Month 1	241,220	8.9
Gap Starting in Month 2	807,423	29.8
Gap Starting in Month 3	1,553,619	57.4
Gap Starting in Month 4	102,984	3.8

Universe: All individuals, excluding infants born after Wave 1, with one or more SNAP spells during first 14 waves of SIPP panel, weighted by 11-wave longitudinal weight

Source: Decision Demographics weighted tabulations of the 2008 SIPP panel

Table A.24

Duration of Spells with Gaps and Once Gaps are Closed, 2008 SIPP Panel

	One-Month Gap	Two-Month Gap ^a
Length of Spell Prior to Gap		
Average if not Left-Censored	9.8	9.2
Percentage Left-Censored	29.4%	28.5%
Length of Spell Following Gap		
Average	11.7	14.6
Average if not Right-Censored	9.9	15.9
Percentage Right-Censored	48.2%	59.5%
Length of Spell if Gap Closed ^a		
Average	28.0	33.0
Average if not Left-Censored	23.0	29.0
Average if not Right-Censored	22.6	29.1
Average if not Left- or Right-Censored	19.7	25.9
Percentage Left- or Right-Censored	57.6%	65.1%
Universe:	All individuals excluding infants born after Wave 1 with one or more SNAP spells during first 14 waves of SIPP panel, weighted by 11-wave longitudinal weight	
Source:	Decision Demographics tabulations of the 2008 SIPP Panel	
Notes:	^a The second column contains estimates for closing both one- and two-month gaps.	

Table A.25

Characteristics of Individuals with and without Gaps, 2008 SIPP Panel

	No Gaps	One 1-Month Gap	One 2-Month Gap	Multiple Gaps
Total individuals	61,975,830	2,798,641	1,854,774	642,615
Average Percentage of Months in SIPP Panel Spent Participating in SNAP	50.9%	61.2%	69.1%	72.6%
Average Family Benefit	\$242	\$268	\$250	\$285
Percentage in Families with Children	67.9	76.7	73.4	84.5
Percentage in Families without Children	32.1	23.3	26.6	15.5
Percentage in Families with Elderly	19.5	15.1	11.5	7.5
Percentage in Families without Elderly	80.5	84.9	88.5	92.5
Percentage in Families of Size 1	15.5	12.7	15.2	10.5
Percentage in Families of Size 2	16.4	15.5	21.1	14.2
Percentage in Families of Size 3 or More	68.1	71.8	63.7	75.3
Percentage in Families with Earned Income	67.4	72.3	70.5	75.3
Percentage in Families without Earned Income	32.6	27.7	29.5	24.7
Percentage in Families with Unearned Income	68.0	66.7	63.7	51.6
Percentage in Families without Unearned Income	32.0	33.3	36.3	48.4
Percentage in Families with SSI	7.8	6.8	5.0	7.3
Percentage in Families without SSI	92.2	93.2	95.0	92.7
Percentage in Families with Social Security	23.3	20.6	17.2	14.7
Percentage in Families without Social Security	76.7	79.4	82.8	85.3

Table continues

Table A.25, continued

	No Gaps	One 1-Month Gap	One 2-Month Gap	Multiple Gaps
Percentage in Families with Unemployment Compensation	3.2	2.5	1.8	12.1
Percentage in Families without Unemployment Compensation	96.8	97.5	98.2	87.9
Percentage in Families with TANF	7.0	8.3	10.7	5.2
Percentage in Families without TANF	93.0	91.7	89.3	94.8
Percentage in Families with Income Increase in Gap Month	—	14.4	19.0	12.7
Percentage in Families with Income Increase in Month Prior to Gap	—	21.0	20.4	19.3
Percentage in Families with Income at or Below Poverty	42.6	46.3	47.1	50.7
Percentage in Families with Income Above Poverty	57.4	53.7	52.9	49.3
Universe:	All individuals excluding infants born after Wave 1 with one or more SNAP spells during first 14 waves of SIPP panel, weighted by 11-wave longitudinal weight			
Source:	Decision Demographics tabulations of the 2008 SIPP Panel			

Table A.26

Timing of Changes in Family Characteristics Relative to the Participation Gap, 2008 SIPP Panel

Characteristics	In Families with 1- or 2-Month Gap Experiencing Change Across Gap ^a	Families with no Gap that had Change within Spell	In Families with 3- or More Month Gap Experiencing Change Across Longer Gap ^a
Increase in Family Size	6.9%	15.6%	27.5%
Decrease in Family Size	5.0	12.9	31.7
No Change in Family Size	88.8	77.8	50.3
Increase in Benefit Level	26.1	19.3	29.0
Decrease in Benefit Level	25.1	17.3	34.6
No Change in Benefit Level	71.5	75.8	59.6
Increase in Number of Children	4.9	11.3	16.8
Decrease in Number of Children	3.2	12.6	30.5
No Change in Number of Children	92.4	80.5	59.8
Increase in Number of Elderly	0.4	3.7	5.7
Decrease in Number of Elderly	0.5	1.8	16.4
No Change in Number of Elderly	99.1	95.1	79.6
Increase in Earned Income	21.9	51.2	58.7
Decrease in Earned Income	19.3	50.0	55.6
No Change in Earned Income	65.1	40.1	33.7
Increase in Unearned Income	20.1	53.8	60.4
Decrease in Unearned Income	16.3	50.3	53.8
No Change in Unearned Income	68.8	38.2	31.2
Increase in SSI	4.8	15.8	20.3
Decrease in SSI	2.7	13.9	25.3
No Change in SSI	92.8	81.6	66.8

Table continues

Table A.26, continued

Characteristics	In Families with 1- or 2-Month Gap Experiencing Change Across Gap ^a	Families with no Gap that had Change within Spell	In Families with 3- or More Month Gap Experiencing Change Across Longer Gap ^a
Increase in Social Security Income	3.3	18.9	24.3
Decrease in Social Security Income	3.7	15.1	26.7
No Change in Social Security Income	93.5	77.7	62.6
Increase in Unemployment Compensation	2.7	11.4	17.1
Decrease in Unemployment Compensation	2.8	12.2	21.5
No Change in Unemployment Compensation	95.9	85.1	70.1
Increase in TANF	1.1	8.7	9.3
Decrease in TANF	0.8	8.6	19.3
No Change in TANF	98.3	89.5	76.6
Universe:	All individuals excluding infants born after Wave 1 with one or more SNAP spells during first 14 waves of SIPP panel, weighted by 11-wave longitudinal weight		
Source:	Decision Demographics tabulations of the 2008 SIPP Panel		
Notes:	^a Characteristic changes across any two of the three time periods: before gap, within gap, following gap		

Table A.27

Amount of Income Change around Participation Gap, 2008 SIPP Panel

Change in Monthly Income	Percentage of Gaps with Individuals Experiencing Change in Month Income Amount ^a		
	Month Prior to Gap	Month(s) of Gap	Month Following Gap
Earned Income	29.3%	24.3%	31.7%
\$1-\$200	8.2	6.1	8.9
\$201-\$400	2.6	3.4	6.3
\$401+	18.5	14.8	16.5
Unearned Income	23.5	22.3	27.7
\$1-\$200	7.1	8.5	12.0
\$201-\$400	5.4	3.3	5.0
\$401+	11.0	10.5	10.7
SSI	3.8	3.4	4.3
\$1-\$200	1.9	1.0	1.0
\$201-\$400	0.1	0.2	0.1
\$401+	1.7	2.2	3.2
Social Security	4.4	2.7	4.2
\$1-\$200	1.3	1.0	1.2
\$201-\$400	1.0	0.5	0.7
\$401+	2.1	1.2	2.3
Unemployment Compensation	4.3	4.2	3.5
\$1-\$200	0.9	1.0	0.2
\$201-\$400	1.2	0.9	1.9
\$401+	2.3	2.3	1.4
TANF	1.8	2.8	2.5
\$1-\$200	0.4	0.9	1.3
\$201-\$400	0.6	1.4	1.0
\$401+	0.8	0.5	0.2

Universe: All individuals excluding infants born after Wave 1 with one or more SNAP spells during first 14 waves of SIPP panel, weighted by 11-wave longitudinal weight

Source: Decision Demographics tabulations of the 2008 SIPP Panel

Notes: ^a Individuals experience change from the month prior to the column heading to the month identified in the column heading.

Table A.28

Three Supplemental Data Sources: Rates of Linkage to 2008 SIPP Panel

	All Individuals with 11-panel Longitudinal Weight					
	Total		Receiving SNAP in Month 1 ^a		Ever Received SNAP During Panel Period ^a	
	Number	Percent	Number	Percent	Number	Percent
Unweighted Sample	51,908	100.0%	4,076	100.0%	11,189	100.0%
Census Tract-Level Data						
American Community Survey Contextual Data from 2008-2012						
Matched Individuals	51,222	98.7	3,998	98.1	11,025	98.5
Individuals without a Match	686	1.3	78	1.9	164	1.5
ERS 2010 Food Access Research Atlas						
Matched Individuals	51,251	98.7	3,998	98.1	11,028	98.6
Individuals without a Match	657	1.3	78	1.9	161	1.4
Household-Level Data						
Census internal <i>RealtyTrac</i> Data from 2005-2011						
Matched Individuals	51,908	100.0	4,076	100.0	11,189	100.0
Individuals without a Match	0	0.0	0	0.0	0	0.0
Between-wave Movers as a Percent of all Individuals (average)		6.8				
In State that does not Require Lenders to File a Notice of Default (i.e., records may be incomplete) ^a	10,635	20.5				

Universe: All individuals in the 2008 SIPP Panel with 11-panel longitudinal weight

Source: Decision Demographics tabulations of the 2008 SIPP Panel, the 2008-2012 Census Bureau ACS geographic boundaries and population characteristics summary files, the 2010 ERS Food Access Research Atlas, internal mortgage foreclosure data file developed internally by the Census

Notes: ^a The following 16 States do not require a lender to file a notice of default in the public records; as such data for these States may be incomplete: Alabama, Arizona, Colorado, Georgia, Minnesota, Mississippi, Missouri, Montana, New Hampshire, Oregon, Tennessee, Texas, Virginia, Washington, West Virginia, and Wyoming.

Table A.29

Supplemental Data Summary Measures by 2008 SIPP Panel SNAP Participation

	All Individuals (Weighted)	Individuals Who Reported SNAP Receipt in Month 1		Individuals Who Ever Received SNAP during Panel Period	
		On SNAP	Not on SNAP	Ever SNAP	Never SNAP
Measures of Relative Poverty ^a					
Percent of Population in Resident Census Tract:					
Receives SNAP	11.9%	21.7%	11.0%	18.7%	9.9%
Has Income below 200% of Poverty	33.8	48.8	32.5	45.0	30.5
Has Income below 100% of Poverty	14.9	24.4	14.1	21.6	12.9
Percent who Live in a Census Tract in which at Least:					
25% of Residents Receive SNAP	11.3	33.9	9.3	25.7	7.1
33% of Residents Receive SNAP	5.0	18.9	3.8	13.7	2.5
25% of Residents are under Poverty Level	17.0	42.7	14.8	34.1	12.0
33% of Residents are under Poverty Level	7.9	24.8	6.5	18.8	4.8
Percent who Live in a Low Income Neighborhood (as defined by the Dept. of Treasury's New Markets Tax Credit (NMTC) Program) ^b	36.7	69.0	33.8	59.8	30.0
Measures of Food Access ^a					
Percentage who Live in a Census Tract that is Classified as a Low Access Tract at:					
1 mile for Urban Areas or 10 miles for Rural Areas (ERS Food Atlas variable: LA1and10)	42.5	37.1	42.9	38.4	43.7
1/2 mile for Urban Areas or 10 miles for Rural Areas (ERS Food Atlas variable: LAHalfand10)	72.6	70.1	72.7	70.9	73.0
1 mile for Urban Areas or 20 miles for Rural Areas (ERS Food Atlas variable: LA1and20)	39.1	32.4	39.6	34.3	40.5

Table continues

Table A.29, continued

	All Individuals (Weighted)	Individuals Who Reported SNAP Receipt in Month 1		Individuals Who Ever Received SNAP during Panel Period	
		On SNAP	Not on SNAP	Ever SNAP	Never SNAP
Measures of Whether an Individual Has Been Affected by Foreclosure					
Percentage Ever Experienced, during Panel Period:					
A Notice of Default	4.9	5.0	4.9	6.4	4.5
A Notice of Foreclosure Sale	2.9	3.2	2.9	4.1	2.6
Bank Owned Property (Foreclosure)	1.8	2.4	1.7	2.6	1.5
Unweighted Sample Size ^c	51,908	4,076	47,054	11,189	40,719

Universe: All individuals in the 2008 SIPP Panel, weighted by 11-panel longitudinal weight

Source: Decision Demographics tabulations of the 2008 SIPP Panel, the 2008-2012 Census Bureau American Community Survey (ACS) geographic boundaries and population characteristics summary files, the 2010 ERS Food Access Research Atlas, 2005-2011 internal mortgage foreclosure data file developed internally by the Census Bureau from RealtyTrac data.

Notes: ^a As of Month 1 of their panel period. When subgroups are created, more precise measures of time will be used, consistent with study subgroup definition procedures.

^b The NMTC defines a low-income Census tract as a tract in which: the poverty rate is 20 percent or greater; or the median family income is less than or equal to 80 percent of the State-wide median family income; or the tract is in a metropolitan area and has a median family income less than or equal to 80 percent of the metropolitan area's median family income.

^c Individuals with a positive longitudinal panel weight

Attachment 2
Data Assessment Table Crosswalk

2008 SIPP Data Assessment		2004 SIPP Data Assessment	
Table No.	Title	Table No. ^a	App. A Page
A.1	Sample Loss Rates, by Select Characteristics in 2008 SIPP Panel	A.2	8
A.2	Demographic and Economic Characteristics of Sample Members, using Cross-Sectional and 11-Wave Panel Weights, 2008 SIPP Panel	A.3	10
A.3	Decile Values of Selected Monthly Income Distributions for January 2009, Using Cross-Sectional and 11-Wave Panel Weights, 2008 SIPP Panel	A.4	12
A.4	Comparison of Percentage Distribution of Population Characteristics in the 2008 SIPP Panel and CPS ASEC, 2009-2012	A.5	15
A.5	Distribution of Transition Events by Reference Month, 2008 SIPP Panel	A.6	18
A.6	Rates of Seam Reporting For Select Subgroups, 2008 SIPP Panel	A.7	19
A.7	Frequency of Within-Unit Inconsistencies for SNAP and TANF, 2008 SIPP Panel, Unweighted	A.8	24
A.8	Difference in Program Participation Levels Between Waves 1 and 2 of the 2008 SIPP Panel	A.9	26
A.9	Decomposition of Changes in SNAP Participation Estimates across the Common Months of Waves 1 through 5 in the 2008 SIPP	A.10	28
A.10	SNAP Participants by Percentage Distribution of Characteristics in Administrative Data and in the 2008 SIPP Panel	A.11	30
A.11	SIPP 2008 Panel Timing	(new)	NA
A.12	Extent of Missing and Imputed Start Dates of Month 1 Spells by SNAP Reference Person Status, 2008 SIPP Panel	A.12	37
A.13	Elapsed Length of Month 1 Spells and Imputation Status, 2008 SIPP Panel	A.13	38
A.14	Elapsed Length of Month 1 Spells Beginning before Month 1, 2008 SIPP Panel	A.15	42

2008 SIPP Data Assessment		2004 SIPP Data Assessment	
Table No.	Title	Table No. ^a	App. A Page
A.15	SNAP Spells Beginning in that Panel Month as a Percentage of On-Going Spells, 2008 SIPP Panel	A.16	44
A.16	Cumulative Exit Rate for Three Samples of Spells, by Duration, 2008 SIPP Panel	A.17	45
A.17	Median Spell Durations for Five Samples of Non-Left Censored Spells: 2008, 2004, 2001, & 1991 SIPP Panels	A.18	46
A.18	Cumulative Exit Rates for Month 1 Left-Censored Spells, by Panel Month and Elapsed Duration, 2008 SIPP Panel	A.19	47
A.19	Cumulative Exit Rates for Artificial and Month 1 Left-Censored Spells, 2008 SIPP Panel	A.20	49
A.20	Forward and Backward Spell Duration Distributions of Month 1 Left-Censored Spells, 2008 SIPP Panel	A.21	52
A.21	Distribution of Adults by Employment History, 2008 SIPP Panel	A.22	53
A.22	Percentage of SNAP Participants with One- and Two-Month Gaps, 2008 SIPP Panel	A.23	55
A.23	Distribution of One-Month and Two-Month Gaps within the Reference Period, 2008 SIPP Panel	A.24	56
A.24	Duration of Spells with Gaps and Once Gaps are Closed, 2008 SIPP Panel	A.25	57
A.25	Characteristics of Individuals with and without Gaps, 2008 SIPP Panel	A.26	59
A.26	Timing of Changes in Family Characteristics Relative to the Participation Gap, 2008 SIPP Panel	A.27	60
A.27	Amount of Income Change around Participation Gap, 2008 SIPP Panel	A.28	62
A.28	Three Supplemental Data Sources: Rates of Linkage to 2008 SIPP Panel	(new)	NA
A.29	Supplemental Data Summary Measures by 2008 SIPP Panel SNAP Participation	(new)	NA

Source for 2004 SIPP Tables: Mabli et al. (2011a)

^a Two tables from the 2004 SIPP Data Assessment were not used:

A.1 Obtaining Eight-Wave Longitudinal Sample from Initial Sample, 2004 Panel

A.14 Month 1 Spells that Began after Month 1 and Imputation Stat

Appendix B

Table B.1 Definitions of Explanatory Variables

Characteristic	Definition
Demographic Characteristics Of Individuals	
Gender	
Male	1 Male; 0 otherwise.
Race and Ethnicity	
White, non-Hispanic	1 white, non-Hispanic; 0 otherwise.
Black, non-Hispanic	1 black, non-Hispanic; 0 otherwise.
Hispanic	1 Hispanic; 0 otherwise.
Other	1 neither white, non-Hispanic or black, non-Hispanic or Hispanic; 0 otherwise.
Age	
18-29 years old	1 if 18 to 29 years old; 0 otherwise.
30-49 years old	1 if 30 to 49 years old; 0 otherwise.
50-64 years old	1 if 50 to 64 years old; 0 otherwise.
65 and older	1 if at least 65 years old; 0 otherwise.
U.S. Citizenship	1 if U.S. citizen; 0 otherwise.
Highest Grade Completed	
0-8	1 if completed 8 or less years of schooling; 0 otherwise.
9-11	1 if completed 9 to 11 years of schooling; 0 otherwise.
12	1 if completed 12 years of schooling; 0 otherwise.
13 and above	1 if completed at least 13 years of schooling; 0 otherwise.
Family Size	
Number of adults between ages 18 and 59	The number of nonelderly adults in an individual's family.
Number of adults ages 60 and over	The number of elderly adults in an individual's family.
Number of children less than age 6	The number of children less than 6 years old in an individual's family.
Number of children between ages 6 and 18	The number of children ages 6 to 18 in an individual's family.
Marital status	
Currently Married	1 if currently married; 0 otherwise.

Table continues

Table B.1, continued

Characteristic	Definition
Economic Characteristics Of Individuals	
Employment Status	
Currently Employed	1 if employed and equals 0 otherwise.
Haven't Worked in 1-5 months	1 if not working and has not worked for the last 1 to 5 months; 0 otherwise.
Haven't worked in 6-11 months	1 if not working and has not worked for the last 6 to 11 months; 0 otherwise.
Haven't worked in 12+ months	1 if not working and has not worked for the 12 or more months; 0 otherwise.
Ratio of Family Income to Poverty Level	
Less than 1.0	1 if the ratio of an individual's family income to the Federal poverty threshold is less than 1.0; 0 otherwise.
1.0 to less than 1.5	1 if the ratio of an individual's family income to the Federal poverty threshold is greater than 1.0 and less than 1.5; 0 otherwise.
1.5 to less than 2.0	1 if the ratio of an individual's family income to the Federal poverty threshold is greater than 1.5 and less than 2.0; 0 otherwise.
2.0 and above	1 if the ratio of an individual's family income to the Federal poverty threshold is at least 2.0; 0 otherwise.
Net worth	
Positive net worth	1 if the individual's family net worth is positive; 0 otherwise
Net worth greater than \$25,000	1 if the individual's family net worth exceeds \$25,000; 0 otherwise
Other Sources of Income	
Receipt of TANF	1 if a member of the individual's family receives TANF benefits; 0 otherwise.
Receipt of other means-tested cash benefits (General Assistance; state or federal SSI)	1 if a member of the individual's family receives General Assistance or state or federal SSI benefits; 0 otherwise
Receipt of other means-tested noncash benefits (WIC, Medicaid, public housing subsidies)	1 if a member of the individual's family receives WIC benefits, participates in Medicaid, or receives public housing subsidies; 0 otherwise
Receipt of alimony or child support	1 if a member of the individual's family receives alimony or child support payments; 0 otherwise
Health Status and Medical Costs	
In fair or poor health	1 if a member of the individual's family reports being in fair or poor health; 0 otherwise
High out of pocket medical costs	1 if a member of the individual's family reports paying over \$1,000 for out of pocket medical costs; 0 otherwise

Table continues

Table B.1, continued

Characteristic	Definition
Trigger Events and Usual Circumstances (Time Varying)	
Entry Trigger Events	
Employment change within family	1 if individual or any family member experienced a transition from employment to unemployment in the last four months; 0 otherwise.
Income change within family	1 if individual or any family member experienced a decrease in income in the last four months; 0 otherwise.
Marital Status change within family	1 if individual or any family member experienced a transition from being married to being either divorced, separated, or widowed in the last four months; 0 otherwise.
Family composition change within family	1 if individual or any family member experienced a change in family composition that is associated with FSP entry (for example, an increase in number of children in family) in the last four months; 0 otherwise.
Usual Circumstances Before Entry	
Mean employment change within family	The average amount of times that any member of the family changed employment status.
Mean income change within family	The average amount of times that any member of the family experienced a change in income.
Average number of marriages in family to date	The average number of times all individuals in a family have been married throughout their lifetime.
Mean family composition change	The average amount of times that there was a change in family composition.
State and Regional Measures (Time Varying)	
State unemployment rate	The unemployment rate in an individual's state of residence.
20th percentile wage	The 20 th percentile of the wage distribution in an individual's state of residence.
Region of residence	
Northeast	1 if individual lives in the Northeast region; 0 otherwise.
Mid-Atlantic	1 if individual lives in the Mid-Atlantic region; 0 otherwise.
Midwest	1 if individual lives in the Midwest region; 0 otherwise.
Southeast	1 if individual lives in the Southeast region; 0 otherwise.
Southwest	1 if individual lives in the Southwest region; 0 otherwise.
Mountain Plains	1 if individual lives in the Mountain Plains region; 0 otherwise.
Western	1 if individual lives in the Western region; 0 otherwise.

Table continues

Table B.1, continued

Characteristic	Definition
SNAP Policy Variables (<i>Time Varying</i>)	
Broad-based categorical eligibility	1 if individual's state of residence offers broad-based categorical eligibility; 0 otherwise
Vehicle (exclude all or most)	1 if individual's state of residence excludes all or most vehicles when determining assets (this includes whether a state excludes one vehicle per adult or per driver); 0 otherwise
Vehicle (exclude one or fewer vehicles per SNAP unit)	1 if individual's state of residence excludes one or fewer vehicles from the SNAP unit; 0 otherwise
Average certification period	1 if individual's state of residence has a higher than average certification period; 0 otherwise.
Outreach expenditures	The sum of federal, nonfederal, and grant-based expenditures on SNAP outreach in an individual's state of residence.
Neighborhood Characteristics (<i>Time Varying</i>)	
Housing foreclosure event ^a	1 if individual was in a housing unit affected by a foreclosure event; 0 otherwise.
Poverty status of neighborhood	1 if individual was living in high poverty neighborhood; 0 otherwise.
SNAP participation of neighborhood	1 if individual was living in high SNAP participation neighborhood; 0 otherwise.
Food access for census tract	1 if individual was living in a low food access census tract; 0 otherwise.

Note: All variables set equal to their value at start of nonparticipation spell or, if the spell is left-censored, at month 1 of the panel, unless otherwise noted in italics as being "time-varying".

^a Defined as any foreclosure that occurred during first 40 months; this is not a time-varying characteristic.

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Trigger Events But Not Instability Variables		Trigger Events and Instability Variables		Burstein Variables: Trigger Events And Burstein Variables	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Intercept	-4.3418	***	-4.6166	***	-4.7734	***
Sex						
Male	-0.2568	***	-0.1903	***	-0.1857	***
Race/Ethnicity						
White, Non-Hispanic	-0.3163	***	-0.1942	***	-0.1859	***
Black, Non-Hispanic	0.4219	***	0.2737	***	0.2843	***
Other, Non-Hispanic	-0.0300		-0.0421		-0.0210	
Age						
30 to 49	0.0274		0.0404		0.0065	
50 to 64	-0.3793	***	-0.2964	***	-0.3520	***
65 and older	-0.9011	***	-0.6286	***	-0.7224	***
Citizenship						
Citizen	0.2538	***	0.2702	***	0.2484	***
Education						
Highest Grade Completed						
9 to 11	0.1643	***	0.2008	***	0.1846	***
12	-0.1451	***	-0.0161		-0.0397	
13 and above	-0.7124	***	-0.4197	***	-0.4470	***
Family Composition						
Mean number of adults age 18-59	0.0785	***	-0.0063		0.0596	***
Mean number of adults age 60+	0.1507	***	0.1012	***	0.1136	***
Mean number of children less than age 6	0.2656	***	0.2519	***	0.2421	***
Mean number of children between ages 6 to 17	0.0953	***	0.0877	***	0.1098	***
Marital Status						
Currently married	-0.6031	***	-0.4037	***	-0.4460	***
Employment Status						
Currently employed	-0.1009	***	0.0143		0.0419	
Have not worked 1 to 5 months	1.0905	***	0.8772	***	1.0481	***
Have not worked 6 to 11 months	-0.0260		0.0590		0.0899	
Ratio of Family Income to Poverty Level						
100 percent to less than 150 percent	-0.1756	***	-0.1750	***	-0.2155	***
150 percent to less than 200 percent	-0.4268	***	-0.3263	***	-0.3799	***
200 percent and above	-1.4260	***	-1.0370	***	-1.1130	***

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Trigger Events But Not Instability Variables		Trigger Events and Instability Variables		Burstein Variables: Trigger Events And Burstein Variables	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Net Worth						
Greater than \$0	.		-0.0407		-0.0392	
Greater than \$25,000	.		-0.6149 ***		-0.6230 ***	
Other Income						
Receive TANF	1.0732 ***		0.7215 ***		0.8050 ***	
Receive other means-tested cash benefits	.		-0.1380 **		-0.1699 ***	
Receive other means-tested noncash benefits	.		0.9864 ***		1.0026 ***	
Receive alimony or child support	.		0.3244 ***		0.3119 ***	
Health Status and Medical Costs						
In fair or poor health	.		0.5327 ***		0.5290 ***	
Out-of-pocket medical costs greater than \$1000	.		-0.3488 ***		-0.3452 ***	
Entry Trigger Events						
Job loss within family	0.5617 ***		0.5960 ***		0.5163 ***	
Decrease in income within family	0.1597 ***		0.2322 ***		0.2058 ***	
Separation or divorce within family	0.3136 **		0.7729 ***		0.2888 *	
Increase in family size within family	0.6851 ***		0.5789 ***		0.5755 ***	
Mean job loss within family	.		-0.0509		.	
Mean decrease in income within family	.		0.5307 ***		.	
Mean separation or divorce within family	.		-0.1413 ***		.	
Mean increase in family size within family	.		2.3164 ***		.	
Mean job loss times job loss trigger	.		-1.4158 ***		.	
Mean decrease in income times decrease in income trigger	.		-0.4251 ***		.	
Mean separation or divorce times separation or divorce trigger	.		-0.8551 ***		.	
Mean increase in family size time increase in family trigger	.		-0.7787 ***		.	
State and Regional Measures						
State Economic Measures						
Mean state unemployment rate	0.0203 ***		0.0124 *		0.0187 ***	
20th percentile wage	-0.0698 **		-0.1079 ***		-0.0897 ***	
Region of Residence						
Northeast	0.2343 ***		0.2012 ***		0.1939 ***	
Mid-Atlantic	0.0619		0.1957 ***		0.2259 ***	
Midwest	0.1382 **		0.2838 ***		0.2914 ***	
Southeast	0.1427 **		0.3351 ***		0.3366 ***	
Southwest	0.3345 ***		0.4087 ***		0.4421 ***	
Mountain Plains	0.2176 ***		0.3286 ***		0.3979 ***	

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Trigger Events But Not Instability Variables		Trigger Events and Instability Variables		Burstein Variables: Trigger Events And Burstein Variables	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
SNAP Policy Variables						
Vehicle Rules						
State offers broad-based categorical eligibility	0.1589	*	0.1071		0.1573	*
State exclude all or most vehicles	0.2418	***	0.2106	**	0.2267	***
Certification Period						
State average certification period	0.0092		0.0117	*	0.0105	
Program Outreach Expenditures						
Mean outreach expenditures per capita	-0.4982	***	-0.4351	***	-0.3893	***

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Single- Adult Families with Children		Individuals in Multiple-Adult Families with Children		Individuals in Families with Elderly Members	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Intercept	-4.8568	***	-4.5033	***	-7.1874	***
Sex						
Male	-0.6318	***	-0.2067	***	-0.1158	*
Race/Ethnicity						
White, Non-Hispanic	-0.0823		-0.1161	*	-0.3972	***
Black, Non-Hispanic	0.0798		0.5107	***	0.0336	
Other, Non-Hispanic	-0.2647		0.0890		-0.1704	
Age						
30 to 49	-0.2251		-0.1588	***	0.2464	*
50 to 64	-0.6146	**	-0.2518	***	-0.0152	
65 and older	-0.8274		-0.4196	***	-0.1180	
Citizenship						
Citizen	0.3004		0.2090	***	-0.3214	**
Education						
Highest Grade Completed						
9 to 11	0.1247		0.1847	**	-0.0142	
12	-0.1646		0.0095		-0.1446	
13 and above	-0.2679		-0.5429	***	-0.4551	***
Family Composition						
Mean number of adults age 18-59	0.2287		0.0497	*	0.3515	***
Mean number of adults age 60+	0.0000		0.1590	***	0.1694	**
Mean number of children less than age 6	0.2191	**	0.1766	***	0.0000	
Mean number of children between ages 6 to 17	0.0226		0.0740	***	0.0000	
Marital Status						
Currently married	.		-0.2693	***	-0.3641	***
Employment Status						
Currently employed	-0.1038		0.0446		0.2288	***
Have not worked 1 to 5 months	0.5210		1.0484	***	0.7128	*
Have not worked 6 to 11 months	0.2346		0.0629		0.2745	
Ratio of Family Income to Poverty Level						
100 percent to less than 150 percent	0.0176		-0.3115	***	-0.0887	
150 percent to less than 200 percent	-0.1097		-0.4491	***	-0.3410	***
200 percent and above	-1.2118	***	-1.1686	***	-0.9804	***

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Single- Adult Families with Children		Individuals in Multiple-Adult Families with Children		Individuals in Families with Elderly Members	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Net Worth						
Greater than \$0	0.0496		0.1413 **		-0.0770	
Greater than \$25,000	-0.5939 ***		-0.5254 ***		-0.8105 ***	
Other Income						
Receive TANF	0.4501		0.8689 ***		0.7408 **	
Receive other means-tested cash benefits	0.3748		-0.4675 ***		-0.1491	
Receive other means-tested noncash benefits	0.9527 ***		1.0481 ***		0.8460 ***	
Receive alimony or child support	0.0068		0.2695 ***		-0.1746	
Health Status and Medical Costs						
In fair or poor health	0.6922 ***		0.5630 ***		0.5839 ***	
Out-of-pocket medical costs greater than \$1000	-0.5884 **		-0.2571 ***		-0.4793 ***	
Entry Trigger Events						
Job loss within family	1.0251 ***		0.4214 ***		0.3905 ***	
Decrease in income within family	0.1427		0.1798 ***		0.1796 **	
Separation or divorce within family	-11.9198		0.3673 *		0.5539 **	
Increase in family size within family	0.1094		0.5424 ***		0.8195 ***	
Mean job loss within family	.		.		.	
Mean decrease in income within family	.		.		.	
Mean separation or divorce within family	.		.		.	
Mean increase in family size within family	.		.		.	
Mean job loss times job loss trigger	.		.		.	
Mean decrease in income times decrease in income trigger	.		.		.	
Mean separation or divorce times separation or divorce trigger	.		.		.	
Mean increase in family size time increase in family trigger	.		.		.	
State and Regional Measures						
State Economic Measures						
Mean state unemployment rate	-0.0235		0.0001		0.0462 ***	
20th percentile wage	-0.0251		-0.0861 *		0.0749	
Region of Residence						
Northeast	0.0991		-0.1487		1.0442 ***	
Mid-Atlantic	-0.0484		0.1818 *		0.7187 ***	
Midwest	0.2277		-0.0162		0.9967 ***	
Southeast	0.4856 **		0.3311 ***		0.6362 ***	
Southwest	-0.0922		0.4677 ***		0.8596 ***	
Mountain Plains	-0.1064		0.5236 ***		0.1181	

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Single- Adult Families with Children		Individuals in Multiple-Adult Families with Children		Individuals in Families with Elderly Members	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
SNAP Policy Variables						
Vehicle Rules						
State offers broad-based categorical eligibility	0.1035		0.0554		0.5856	**
State exclude all or most vehicles	0.2683		0.0415		0.7636	***
Certification Period						
State average certification period	0.0442	*	0.0137		0.0015	
Program Outreach Expenditures						
Mean outreach expenditures per capita	-0.0494		-0.3115		-0.6400	**

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Nonelderly Nondisabled Childless Adults		Individuals in Families Containing Nonelderly Disabled Childless Adults	
	Estimate	Sig	Estimate	Sig
Intercept	-4.6180	***	-2.4771	**
Sex				
Male	-0.1917	***	-0.0224	
Race/Ethnicity				
White, Non-Hispanic	-0.2857	***	-0.6039	***
Black, Non-Hispanic	0.0790		-0.5582	***
Other, Non-Hispanic	-0.2788		-0.2429	
Age				
30 to 49	0.1783	**	-0.0304	
50 to 64	-0.1673	*	-0.6716	***
65 and older	.		.	
Citizenship				
Citizen	0.3191	**	0.2860	
Education				
Highest Grade Completed				
9 to 11	0.6654	***	0.1979	
12	0.3660	*	-0.1950	
13 and above	-0.1095		-0.1361	
Family Composition				
Mean number of adults age 18-59	-0.0531		-0.0301	
Mean number of adults age 60+	0.0000		0.0000	
Mean number of children less than age 6	0.0000		.	
Mean number of children between ages 6 to 17	0.0000		.	
Marital Status				
Currently married	-0.8555	***	-0.2835	**
Employment Status				
Currently employed	0.0096		-0.1553	
Have not worked 1 to 5 months	1.1591	***	1.1663	***
Have not worked 6 to 11 months	0.0311		0.2401	
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	0.0253		-0.3360	**
150 percent to less than 200 percent	-0.4921	***	-0.1422	
200 percent and above	-0.9154	***	-1.0685	***

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Nonelderly Nondisabled Childless Adults		Individuals in Families Containing Nonelderly Disabled Childless Adults	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	-0.2839	***	-0.2967	**
Greater than \$25,000	-0.6870	***	-0.6161	***
Other Income				
Receive TANF	1.3858	***	-0.4284	
Receive other means-tested cash benefits	0.2528		0.2988	**
Receive other means-tested noncash benefits	1.1974	***	0.5065	***
Receive alimony or child support	0.2760		-0.1942	
Health Status and Medical Costs				
In fair or poor health	0.6075	***	-0.1246	
Out-of-pocket medical costs greater than \$1000	-0.4859	***	-0.4865	***
Entry Trigger Events				
Job loss within family	0.5590	***	0.6223	***
Decrease in income within family	0.2261	***	0.3333	***
Separation or divorce within family	-1.2050	*	1.3459	***
Increase in family size within family	0.7460	***	0.1986	
Mean job loss within family	.		.	
Mean decrease in income within family	.		.	
Mean separation or divorce within family	.		.	
Mean increase in family size within family	.		.	
Mean job loss times job loss trigger	.		.	
Mean decrease in income times decrease in income trigger	.		.	
Mean separation or divorce times separation or divorce trigger	.		.	
Mean increase in family size time increase in family trigger	.		.	
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	0.0239		0.0866	***
20th percentile wage	-0.1187	*	-0.3580	***
Region of Residence				
Northeast	0.0372		0.5904	**
Mid-Atlantic	-0.0051		0.6974	***
Midwest	0.2648	**	1.1550	***
Southeast	0.2262	*	0.6574	***
Southwest	0.5558	***	0.3955	
Mountain Plains	0.3350	**	1.1659	***

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Nonelderly Nondisabled Childless Adults		Individuals in Families Containing Nonelderly Disabled Childless Adults	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.1682		0.0607	
State exclude all or most vehicles	0.2050		0.2179	
Certification Period				
State average certification period	-0.0042		0.0616 **	
Program Outreach Expenditures				
Mean outreach expenditures per capita	-0.0124		-0.8646 *	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Citizen Adults and Citizen Children	Individuals in Families Containing Noncitizen Adults and Citizen Children
	Estimate Sig	Estimate Sig
Intercept	-5.0169 ***	1.5554
Sex		
Male	-0.2634 ***	-0.1560
Race/Ethnicity		
White, Non-Hispanic	-0.1052	0.0160
Black, Non-Hispanic	0.4307 ***	-0.1955
Other, Non-Hispanic	0.0575	0.3925
Age		
30 to 49	-0.1651 ***	0.1513
50 to 64	-0.2654 ***	0.0375
65 and older	-0.4618 ***	0.1329
Citizenship		
Citizen	0.0596	-12.3339
Education		
Highest Grade Completed		
9 to 11	0.2771 ***	0.2325
12	0.0999	-0.0533
13 and above	-0.3535 ***	-0.8217 ***
Family Composition		
Mean number of adults age 18-59	0.0335	-0.1449 *
Mean number of adults age 60+	0.1461 ***	-0.3562
Mean number of children less than age 6	0.1874 ***	0.1295
Mean number of children between ages 6 to 17	0.0582 ***	0.1413 *
Marital Status		
Currently married	-0.4142 ***	0.0392
Employment Status		
Currently employed	0.0331	0.1516
Have not worked 1 to 5 months	1.0009 ***	0.1189
Have not worked 6 to 11 months	0.1056	-0.1505
Ratio of Family Income to Poverty Level		
100 percent to less than 150 percent	-0.2506 ***	-0.5576 ***
150 percent to less than 200 percent	-0.3919 ***	-0.7910 ***
200 percent and above	-1.2089 ***	-1.3319 ***

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Citizen Adults and Citizen Children	Individuals in Families Containing Noncitizen Adults and Citizen Children
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	0.0894	0.4667 ***
Greater than \$25,000	-0.4923 ***	-1.1576 ***
Other Income		
Receive TANF	0.7345 ***	0.8894 **
Receive other means-tested cash benefits	-0.4660 ***	0.9466 **
Receive other means-tested noncash benefits	1.0715 ***	0.8999 ***
Receive alimony or child support	0.2763 ***	0.0555
Health Status and Medical Costs		
In fair or poor health	0.5560 ***	0.4920 **
Out-of-pocket medical costs greater than \$1000	-0.3394 ***	0.2621
Entry Trigger Events		
Job loss within family	0.4901 ***	0.3643 *
Decrease in income within family	0.2261 ***	-0.0622
Separation or divorce within family	0.4126 **	-0.5172
Increase in family size within family	0.5573 ***	-0.3918
Mean job loss within family	.	.
Mean decrease in income within family	.	.
Mean separation or divorce within family	.	.
Mean increase in family size within family	.	.
Mean job loss times job loss trigger	.	.
Mean decrease in income times decrease in income trigger	.	.
Mean separation or divorce times separation or divorce trigger	.	.
Mean increase in family size time increase in family trigger	.	.
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	-0.0050	0.0094
20th percentile wage	-0.0139	-0.7249 ***
Region of Residence		
Northeast	-0.2132 *	0.7894 *
Mid-Atlantic	0.1499	0.4193
Midwest	0.0598	-0.2004
Southeast	0.3961 ***	-0.2110
Southwest	0.3380 ***	0.3624
Mountain Plains	0.3762 ***	-0.2515

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Citizen Adults and Citizen Children		Individuals in Families Containing Noncitizen Adults and Citizen Children	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.0777		0.7603	
State exclude all or most vehicles	0.1635		0.5675	
Certification Period				
State average certification period	0.0245	**	-0.0545	
Program Outreach Expenditures				
Mean outreach expenditures per capita	-0.3282		-0.2631	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics		Individuals in Families With Earnings	Individuals in Families without Earnings
Variable	Estimate Sig	Estimate Sig	
Intercept	-4.8161 ***	-4.8632 ***	
Sex			
Male	-0.2288 ***	-0.1005 *	
Race/Ethnicity			
White, Non-Hispanic	-0.1853 ***	-0.2234 ***	
Black, Non-Hispanic	0.2932 ***	0.2070 **	
Other, Non-Hispanic	0.0015	-0.1275	
Age			
30 to 49	0.0387	-0.1111	
50 to 64	-0.2548 ***	-0.4839 ***	
65 and older	-0.2540 **	-0.8482 ***	
Citizenship			
Citizen	0.2225 ***	0.2845 ***	
Education			
Highest Grade Completed			
9 to 11	0.4278 ***	-0.2104 **	
12	0.0771	-0.2459 ***	
13 and above	-0.3585 ***	-0.5399 ***	
Family Composition			
Mean number of adults age 18-59	0.0305 *	0.2509 ***	
Mean number of adults age 60+	0.1033 ***	0.0826	
Mean number of children less than age 6	0.2411 ***	0.2983 ***	
Mean number of children between ages 6 to 17	0.1052 ***	0.1287 ***	
Marital Status			
Currently married	-0.4907 ***	-0.2618 ***	
Employment Status			
Currently employed	0.0618	-0.2499 **	
Have not worked 1 to 5 months	0.9834 ***	0.9901 ***	
Have not worked 6 to 11 months	0.0293	0.0822	
Ratio of Family Income to Poverty Level			
100 percent to less than 150 percent	-0.1652 ***	-0.1035	
150 percent to less than 200 percent	-0.3130 ***	-0.3662 ***	
200 percent and above	-1.0615 ***	-1.2372 ***	

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families With Earnings		Individuals in Families without Earnings	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	-0.0091		-0.1135 *	
Greater than \$25,000	-0.6304 ***		-0.6772 ***	
Other Income				
Receive TANF	0.7633 ***		0.7216 ***	
Receive other means-tested cash benefits	-0.1902 **		-0.0996	
Receive other means-tested noncash benefits	0.9531 ***		1.0486 ***	
Receive alimony or child support	0.3260 ***		0.2293 **	
Health Status and Medical Costs				
In fair or poor health	0.6014 ***		0.3228 ***	
Out-of-pocket medical costs greater than \$1000	-0.2829 ***		-0.6356 ***	
Entry Trigger Events				
Job loss within family	0.5444 ***		0.3827 ***	
Decrease in income within family	0.2254 ***		0.1026 *	
Separation or divorce within family	0.1836		0.6886 ***	
Increase in family size within family	0.6648 ***		0.2083 **	
Mean job loss within family	.		.	
Mean decrease in income within family	.		.	
Mean separation or divorce within family	.		.	
Mean increase in family size within family	.		.	
Mean job loss times job loss trigger	.		.	
Mean decrease in income times decrease in income trigger	.		.	
Mean separation or divorce times separation or divorce trigger	.		.	
Mean increase in family size time increase in family trigger	.		.	
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	0.0162 **		0.0291 **	
20th percentile wage	-0.0955 **		-0.0644	
Region of Residence				
Northeast	-0.0461		0.7949 ***	
Mid-Atlantic	0.0386		0.6985 ***	
Midwest	0.1978 ***		0.5504 ***	
Southeast	0.2823 ***		0.5030 ***	
Southwest	0.3363 ***		0.7705 ***	
Mountain Plains	0.3430 ***		0.5217 ***	

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families With Earnings		Individuals in Families without Earnings	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.1821	*	0.0289	
State exclude all or most vehicles	0.2657	***	0.0930	
Certification Period				
State average certification period	0.0121		0.0025	
Program Outreach Expenditures				
Mean outreach expenditures per capita	-0.1834		-0.9205	***

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with Social Security or SSI		Individuals in Families without Social Security or SSI	
	Estimate	Sig	Estimate	Sig
Intercept	-5.6522	***	-4.0971	***
Sex				
Male	-0.0934	**	-0.2373	***
Race/Ethnicity				
White, Non-Hispanic	-0.1434	*	-0.2210	***
Black, Non-Hispanic	0.3385	***	0.2349	***
Other, Non-Hispanic	0.2356	**	-0.1507	*
Age				
30 to 49	0.0191		-0.0110	
50 to 64	-0.5474	***	-0.1921	***
65 and older	-0.8611	***	-0.7570	***
Citizenship				
Citizen	0.3574	***	0.2272	***
Education				
Highest Grade Completed				
9 to 11	-0.1238		0.3876	***
12	-0.2576	***	0.0675	
13 and above	-0.4788	***	-0.3958	***
Family Composition				
Mean number of adults age 18-59	0.1462	***	0.0014	
Mean number of adults age 60+	0.0298		-0.1489	**
Mean number of children less than age 6	0.0295		0.3098	***
Mean number of children between ages 6 to 17	0.1461	***	0.0973	***
Marital Status				
Currently married	-0.2887	***	-0.4630	***
Employment Status				
Currently employed	0.0975	*	0.0367	
Have not worked 1 to 5 months	0.8663	***	1.0859	***
Have not worked 6 to 11 months	0.2757	***	0.0508	
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	-0.3446	***	-0.1700	***
150 percent to less than 200 percent	-0.4321	***	-0.3792	***
200 percent and above	-1.0145	***	-1.1613	***

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with Social Security or SSI	Individuals in Families without Social Security or SSI
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	0.0217	-0.0743
Greater than \$25,000	-0.5655 ***	-0.6305 ***
Other Income		
Receive TANF	0.8134 ***	0.7909 ***
Receive other means-tested cash benefits	0.0589	-0.7336 ***
Receive other means-tested noncash benefits	0.6889 ***	1.1017 ***
Receive alimony or child support	0.0592	0.3719 ***
Health Status and Medical Costs		
In fair or poor health	0.3032 ***	0.6364 ***
Out-of-pocket medical costs greater than \$1000	-0.4582 ***	-0.3129 ***
Entry Trigger Events		
Job loss within family	0.3573 ***	0.5598 ***
Decrease in income within family	0.0876 *	0.2636 ***
Separation or divorce within family	0.4362 **	0.1538
Increase in family size within family	0.5793 ***	0.5421 ***
Mean job loss within family	.	.
Mean decrease in income within family	.	.
Mean separation or divorce within family	.	.
Mean increase in family size within family	.	.
Mean job loss times job loss trigger	.	.
Mean decrease in income times decrease in income trigger	.	.
Mean separation or divorce times separation or divorce trigger	.	.
Mean increase in family size time increase in family trigger	.	.
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	0.0289 ***	0.0117
20th percentile wage	0.0224	-0.1659 ***
Region of Residence		
Northeast	0.7482 ***	-0.1395
Mid-Atlantic	0.6723 ***	-0.0305
Midwest	0.6187 ***	0.1436 **
Southeast	0.4275 ***	0.2568 ***
Southwest	0.5934 ***	0.2994 ***
Mountain Plains	0.3528 ***	0.3834 ***

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with Social Security or SSI	Individuals in Families without Social Security or SSI
	Estimate Sig	Estimate Sig
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.3481 **	0.1270
State exclude all or most vehicles	0.4173 ***	0.1778 *
Certification Period		
State average certification period	-0.0138	0.0276 ***
Program Outreach Expenditures		
Mean outreach expenditures per capita	-0.5249 ***	-0.2982 *

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics		Individuals in Families with TANF Income	Individuals in Families without TANF Income
Variable	Estimate Sig	Estimate Sig	
Intercept	-14.6894	-4.9434 ***	
Sex			
Male	-0.0319	-0.1937 ***	
Race/Ethnicity			
White, Non-Hispanic	0.6670 *	-0.2100 ***	
Black, Non-Hispanic	0.3005	0.2884 ***	
Other, Non-Hispanic	1.0160 **	-0.0517	
Age			
30 to 49	0.2283	-0.0113	
50 to 64	-0.1690	-0.3643 ***	
65 and older	0.2805	-0.7714 ***	
Citizenship			
Citizen	0.4413	0.2557 ***	
Education			
Highest Grade Completed			
9 to 11	-0.2458	0.2357 ***	
12	0.1473	-0.0528	
13 and above	-0.1239	-0.4552 ***	
Family Composition			
Mean number of adults age 18-59	0.0363	0.0503 ***	
Mean number of adults age 60+	0.2654	0.1084 ***	
Mean number of children less than age 6	0.3436 **	0.2373 ***	
Mean number of children between ages 6 to 17	0.1198	0.1209 ***	
Marital Status			
Currently married	0.0284	-0.4646 ***	
Employment Status			
Currently employed	-0.2650	0.0518	
Have not worked 1 to 5 months	0.9154	1.1329 ***	
Have not worked 6 to 11 months	-0.7510 *	0.1169 *	
Ratio of Family Income to Poverty Level			
100 percent to less than 150 percent	-0.4903	-0.1938 ***	
150 percent to less than 200 percent	-0.4554	-0.3542 ***	
200 percent and above	-0.8123 **	-1.1048 ***	

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with TANF Income	Individuals in Families without TANF Income
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	-0.5035 *	-0.0203
Greater than \$25,000	0.0751	-0.6465 ***
Other Income		
Receive TANF	.	.
Receive other means-tested cash benefits	-0.7316 **	-0.1626 ***
Receive other means-tested noncash benefits	0.3320	1.0162 ***
Receive alimony or child support	0.7830 **	0.2874 ***
Health Status and Medical Costs		
In fair or poor health	0.6913 ***	0.5248 ***
Out-of-pocket medical costs greater than \$1000	0.2363	-0.3426 ***
Entry Trigger Events		
Job loss within family	0.5827 **	0.5136 ***
Decrease in income within family	-0.3609 *	0.2207 ***
Separation or divorce within family	0.6647	0.2688 *
Increase in family size within family	1.1736 ***	0.5570 ***
Mean job loss within family	.	.
Mean decrease in income within family	.	.
Mean separation or divorce within family	.	.
Mean increase in family size within family	.	.
Mean job loss times job loss trigger	.	.
Mean decrease in income times decrease in income trigger	.	.
Mean separation or divorce times separation or divorce trigger	.	.
Mean increase in family size time increase in family trigger	.	.
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	0.0608	0.0164 **
20th percentile wage	-0.5234 ***	-0.0732 **
Region of Residence		
Northeast	0.3829	0.1884 **
Mid-Atlantic	-0.1828	0.2646 ***
Midwest	-0.7144 *	0.3598 ***
Southeast	-0.7445 *	0.3761 ***
Southwest	-1.2544 *	0.4722 ***
Mountain Plains	0.4279	0.4133 ***

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with TANF Income		Individuals in Families without TANF Income	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	14.2265		0.1623	**
State exclude all or most vehicles	14.2334		0.2388	***
Certification Period				
State average certification period	0.0243		0.0122	*
Program Outreach Expenditures				
Mean outreach expenditures per capita	0.1788		-0.3340	**

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States with Certification Periods Longer than the Average Certification Period		Individuals in States with Certification Periods at or Below the Average Certification Period	
	Estimate	Sig	Estimate	Sig
Intercept	-3.2814	***	-4.1618	***
Sex				
Male	-0.1508	***	-0.2092	***
Race/Ethnicity				
White, Non-Hispanic	-0.3129	***	-0.1933	***
Black, Non-Hispanic	0.2057	**	0.2874	***
Other, Non-Hispanic	-0.0454		-0.0970	
Age				
30 to 49	-0.0903		0.0671	
50 to 64	-0.4343	***	-0.2985	***
65 and older	-0.6453	***	-0.7812	***
Citizenship				
Citizen	0.1925	**	0.2603	***
Education				
Highest Grade Completed				
9 to 11	0.1453		0.1741	**
12	-0.0795		-0.0633	
13 and above	-0.3773	***	-0.5291	***
Family Composition				
Mean number of adults age 18-59	0.0668	***	0.0706	***
Mean number of adults age 60+	0.0963	*	0.1495	***
Mean number of children less than age 6	0.3109	***	0.2021	***
Mean number of children between ages 6 to 17	0.0631	***	0.1293	***
Marital Status				
Currently married	-0.3095	***	-0.5229	***
Employment Status				
Currently employed	0.0343		0.0560	
Have not worked 1 to 5 months	0.8573	***	1.1291	***
Have not worked 6 to 11 months	-0.0057		0.1604	**
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	-0.3387	***	-0.1637	***
150 percent to less than 200 percent	-0.4382	***	-0.3486	***
200 percent and above	-1.3937	***	-0.9583	***

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States with Certification Periods Longer than the Average Certification Period		Individuals in States with Certification Periods at or Below the Average Certification Period	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	-0.0806		0.0026	
Greater than \$25,000	-0.6245	***	-0.6384	***
Other Income				
Receive TANF	0.8308	***	0.8304	***
Receive other means-tested cash benefits	-0.0782		-0.1735	**
Receive other means-tested noncash benefits	1.0760	***	0.9571	***
Receive alimony or child support	0.3943	***	0.2542	***
Health Status and Medical Costs				
In fair or poor health	0.6053	***	0.4866	***
Out-of-pocket medical costs greater than \$1000	-0.5118	***	-0.2617	***
Entry Trigger Events				
Job loss within family	0.5490	***	0.4994	***
Decrease in income within family	0.1856	***	0.2078	***
Separation or divorce within family	0.1833		0.3117	*
Increase in family size within family	0.5697	***	0.5711	***
Mean job loss within family	.		.	
Mean decrease in income within family	.		.	
Mean separation or divorce within family	.		.	
Mean increase in family size within family	.		.	
Mean job loss times job loss trigger	.		.	
Mean decrease in income times decrease in income trigger	.		.	
Mean separation or divorce times separation or divorce trigger	.		.	
Mean increase in family size time increase in family trigger	.		.	
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	0.0498	***	-0.0019	
20th percentile wage	-0.1023	**	-0.1215	***
Region of Residence				
Northeast	-0.8942	***	0.4553	***
Mid-Atlantic	-0.8786	***	0.0740	
Midwest	-0.7704	***	0.2344	***
Southeast	-1.1061	***	0.3164	***
Southwest	-0.8006	***	0.4676	***
Mountain Plains	-0.6036	***	0.2310	**

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States with Certification Periods Longer than the Average Certification Period	Individuals in States with Certification Periods at or Below the Average Certification Period
	Estimate Sig	Estimate Sig
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.1046	0.1265
State exclude all or most vehicles	0.1075	0.2125 *
Certification Period		
State average certification period	.	.
Program Outreach Expenditures		
Mean outreach expenditures per capita	-0.8713 ***	-0.9673 ***

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States Offering Broad- Based Categorical Eligibility		Individuals in States that Exclude All or Most Vehicles		Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Intercept	-4.0080	***	-5.9102	***	-22.1040	
Sex						
Male	-0.2069	***	-0.1997	***	-0.0098	
Race/Ethnicity						
White, Non-Hispanic	-0.1512	***	-0.3957	***	-0.7028	**
Black, Non-Hispanic	0.3165	***	0.1150		-0.0885	
Other, Non-Hispanic	-0.0970		0.0209		0.5144	
Age						
30 to 49	0.0268		-0.0698		0.0717	
50 to 64	-0.3186	***	-0.5070	***	-0.0100	
65 and older	-0.5909	***	-1.1262	***	-1.0048	*
Citizenship						
Citizen	0.1427	**	0.5947	***	0.6898	**
Education						
Highest Grade Completed						
9 to 11	0.1648	**	0.2804	**	0.2907	
12	-0.0418		-0.0265		0.4781	
13 and above	-0.4368	***	-0.4380	***	0.1142	
Family Composition						
Mean number of adults age 18-59	0.0545	***	0.0530	*	0.1274	*
Mean number of adults age 60+	0.1014	***	0.1709	***	0.0806	
Mean number of children less than age 6	0.2223	***	0.2870	***	0.4395	***
Mean number of children between ages 6 to 17	0.0947	***	0.1741	***	0.1818	**
Marital Status						
Currently married	-0.4193	***	-0.4627	***	-0.8490	***
Employment Status						
Currently employed	0.0575		0.0341		-0.2005	
Have not worked 1 to 5 months	1.0126	***	1.1679	***	0.6224	
Have not worked 6 to 11 months	0.1281	*	0.1254		-1.3425	**
Ratio of Family Income to Poverty Level						
100 percent to less than 150 percent	-0.2336	***	-0.1565	**	-0.4857	*
150 percent to less than 200 percent	-0.3236	***	-0.4532	***	-1.1684	***
200 percent and above	-1.0460	***	-1.2427	***	-1.6332	***

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States Offering Broad- Based Categorical Eligibility		Individuals in States that Exclude All or Most Vehicles		Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Net Worth						
Greater than \$0	-0.0974	**	0.1843	***	-0.3351	
Greater than \$25,000	-0.6534	***	-0.5616	***	-0.8292	***
Other Income						
Receive TANF	0.8187	***	0.9095	***	-12.7275	
Receive other means-tested cash benefits	-0.1069	*	-0.4374	***	0.7342	**
Receive other means-tested noncash benefits	1.0125	***	1.0334	***	0.5072	**
Receive alimony or child support	0.3530	***	0.1522		-0.3419	
Health Status and Medical Costs						
In fair or poor health	0.4425	***	0.7434	***	0.6393	***
Out-of-pocket medical costs greater than \$1000	-0.3666	***	-0.3330	***	-0.2780	
Entry Trigger Events						
Job loss within family	0.4534	***	0.7133	***	0.2397	
Decrease in income within family	0.2252	***	0.1050	*	0.4636	***
Separation or divorce within family	0.1883		0.5331	*	1.0903	**
Increase in family size within family	0.5106	***	0.6732	***	1.0887	***
Mean job loss within family	.		.		.	
Mean decrease in income within family	.		.		.	
Mean separation or divorce within family	.		.		.	
Mean increase in family size within family	.		.		.	
Mean job loss times job loss trigger	.		.		.	
Mean decrease in income times decrease in income trigger	.		.		.	
Mean separation or divorce times separation or divorce trigger	.		.		.	
Mean increase in family size time increase in family trigger	.		.		.	
State and Regional Measures						
State Economic Measures						
Mean state unemployment rate	0.0133		0.0048		0.0847	**
20th percentile wage	-0.1211	***	-0.0344		-0.1149	
Region of Residence						
Northeast	0.1426	*	-0.0923		0.0000	
Mid-Atlantic	0.2805	***	0.1771		1.3095	
Midwest	0.2234	***	0.8151	***	15.4559	
Southeast	0.0952		0.9892	***	2.2219	
Southwest	0.3118	***	0.9281	***	16.8999	
Mountain Plains	0.0841		0.7538	***	17.2871	

Table C.1 Regression Coefficients for SNAP Entry Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States Offering Broad- Based Categorical Eligibility		Individuals in States that Exclude All or Most Vehicles		Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
SNAP Policy Variables						
Vehicle Rules						
State offers broad-based categorical eligibility	.		.		.	
State exclude all or most vehicles	.		.		.	
Certification Period						
State average certification period	0.0054		0.0314 **		0.0383	
Program Outreach Expenditures						
Mean outreach expenditures per capita	-0.5498 ***		0.2533		15.4506 ***	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Trigger Events but not Instability Variables		Trigger Events and Instability Variables		Burststein Variables: Trigger Events And Burststein Variables	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Intercept	-5.1833	***	-5.2443	***	-4.7871	***
Sex						
Male	0.1675	***	0.1716	***	0.1260	***
Race/Ethnicity						
White, Non-Hispanic	-0.0460		-0.0473		-0.0567	
Black, Non-Hispanic	-0.0266		-0.0281		-0.0181	
Other, Non-Hispanic	-0.1025		-0.1024		-0.0494	
Age						
30 to 49	-0.0385		-0.0369		-0.0570	
50 to 64	-0.1074	*	-0.1066	*	-0.1125	*
65 and older	-0.0658		-0.0559		-0.0821	
Citizenship						
Citizen	0.1408	**	0.1409	**	0.2015	***
Education						
Highest Grade Completed						
9 to 11	0.0094		0.0140		-0.0323	
12	-0.0591		-0.0533		-0.1018	
13 and above	0.1400	*	0.1457	**	0.0704	
Family Composition						
Mean number of adults age 18-59	0.1361	***	0.1355	***	0.1285	***
Mean number of adults age 60+	0.1651	***	0.1624	***	0.1571	***
Mean number of children less than age 6	-0.0749	***	-0.0780	***	-0.0799	***
Mean number of children between ages 6 to 17	-0.0694	***	-0.0709	***	-0.0745	***
Marital Status						
Currently married	-0.0676		-0.0690		-0.1149	***
Employment Status						
Currently employed	0.1794	***	0.1715	***	0.0544	
Have not worked 1 to 5 months	0.1031		0.0935		0.0203	
Have not worked 6 to 11 months	0.0633		0.0558		-0.0066	
Ratio of Family Income to Poverty Level						
100 percent to less than 150 percent	0.0755		0.0776		0.0804	
150 percent to less than 200 percent	0.3255	***	0.3255	***	0.3207	***
200 percent and above	0.3847	***	0.3816	***	0.3576	***

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Trigger Events but not Instability Variables		Trigger Events and Instability Variables		Burststein Variables: Trigger Events And Burststein Variables	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Net Worth						
Greater than \$0	.		.		-0.0685	
\$0 or negative	.		.		0.0388	
Other Income						
Receive TANF	0.2358	**	0.2331	**	0.2448	***
Receive other means-tested cash benefits	.		.		-0.1989	***
Receive other means-tested noncash benefits	.		.		-0.4342	***
Receive alimony or child support	.		.		-0.0231	
Health Status and Medical Costs						
In fair or poor health	.		.		-0.1394	***
Out-of-pocket medical costs greater than \$1000	.		.		0.0884	
Exit Trigger Events						
Job gain within family	0.3058	***	0.3032	***	0.2767	***
Income increase within family	0.3747	***	0.4906	***	0.3919	***
New marriage within family	-0.1781		-0.3707		-0.1700	
Decrease in family size	0.1435	***	0.1166	**	0.1479	***
Mean job gain within family	.		0.1793		.	
Mean increase in income within family	.		0.5050	***	.	
Mean New marriage within family	.		0.0051		.	
Mean decrease in family size within family	.		-0.0077		.	
Mean job gain times job gain trigger	.		0.0375		.	
Mean increase in income times increase in income trigger	.		-0.7910	***	.	
Mean new marriage times new marriage trigger	.		0.3468		.	
Mean decrease in family size time decrease in family trigger	.		0.1156		.	
State and Regional Measures						
State Economic Measures						
Mean state unemployment rate	0.0137		0.0136		0.0132	
20th percentile wage	0.0296		0.0275		0.0332	
Region of Residence						
Northeast	-0.0473		-0.0412		0.0137	
Mid-Atlantic	0.1303	*	0.1356	*	0.1114	
Midwest	0.0106		0.0111		-0.0224	
Southeast	-0.0554		-0.0517		-0.1253	*
Southwest	0.3374	***	0.3315	***	0.2568	***
Mountain Plains	0.2964	***	0.2996	***	0.2462	***

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Trigger Events but not Instability Variables		Trigger Events and Instability Variables		Burststein Variables: Trigger Events And Burststein Variables	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
SNAP Policy Variables						
Vehicle Rules						
State offers broad-based categorical eligibility	0.1880		0.1928		0.2054	
State exclude all or most vehicles	0.1884		0.1906		0.2080	
Certification Period						
State average certification period	-0.0371	***	-0.0368	***	-0.0365	***
SNAP Spell Characteristics						
Spell is first ever	0.2453	***	0.2445	***	0.2053	***
Spell duration 1-4 months	1.2675	***	1.3256	***	1.219	***
Spell duration 5-8 months	0.8786	***	0.8859	***	0.8383	***
Spell duration 9-12 months	0.6772	***	0.6774	***	0.6556	***
Spell duration 13-16 months	0.4564	***	0.4607	***	0.4404	***
Spell Start year 2008	0.1425		0.1354		0.1709	
Spell Start year 2009	0.3048	***	0.3026	***	0.333	***
Spell Start year 2010	0.3584	***	0.3572	***	0.3572	***
Spell Start year 2011	0.3426	***	0.3406	***	0.3458	***

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics		Individuals in Single-Adult Families with Children		Individuals in Multiple-Adult Families with Children		Individuals in Families with Elderly Members	
Variable		Estimate	Sig	Estimate	Sig	Estimate	Sig
Intercept		-2.7511		-4.5573 ***		-5.4933 ***	
Sex							
Male		0.4423 **		0.1688 ***		0.0532	
Race/Ethnicity							
White, Non-Hispanic		-0.2378		-0.0373		-0.2728 **	
Black, Non-Hispanic		-0.3219		-0.0257		-0.3087 **	
Other, Non-Hispanic		-0.4612		0.0302		-0.0670	
Age							
30 to 49		-0.0079		0.0316		-0.0453	
50 to 64		-0.1932		0.2188 **		-0.3811 ***	
65 and older		-1.5356		0.1025		-0.1980	
Citizenship							
Citizen		0.7851 **		0.1346		0.7363 ***	
Education							
Highest Grade Completed							
9 to 11		-0.3327		0.0346		0.1469	
12		-0.4876		-0.0396		-0.0103	
13 and above		-0.2906		0.0551		0.0970	
Family Composition							
Mean number of adults age 18-59		-0.9266		0.0990 ***		0.1592 ***	
Mean number of adults age 60+				0.0920 *		0.1435 *	
Mean number of children less than age 6		-0.0079		-0.0897 **		0.0000	
Mean number of children between ages 6 to 17		-0.0124		-0.1065 ***		0.0000	
Marital Status							
Currently married		0.0000		-0.1734 ***		0.1628	
Employment Status							
Currently employed		0.1016		0.0054		0.1083	
Have not worked 1 to 5 months		-0.0861		-0.0382		-0.3573 *	
Have not worked 6 to 11 months		-0.1200		0.0322		-0.3735 *	
Ratio of Family Income to Poverty Level							
100 percent to less than 150 percent		0.0886		0.1172		-0.0051	
150 percent to less than 200 percent		0.0763		0.3546 ***		0.3610 **	
200 percent and above		0.5233 **		0.2999 ***		0.3208 **	

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Single- Adult Families with Children		Individuals in Multiple-Adult Families with Children		Individuals in Families with Elderly Members	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Net Worth						
Greater than \$0	0.0873		-0.0393		-0.2582	**
\$0 or negative	0.0924		0.1446	**	0.1012	
Other Income						
Receive TANF	0.8369		0.2411	**	0.2423	
Receive other means-tested cash benefits	0.3049		-0.0294		-0.2886	**
Receive other means-tested noncash benefits	-0.4862	***	-0.3474	***	-0.4579	***
Receive alimony or child support	0.0701		-0.1158		-0.0504	
Health Status and Medical Costs						
In fair or poor health	-0.3585		-0.1675	**	0.1422	
Out-of-pocket medical costs greater than \$1000	-0.0321		0.1639		-0.1503	
Exit Trigger Events						
Job gain within family	-0.0788		0.1313		0.4871	***
Income increase within family	0.6978	***	0.3657	***	0.4626	***
New marriage within family	0.9411	**	-0.3329		0.1710	
Decrease in family size	-0.2284		0.1619	**	0.4511	***
Mean job gain within family	.		.		.	
Mean increase in income within family	.		.		.	
Mean New marriage within family	.		.		.	
Mean decrease in family size within family	.		.		.	
Mean job gain times job gain trigger	.		.		.	
Mean increase in income times increase in income trigger	.		.		.	
Mean new marriage times new marriage trigger	.		.		.	
Mean decrease in family size time decrease in family trigger	.		.		.	
State and Regional Measures						
State Economic Measures						
Mean state unemployment rate	0.0471		0.0141		0.0012	
20th percentile wage	-0.0732		0.0164		0.0518	
Region of Residence						
Northeast	-0.0592		-0.0760		-0.0124	
Mid-Atlantic	-0.0265		0.0075		0.2385	
Midwest	-0.2998		-0.1344		0.2891	*
Southeast	-0.3451		-0.0420		0.2789	*
Southwest	0.3115		0.2690	**	0.1573	
Mountain Plains	-0.0789		0.2552	*	0.7024	***

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Single- Adult Families with Children		Individuals in Multiple-Adult Families with Children		Individuals in Families with Elderly Members	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
SNAP Policy Variables						
Vehicle Rules						
State offers broad-based categorical eligibility	0.4969		0.1746		-0.0854	
State exclude all or most vehicles	0.6044		0.1789		-0.2173	
Certification Period						
State average certification period	-0.0263		-0.0210 *		-0.0369 **	
SNAP Spell Characteristics						
Spell is first ever	0.2376		0.2147 ***		0.3489 ***	
Spell duration 1-4 months	0.5053 **		1.0328 ***		1.6274 ***	
Spell duration 5-8 months	0.8128 ***		0.6372 ***		0.9123 ***	
Spell duration 9-12 months	0.6342 ***		0.5283 ***		0.7988 ***	
Spell duration 13-16 months	0.1563		0.1894		0.7059 ***	
Spell Start year 2008	-0.3716		-0.3294		0.1086	
Spell Start year 2009	-0.3726		0.3732 ***		0.6941 ***	
Spell Start year 2010	-0.4236 *		0.329 ***		0.5081 ***	
Spell Start year 2011	-0.4435 *		0.2925 ***		0.3815 ***	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Nonelderly Nondisabled Childless Adults		Individuals in Families Containing Nonelderly Disabled Childless Adults	
	Estimate	Sig	Estimate	Sig
Intercept	-5.8274	***	-2.1390	
Sex				
Male	0.0902		0.1169	
Race/Ethnicity				
White, Non-Hispanic	0.2657	*	-0.3347	
Black, Non-Hispanic	0.3818	**	0.0179	
Other, Non-Hispanic	-0.2009		-0.0982	
Age				
30 to 49	-0.0972		-0.2972	
50 to 64	-0.2263	*	-0.3999	**
65 and older	0.0000		0.0000	
Citizenship				
Citizen	-0.1358		0.4473	
Education				
Highest Grade Completed				
9 to 11	-0.0415		-0.5354	*
12	0.0354		-0.3165	
13 and above	0.1992		0.1656	
Family Composition				
Mean number of adults age 18-59	0.1151	**	0.2089	**
Mean number of adults age 60+	0.0000		0.0000	
Mean number of children less than age 6	0.0000		0.0000	
Mean number of children between ages 6 to 17	0.0000		0.0000	
Marital Status				
Currently married	-0.0514		-0.5053	**
Employment Status				
Currently employed	-0.1533		0.0328	
Have not worked 1 to 5 months	0.0572		0.0898	
Have not worked 6 to 11 months	-0.0871		0.2311	
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	0.0697		0.5368	***
150 percent to less than 200 percent	0.2601	*	0.0332	
200 percent and above	0.4467	***	0.5125	***

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Nonelderly Nondisabled Childless Adults		Individuals in Families Containing Nonelderly Disabled Childless Adults	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	-0.0533		0.0764	
\$0 or negative	-0.0918		-0.3389 *	
Other Income				
Receive TANF	-0.9408		-0.3790	
Receive other means-tested cash benefits	-0.3621		-0.4209 **	
Receive other means-tested noncash benefits	-0.5056 ***		-0.4710 ***	
Receive alimony or child support	-0.3475		-0.1838	
Health Status and Medical Costs				
In fair or poor health	-0.1700		-0.3114 **	
Out-of-pocket medical costs greater than \$1000	0.0986		0.1761	
Exit Trigger Events				
Job gain within family	0.6160 ***		0.3592 *	
Income increase within family	0.2699 ***		0.2974 *	
New marriage within family	-0.7580		-0.4097	
Decrease in family size	0.0507		0.2528	
Mean job gain within family	.		.	
Mean increase in income within family	.		.	
Mean New marriage within family	.		.	
Mean decrease in family size within family	.		.	
Mean job gain times job gain trigger	.		.	
Mean increase in income times increase in income trigger	.		.	
Mean new marriage times new marriage trigger	.		.	
Mean decrease in family size time decrease in family trigger	.		.	
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	0.0183		-0.0318	
20th percentile wage	0.1378		-0.1088	
Region of Residence				
Northeast	0.1164		-0.0089	
Mid-Atlantic	0.3386 *		0.1865	
Midwest	0.0384		-0.1996	
Southeast	-0.2668		-0.7079 ***	
Southwest	0.4188 **		-0.4060	
Mountain Plains	0.5472 **		-0.1642	

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Nonelderly Nondisabled Childless Adults		Individuals in Families Containing Nonelderly Disabled Childless Adults	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.2903		0.3792	
State exclude all or most vehicles	0.1919		0.5219	
Certification Period				
State average certification period	-0.0390	**	-0.0854	***
SNAP Spell Characteristics				
Spell is first ever	0.3410	***	-0.0556	
Spell duration 1-4 months	1.1210	***	1.1672	***
Spell duration 5-8 months	0.9848	***	0.7113	***
Spell duration 9-12 months	0.7975	***	0.1790	
Spell duration 13-16 months	0.7743	***	0.5763	**
Spell Start year 2008	1.8210	***	0.5391	
Spell Start year 2009	0.3847	**	-0.0331	
Spell Start year 2010	0.4471	***	0.2775	
Spell Start year 2011	0.5982	***	0.4379	**

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Citizen Adults and Citizen Children	Individuals in Families Containing Noncitizen Adults and Citizen Children
	Estimate Sig	Estimate Sig
Intercept	-4.2596 ***	-5.8482 **
Sex		
Male	0.1683 ***	0.4169 *
Race/Ethnicity		
White, Non-Hispanic	-0.0211	-0.0195
Black, Non-Hispanic	-0.0284	-0.0007
Other, Non-Hispanic	0.0754	0.3186
Age		
30 to 49	-0.0116	0.3979
50 to 64	0.1716 *	0.2117
65 and older	0.0397	0.2116
Citizenship		
Citizen	0.1704	-0.6420
Education		
Highest Grade Completed		
9 to 11	0.0613	-0.1708
12	-0.0742	0.3174
13 and above	0.0731	0.0155
Family Composition		
Mean number of adults age 18-59	0.0736 ***	0.4089 ***
Mean number of adults age 60+	0.0955 *	-0.7893
Mean number of children less than age 6	-0.1002 ***	-0.0144
Mean number of children between ages 6 to 17	-0.1076 ***	-0.1430
Marital Status		
Currently married	-0.1431 **	-0.3510
Employment Status		
Currently employed	-0.0101	0.0356
Have not worked 1 to 5 months	-0.0027	-0.4627
Have not worked 6 to 11 months	-0.0121	0.3616
Ratio of Family Income to Poverty Level		
100 percent to less than 150 percent	0.1385 *	-0.3729
150 percent to less than 200 percent	0.3373 ***	0.5061 *
200 percent and above	0.3445 ***	-0.6951 **

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Citizen Adults and Citizen Children	Individuals in Families Containing Noncitizen Adults and Citizen Children
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	-0.0308	0.0005
\$0 or negative	0.1745 **	-0.8008 ***
Other Income		
Receive TANF	0.2289 **	1.5361 **
Receive other means-tested cash benefits	0.0944	-0.7937
Receive other means-tested noncash benefits	-0.4327 ***	0.2025
Receive alimony or child support	0.0174	-0.4332
Health Status and Medical Costs		
In fair or poor health	-0.2031 **	-0.0624
Out-of-pocket medical costs greater than \$1000	0.1252	0.8196 *
Exit Trigger Events		
Job gain within family	0.1102	-0.1639
Income increase within family	0.3720 ***	1.0017 ***
New marriage within family	0.1293	-1.2865
Decrease in family size	0.1048 *	0.0847
Mean job gain within family	.	.
Mean increase in income within family	.	.
Mean New marriage within family	.	.
Mean decrease in family size within family	.	.
Mean job gain times job gain trigger	.	.
Mean increase in income times increase in income trigger	.	.
Mean new marriage times new marriage trigger	.	.
Mean decrease in family size time decrease in family trigger	.	.
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	0.0119	0.1057 **
20th percentile wage	0.0100	0.1241
Region of Residence		
Northeast	-0.1736	0.8263
Mid-Atlantic	-0.0515	-0.1844
Midwest	-0.2122 **	-0.5824
Southeast	-0.1687 *	-0.0601
Southwest	0.2294 **	0.8017 **
Mountain Plains	0.1175	1.4853 **

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Citizen Adults and Citizen Children	Individuals in Families Containing Noncitizen Adults and Citizen Children
	Estimate Sig	Estimate Sig
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.2127	-0.4851
State exclude all or most vehicles	0.1960	0.8048
Certification Period		
State average certification period	-0.0240 **	-0.1015 *
SNAP Spell Characteristics		
Spell is first ever	0.1894 ***	0.3258
Spell duration 1-4 months	0.9696 ***	0.5559 **
Spell duration 5-8 months	0.7553 ***	0.0301
Spell duration 9-12 months	0.6383 ***	-0.1369
Spell duration 13-16 months	0.2119 *	-0.3559
Spell Start year 2008	-0.2751	0.964
Spell Start year 2009	0.2466 **	0.4483
Spell Start year 2010	0.2218 **	0.1646
Spell Start year 2011	0.1863 *	0.2268

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families With Earnings		Individuals in Families without Earnings	
	Estimate	Sig	Estimate	Sig
Intercept	-5.0454	***	-4.3532	***
Sex				
Male	0.1325	***	0.1001	
Race/Ethnicity				
White, Non-Hispanic	-0.0089		-0.1365	
Black, Non-Hispanic	0.0362		-0.1265	
Other, Non-Hispanic	-0.0512		-0.1124	
Age				
30 to 49	-0.0209		-0.2058	**
50 to 64	-0.0067		-0.3633	***
65 and older	-0.0742		-0.1428	
Citizenship				
Citizen	0.0843		0.5812	***
Education				
Highest Grade Completed				
9 to 11	-0.0468		-0.1176	
12	-0.0831		-0.2136	*
13 and above	0.1123		-0.0816	
Family Composition				
Mean number of adults age 18-59	0.1131	***	0.2134	***
Mean number of adults age 60+	0.1823	***	0.1477	**
Mean number of children less than age 6	-0.0601	*	-0.1057	*
Mean number of children between ages 6 to 17	-0.0758	***	-0.0521	
Marital Status				
Currently married	-0.1318	**	-0.1037	
Employment Status				
Currently employed	0.0925		-0.0959	
Have not worked 1 to 5 months	-0.0559		0.0287	
Have not worked 6 to 11 months	0.0329		-0.0990	
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	0.1439	**	0.0754	
150 percent to less than 200 percent	0.3574	***	0.3909	***
200 percent and above	0.3901	***	0.3684	***

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families With Earnings	Individuals in Families without Earnings
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	-0.0677	-0.0650
\$0 or negative	0.0946 *	-0.0652
Other Income		
Receive TANF	0.1723	0.3431 **
Receive other means-tested cash benefits	-0.0699	-0.3427 ***
Receive other means-tested noncash benefits	-0.4715 ***	-0.3688 ***
Receive alimony or child support	-0.0749	0.0657
Health Status and Medical Costs		
In fair or poor health	-0.1663 **	-0.1214 *
Out-of-pocket medical costs greater than \$1000	0.1443 *	0.0394
Exit Trigger Events		
Job gain within family	0.1598 **	0.5331 ***
Income increase within family	0.4718 ***	0.2087 **
New marriage within family	-0.2674	0.0727
Decrease in family size	0.1565 ***	0.1362 *
Mean job gain within family	.	.
Mean increase in income within family	.	.
Mean New marriage within family	.	.
Mean decrease in family size within family	.	.
Mean job gain times job gain trigger	.	.
Mean increase in income times increase in income trigger	.	.
Mean new marriage times new marriage trigger	.	.
Mean decrease in family size time decrease in family trigger	.	.
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	0.0257 **	-0.0154
20th percentile wage	0.0339	0.0407
Region of Residence		
Northeast	-0.0266	0.1243
Mid-Atlantic	0.1507	-0.0342
Midwest	-0.0996	0.1077
Southeast	-0.0851	-0.2439 **
Southwest	0.3136 ***	0.1861
Mountain Plains	0.2931 ***	0.1061

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families With Earnings		Individuals in Families without Earnings	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.2510		0.1512	
State exclude all or most vehicles	0.3371	**	-0.0052	
Certification Period				
State average certification period	-0.0330	***	-0.0546	***
SNAP Spell Characteristics				
Spell is first ever	0.2213	***	0.1806	**
Spell duration 1-4 months	1.2236	***	1.1251	***
Spell duration 5-8 months	0.7954	***	0.8745	***
Spell duration 9-12 months	0.6799	***	0.5736	***
Spell duration 13-16 months	0.3454	***	0.588	***
Spell Start year 2008	0.0314		0.5664	**
Spell Start year 2009	0.2996	***	0.3668	***
Spell Start year 2010	0.34	***	0.4011	***
Spell Start year 2011	0.3338	***	0.3662	***

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with Social Security or SSI		Individuals in Families without Social Security or SSI	
	Estimate	Sig	Estimate	Sig
Intercept	-5.3261	***	-4.5408	***
Sex				
Male	0.0837		0.1486	***
Race/Ethnicity				
White, Non-Hispanic	-0.2355	***	0.0519	
Black, Non-Hispanic	-0.1181		-0.0102	
Other, Non-Hispanic	-0.2398	*	0.0252	
Age				
30 to 49	-0.1542	*	0.0001	
50 to 64	-0.1957	**	-0.0501	
65 and older	-0.1099		0.1249	
Citizenship				
Citizen	0.6330	***	0.0922	
Education				
Highest Grade Completed				
9 to 11	0.1498		-0.1431	
12	-0.0498		-0.1184	
13 and above	0.0887		0.0806	
Family Composition				
Mean number of adults age 18-59	0.1084	***	0.1505	***
Mean number of adults age 60+	0.1367	***	0.1454	
Mean number of children less than age 6	-0.0411		-0.0810	**
Mean number of children between ages 6 to 17	-0.0976	***	-0.0575	**
Marital Status				
Currently married	-0.0153		-0.2232	***
Employment Status				
Currently employed	0.1480	**	-0.0122	
Have not worked 1 to 5 months	-0.1743		0.0847	
Have not worked 6 to 11 months	-0.0427		-0.0046	
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	0.1278		0.1115	*
150 percent to less than 200 percent	0.3526	***	0.3027	***
200 percent and above	0.4661	***	0.3301	***

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with Social Security or SSI	Individuals in Families without Social Security or SSI
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	-0.1152	-0.0503
\$0 or negative	0.0998	-0.0103
Other Income		
Receive TANF	0.2934 **	0.1115
Receive other means-tested cash benefits	-0.2009 **	-0.5329 **
Receive other means-tested noncash benefits	-0.3073 ***	-0.4919 ***
Receive alimony or child support	0.0143	-0.0556
Health Status and Medical Costs		
In fair or poor health	-0.0932	-0.2248 ***
Out-of-pocket medical costs greater than \$1000	0.1040	0.0612
Exit Trigger Events		
Job gain within family	0.2588 ***	0.2774 ***
Income increase within family	0.3220 ***	0.4465 ***
New marriage within family	0.0316	-0.2909
Decrease in family size	0.3636 ***	0.0243
Mean job gain within family	.	.
Mean increase in income within family	.	.
Mean New marriage within family	.	.
Mean decrease in family size within family	.	.
Mean job gain times job gain trigger	.	.
Mean increase in income times increase in income trigger	.	.
Mean new marriage times new marriage trigger	.	.
Mean decrease in family size time decrease in family trigger	.	.
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	0.0077	0.0177
20th percentile wage	0.0329	0.0353
Region of Residence		
Northeast	-0.0142	0.0134
Mid-Atlantic	0.0903	0.1338
Midwest	0.0000	-0.0498
Southeast	-0.0239	-0.2167 **
Southwest	0.0080	0.3917 ***
Mountain Plains	0.4189 ***	0.2037 *

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with Social Security or SSI		Individuals in Families without Social Security or SSI	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.0982		0.1470	
State exclude all or most vehicles	-0.0282		0.2414	
Certification Period				
State average certification period	-0.0351	***	-0.0345	***
SNAP Spell Characteristics				
Spell is first ever	0.0591		0.2968	***
Spell duration 1-4 months	1.5421	***	0.9805	***
Spell duration 5-8 months	0.8857	***	0.7828	***
Spell duration 9-12 months	0.7159	***	0.6048	***
Spell duration 13-16 months	0.7069	***	0.2917	***
Spell Start year 2008	0.01		0.1759	
Spell Start year 2009	0.476	***	0.2348	***
Spell Start year 2010	0.6143	***	0.1714	**
Spell Start year 2011	0.4756	***	0.2562	***

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics		Individuals in Families with TANF Income	Individuals in Families without TANF Income
Variable	Estimate Sig	Estimate Sig	
Intercept	0.8410	-4.8764 ***	
Sex			
Male	0.0901	0.1307 ***	
Race/Ethnicity			
White, Non-Hispanic	-1.1100 ***	-0.0386	
Black, Non-Hispanic	-0.5574	-0.0244	
Other, Non-Hispanic	-1.0850 *	-0.0469	
Age			
30 to 49	-0.4695	-0.0449	
50 to 64	-0.1886	-0.1237 **	
65 and older	-0.2654	-0.0735	
Citizenship			
Citizen	0.7319	0.1992 ***	
Education			
Highest Grade Completed			
9 to 11	0.2033	-0.0622	
12	-0.0296	-0.1085	
13 and above	0.3866	0.0599	
Family Composition			
Mean number of adults age 18-59	0.0047	0.1416 ***	
Mean number of adults age 60+	0.3499	0.1643 ***	
Mean number of children less than age 6	-0.3052 *	-0.0742 ***	
Mean number of children between ages 6 to 17	-0.2396 **	-0.0810 ***	
Marital Status			
Currently married	-0.0454	-0.1245 ***	
Employment Status			
Currently employed	0.5481	0.0462	
Have not worked 1 to 5 months	0.0530	0.0131	
Have not worked 6 to 11 months	-0.7420	0.0217	
Ratio of Family Income to Poverty Level			
100 percent to less than 150 percent	-0.3739	0.0857 *	
150 percent to less than 200 percent	-0.4010	0.3238 ***	
200 percent and above	-0.3203	0.3691 ***	

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with TANF Income	Individuals in Families without TANF Income
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	-0.2936	-0.0797 *
\$0 or negative	0.6771 *	0.0232
Other Income		
Receive TANF	.	.
Receive other means-tested cash benefits	-0.3000	-0.2001 **
Receive other means-tested noncash benefits	-0.4030	-0.4550 ***
Receive alimony or child support	0.0732	-0.0151
Health Status and Medical Costs		
In fair or poor health	-0.2716	-0.1369 ***
Out-of-pocket medical costs greater than \$1000	0.9553 **	0.0768
Exit Trigger Events		
Job gain within family	0.5355	0.2694 ***
Income increase within family	0.6679 **	0.3968 ***
New marriage within family	0.4933	-0.1357
Decrease in family size	0.3531	0.1356 ***
Mean job gain within family	.	.
Mean increase in income within family	.	.
Mean New marriage within family	.	.
Mean decrease in family size within family	.	.
Mean job gain times job gain trigger	.	.
Mean increase in income times increase in income trigger	.	.
Mean new marriage times new marriage trigger	.	.
Mean decrease in family size time decrease in family trigger	.	.
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	0.0461	0.0113
20th percentile wage	-0.5701 **	0.0494
Region of Residence		
Northeast	-0.0016	0.0524
Mid-Atlantic	0.3360	0.1154
Midwest	-0.2788	0.0049
Southeast	-0.0740	-0.1108
Southwest	-2.3733 ***	0.2949 ***
Mountain Plains	1.0613	0.2374 ***

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with TANF Income		Individuals in Families without TANF Income	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.1353		0.2031	
State exclude all or most vehicles	0.0000		0.2152 *	
Certification Period				
State average certification period	0.0310		-0.0399 ***	
SNAP Spell Characteristics				
Spell is first ever	1.2649 ***		0.2039 ***	
Spell duration 1-4 months	1.0506 **		1.1986 ***	
Spell duration 5-8 months	0.8805 **		0.8186 ***	
Spell duration 9-12 months	0.5192		0.6532 ***	
Spell duration 13-16 months	-2.7921 *		0.4721 ***	
Spell Start year 2008	0.1932		0.1414	
Spell Start year 2009	-0.002		0.319 ***	
Spell Start year 2010	-0.7843 *		0.3735 ***	
Spell Start year 2011	0.6966 *		0.3325 ***	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States with Certification Periods Longer than the Average Certification Period		Individuals in States with Certification Periods at or Below the Average Certification Period	
	Estimate	Sig	Estimate	Sig
Intercept	-5.3717	***	-4.8308	***
Sex				
Male	0.1509	**	0.1127	**
Race/Ethnicity				
White, Non-Hispanic	-0.1524		-0.0404	
Black, Non-Hispanic	-0.2908	***	0.1152	
Other, Non-Hispanic	-0.1798		0.0338	
Age				
30 to 49	-0.0632		-0.0555	
50 to 64	-0.0860		-0.1341	*
65 and older	0.0340		-0.1463	
Citizenship				
Citizen	0.1109		0.2350	***
Education				
Highest Grade Completed				
9 to 11	0.0198		-0.0781	
12	-0.1364		-0.0991	
13 and above	0.0496		0.0626	
Family Composition				
Mean number of adults age 18-59	0.1714	***	0.1073	***
Mean number of adults age 60+	0.0914		0.1867	***
Mean number of children less than age 6	-0.0397		-0.0917	***
Mean number of children between ages 6 to 17	-0.0477		-0.0959	***
Marital Status				
Currently married	-0.1970	***	-0.0629	
Employment Status				
Currently employed	0.0302		0.0546	
Have not worked 1 to 5 months	-0.2030		0.1069	
Have not worked 6 to 11 months	-0.1229		0.0656	
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	0.0000		0.1313	**
150 percent to less than 200 percent	0.3639	***	0.2796	***
200 percent and above	0.2762	***	0.4037	***

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States with Certification Periods Longer than the Average Certification Period		Individuals in States with Certification Periods at or Below the Average Certification Period	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	-0.0865		-0.0571	
\$0 or negative	-0.0365		0.1023 *	
Other Income				
Receive TANF	0.1733		0.3012 ***	
Receive other means-tested cash benefits	-0.4439 ***		-0.0624	
Receive other means-tested noncash benefits	-0.3245 ***		-0.4877 ***	
Receive alimony or child support	-0.0877		0.0098	
Health Status and Medical Costs				
In fair or poor health	-0.2516 ***		-0.0795	
Out-of-pocket medical costs greater than \$1000	0.1484		0.0511	
Exit Trigger Events				
Job gain within family	0.2328 **		0.2954 ***	
Income increase within family	0.3663 ***		0.4129 ***	
New marriage within family	.		.	
Decrease in family size	0.0434		0.1959 ***	
Mean job gain within family	.		.	
Mean increase in income within family	.		.	
Mean New marriage within family	.		.	
Mean decrease in family size within family	.		.	
Mean job gain times job gain trigger	.		.	
Mean increase in income times increase in income trigger	.		.	
Mean new marriage times new marriage trigger	.		.	
Mean decrease in family size time decrease in family trigger	.		.	
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	0.0093		0.0092	
20th percentile wage	0.0859		-0.0015	
Region of Residence				
Northeast	-0.1813		-0.0701	
Mid-Atlantic	0.0024		0.1357	
Midwest	0.1219		-0.0732	
Southeast	-0.2925		-0.0519	
Southwest	0.1577		0.2303 **	
Mountain Plains	0.1374		0.2052 *	

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States with Certification Periods Longer than the Average Certification Period	Individuals in States with Certification Periods at or Below the Average Certification Period
	Estimate Sig	Estimate Sig
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.2103	0.0539
State exclude all or most vehicles	0.3883 *	-0.0049
Certification Period		
State average certification period	.	.
SNAP Spell Characteristics		
Spell is first ever	0.1911 ***	0.2151 ***
Spell duration 1-4 months	1.2294 ***	1.1952 ***
Spell duration 5-8 months	0.9907 ***	0.753 ***
Spell duration 9-12 months	0.5934 ***	0.6772 ***
Spell duration 13-16 months	0.4839 ***	0.4154 ***
Spell Start year 2008	0.4963 **	-0.0248
Spell Start year 2009	0.2744 **	0.4175 ***
Spell Start year 2010	0.167	0.4838 ***
Spell Start year 2011	0.2743 **	0.402 ***

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States Offering Broad- Based Categorical Eligibility		Individuals in States that Exclude All or Most Vehicles		Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Intercept	-4.4846	***	-3.6460	***	-5.8295	*
Sex						
Male	0.1544	***	0.0220		0.1358	
Race/Ethnicity						
White, Non-Hispanic	0.0408		-0.4753	***	-0.1417	
Black, Non-Hispanic	0.0305		-0.2612	*	-0.4580	
Other, Non-Hispanic	0.0089		-0.5036	**	-0.0864	
Age						
30 to 49	-0.0877	*	0.0969		0.3612	
50 to 64	-0.1362	**	-0.0008		0.6246	
65 and older	-0.0981		-0.0404		-0.2137	
Citizenship						
Citizen	0.2501	***	-0.1601		0.2092	
Education						
Highest Grade Completed						
9 to 11	0.0359		-0.3203	*	-1.3723	*
12	-0.0845		-0.3222	**	-0.7334	
13 and above	0.0801		-0.0184		-1.4697	**
Family Composition						
Mean number of adults age 18-59	0.1205	***	0.1765	***	0.2392	*
Mean number of adults age 60+	0.1390	***	0.2051	***	0.4681	
Mean number of children less than age 6	-0.0605	**	-0.1489	**	-0.0830	
Mean number of children between ages 6 to 17	-0.0679	***	-0.1436	***	-0.1002	
Marital Status						
Currently married	-0.1036	**	-0.1846	**	-0.4348	
Employment Status						
Currently employed	-0.0036		0.2781	***	0.0959	
Have not worked 1 to 5 months	0.0194		0.0949		-0.0936	
Have not worked 6 to 11 months	-0.0642		0.2501		0.2909	
Ratio of Family Income to Poverty Level						
100 percent to less than 150 percent	0.0572		0.1406		0.3812	
150 percent to less than 200 percent	0.3118	***	0.2689	**	1.3262	***
200 percent and above	0.3660	***	0.2723	**	0.9977	**

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States Offering Broad- Based Categorical Eligibility		Individuals in States that Exclude All or Most Vehicles		Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Net Worth						
Greater than \$0	-0.0366		-0.2263 **		0.1786	
\$0 or negative	0.0018		0.1603		-0.4062	
Other Income						
Receive TANF	0.2346 **		0.4085 *		0.0000	
Receive other means-tested cash benefits	-0.2238 ***		-0.1689		-0.2275	
Receive other means-tested noncash benefits	-0.4136 ***		-0.5463 ***		-0.6974 *	
Receive alimony or child support	0.0296		-0.2954		0.3225	
Health Status and Medical Costs						
In fair or poor health	-0.1525 ***		-0.0718		-0.2580	
Out-of-pocket medical costs greater than \$1000	0.0916		0.1226		-0.1940	
Exit Trigger Events						
Job gain within family	0.2818 ***		0.1368		0.8531 **	
Income increase within family	0.3825 ***		0.5865 ***		-0.7160 **	
New marriage within family	-0.1166		-0.9801		1.3130	
Decrease in family size	0.1735 ***		0.0037		0.7708 **	
Mean job gain within family	.		.		.	
Mean increase in income within family	.		.		.	
Mean New marriage within family	.		.		.	
Mean decrease in family size within family	.		.		.	
Mean job gain times job gain trigger	.		.		.	
Mean increase in income times increase in income trigger	.		.		.	
Mean new marriage times new marriage trigger	.		.		.	
Mean decrease in family size time decrease in family trigger	.		.		.	
State and Regional Measures						
State Economic Measures						
Mean state unemployment rate	0.0116		0.0259		-0.1056	
20th percentile wage	0.0190		0.0403		0.0435	
Region of Residence						
Northeast	-0.0052		1.5503 *		0.0000	
Mid-Atlantic	0.0739		0.1625		0.0000	
Midwest	-0.0345		-0.2422		0.1913	
Southeast	-0.0949		-0.4423 **		0.0000	
Southwest	0.2518 ***		0.1290		0.8959	
Mountain Plains	0.0438		0.2717		0.0000	

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States Offering Broad- Based Categorical Eligibility		Individuals in States that Exclude All or Most Vehicles		Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
SNAP Policy Variables						
Vehicle Rules						
State offers broad-based categorical eligibility	.		.		.	
State exclude all or most vehicles	.		.		.	
Certification Period						
State average certification period	-0.0351	***	-0.0548	**	-0.0556	
SNAP Spell Characteristics						
Spell is first ever	0.1876	***	0.2722	***	0.1365	
Spell duration 1-4 months	1.1898	***	1.1969	***	0.7147	
Spell duration 5-8 months	0.8122	***	0.8085	***	1.0687	**
Spell duration 9-12 months	0.6118	***	0.8771	***	0.2921	
Spell duration 13-16 months	0.4645	***	0.2304		0.3786	
Spell Start year 2008	0.2929		0.1028		-12.5855	
Spell Start year 2009	0.2513	***	0.289		3.4996	**
Spell Start year 2010	0.3228	***	0.2427		2.9491	**
Spell Start year 2011	0.3315	***	0.2477		2.5455	*

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals Participating in SNAP for First Time		Individuals that have Participated in SNAP Previously	
	Estimate	Sig	Estimate	Sig
Intercept	-6.1273	***	-3.8954	***
Sex				
Male	0.0781		0.1647	***
Race/Ethnicity				
White, Non-Hispanic	0.2465	***	-0.1791	***
Black, Non-Hispanic	0.1447		-0.0607	
Other, Non-Hispanic	0.3740	***	-0.2106	**
Age				
30 to 49	-0.1035		-0.0617	
50 to 64	-0.1738	*	-0.1062	
65 and older	-0.1509		-0.0633	
Citizenship				
Citizen	0.0105		0.291	***
Education				
Highest Grade Completed				
9 to 11	-0.0019		-0.0843	
12	-0.1137		-0.1319	
13 and above	0.0623		0.0263	
Family Composition				
Mean number of adults age 18-59	0.1664	***	0.1083	***
Mean number of adults age 60+	0.2845	***	0.0812	*
Mean number of children less than age 6	-0.0233		-0.1097	***
Mean number of children between ages 6 to 17	-0.0449		-0.0863	***
Marital Status				
Currently married	-0.2437	***	-0.0375	
Employment Status				
Currently employed	-0.0290		0.0829	
Have not worked 1 to 5 months	0.1243		-0.0217	
Have not worked 6 to 11 months	-0.1014		0.0215	
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	-0.0236		0.1207	*
150 percent to less than 200 percent	0.2818	***	0.359	***
200 percent and above	0.4894	***	0.2766	***

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals Participating in SNAP for First Time		Individuals that have Participated in SNAP Previously	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	0.0640		-0.112	**
\$0 or negative	-0.0623		0.0889	
Other Income				
Receive TANF	0.3216		0.2195	**
Receive other means-tested cash benefits	-0.2616	*	-0.19	**
Receive other means-tested noncash benefits	-0.6388	***	-0.3504	***
Receive alimony or child support	-0.00686		-0.0145	
Health Status and Medical Costs				
In fair or poor health	-0.188	**	-0.1067	*
Out-of-pocket medical costs greater than \$1000	0.0621		0.108	
Exit Trigger Events				
Job gain within family	0.2993	***	0.2683	***
Income increase within family	0.4797	***	0.3624	***
New marriage within family	0.1516		-0.2472	
Decrease in family size	0.1422	*	0.1471	***
Mean job gain within family	.		.	
Mean increase in income within family	.		.	
Mean New marriage within family	.		.	
Mean decrease in family size within family	.		.	
Mean job gain times job gain trigger	.		.	
Mean increase in income times increase in income trigger	.		.	
Mean new marriage times new marriage trigger	.		.	
Mean decrease in family size time decrease in family trigger	.		.	
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	0.0385	***	-0.00019	
20th percentile wage	0.1521	**	-0.0385	
Region of Residence				
Northeast	0.0310		-0.0221	
Mid-Atlantic	0.1452		0.1018	
Midwest	0.2220	**	-0.1568	*
Southeast	0.0367		-0.1794	**
Southwest	0.7799	***	0.021	
Mountain Plains	0.4196	***	0.1536	

Table C.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Participant Characteristic

Individual Characteristics Variable	Individuals Participating in SNAP for First Time		Individuals that have Participated in SNAP Previously	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.2809		0.1713	
State exclude all or most vehicles	0.3845 *		0.1139	
Certification Period				
State average certification period	-0.0365 ***		-0.0324 ***	
SNAP Spell Characteristics				
Spell is first ever	.		.	
Spell duration 1-4 months	1.0465 ***		1.2648 ***	
Spell duration 5-8 months	0.8236 ***		0.8179 ***	
Spell duration 9-12 months	0.4345 ***		0.7471 ***	
Spell duration 13-16 months	0.4921 ***		0.4016 ***	
Spell Start year 2008	0.3214		-0.0497	
Spell Start year 2009	0.3468 ***		0.3318 ***	
Spell Start year 2010	0.4262 ***		0.2976 ***	
Spell Start year 2011	0.3551 ***		0.3378 ***	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics		Trigger Events But Not Instability Variables	Trigger Events and Instability Variables	Burstein Variables: Trigger Events And Burstein Variables
Variable		Estimate Sig	Estimate Sig	Estimate Sig
Intercept		-5.0379 ***	-2.8038 ***	-5.0876 ***
Sex				
Male		-0.0977 **	-0.0779	-0.0730
Race/Ethnicity				
White, Non-Hispanic		0.0122	0.2126 ***	0.0481
Black, Non-Hispanic		0.2793 ***	0.3035 ***	0.2411 ***
Other, Non-Hispanic		0.0914	0.2616 **	0.0784
Age				
30 to 49		-0.0790	-0.0196	-0.0856
50 to 64		-0.1580 **	0.0176	-0.1733 **
65 and older		-0.4193 ***	-0.3614 ***	-0.3728 ***
Citizenship				
Citizen		-0.0146	-0.1010	-0.0678
Education				
Highest Grade Completed				
9 to 11		0.0784	0.1251	0.0844
12		0.0173	0.0718	0.0489
13 and above		-0.2227 **	-0.1905 *	-0.1449
Family Composition				
Mean number of adults age 18-59		-0.1058 ***	-0.1268 ***	-0.1040 ***
Mean number of adults age 60+		0.0613	0.0896 *	0.0530
Mean number of children less than age 6		0.1770 ***	0.2478 ***	0.1842 ***
Mean number of children between ages 6 to 17		0.0238	0.0747 ***	0.0249
Marital Status				
Currently married		-0.1153 **	-0.1678 **	-0.0895
Employment Status				
Currently employed		-0.2021 ***	-0.2385 ***	-0.1036 *
Have not worked 1 to 5 months		-0.0589	-0.1065	0.0122
Have not worked 6 to 11 months		0.0805	0.0108	0.0845
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent		-0.1944 ***	-0.2176 ***	-0.1871 ***
150 percent to less than 200 percent		-0.2983 ***	-0.3541 ***	-0.2807 ***
200 percent and above		-0.4895 ***	-0.4713 ***	-0.4148 ***

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics		Trigger Events But Not Instability Variables	Trigger Events and Instability Variables	Burstein Variables: Trigger Events And Burstein Variables
Variable	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	.		.	-0.0915 *
Greater than \$25,000	.		.	-0.0484
Other Income				
Receive TANF	0.2375	**	0.3577	***
Receive other means-tested cash benefits	.		.	-0.0145
Receive other means-tested noncash benefits	.		.	0.4831 ***
Receive alimony or child support	.		.	-0.0339
Health Status and Medical Costs				
In fair or poor health	.		.	0.1590 ***
Out-of-pocket medical costs greater than \$1000	.		.	-0.3066 ***
Entry Trigger Events				
Job loss within family	0.3609	***	0.3795	***
Decrease in income within family	0.2784	***	-0.1803	0.2927 ***
Separation or divorce within family	0.1140		0.6137	0.1072
Increase in family size within family	0.2935	***	0.0964	0.2935 ***
Mean job loss within family	.		-0.3660	.
Mean decrease in income within family	.		0.0508	.
Mean separation or divorce within family	.		-0.1920	***
Mean increase in family size within family	.		0.6178	**
Mean job loss times job loss trigger	.		-0.1512	.
Mean decrease in income times decrease in income trigger	.		0.2414	.
Mean separation or divorce times separation or divorce trigger	.		-0.6357	.
Mean increase in family size time increase in family trigger	.		0.8222	.
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	-0.0269	**	0.0214	*
20th percentile wage	0.0553		-0.0444	0.0387
Region of Residence				
Northeast	-0.0661		0.1297	-0.1914
Mid-Atlantic	-0.1522		-0.0939	-0.1128
Midwest	0.0824		0.0141	0.1027
Southeast	0.0406		-0.1005	0.1211
Southwest	0.0804		0.1733	0.1445
Mountain Plains	0.0477		-0.1156	0.1538

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics		Trigger Events But Not Instability Variables		Trigger Events and Instability Variables		Burststein Variables: Trigger Events And Burststein Variables	
Variable	Estimate	Sig	Estimate	Sig	Estimate	Sig	
SNAP Policy Variables							
Vehicle Rules							
State offers broad-based categorical eligibility	0.2199		0.2441		0.2274		
State exclude all or most vehicles	0.1425		0.2787		0.1495		
Certification Period							
State average certification period	0.0228	**	-0.0023		0.0203	**	
Program Outreach Expenditures							
Mean outreach expenditures per capita	0.1297		-0.2402		0.1770		
SNAP Spell Characteristics							
Nonparticipation Spell is first ever	-0.1787	***	-0.1944	***	-0.1551	***	
Nonparticipation Spell duration 1-4 months	1.6515	***	.		1.5816	***	
Nonparticipation Spell duration 5-8 months	1.1905	***	.		1.1548	***	
Nonparticipation Spell duration 9-12 months	0.7591	***	.		0.7207	***	
Nonparticipation Spell duration 13-16 months	0.5497	***	.		0.5353	***	
Nonparticipation Spell Start year 2008	0.5020	***	.		0.4349	***	
Nonparticipation Spell Start year 2009	0.5893	***	.		0.5799	***	
Nonparticipation Spell Start year 2010	0.4561	***	.		0.4439	***	
Nonparticipation Spell Start year 2011	0.2926	***	.		0.2970	***	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Single- Adult Families with Children		Individuals in Multiple-Adult Families with Children		Individuals in Families with Elderly Members	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Intercept	-5.6088	***	-4.7344	***	-7.6001	***
Sex						
Male	-0.5052	**	0.0106		0.1044	
Race/Ethnicity						
White, Non-Hispanic	0.1842		0.1354		0.1332	
Black, Non-Hispanic	0.4222		0.1834	*	0.4838	**
Other, Non-Hispanic	0.1358		0.2123		0.0663	
Age						
30 to 49	0.0104		-0.1927	**	0.0245	
50 to 64	-0.3976		-0.1434		-0.0976	
65 and older	-1.5519		-0.4457	**	-0.0971	
Citizenship						
Citizen	-0.0762		0.0119		-0.4715	*
Education						
Highest Grade Completed						
9 to 11	-0.1688		0.1761		-0.2114	
12	-0.5773		0.1515		-0.2096	
13 and above	-0.6371		-0.0840		-0.2134	
Family Composition						
Mean number of adults age 18-59	-0.7411		-0.1101	***	0.1385	**
Mean number of adults age 60+	0.0000		0.0680		0.1720	
Mean number of children less than age 6	0.1990		0.1730	***	0.0000	
Mean number of children between ages 6 to 17	-0.0184		0.0271		0.0000	
Marital Status						
Currently married	.		-0.0882		0.1901	
Employment Status						
Currently employed	0.1309		-0.1767	**	-0.1098	
Have not worked 1 to 5 months	0.0302		0.0721		0.0046	
Have not worked 6 to 11 months	1.0204	***	-0.0082		0.4117	
Ratio of Family Income to Poverty Level						
100 percent to less than 150 percent	0.0082		-0.2655	***	-0.0478	
150 percent to less than 200 percent	-0.6619	**	-0.2528	**	-0.2621	
200 percent and above	-0.3634		-0.4004	***	-0.6185	***

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Single- Adult Families with Children		Individuals in Multiple-Adult Families with Children		Individuals in Families with Elderly Members	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Net Worth						
Greater than \$0	0.1233		-0.0685		-0.0468	
Greater than \$25,000	0.0513		-0.1568 *		-0.1968	
Other Income						
Receive TANF	0.7065 **		0.0794		-0.5232	
Receive other means-tested cash benefits	0.5440 *		-0.3588 ***		0.0580	
Receive other means-tested noncash benefits	0.4812 ***		0.5489 ***		0.4195 ***	
Receive alimony or child support	0.0393		-0.1118		0.6068	
Health Status and Medical Costs						
In fair or poor health	-0.1162		0.2211 ***		0.2845 **	
Out-of-pocket medical costs greater than \$1000	-0.2627		-0.3721 ***		-0.0592	
Entry Trigger Events						
Job loss within family	0.6394 **		0.4319 ***		0.2033	
Decrease in income within family	0.4120 **		0.1647 **		0.0322	
Separation or divorce within family	-12.4991		-0.0987		0.7953 *	
Increase in family size within family	0.0121		0.4512 ***		-0.3828	
Mean job loss within family	.		.		.	
Mean decrease in income within family	.		.		.	
Mean separation or divorce within family	.		.		.	
Mean increase in family size within family	.		.		.	
Mean job loss times job loss trigger	.		.		.	
Mean decrease in income times decrease in income trigger	.		.		.	
Mean separation or divorce times separation or divorce trigger	.		.		.	
Mean increase in family size time increase in family trigger	.		.		.	
State and Regional Measures						
State Economic Measures						
Mean state unemployment rate	-0.0301		-0.0425 ***		0.0652 **	
20th percentile wage	0.1749		0.0400		0.1765	
Region of Residence						
Northeast	-0.7690 *		-0.2058		0.1485	
Mid-Atlantic	-0.5217		-0.1316		0.0562	
Midwest	-0.2619		-0.0232		0.2465	
Southeast	-0.2646		0.0685		0.3399	
Southwest	-0.1543		-0.0230		0.8540 ***	
Mountain Plains	-0.3817		-0.0014		0.3066	

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics		Individuals in Single-Adult Families with Children		Individuals in Multiple-Adult Families with Children		Individuals in Families with Elderly Members	
Variable		Estimate	Sig	Estimate	Sig	Estimate	Sig
SNAP Policy Variables							
Vehicle Rules							
State offers broad-based categorical eligibility		-0.1275		0.0521		0.7331	
State exclude all or most vehicles		-0.0053		0.0108		0.9341	
Certification Period							
State average certification period		0.0569		0.0317 **		-0.0001	
Program Outreach Expenditures							
Mean outreach expenditures per capita		0.4535		0.2406		-0.4665	
SNAP Spell Characteristics							
Nonparticipation Spell is first ever		-0.2279		-0.1350 *		-0.0145	
Nonparticipation Spell duration 1-4 months		1.7603 ***		1.3759 ***		1.2127 ***	
Nonparticipation Spell duration 5-8 months		1.1666 ***		1.1065 ***		0.9623 ***	
Nonparticipation Spell duration 9-12 months		0.9514 ***		0.7590 ***		0.2734	
Nonparticipation Spell duration 13-16 months		-0.3058		0.5680 ***		0.3524	
Nonparticipation Spell Start year 2008		-0.1124		0.5118 **		-0.1589	
Nonparticipation Spell Start year 2009		0.7380 ***		0.4772 ***		0.2978	
Nonparticipation Spell Start year 2010		0.5791 **		0.3604 ***		0.2948	
Nonparticipation Spell Start year 2011		0.3315		0.2863 **		0.3703 *	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Nonelderly Nondisabled Childless Adults		Individuals in Families Containing Nonelderly Disabled Childless Adults	
	Estimate	Sig	Estimate	Sig
Intercept	-4.4227	***	-2.0739	
Sex				
Male	-0.2863	**	-0.0953	
Race/Ethnicity				
White, Non-Hispanic	-0.5297	**	0.1706	
Black, Non-Hispanic	-0.2556		0.4579	*
Other, Non-Hispanic	-0.8200	**	0.2241	
Age				
30 to 49	0.1783		0.1025	
50 to 64	0.0277		0.1719	
65 and older	0.0000		.	
Citizenship				
Citizen	-0.5175		-0.2872	
Education				
Highest Grade Completed				
9 to 11	0.7519	*	-0.6014	
12	0.5462		-0.0315	
13 and above	0.3225		-0.4231	
Family Composition				
Mean number of adults age 18-59	-0.3040	***	0.0285	
Mean number of adults age 60+	0.0000		0.0000	
Mean number of children less than age 6	0.0000		0.0000	
Mean number of children between ages 6 to 17	0.0000		0.0000	
Marital Status				
Currently married	-0.4867	*	-0.4880	*
Employment Status				
Currently employed	-0.1970		-0.1144	
Have not worked 1 to 5 months	-0.2413		0.2528	
Have not worked 6 to 11 months	-0.5608	**	0.1458	
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	-0.1101		-0.0571	
150 percent to less than 200 percent	-0.3858	*	-0.1105	
200 percent and above	-0.4014	**	-0.6292	**

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Nonelderly Nondisabled Childless Adults		Individuals in Families Containing Nonelderly Disabled Childless Adults	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	-0.2086		-0.2945	
Greater than \$25,000	0.2904 *		0.3663	
Other Income				
Receive TANF	-0.5698		-1.3996	
Receive other means-tested cash benefits	0.6468		0.4252 **	
Receive other means-tested noncash benefits	0.4799 ***		0.4685 **	
Receive alimony or child support	-0.1529		0.2216	
Health Status and Medical Costs				
In fair or poor health	0.4303 ***		-0.4137 **	
Out-of-pocket medical costs greater than \$1000	-0.6912 **		-0.5567 *	
Entry Trigger Events				
Job loss within family	0.3147		-0.0146	
Decrease in income within family	0.5557 ***		0.6806 ***	
Separation or divorce within family	-11.0345		1.1204	
Increase in family size within family	0.2954		-0.1246	
Mean job loss within family	.		.	
Mean decrease in income within family	.		.	
Mean separation or divorce within family	.		.	
Mean increase in family size within family	.		.	
Mean job loss times job loss trigger	.		.	
Mean decrease in income times decrease in income trigger	.		.	
Mean separation or divorce times separation or divorce trigger	.		.	
Mean increase in family size time increase in family trigger	.		.	
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	-0.0553 *		0.0223	
20th percentile wage	-0.0159		-0.2881 *	
Region of Residence				
Northeast	-0.0553		0.5824	
Mid-Atlantic	0.0205		0.1161	
Midwest	0.3922		0.6021 **	
Southeast	0.5530 **		-0.0477	
Southwest	0.7603 ***		0.1663	
Mountain Plains	0.7707 **		1.0699 **	

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Nonelderly Nondisabled Childless Adults		Individuals in Families Containing Nonelderly Disabled Childless Adults	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.3062		0.8722 **	
State exclude all or most vehicles	0.1220		0.0390	
Certification Period				
State average certification period	0.0362		-0.0768 *	
Program Outreach Expenditures				
Mean outreach expenditures per capita	1.2395 **		-1.2968 *	
SNAP Spell Characteristics				
Nonparticipation Spell is first ever	-0.2593 **		-0.2158	
Nonparticipation Spell duration 1-4 months	1.6090 ***		1.5060 ***	
Nonparticipation Spell duration 5-8 months	1.0482 ***		1.0459 ***	
Nonparticipation Spell duration 9-12 months	0.7762 ***		0.0423	
Nonparticipation Spell duration 13-16 months	0.4253		0.8690 ***	
Nonparticipation Spell Start year 2008	1.1968 ***		0.3286	
Nonparticipation Spell Start year 2009	1.0241 ***		0.5609 *	
Nonparticipation Spell Start year 2010	0.6698 ***		0.7176 **	
Nonparticipation Spell Start year 2011	0.2202		0.4282	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics		Individuals in Families Containing Citizen Adults and Citizen Children	Individuals in Families Containing Noncitizen Adults and Citizen Children
Variable	Estimate Sig	Estimate Sig	
Intercept	-5.9436 ***	0.5078	
Sex			
Male	-0.1085	0.5273 *	
Race/Ethnicity			
White, Non-Hispanic	0.0822	0.5002	
Black, Non-Hispanic	0.1880 *	2.1302 *	
Other, Non-Hispanic	0.0132	0.7208	
Age			
30 to 49	-0.1917 **	-0.0594	
50 to 64	-0.2155 *	0.4963	
65 and older	-0.5589 ***	1.9556	
Citizenship			
Citizen	0.2741 *	0.3850	
Education			
Highest Grade Completed			
9 to 11	0.1239	0.2589	
12	0.0881	0.0101	
13 and above	-0.1807	0.1750	
Family Composition			
Mean number of adults age 18-59	-0.0913 ***	-0.5348 ***	
Mean number of adults age 60+	0.0615	0.3031	
Mean number of children less than age 6	0.1758 ***	0.1732	
Mean number of children between ages 6 to 17	0.0545 *	-0.0672	
Marital Status			
Currently married	-0.0689	0.5415	
Employment Status			
Currently employed	-0.1246	-0.4611	
Have not worked 1 to 5 months	0.1428	-0.2636	
Have not worked 6 to 11 months	0.2315 *	-0.3852	
Ratio of Family Income to Poverty Level			
100 percent to less than 150 percent	-0.1828 **	0.0087	
150 percent to less than 200 percent	-0.3220 ***	-0.2541	
200 percent and above	-0.4010 ***	0.5135	

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families Containing Citizen Adults and Citizen Children		Individuals in Families Containing Noncitizen Adults and Citizen Children	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	0.0371		-0.9451 ***	
Greater than \$25,000	-0.1558 *		0.1832	
Other Income				
Receive TANF	0.2123 *		0.4710	
Receive other means-tested cash benefits	-0.2439 **		-0.6878	
Receive other means-tested noncash benefits	0.5015 ***		0.5418 *	
Receive alimony or child support	-0.0536		0.0835	
Health Status and Medical Costs				
In fair or poor health	0.2421 ***		-0.6033 *	
Out-of-pocket medical costs greater than \$1000	-0.3521 ***		0.2910	
Entry Trigger Events				
Job loss within family	0.5116 ***		0.2464	
Decrease in income within family	0.2313 ***		0.0927	
Separation or divorce within family	-0.0486		-0.1612	
Increase in family size within family	0.3243 ***		0.1017	
Mean job loss within family	.		.	
Mean decrease in income within family	.		.	
Mean separation or divorce within family	.		.	
Mean increase in family size within family	.		.	
Mean job loss times job loss trigger	.		.	
Mean decrease in income times decrease in income trigger	.		.	
Mean separation or divorce times separation or divorce trigger	.		.	
Mean increase in family size time increase in family trigger	.		.	
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	-0.0382 **		-0.0974	
20th percentile wage	0.0991		-0.2261	
Region of Residence				
Northeast	-0.1989		1.2777 *	
Mid-Atlantic	-0.1282		0.0069	
Midwest	0.0209		0.6075	
Southeast	0.1590		-0.9691 *	
Southwest	-0.0316		0.3384	
Mountain Plains	0.0365		-1.7504 *	

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics		Individuals in Families Containing Citizen Adults and Citizen Children	Individuals in Families Containing Noncitizen Adults and Citizen Children
Variable	Estimate Sig	Estimate Sig	
SNAP Policy Variables			
Vehicle Rules			
State offers broad-based categorical eligibility	0.0943	0.5623	
State exclude all or most vehicles	0.1298	-0.1227	
Certification Period			
State average certification period	0.0454 ***	-0.1566 *	
Program Outreach Expenditures			
Mean outreach expenditures per capita	0.7028 **	-2.0661 **	
SNAP Spell Characteristics			
Nonparticipation Spell is first ever	-0.1476 **	-0.3934	
Nonparticipation Spell duration 1-4 months	1.4225 ***	1.5760 ***	
Nonparticipation Spell duration 5-8 months	1.0265 ***	1.8492 ***	
Nonparticipation Spell duration 9-12 months	0.7569 ***	1.4193 ***	
Nonparticipation Spell duration 13-16 months	0.4761 ***	-0.1573	
Nonparticipation Spell Start year 2008	0.4501 **	0.0000	
Nonparticipation Spell Start year 2009	0.4806 ***	1.5354 ***	
Nonparticipation Spell Start year 2010	0.3553 ***	0.9497 **	
Nonparticipation Spell Start year 2011	0.2662 **	0.7293 *	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families With Earnings		Individuals in Families without Earnings	
	Estimate	Sig	Estimate	Sig
Intercept	-5.1526	***	-4.7932	***
Sex				
Male	-0.0996	*	-0.0109	
Race/Ethnicity				
White, Non-Hispanic	0.1234		-0.1648	
Black, Non-Hispanic	0.2047	**	0.3028	**
Other, Non-Hispanic	0.2374	**	-0.3262	*
Age				
30 to 49	-0.0282		-0.2294	**
50 to 64	-0.0811		-0.3702	***
65 and older	-0.2558		-0.5436	***
Citizenship				
Citizen	-0.0465		-0.4140	**
Education				
Highest Grade Completed				
9 to 11	0.1630		0.0593	
12	0.1000		0.0152	
13 and above	-0.0774		-0.2282	
Family Composition				
Mean number of adults age 18-59	-0.1130	***	-0.0430	
Mean number of adults age 60+	-0.0128		0.1258	
Mean number of children less than age 6	0.2451	***	-0.0111	
Mean number of children between ages 6 to 17	0.0367		0.0261	
Marital Status				
Currently married	-0.1643	**	0.0974	
Employment Status				
Currently employed	-0.0978		-0.2562	
Have not worked 1 to 5 months	0.2561	*	-0.1784	
Have not worked 6 to 11 months	-0.1475		0.2158	*
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	-0.2114	***	-0.1237	
150 percent to less than 200 percent	-0.2990	***	-0.1553	
200 percent and above	-0.3626	***	-0.6302	***

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families With Earnings		Individuals in Families without Earnings	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	-0.1167 *		-0.0095	
Greater than \$25,000	-0.0563		-0.0121	
Other Income				
Receive TANF	0.0131		0.1451	
Receive other means-tested cash benefits	-0.0580		0.0191	
Receive other means-tested noncash benefits	0.5106 ***		0.4390 ***	
Receive alimony or child support	-0.0412		0.0225	
Health Status and Medical Costs				
In fair or poor health	0.2203 ***		0.0127	
Out-of-pocket medical costs greater than \$1000	-0.4834 ***		0.0969	
Entry Trigger Events				
Job loss within family	0.4749 ***		0.0090	
Decrease in income within family	0.1548 **		0.6798 ***	
Separation or divorce within family	0.0845		-0.0825	
Increase in family size within family	0.4470 ***		-0.0769	
Mean job loss within family	.		.	
Mean decrease in income within family	.		.	
Mean separation or divorce within family	.		.	
Mean increase in family size within family	.		.	
Mean job loss times job loss trigger	.		.	
Mean decrease in income times decrease in income trigger	.		.	
Mean separation or divorce times separation or divorce trigger	.		.	
Mean increase in family size time increase in family trigger	.		.	
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	-0.0306 **		-0.0187	
20th percentile wage	0.0267		0.0890	
Region of Residence				
Northeast	-0.2578 *		-0.2489	
Mid-Atlantic	-0.1465		-0.1839	
Midwest	0.1550		-0.0260	
Southeast	0.1659		-0.0161	
Southwest	0.1290		0.0295	
Mountain Plains	0.1264		0.1668	

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families With Earnings		Individuals in Families without Earnings	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.2769		-0.0239	
State exclude all or most vehicles	0.2197		-0.1431	
Certification Period				
State average certification period	0.0236	*	0.0221	
Program Outreach Expenditures				
Mean outreach expenditures per capita	0.0724		0.3499	
SNAP Spell Characteristics				
Nonparticipation Spell is first ever	-0.1307	**	-0.2382	***
Nonparticipation Spell duration 1-4 months	1.5722	***	1.5152	***
Nonparticipation Spell duration 5-8 months	1.2267	***	0.9341	***
Nonparticipation Spell duration 9-12 months	0.7337	***	0.6548	***
Nonparticipation Spell duration 13-16 months	0.5265	***	0.5252	***
Nonparticipation Spell Start year 2008	0.1901		0.9902	***
Nonparticipation Spell Start year 2009	0.5412	***	0.6807	***
Nonparticipation Spell Start year 2010	0.5017	***	0.3497	**
Nonparticipation Spell Start year 2011	0.2926	***	0.3191	**

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with Social Security or SSI	Individuals in Families without Social Security or SSI
	Estimate Sig	Estimate Sig
Intercept	-6.0748 ***	-4.0978 ***
Sex		
Male	0.0408	-0.1509 **
Race/Ethnicity		
White, Non-Hispanic	0.0720	0.0098
Black, Non-Hispanic	0.1754	0.2774 ***
Other, Non-Hispanic	-0.1228	0.0831
Age		
30 to 49	-0.1659 *	-0.0553
50 to 64	-0.2497 **	-0.0611
65 and older	-0.3865 ***	-0.2361
Citizenship		
Citizen	-0.2938 *	-0.0393
Education		
Highest Grade Completed		
9 to 11	0.0802	0.0951
12	0.1740	-0.0641
13 and above	-0.0254	-0.2732 **
Family Composition		
Mean number of adults age 18-59	-0.0416	-0.1715 ***
Mean number of adults age 60+	0.1051 *	-0.2768 **
Mean number of children less than age 6	0.0741	0.2134 ***
Mean number of children between ages 6 to 17	0.1080 ***	-0.0134
Marital Status		
Currently married	0.0036	-0.1211
Employment Status		
Currently employed	-0.1502 *	-0.0520
Have not worked 1 to 5 months	-0.0945	0.0655
Have not worked 6 to 11 months	0.2460 *	0.0692
Ratio of Family Income to Poverty Level		
100 percent to less than 150 percent	-0.1237	-0.2401 ***
150 percent to less than 200 percent	-0.2184 **	-0.3083 ***
200 percent and above	-0.4092 ***	-0.4162 ***

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with Social Security or SSI	Individuals in Families without Social Security or SSI
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	-0.2052 **	0.0052
Greater than \$25,000	0.0491	-0.1087
Other Income		
Receive TANF	0.1307	0.1578
Receive other means-tested cash benefits	0.0088	0.1888
Receive other means-tested noncash benefits	0.3967 ***	0.5654 ***
Receive alimony or child support	0.1807	-0.1546
Health Status and Medical Costs		
In fair or poor health	0.1298 *	0.1766 **
Out-of-pocket medical costs greater than \$1000	-0.4148 ***	-0.1927 *
Entry Trigger Events		
Job loss within family	0.3035 **	0.4070 ***
Decrease in income within family	0.0436	0.4449 ***
Separation or divorce within family	0.5340 *	-0.5060
Increase in family size within family	0.5320 ***	0.1408
Mean job loss within family	.	.
Mean decrease in income within family	.	.
Mean separation or divorce within family	.	.
Mean increase in family size within family	.	.
Mean job loss times job loss trigger	.	.
Mean decrease in income times decrease in income trigger	.	.
Mean separation or divorce times separation or divorce trigger	.	.
Mean increase in family size time increase in family trigger	.	.
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	-0.0077	-0.0421 ***
20th percentile wage	0.1957 ***	-0.0869
Region of Residence		
Northeast	0.0719	-0.4400 ***
Mid-Atlantic	0.0891	-0.2159
Midwest	0.2861 **	-0.0049
Southeast	0.2438 *	0.0053
Southwest	0.4206 ***	-0.0768
Mountain Plains	0.2682	0.0540

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with Social Security or SSI		Individuals in Families without Social Security or SSI	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.1072		0.3200	
State exclude all or most vehicles	-0.0122		0.2894	
Certification Period				
State average certification period	0.0012		0.0359 ***	
Program Outreach Expenditures				
Mean outreach expenditures per capita	0.2131		0.2166	
SNAP Spell Characteristics				
Nonparticipation Spell is first ever	-0.1775 **		-0.1470 **	
Nonparticipation Spell duration 1-4 months	1.2092 ***		1.8005 ***	
Nonparticipation Spell duration 5-8 months	0.9543 ***		1.2623 ***	
Nonparticipation Spell duration 9-12 months	0.3451 **		0.9475 ***	
Nonparticipation Spell duration 13-16 months	0.3538 **		0.6481 ***	
Nonparticipation Spell Start year 2008	0.1375		0.6558 ***	
Nonparticipation Spell Start year 2009	0.5879 ***		0.5685 ***	
Nonparticipation Spell Start year 2010	0.3619 ***		0.4867 ***	
Nonparticipation Spell Start year 2011	0.3741 ***		0.2515 **	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics		Individuals in Families with TANF Income	Individuals in Families without TANF Income
Variable	Estimate	Sig	Estimate Sig
Intercept	-0.0519		-5.3098 ***
Sex			
Male	-0.0300		-0.0716
Race/Ethnicity			
White, Non-Hispanic	0.6701 *		0.0324
Black, Non-Hispanic	1.2734 ***		0.2177 ***
Other, Non-Hispanic	0.4860		0.0711
Age			
30 to 49	-0.1490		-0.0912
50 to 64	0.2371		-0.1969 **
65 and older	-0.4718		-0.4075 ***
Citizenship			
Citizen	0.3082		-0.1139
Education			
Highest Grade Completed			
9 to 11	0.5485		0.0884
12	1.0082 **		0.0277
13 and above	-0.0005		-0.1353
Family Composition			
Mean number of adults age 18-59	-0.4106 ***		-0.1018 ***
Mean number of adults age 60+	-0.2499		0.0730
Mean number of children less than age 6	-0.0240		0.2007 ***
Mean number of children between ages 6 to 17	0.1855		0.0100
Marital Status			
Currently married	0.4756		-0.1076 *
Employment Status			
Currently employed	-0.3260		-0.0915
Have not worked 1 to 5 months	0.8808		0.0000
Have not worked 6 to 11 months	1.2642 ***		0.0344
Ratio of Family Income to Poverty Level			
100 percent to less than 150 percent	-0.0524		-0.1832 ***
150 percent to less than 200 percent	-0.3305		-0.2759 ***
200 percent and above	-0.0292		-0.4356 ***

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with TANF Income		Individuals in Families without TANF Income	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	-0.4156		-0.0711	
Greater than \$25,000	0.6066		-0.0700	
Other Income				
Receive TANF	.		.	
Receive other means-tested cash benefits	-1.1110 ***		0.0711	
Receive other means-tested noncash benefits	0.0840		0.4881 ***	
Receive alimony or child support	-0.1235		-0.0207	
Health Status and Medical Costs				
In fair or poor health	0.7355 ***		0.1314 **	
Out-of-pocket medical costs greater than \$1000	-0.6923		-0.2921 ***	
Entry Trigger Events				
Job loss within family	0.5293		0.3664 ***	
Decrease in income within family	-0.2584		0.3248 ***	
Separation or divorce within family	-0.8655		0.1276	
Increase in family size within family	0.6345 *		0.2644 ***	
Mean job loss within family	.		.	
Mean decrease in income within family	.		.	
Mean separation or divorce within family	.		.	
Mean increase in family size within family	.		.	
Mean job loss times job loss trigger	.		.	
Mean decrease in income times decrease in income trigger	.		.	
Mean separation or divorce times separation or divorce trigger	.		.	
Mean increase in family size time increase in family trigger	.		.	
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	-0.0923		-0.0260 **	
20th percentile wage	-0.3134		0.0625	
Region of Residence				
Northeast	0.6155		-0.2970 **	
Mid-Atlantic	-1.0801 **		-0.0776	
Midwest	-0.8189 *		0.1243	
Southeast	-1.0137 *		0.1307	
Southwest	-0.4364		0.1785 *	
Mountain Plains	-2.7083 ***		0.1659	

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in Families with TANF Income		Individuals in Families without TANF Income	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.5131		0.2408	
State exclude all or most vehicles	0.0000		0.1788	
Certification Period				
State average certification period	-0.0086		0.0197 *	
Program Outreach Expenditures				
Mean outreach expenditures per capita	0.3219		0.1276	
SNAP Spell Characteristics				
Nonparticipation Spell is first ever	-0.6377 *		-0.1509 ***	
Nonparticipation Spell duration 1-4 months	0.2879		1.6032 ***	
Nonparticipation Spell duration 5-8 months	0.7707 *		1.1490 ***	
Nonparticipation Spell duration 9-12 months	0.9832 **		0.6658 ***	
Nonparticipation Spell duration 13-16 months	0.8110 *		0.5139 ***	
Nonparticipation Spell Start year 2008	-0.6654		0.4429 ***	
Nonparticipation Spell Start year 2009	-0.1521		0.6239 ***	
Nonparticipation Spell Start year 2010	-0.1087		0.4935 ***	
Nonparticipation Spell Start year 2011	-0.1049		0.3127 ***	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States with Certification Periods Longer than the Average Certification Period	Individuals in States with Certification Periods at or Below the Average Certification Period
	Estimate Sig	Estimate Sig
Intercept	-4.1704 ***	-5.0964 ***
Sex		
Male	-0.0345	-0.0972
Race/Ethnicity		
White, Non-Hispanic	-0.2073 *	0.1116
Black, Non-Hispanic	0.0057	0.3407 ***
Other, Non-Hispanic	-0.3018 *	0.1643
Age		
30 to 49	-0.1483	-0.0345
50 to 64	-0.1635	-0.1833 *
65 and older	-0.1739	-0.5533 ***
Citizenship		
Citizen	-0.0192	-0.0381
Education		
Highest Grade Completed		
9 to 11	0.4016 **	-0.1647
12	0.2507	-0.0881
13 and above	0.2079	-0.3846 ***
Family Composition		
Mean number of adults age 18-59	-0.0949 ***	-0.1066 ***
Mean number of adults age 60+	0.0320	0.0880
Mean number of children less than age 6	0.2351 ***	0.1747 ***
Mean number of children between ages 6 to 17	0.0319	0.0220
Marital Status		
Currently married	-0.0976	-0.1266 *
Employment Status		
Currently employed	-0.1550 *	-0.0813
Have not worked 1 to 5 months	-0.1231	0.0620
Have not worked 6 to 11 months	-0.1064	0.2044 *
Ratio of Family Income to Poverty Level		
100 percent to less than 150 percent	-0.0628	-0.3005 ***
150 percent to less than 200 percent	-0.2533 **	-0.2812 ***
200 percent and above	-0.4288 ***	-0.3970 ***

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States with Certification Periods Longer than the Average Certification Period		Individuals in States with Certification Periods at or Below the Average Certification Period	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	-0.2363	**	-0.0175	
Greater than \$25,000	0.2171	**	-0.1877	**
Other Income				
Receive TANF	0.4411	***	-0.0066	
Receive other means-tested cash benefits	-0.2769	**	0.1297	
Receive other means-tested noncash benefits	0.5078	***	0.5004	***
Receive alimony or child support	0.0888		-0.1715	
Health Status and Medical Costs				
In fair or poor health	0.2100	**	0.1339	*
Out-of-pocket medical costs greater than \$1000	-0.5585	***	-0.1836	*
Entry Trigger Events				
Job loss within family	0.5636	***	0.2509	**
Decrease in income within family	0.3093	***	0.2755	***
Separation or divorce within family	-0.5254		0.6148	**
Increase in family size within family	0.5816	***	0.0750	
Mean job loss within family	.		.	
Mean decrease in income within family	.		.	
Mean separation or divorce within family	.		.	
Mean increase in family size within family	.		.	
Mean job loss times job loss trigger	.		.	
Mean decrease in income times decrease in income trigger	.		.	
Mean separation or divorce times separation or divorce trigger	.		.	
Mean increase in family size time increase in family trigger	.		.	
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	-0.0096		-0.0416	***
20th percentile wage	-0.0037		0.0771	
Region of Residence				
Northeast	-0.4273	**	0.1883	
Mid-Atlantic	-0.4214	*	-0.2720	
Midwest	-0.2694		0.1029	
Southeast	-0.3004		0.1076	
Southwest	-0.2946		0.2228	*
Mountain Plains	-0.0027		-0.0306	

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States with Certification Periods Longer than the Average Certification Period		Individuals in States with Certification Periods at or Below the Average Certification Period	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.1591		0.2263	
State exclude all or most vehicles	0.0378		0.1710	
Certification Period				
State average certification period	.		.	
Program Outreach Expenditures				
Mean outreach expenditures per capita	-0.3185		0.3885	
SNAP Spell Characteristics				
Nonparticipation Spell is first ever	-0.1363	*	-0.1522	**
Nonparticipation Spell duration 1-4 months	1.4023	***	1.6863	***
Nonparticipation Spell duration 5-8 months	0.8563	***	1.3409	***
Nonparticipation Spell duration 9-12 months	0.3821	***	0.9283	***
Nonparticipation Spell duration 13-16 months	0.5186	***	0.5495	***
Nonparticipation Spell Start year 2008	0.2750		0.5281	**
Nonparticipation Spell Start year 2009	0.6188	***	0.6129	***
Nonparticipation Spell Start year 2010	0.5618	***	0.3867	***
Nonparticipation Spell Start year 2011	0.3833	***	0.2703	***

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States Offering Broad- Based Categorical Eligibility	Individuals in States that Exclude All or Most Vehicles	Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit
	Estimate Sig	Estimate Sig	Estimate Sig
Intercept	-5.2499 ***	-3.8918 ***	-8.5156 *
Sex			
Male	-0.1054 *	0.0643	0.0132
Race/Ethnicity			
White, Non-Hispanic	0.0350	0.1936	-0.9135
Black, Non-Hispanic	0.1967 **	0.7034 ***	-0.9400
Other, Non-Hispanic	0.0187	0.2317	-1.8683
Age			
30 to 49	-0.0163	-0.3840 ***	-0.4358
50 to 64	-0.1155	-0.4964 ***	0.8872
65 and older	-0.3115 **	-0.7715 ***	0.2940
Citizenship			
Citizen	-0.0666	-0.0911	-0.6225
Education			
Highest Grade Completed			
9 to 11	0.0538	0.2087	1.8095 *
12	0.0234	0.0689	1.4742 **
13 and above	-0.1726 *	-0.0729	0.6498
Family Composition			
Mean number of adults age 18-59	-0.1110 ***	-0.1501 ***	0.3432
Mean number of adults age 60+	0.0614	0.0493	-0.2710
Mean number of children less than age 6	0.1629 ***	0.3052 ***	0.0007
Mean number of children between ages 6 to 17	0.0180	0.0129	0.3456
Marital Status			
Currently married	-0.1257 *	0.2522 **	-0.7359
Employment Status			
Currently employed	-0.1147 *	0.0161	0.0549
Have not worked 1 to 5 months	-0.0118	0.1220	-1.1679
Have not worked 6 to 11 months	0.0763	0.2734	-3.1665 *
Ratio of Family Income to Poverty Level			
100 percent to less than 150 percent	-0.1216 *	-0.4440 ***	-0.7889
150 percent to less than 200 percent	-0.2699 ***	-0.1401	-0.4177
200 percent and above	-0.3765 ***	-0.5318 ***	-1.6022 **

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States Offering Broad- Based Categorical Eligibility		Individuals in States that Exclude All or Most Vehicles		Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
Net Worth						
Greater than \$0	-0.1086	*	0.0680		-0.0212	
Greater than \$25,000	-0.0551		0.0625		-0.6624	
Other Income						
Receive TANF	0.2462	**	-0.6626	**	0.0000	
Receive other means-tested cash benefits	0.0321		-0.2061		-0.1190	
Receive other means-tested noncash benefits	0.4844	***	0.4310	***	1.3529	***
Receive alimony or child support	-0.0334		0.1177		-2.2410	
Health Status and Medical Costs						
In fair or poor health	0.0997	*	0.3618	***	0.7844	
Out-of-pocket medical costs greater than \$1000	-0.2627	***	-0.5563	***	-0.5136	
Entry Trigger Events						
Job loss within family	0.3582	***	0.2991	*	0.4963	
Decrease in income within family	0.3158	***	0.1393		1.1835	***
Separation or divorce within family	0.1012		0.2899		-14.6302	
Increase in family size within family	0.3234	***	0.1437		-0.1646	
Mean job loss within family	.		.		.	
Mean decrease in income within family	.		.		.	
Mean separation or divorce within family	.		.		.	
Mean increase in family size within family	.		.		.	
Mean job loss times job loss trigger	.		.		.	
Mean decrease in income times decrease in income trigger	.		.		.	
Mean separation or divorce times separation or divorce trigger	.		.		.	
Mean increase in family size time increase in family trigger	.		.		.	
State and Regional Measures						
State Economic Measures						
Mean state unemployment rate	-0.0157		-0.0951	***	0.1907	***
20th percentile wage	0.0687		-0.0479		0.0734	
Region of Residence						
Northeast	-0.1709		-10.1491		0.0000	
Mid-Atlantic	-0.0541		-0.8667	***	0.0000	
Midwest	0.1408		-0.0692		-3.8519	***
Southeast	0.1926	*	-0.3962		0.0000	
Southwest	0.2287	**	-0.5951	*	-1.2429	
Mountain Plains	0.0499		-0.4331		0.0000	

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals in States Offering Broad- Based Categorical Eligibility		Individuals in States that Exclude All or Most Vehicles		Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit	
	Estimate	Sig	Estimate	Sig	Estimate	Sig
SNAP Policy Variables						
Vehicle Rules						
State offers broad-based categorical eligibility	.		.		.	
State exclude all or most vehicles	.		.		.	
Certification Period						
State average certification period	0.0240	**	0.0198		0.1908	
Program Outreach Expenditures						
Mean outreach expenditures per capita	0.1343		1.1040		20.8914	**
SNAP Spell Characteristics						
Nonparticipation Spell is first ever	-0.2129	***	0.0511		0.9895	**
Nonparticipation Spell duration 1-4 months	1.6320	***	1.3461	***	0.8192	
Nonparticipation Spell duration 5-8 months	1.1750	***	1.1725	***	0.4052	
Nonparticipation Spell duration 9-12 months	0.6428	***	1.1210	***	0.2059	
Nonparticipation Spell duration 13-16 months	0.6280	***	-0.1646		0.5243	
Nonparticipation Spell Start year 2008	0.4770	**	0.8694	***	-14.4451	
Nonparticipation Spell Start year 2009	0.5468	***	1.1378	***	0.0110	
Nonparticipation Spell Start year 2010	0.4035	***	1.0594	***	-0.3337	
Nonparticipation Spell Start year 2011	0.2917	***	0.5290	**	0.2384	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals Participating in SNAP for First Time	Individuals that have Participated in SNAP Previously
	Estimate Sig	Estimate Sig
Intercept	-4.8316 ***	-5.3680 ***
Sex		
Male	-0.0346	-0.0803
Race/Ethnicity		
White, Non-Hispanic	-0.0070	0.1063
Black, Non-Hispanic	0.2397 *	0.2614 ***
Other, Non-Hispanic	0.3685 **	-0.0734
Age		
30 to 49	-0.0536	-0.0829
50 to 64	-0.0131	-0.2879 ***
65 and older	-0.3155	-0.3918 ***
Citizenship		
Citizen	0.1218	-0.1563
Education		
Highest Grade Completed		
9 to 11	0.1350	0.1095
12	0.0481	0.0715
13 and above	-0.3289 **	-0.0382
Family Composition		
Mean number of adults age 18-59	-0.0976 **	-0.1253 ***
Mean number of adults age 60+	0.0653	0.0281
Mean number of children less than age 6	0.2202 ***	0.1757 ***
Mean number of children between ages 6 to 17	0.0051	0.0438
Marital Status		
Currently married	-0.1315	-0.1239 *
Employment Status		
Currently employed	0.0842	-0.1831 ***
Have not worked 1 to 5 months	-0.2944	0.1433
Have not worked 6 to 11 months	0.1322	0.0242
Ratio of Family Income to Poverty Level		
100 percent to less than 150 percent	-0.1093	-0.2283 ***
150 percent to less than 200 percent	-0.3864 ***	-0.2264 ***
200 percent and above	-0.6369 ***	-0.3058 ***

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals Participating in SNAP for First Time		Individuals that have Participated in SNAP Previously	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	0.1005		-0.2032 ***	
Greater than \$25,000	-0.2061 **		0.0521	
Other Income				
Receive TANF	0.2323		0.1531	
Receive other means-tested cash benefits	-0.2865 **		0.1274	
Receive other means-tested noncash benefits	0.5954 ***		0.4200 ***	
Receive alimony or child support	-0.1085		-0.0343	
Health Status and Medical Costs				
In fair or poor health	0.1984 **		0.1405 **	
Out-of-pocket medical costs greater than \$1000	-0.2843 *		-0.2905 ***	
Entry Trigger Events				
Job loss within family	0.0987		0.4637 ***	
Decrease in income within family	0.3507 ***		0.2718 ***	
Separation or divorce within family	0.5613		-0.2245	
Increase in family size within family	0.4517 ***		0.1965 *	
Mean job loss within family				
Mean decrease in income within family				
Mean separation or divorce within family				
Mean increase in family size within family				
Mean job loss times job loss trigger				
Mean decrease in income times decrease in income trigger				
Mean separation or divorce times separation or divorce trigger				
Mean increase in family size time increase in family trigger				
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	-0.0185		-0.0285 **	
20th percentile wage	-0.0704		0.0955 *	
Region of Residence				
Northeast	-0.1376		-0.2596 *	
Mid-Atlantic	-0.1131		-0.1401	
Midwest	0.2783 *		0.0253	
Southeast	0.4234 ***		-0.0597	
Southwest	0.2437		0.1111	
Mountain Plains	0.4274 **		0.0219	

Table C.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Participant Characteristic

Individual Characteristics Variable	Individuals Participating in SNAP for First Time		Individuals that have Participated in SNAP Previously	
	Estimate	Sig	Estimate	Sig
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	-0.2120		0.5195 ***	
State exclude all or most vehicles	-0.2284		0.4258 **	
Certification Period				
State average certification period	0.0226		0.0179	
Program Outreach Expenditures				
Mean outreach expenditures per capita	0.2246		0.0855	
SNAP Spell Characteristics				
Nonparticipation Spell is first ever				
Nonparticipation Spell duration 1-4 months	1.7702 ***		1.4163 ***	
Nonparticipation Spell duration 5-8 months	1.3684 ***		0.9877 ***	
Nonparticipation Spell duration 9-12 months	1.1839 ***		0.4064 ***	
Nonparticipation Spell duration 13-16 months	0.9516 ***		0.2870 **	
Nonparticipation Spell Start year 2008	0.3454		0.4461 **	
Nonparticipation Spell Start year 2009	0.6928 ***		0.5331 ***	
Nonparticipation Spell Start year 2010	0.7117 ***		0.3200 ***	
Nonparticipation Spell Start year 2011	0.4472 ***		0.2544 ***	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Trigger Events But Not Instability Variables	Burstein Variables: Trigger Events And Burstein Variables
All Individuals	0.34	0.34
Sex		
Male	0.29 ***	0.31 ***
Female (referent group)	0.38	0.37
Race/Ethnicity		
White, Non-Hispanic	0.27 ***	0.29 ***
Black, Non-Hispanic	0.56 ***	0.47 ***
Other, Non-Hispanic	0.36	0.35
Hispanic (referent group)	0.37	0.35
Age		
18 to 29 (referent group)	0.40	0.39
30 to 49	0.41	0.39
50 to 64	0.27 ***	0.28 ***
65 and older	0.16 ***	0.19 ***
Citizenship		
Citizen	0.35 ***	0.35 ***
Noncitizen (referent group)	0.27	0.27
Education		
Highest Grade Completed		
0 to 8 (referent group)	0.49	0.41
9 to 11	0.58 ***	0.50 ***
12	0.43 ***	0.40
13 and above	0.24 ***	0.27 ***
Family Composition		
Mean number of adults age 18-59 (referent group)	0.33	0.33
One adult more than the mean number of adults age 18-59	0.36 ***	0.35 ***
Mean number of adults age 60+ (referent group)	0.35	0.34
One adult more than the mean number of adults age 60+	0.40 ***	0.38 ***
Mean number of children less than age 6 (referent group)	0.33	0.33
One child more than the mean number of children less than age 6	0.43 ***	0.42 ***
Mean number of children between ages 6 to 17 (referent group)	0.33	0.33
One child more than the mean number of children between ages 6 to 17	0.36 ***	0.37 ***
Marital Status		
Currently married	0.24 ***	0.26 ***
Not currently married (referent group)	0.44	0.41
Employment Status		
Currently employed	0.32 ***	0.34
Have not worked 1 to 5 months	1.02 ***	0.89 ***
Have not worked 6 to 11 months	0.34	0.35
Have not worked at least 12 months (referent group)	0.35	0.32
Ratio of Family Income to Poverty Level		
Less than 100 percent (referent group)	0.74	0.61
100 percent to less than 150 percent	0.62 ***	0.49 ***
150 percent to less than 200 percent	0.48 ***	0.42 ***
200 percent and above	0.18 ***	0.20 ***
Net Worth		
Greater than \$0	0.34	0.33
\$0 or negative (referent group)	0.34	0.35 ***
Greater than \$25,000	0.34	0.24
\$25,000 or less (referent group)	0.34	0.44

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Trigger Events But Not Instability Variables	Burstein Variables: Trigger Events And Burstein Variables
Other Income		
Receive TANF	0.94 ***	0.73 ***
No TANF (referent group)	0.33	0.33
Receive SSI or general assistance	0.34	0.29 ***
No SSI or general assistance (referent group)	0.34	0.34
Receive WIC, Medicaid or housing subsidies	0.34	0.70 ***
No WIC, Medicaid or housing subsidies (referent group)	0.34	0.26
Receive alimony or child support	0.34	0.45 ***
No receipt of alimony or child support (referent group)	0.34	0.33
Health Status and Medical Costs		
In fair or poor health	0.34	0.49 ***
Health good or better (referent group)	0.34	0.29
Out-of-pocket medical costs greater than \$1000	0.34	0.25 ***
Out-of-pocket medical costs \$1000 or less (referent group)	0.34	0.35
Entry Trigger Events		
Job loss within family	0.55 ***	0.52 ***
No job loss within family (referent group)	0.31	0.32
Decrease in income within family	0.37 ***	0.38 ***
No decrease in income within family (referent group)	0.31	0.31
Separation or divorce within family	0.46 **	0.45 *
No separation or divorce within family (referent group)	0.34	0.34
Increase in family size within family	0.62 ***	0.56 ***
No increase in family size within family (referent group)	0.32	0.32
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	0.34	0.34
One percentage point above the mean state unemployment rate	0.34 ***	0.34 ***
20th percentile wage (referent group)	0.34	0.34
One dollar more than the 20th percentile wage	0.31 **	0.31 ***
Region of Residence		
Northeast	0.37 ***	0.32 ***
Mid-Atlantic	0.31	0.33 ***
Midwest	0.33 **	0.35 ***
Southeast	0.34 **	0.37 ***
Southwest	0.41 ***	0.40 ***
Mountain Plains	0.36 ***	0.39 ***
Western (referent group)	0.29	0.26
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.33 *	0.33 *
State exclude all or most vehicles	0.36 ***	0.36 ***
State excludes one or fewer vehicles for SNAP unit (referent group)	0.28	0.29
Certification Period		
State average certification period (referent group)	0.34	0.34
State average certification period plus 1 month	0.34	0.34
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	0.34	0.34
One additional cent to mean outreach expenditures	0.33 ***	0.33 ***
Number of Spell-Month Observations	1,497,510	1,497,510

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in Single- Adult Families with Children	Individuals in Multiple- Adult Families with Children	Individuals in Families with Elderly Members
All Individuals	0.97	0.46	0.20
Sex			
Male	0.60 ***	0.42 ***	0.19 *
Female (referent group)	1.11	0.51	0.21
Race/Ethnicity			
White, Non-Hispanic	0.92	0.40 *	0.17 ***
Black, Non-Hispanic	1.08	0.73 ***	0.26
Other, Non-Hispanic	0.77	0.49	0.21
Hispanic (referent group)	1.00	0.44	0.25
Age			
18 to 29 (referent group)	1.17	0.52	0.20
30 to 49	0.94	0.45 ***	0.26 *
50 to 64	0.64 **	0.41 ***	0.20
65 and older	0.52	0.35 ***	0.18
Citizenship			
Citizen	1.00	0.48 ***	0.19 **
Noncitizen (referent group)	0.74	0.39	0.27
Education			
Highest Grade Completed			
0 to 8 (referent group)	1.16	0.57	0.25
9 to 11	1.31	0.68 **	0.24
12	0.99	0.58	0.21
13 and above	0.90	0.34 ***	0.16 ***
Family Composition			
Mean number of adults age 18-59 (referent group)	1.11	0.44	0.26
One adult more than the mean number of adults age 18-59	1.38	0.47 *	0.37 ***
Mean number of adults age 60+ (referent group)	0.97	0.48	0.17
One adult more than the mean number of adults age 60+	0.97 ***	0.56 ***	0.20 **
Mean number of children less than age 6 (referent group)	0.90	0.43	0.20
One child more than the mean number of children less than age 6	1.11 **	0.51 ***	0.20 ***
Mean number of children between ages 6 to 17 (referent group)	0.95	0.43	0.20
One child more than the mean number of children between ages 6 to 17	0.97	0.47 ***	0.20 ***
Marital Status			
Currently married	0.97	0.42 ***	0.16 ***
Not currently married (referent group)	0.97	0.55	0.23
Employment Status			
Currently employed	0.92	0.46	0.23 ***
Have not worked 1 to 5 months	1.67	1.21 ***	0.36 *
Have not worked 6 to 11 months	1.27	0.47	0.24
Have not worked at least 12 months (referent group)	1.01	0.44	0.18
Ratio of Family Income to Poverty Level			
Less than 100 percent (referent group)	1.31	0.88	0.35
100 percent to less than 150 percent	1.34	0.65 ***	0.32
150 percent to less than 200 percent	1.18	0.57 ***	0.25 ***
200 percent and above	0.40 ***	0.28 ***	0.13 ***
Net Worth			
Greater than \$0	0.98	0.48 **	0.19
\$0 or negative (referent group)	0.94	0.42	0.21
	***	***	***
Greater than \$25,000	0.64	0.35	0.14
\$25,000 or less (referent group)	1.14	0.59	0.32

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in Single- Adult Families with Children	Individuals in Multiple- Adult Families with Children	Individuals in Families with Elderly Members
Other Income			
Receive TANF	1.47	1.04 ***	0.41 **
No TANF (referent group)	0.95	0.45	0.20
Receive SSI or general assistance	1.36	0.31 ***	0.17
No SSI or general assistance (referent group)	0.95	0.49	0.20
Receive WIC, Medicaid or housing subsidies	1.88 ***	0.98 ***	0.35 ***
No WIC, Medicaid or housing subsidies (referent group)	0.74	0.35	0.15
Receive alimony or child support	0.97	0.59 ***	0.17
No receipt of alimony or child support (referent group)	0.96	0.45	0.20
Health Status and Medical Costs			
In fair or poor health	1.73 ***	0.70 ***	0.27 ***
Health good or better (referent group)	0.89	0.41	0.15
Out-of-pocket medical costs greater than \$1000	0.57 **	0.37 ***	0.13 ***
Out-of-pocket medical costs \$1000 or less (referent group)	1.01	0.48	0.21
Entry Trigger Events			
Job loss within family	2.31 ***	0.65 ***	0.28 ***
No job loss within family (referent group)	0.87	0.43	0.19
Decrease in income within family	1.04	0.51 ***	0.22 **
No decrease in income within family (referent group)	0.91	0.42	0.19
Separation or divorce within family	0.00	0.66 *	0.34 **
No separation or divorce within family (referent group)	0.97	0.46	0.20
Increase in family size within family	1.06	0.74 ***	0.43 ***
No increase in family size within family (referent group)	0.95	0.44	0.19
State and Regional Measures			
State Economic Measures			
Mean state unemployment rate (referent group)	0.97	0.46	0.20
One percentage point above the mean state unemployment rate	0.95	0.46	0.21 ***
20th percentile wage (referent group)	0.97	0.46	0.20
One dollar more than the 20th percentile wage	0.94	0.42 *	0.21
Region of Residence			
Northeast	0.95	0.33	0.29 ***
Mid-Atlantic	0.82	0.46 *	0.21 ***
Midwest	1.07	0.38	0.28 ***
Southeast	1.37 **	0.53 ***	0.20 ***
Southwest	0.79	0.61 ***	0.25 ***
Mountain Plains	0.78	0.64 ***	0.12
Western (referent group)	0.86	0.39	0.10
SNAP Policy Variables			
Vehicle Rules			
State offers broad-based categorical eligibility	0.93	0.47	0.19 **
State exclude all or most vehicles	1.09	0.46	0.23 ***
State excludes one or fewer vehicles for SNAP unit (referent group)	0.84	0.44	0.11
Certification Period			
State average certification period (referent group)	0.98	0.47	0.20
State average certification period plus 1 month	1.02 *	0.47	0.20
Program Outreach Expenditures			
Mean outreach expenditures per capita (referent group)	0.97	0.46	0.20
One additional cent to mean outreach expenditures	0.97	0.46	0.19 **
Number of Spell-Month Observations	39,715	438,202	522,830

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Nonelderly Nondisabled Childless Adults	Individuals in Families Containing Nonelderly Disabled Childless Adults
All Individuals	0.23	0.88
Sex		
Male	0.21 ***	0.87
Female (referent group)	0.26	0.89
Race/Ethnicity		
White, Non-Hispanic	0.21 ***	0.79 ***
Black, Non-Hispanic	0.30	0.83 ***
Other, Non-Hispanic	0.21	1.12
Hispanic (referent group)	0.28	1.41
Age		
18 to 29 (referent group)	0.22	1.13
30 to 49	0.27 **	1.10
50 to 64	0.19 *	0.59 ***
65 and older	0.22	1.13
Citizenship		
Citizen	0.24 **	0.89
Noncitizen (referent group)	0.17	0.67
Education		
Highest Grade Completed		
0 to 8 (referent group)	0.21	0.98
9 to 11	0.41 ***	1.18
12	0.30 *	0.81
13 and above	0.19	0.86
Family Composition		
Mean number of adults age 18-59 (referent group)	0.23	0.89
One adult more than the mean number of adults age 18-59	0.22	0.86
Mean number of adults age 60+ (referent group)	0.23	0.88
One adult more than the mean number of adults age 60+	0.23 ***	0.88 ***
Mean number of children less than age 6 (referent group)	0.23	0.88
One child more than the mean number of children less than age 6	0.23 ***	0.88 ***
Mean number of children between ages 6 to 17 (referent group)	0.23	0.88
One child more than the mean number of children between ages 6 to 17	0.23 ***	0.88 ***
Marital Status		
Currently married	0.12 ***	0.71 **
Not currently married (referent group)	0.28	0.94
Employment Status		
Currently employed	0.23	0.76
Have not worked 1 to 5 months	0.70 ***	2.69 ***
Have not worked 6 to 11 months	0.23	1.12
Have not worked at least 12 months (referent group)	0.23	0.89
Ratio of Family Income to Poverty Level		
Less than 100 percent (referent group)	0.39	1.33
100 percent to less than 150 percent	0.40	0.96 **
150 percent to less than 200 percent	0.24 ***	1.16
200 percent and above	0.16 ***	0.47 ***
Net Worth		
Greater than \$0	0.21 ***	0.79 **
\$0 or negative (referent group)	0.28	1.05
	***	***
Greater than \$25,000	0.15	0.58
\$25,000 or less (referent group)	0.30	1.05

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Nonelderly Nondisabled Childless Adults	Individuals in Families Containing Nonelderly Disabled Childless Adults
Other Income		
Receive TANF	0.89 ***	0.58
No TANF (referent group)	0.23	0.88
Receive SSI or general assistance	0.30	1.05 **
No SSI or general assistance (referent group)	0.23	0.79
Receive WIC, Medicaid or housing subsidies	0.64 ***	1.10 ***
No WIC, Medicaid or housing subsidies (referent group)	0.20	0.67
Receive alimony or child support	0.30	0.73
No receipt of alimony or child support (referent group)	0.23	0.88
Health Status and Medical Costs		
In fair or poor health	0.38 ***	0.83
Health good or better (referent group)	0.21	0.93
Out-of-pocket medical costs greater than \$1000	0.15 ***	0.58 ***
Out-of-pocket medical costs \$1000 or less (referent group)	0.24	0.93
Entry Trigger Events		
Job loss within family	0.37 ***	1.50 ***
No job loss within family (referent group)	0.22	0.82
Decrease in income within family	0.26 ***	1.08 ***
No decrease in income within family (referent group)	0.21	0.78
Separation or divorce within family	0.07 *	3.10 ***
No separation or divorce within family (referent group)	0.23	0.87
Increase in family size within family	0.45 ***	1.04
No increase in family size within family (referent group)	0.21	0.86
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	0.23	0.86
One percentage point above the mean state unemployment rate	0.24	0.94 ***
20th percentile wage (referent group)	0.23	0.84
One dollar more than the 20th percentile wage	0.20 *	0.59 ***
Region of Residence		
Northeast	0.20	0.88 **
Mid-Atlantic	0.19	0.97 ***
Midwest	0.24 **	1.51 ***
Southeast	0.24 *	0.93 ***
Southwest	0.33 ***	0.72
Mountain Plains	0.26 **	1.53 ***
Western (referent group)	0.19	0.49
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.23	0.84
State exclude all or most vehicles	0.24	0.98
State excludes one or fewer vehicles for SNAP unit (referent group)	0.20	0.80
Certification Period		
State average certification period (referent group)	0.23	0.88
State average certification period plus 1 month	0.23	0.93 **
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	0.23	0.86
One additional cent to mean outreach expenditures	0.23	0.85 *
Number of Spell-Month Observations	444,821	51,942

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Citizen Adults and Citizen Children	Individuals in Families Containing Noncitizen Adults and Citizen Children
All Individuals	0.48	0.96
Sex		
Male	0.42 ***	0.89
Female (referent group)	0.54	1.03
Race/Ethnicity		
White, Non-Hispanic	0.42	0.97
Black, Non-Hispanic	0.71 ***	0.79
Other, Non-Hispanic	0.49	1.39
Hispanic (referent group)	0.47	0.95
Age		
18 to 29 (referent group)	0.55	0.87
30 to 49	0.47 ***	1.01
50 to 64	0.42 ***	0.90
65 and older	0.35 ***	0.99
Citizenship		
Citizen	0.49	0.00
Noncitizen (referent group)	0.46	0.97
Education		
Highest Grade Completed		
0 to 8 (referent group)	0.54	1.07
9 to 11	0.71 ***	1.34
12	0.60	1.02
13 and above	0.38 ***	0.48 ***
Family Composition		
Mean number of adults age 18-59 (referent group)	0.47	1.07
One adult more than the mean number of adults age 18-59	0.49	0.93 *
Mean number of adults age 60+ (referent group)	0.50	0.84
One adult more than the mean number of adults age 60+	0.58 ***	0.59
Mean number of children less than age 6 (referent group)	0.45	0.87
One child more than the mean number of children less than age 6	0.54 ***	0.98
Mean number of children between ages 6 to 17 (referent group)	0.46	0.85
One child more than the mean number of children between ages 6 to 17	0.49 ***	0.97 *
Marital Status		
Currently married	0.40 ***	0.97
Not currently married (referent group)	0.60	0.94
Employment Status		
Currently employed	0.48	1.03
Have not worked 1 to 5 months	1.21 ***	1.00
Have not worked 6 to 11 months	0.51	0.77
Have not worked at least 12 months (referent group)	0.46	0.89
Ratio of Family Income to Poverty Level		
Less than 100 percent (referent group)	0.91	1.53
100 percent to less than 150 percent	0.72 ***	0.89 ***
150 percent to less than 200 percent	0.62 ***	0.70 ***
200 percent and above	0.28 ***	0.41 ***
Net Worth		
Greater than \$0	0.50	1.13 ***
\$0 or negative (referent group)	0.46	0.72
	***	***
Greater than \$25,000	0.37	0.38
\$25,000 or less (referent group)	0.61	1.19

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Citizen Adults and Citizen Children	Individuals in Families Containing Noncitizen Adults and Citizen Children
Other Income		
Receive TANF	0.95 ***	2.21 **
No TANF (referent group)	0.47	0.94
Receive SSI or general assistance	0.32 ***	2.32 **
No SSI or general assistance (referent group)	0.51	0.94
Receive WIC, Medicaid or housing subsidies	1.04 ***	1.81 ***
No WIC, Medicaid or housing subsidies (referent group)	0.36	0.76
Receive alimony or child support	0.61 ***	1.01
No receipt of alimony or child support (referent group)	0.47	0.96
Health Status and Medical Costs		
In fair or poor health	0.74 ***	1.41 **
Health good or better (referent group)	0.43	0.88
Out-of-pocket medical costs greater than \$1000	0.36 ***	1.21
Out-of-pocket medical costs \$1000 or less (referent group)	0.51	0.94
Entry Trigger Events		
Job loss within family	0.72 ***	1.30 *
No job loss within family (referent group)	0.45	0.91
Decrease in income within family	0.54 ***	0.93
No decrease in income within family (referent group)	0.43	0.99
Separation or divorce within family	0.72 **	0.58
No separation or divorce within family (referent group)	0.48	0.96
Increase in family size within family	0.78 ***	0.67
No increase in family size within family (referent group)	0.46	0.99
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	0.48	0.96
One percentage point above the mean state unemployment rate	0.48	0.97
20th percentile wage (referent group)	0.48	0.93
One dollar more than the 20th percentile wage	0.48	0.46 ***
Region of Residence		
Northeast	0.33 *	1.89 *
Mid-Atlantic	0.47	1.33
Midwest	0.43	0.73
Southeast	0.60 ***	0.72
Southwest	0.57 ***	1.26
Mountain Plains	0.59 ***	0.69
Western (referent group)	0.41	0.89
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.48	1.01
State exclude all or most vehicles	0.52	0.84
State excludes one or fewer vehicles for SNAP unit (referent group)	0.44	0.48
Certification Period		
State average certification period (referent group)	0.49	0.94
State average certification period plus 1 month	0.50 **	0.89
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	0.48	0.96
One additional cent to mean outreach expenditures	0.48	0.96
Number of Spell-Month Observations	443,642	22,627

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in Families		Individuals in Families	
	With Earnings		without Earnings	
All Individuals	0.31		0.42	
Sex				
Male	0.28	***	0.40	*
Female (referent group)	0.35		0.44	
Race/Ethnicity				
White, Non-Hispanic	0.27	***	0.37	***
Black, Non-Hispanic	0.44	***	0.56	**
Other, Non-Hispanic	0.33		0.41	
Hispanic (referent group)	0.33		0.46	
Age				
18 to 29 (referent group)	0.33		0.60	
30 to 49	0.34		0.54	
50 to 64	0.25	***	0.37	***
65 and older	0.25	**	0.26	***
Citizenship				
Citizen	0.32	***	0.43	***
Noncitizen (referent group)	0.26		0.33	
Education				
Highest Grade Completed				
0 to 8 (referent group)	0.35		0.59	
9 to 11	0.53	***	0.48	**
12	0.38		0.46	***
13 and above	0.25	***	0.35	***
Family Composition				
Mean number of adults age 18-59 (referent group)	0.31		0.48	
One adult more than the mean number of adults age 18-59	0.32	*	0.61	***
Mean number of adults age 60+ (referent group)	0.32		0.42	
One adult more than the mean number of adults age 60+	0.36	***	0.46	
Mean number of children less than age 6 (referent group)	0.30		0.43	
One child more than the mean number of children less than age 6	0.38	***	0.57	***
Mean number of children between ages 6 to 17 (referent group)	0.30		0.43	
One child more than the mean number of children between ages 6 to 17	0.34	***	0.49	***
Marital Status				
Currently married	0.24	***	0.35	***
Not currently married (referent group)	0.39		0.46	
Employment Status				
Currently employed	0.32		0.33	**
Have not worked 1 to 5 months	0.78	***	1.08	***
Have not worked 6 to 11 months	0.31		0.45	
Have not worked at least 12 months (referent group)	0.30		0.42	
Ratio of Family Income to Poverty Level				
Less than 100 percent (referent group)	0.60		0.53	
100 percent to less than 150 percent	0.51	***	0.47	
150 percent to less than 200 percent	0.44	***	0.37	***
200 percent and above	0.21	***	0.16	***
Net Worth				
Greater than \$0	0.31		0.41	*
\$0 or negative (referent group)	0.32		0.46	
	***		***	
Greater than \$25,000	0.22		0.29	
\$25,000 or less (referent group)	0.42		0.55	

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in Families With Earnings	Individuals in Families without Earnings
Other Income		
Receive TANF	0.65 ***	0.83 ***
No TANF (referent group)	0.31	0.41
Receive SSI or general assistance	0.26 **	0.39
No SSI or general assistance (referent group)	0.32	0.43
Receive WIC, Medicaid or housing subsidies	0.65 ***	0.81 ***
No WIC, Medicaid or housing subsidies (referent group)	0.25	0.29
Receive alimony or child support	0.42 ***	0.52 **
No receipt of alimony or child support (referent group)	0.31	0.42
Health Status and Medical Costs		
In fair or poor health	0.49 ***	0.52 ***
Health good or better (referent group)	0.27	0.38
Out-of-pocket medical costs greater than \$1000	0.25 ***	0.24 ***
Out-of-pocket medical costs \$1000 or less (referent group)	0.33	0.45
Entry Trigger Events		
Job loss within family	0.49 ***	0.60 ***
No job loss within family (referent group)	0.29	0.41
Decrease in income within family	0.35 ***	0.45 *
No decrease in income within family (referent group)	0.28	0.41
Separation or divorce within family	0.38	0.82 ***
No separation or divorce within family (referent group)	0.31	0.42
Increase in family size within family	0.56 ***	0.51 **
No increase in family size within family (referent group)	0.29	0.42
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	0.31	0.42
One percentage point above the mean state unemployment rate	0.32 **	0.43 **
20th percentile wage (referent group)	0.31	0.42
One dollar more than the 20th percentile wage	0.28 **	0.40
Region of Residence		
Northeast	0.25	0.56 ***
Mid-Atlantic	0.28	0.51 ***
Midwest	0.32 ***	0.44 ***
Southeast	0.35 ***	0.42 ***
Southwest	0.37 ***	0.55 ***
Mountain Plains	0.37 ***	0.43 ***
Western (referent group)	0.27	0.26
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.31 *	0.42
State exclude all or most vehicles	0.34 ***	0.45
State excludes one or fewer vehicles for SNAP unit (referent group)	0.26	0.41
Certification Period		
State average certification period (referent group)	0.32	0.42
State average certification period plus 1 month	0.32	0.43
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	0.31	0.42
One additional cent to mean outreach expenditures	0.31	0.41 ***
Number of Spell-Month Observations	1,116,653	380,857

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in Families with Social Security or SSI	Individuals in Families without Social Security or SSI
All Individuals	0.42	0.31
Sex		
Male	0.40 **	0.27 ***
Female (referent group)	0.43	0.34
Race/Ethnicity		
White, Non-Hispanic	0.35 *	0.27 ***
Black, Non-Hispanic	0.57 ***	0.42 ***
Other, Non-Hispanic	0.51 **	0.29 *
Hispanic (referent group)	0.41	0.33
Age		
18 to 29 (referent group)	0.60	0.32
30 to 49	0.61	0.32
50 to 64	0.35 ***	0.26 ***
65 and older	0.26 ***	0.15 ***
Citizenship		
Citizen	0.42 ***	0.32 ***
Noncitizen (referent group)	0.30	0.26
Education		
Highest Grade Completed		
0 to 8 (referent group)	0.56	0.36
9 to 11	0.49	0.52 ***
12	0.43 ***	0.38
13 and above	0.35 ***	0.24 ***
Family Composition		
Mean number of adults age 18-59 (referent group)	0.42	0.31
One adult more than the mean number of adults age 18-59	0.48 ***	0.31
Mean number of adults age 60+ (referent group)	0.41	0.29
One adult more than the mean number of adults age 60+	0.42	0.25 **
Mean number of children less than age 6 (referent group)	0.42	0.29
One child more than the mean number of children less than age 6	0.43	0.39 ***
Mean number of children between ages 6 to 17 (referent group)	0.41	0.30
One child more than the mean number of children between ages 6 to 17	0.47 ***	0.33 ***
Marital Status		
Currently married	0.35 ***	0.24 ***
Not currently married (referent group)	0.46	0.38
Employment Status		
Currently employed	0.43 *	0.30
Have not worked 1 to 5 months	0.92 ***	0.84 ***
Have not worked 6 to 11 months	0.52 ***	0.31
Have not worked at least 12 months (referent group)	0.40	0.29
Ratio of Family Income to Poverty Level		
Less than 100 percent (referent group)	0.74	0.56
100 percent to less than 150 percent	0.53 ***	0.48 ***
150 percent to less than 200 percent	0.48 ***	0.39 ***
200 percent and above	0.27 ***	0.18 ***
Net Worth		
Greater than \$0	0.42	0.30
\$0 or negative (referent group)	0.41	0.32
	***	***
Greater than \$25,000	0.31	0.21
\$25,000 or less (referent group)	0.55	0.40

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in Families with Social Security or SSI	Individuals in Families without Social Security or SSI
Other Income		
Receive TANF	0.89 ***	0.65 ***
No TANF (referent group)	0.41	0.30
Receive SSI or general assistance	0.43	0.15 ***
No SSI or general assistance (referent group)	0.41	0.31
Receive WIC, Medicaid or housing subsidies	0.61 ***	0.74 ***
No WIC, Medicaid or housing subsidies (referent group)	0.31	0.25
Receive alimony or child support	0.44	0.43 ***
No receipt of alimony or child support (referent group)	0.42	0.30
Health Status and Medical Costs		
In fair or poor health	0.49 ***	0.51 ***
Health good or better (referent group)	0.37	0.27
Out-of-pocket medical costs greater than \$1000	0.28 ***	0.23 ***
Out-of-pocket medical costs \$1000 or less (referent group)	0.44	0.32
Entry Trigger Events		
Job loss within family	0.57 ***	0.49 ***
No job loss within family (referent group)	0.40	0.28
Decrease in income within family	0.44 *	0.35 ***
No decrease in income within family (referent group)	0.40	0.27
Separation or divorce within family	0.63 **	0.36
No separation or divorce within family (referent group)	0.42	0.31
Increase in family size within family	0.71 ***	0.49 ***
No increase in family size within family (referent group)	0.40	0.29
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	0.42	0.31
One percentage point above the mean state unemployment rate	0.43 ***	0.31
20th percentile wage (referent group)	0.42	0.30
One dollar more than the 20th percentile wage	0.43	0.26 ***
Region of Residence		
Northeast	0.56 ***	0.23
Mid-Atlantic	0.52 ***	0.26
Midwest	0.49 ***	0.31 **
Southeast	0.41 ***	0.35 ***
Southwest	0.48 ***	0.36 ***
Mountain Plains	0.38 ***	0.39 ***
Western (referent group)	0.27	0.27
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.41 **	0.30
State exclude all or most vehicles	0.44 ***	0.32 *
State excludes one or fewer vehicles for SNAP unit (referent group)	0.29	0.27
Certification Period		
State average certification period (referent group)	0.42	0.31
State average certification period plus 1 month	0.41	0.32 ***
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	0.41	0.31
One additional cent to mean outreach expenditures	0.41 ***	0.30 *
Number of Spell-Month Observations	506,689	990,821

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in Families with TANF Income	Individuals in Families without TANF Income
All Individuals	2.86	0.33
Sex		
Male	2.81	0.30 ***
Female (referent group)	2.89	0.36
Race/Ethnicity		
White, Non-Hispanic	3.58 *	0.28 ***
Black, Non-Hispanic	2.54	0.46 ***
Other, Non-Hispanic	4.91 **	0.33
Hispanic (referent group)	1.91	0.35
Age		
18 to 29 (referent group)	2.69	0.38
30 to 49	3.32	0.38
50 to 64	2.29	0.27 ***
65 and older	3.49	0.18 ***
Citizenship		
Citizen	2.98	0.34 ***
Noncitizen (referent group)	1.97	0.26
Education		
Highest Grade Completed		
0 to 8 (referent group)	2.99	0.40
9 to 11	2.37	0.51 ***
12	3.43	0.38
13 and above	2.66	0.26 ***
Family Composition		
Mean number of adults age 18-59 (referent group)	2.80	0.32
One adult more than the mean number of adults age 18-59	2.90	0.34 ***
Mean number of adults age 60+ (referent group)	2.88	0.33
One adult more than the mean number of adults age 60+	3.67	0.37 ***
Mean number of children less than age 6 (referent group)	2.56	0.32
One child more than the mean number of children less than age 6	3.52 **	0.40 ***
Mean number of children between ages 6 to 17 (referent group)	2.62	0.32
One child more than the mean number of children between ages 6 to 17	2.93	0.36 ***
Marital Status		
Currently married	2.91	0.25 ***
Not currently married (referent group)	2.83	0.40
Employment Status		
Currently employed	2.63	0.33
Have not worked 1 to 5 months	7.61	0.94 ***
Have not worked 6 to 11 months	1.66 *	0.35 *
Have not worked at least 12 months (referent group)	3.37	0.31
Ratio of Family Income to Poverty Level		
Less than 100 percent (referent group)	4.50	0.59
100 percent to less than 150 percent	2.86	0.48 ***
150 percent to less than 200 percent	2.95	0.41 ***
200 percent and above	2.11 **	0.20 ***
Net Worth		
Greater than \$0	2.50 *	0.33
\$0 or negative (referent group)	4.00	0.33

Greater than \$25,000	2.98	0.23
\$25,000 or less (referent group)	2.78	0.43

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in Families with TANF Income		Individuals in Families without TANF Income	
Other Income				
Receive TANF				***
No TANF (referent group)				
Receive SSI or general assistance	1.65	**	0.28	***
No SSI or general assistance (referent group)	3.27		0.33	
Receive WIC, Medicaid or housing subsidies	3.32		0.69	***
No WIC, Medicaid or housing subsidies (referent group)	2.43		0.25	
Receive alimony or child support	5.42	**	0.43	***
No receipt of alimony or child support (referent group)	2.64		0.32	
Health Status and Medical Costs				
In fair or poor health	4.22	***	0.48	***
Health good or better (referent group)	2.21		0.29	
Out-of-pocket medical costs greater than \$1000	3.47		0.24	***
Out-of-pocket medical costs \$1000 or less (referent group)	2.79		0.34	
Entry Trigger Events				
Job loss within family	4.57	**	0.51	***
No job loss within family (referent group)	2.68		0.31	
Decrease in income within family	2.37	*	0.37	***
No decrease in income within family (referent group)	3.32		0.30	
Separation or divorce within family	5.20		0.43	*
No separation or divorce within family (referent group)	2.84		0.33	
Increase in family size within family	7.31	***	0.54	***
No increase in family size within family (referent group)	2.53		0.31	
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate (referent group)	2.83		0.33	
One percentage point above the mean state unemployment rate	2.99		0.33	**
20th percentile wage (referent group)	3.10		0.33	
One dollar more than the 20th percentile wage	1.90	***	0.30	**
Region of Residence				
Northeast	4.95		0.30	**
Mid-Atlantic	2.96		0.32	***
Midwest	1.80	*	0.35	***
Southeast	1.75	*	0.36	***
Southwest	1.07	*	0.39	***
Mountain Plains	5.15		0.37	***
Western (referent group)	3.51		0.25	
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	2.93		0.32	**
State exclude all or most vehicles	2.95		0.35	***
State excludes one or fewer vehicles for SNAP unit (referent group)	0.00		0.28	
Certification Period				
State average certification period (referent group)	2.83		0.33	
State average certification period plus 1 month	2.90		0.33	*
Program Outreach Expenditures				
Mean outreach expenditures per capita (referent group)	2.85		0.33	
One additional cent to mean outreach expenditures	2.85		0.33	**
Number of Spell-Month Observations				
	5,012		1,492,498	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in States with Certification Periods Longer than the Average Certification Period	Individuals in States with Certification Periods at or Below the Average Certification Period
All Individuals	0.34	0.34
Sex		
Male	0.31 ***	0.30 ***
Female (referent group)	0.36	0.37
Race/Ethnicity		
White, Non-Hispanic	0.29 ***	0.29 ***
Black, Non-Hispanic	0.46 *	0.47 ***
Other, Non-Hispanic	0.37	0.32
Hispanic (referent group)	0.40	0.36
Age		
18 to 29 (referent group)	0.41	0.37
30 to 49	0.37	0.40
50 to 64	0.27 ***	0.28 ***
65 and older	0.22 ***	0.18 ***
Citizenship		
Citizen	0.34 *	0.35 ***
Noncitizen (referent group)	0.29	0.27
Education		
Highest Grade Completed		
0 to 8 (referent group)	0.41	0.43
9 to 11	0.47	0.51 **
12	0.38	0.41
13 and above	0.28 ***	0.26 ***
Family Composition		
Mean number of adults age 18-59 (referent group)	0.33	0.33
One adult more than the mean number of adults age 18-59	0.36 ***	0.36 ***
Mean number of adults age 60+ (referent group)	0.34	0.35
One adult more than the mean number of adults age 60+	0.37 *	0.40 ***
Mean number of children less than age 6 (referent group)	0.33	0.33
One child more than the mean number of children less than age 6	0.44 ***	0.40 ***
Mean number of children between ages 6 to 17 (referent group)	0.33	0.33
One child more than the mean number of children between ages 6 to 17	0.35 ***	0.37 ***
Marital Status		
Currently married	0.28 ***	0.25 ***
Not currently married (referent group)	0.38	0.42
Employment Status		
Currently employed	0.34	0.34
Have not worked 1 to 5 months	0.79 ***	0.95 ***
Have not worked 6 to 11 months	0.33	0.37 **
Have not worked at least 12 months (referent group)	0.33	0.32
Ratio of Family Income to Poverty Level		
Less than 100 percent (referent group)	0.71	0.56
100 percent to less than 150 percent	0.51 ***	0.48 ***
150 percent to less than 200 percent	0.46 ***	0.40 ***
200 percent and above	0.18 ***	0.22 ***
Net Worth		
Greater than \$0	0.33	0.34
\$0 or negative (referent group)	0.36	0.34
	***	***
Greater than \$25,000	0.24	0.24
\$25,000 or less (referent group)	0.45	0.44

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in States with Certification Periods Longer than the Average Certification Period	Individuals in States with Certification Periods at or Below the Average Certification Period
Other Income		
Receive TANF	0.75 ***	0.76 ***
No TANF (referent group)	0.33	0.33
Receive SSI or general assistance	0.32	0.29 **
No SSI or general assistance (referent group)	0.34	0.34
Receive WIC, Medicaid or housing subsidies	0.72 ***	0.69 ***
No WIC, Medicaid or housing subsidies (referent group)	0.25	0.27
Receive alimony or child support	0.48 ***	0.43 ***
No receipt of alimony or child support (referent group)	0.33	0.33
Health Status and Medical Costs		
In fair or poor health	0.52 ***	0.48 ***
Health good or better (referent group)	0.29	0.30
Out-of-pocket medical costs greater than \$1000	0.22 ***	0.27 ***
Out-of-pocket medical costs \$1000 or less (referent group)	0.36	0.35
Entry Trigger Events		
Job loss within family	0.54 ***	0.51 ***
No job loss within family (referent group)	0.32	0.32
Decrease in income within family	0.37 ***	0.38 ***
No decrease in income within family (referent group)	0.31	0.31
Separation or divorce within family	0.41	0.46 *
No separation or divorce within family (referent group)	0.34	0.34
Increase in family size within family	0.55 ***	0.56 ***
No increase in family size within family (referent group)	0.32	0.32
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	0.35	0.34
One percentage point above the mean state unemployment rate	0.36 ***	0.34
20th percentile wage (referent group)	0.34	0.33
One dollar more than the 20th percentile wage	0.31 **	0.30 ***
Region of Residence		
Northeast	0.25 ***	0.43 ***
Mid-Atlantic	0.32 ***	0.26
Midwest	0.40 ***	0.35 ***
Southeast	0.29 ***	0.34 ***
Southwest	0.38 ***	0.48 ***
Mountain Plains	0.43 ***	0.33
Western (referent group)	0.83	0.29
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.33	0.33
State exclude all or most vehicles	0.36	0.37 **
State excludes one or fewer vehicles for SNAP unit (referent group)	0.31	0.30
Certification Period		
State average certification period (referent group)		
State average certification period plus 1 month	***	***
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	0.34	0.33
One additional cent to mean outreach expenditures	0.33 ***	0.33 ***
Number of Spell-Month Observations	566,517	930,993

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in States Offering Broad-Based Categorical Eligibility	Individuals in States that Exclude All or Most Vehicles	Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit
All Individuals	0.33	0.38	0.29
Sex			
Male	0.29 ***	0.34 ***	0.29
Female (referent group)	0.36	0.41	0.30
Race/Ethnicity			
White, Non-Hispanic	0.29 ***	0.31 ***	0.22 **
Black, Non-Hispanic	0.46 ***	0.51	0.40
Other, Non-Hispanic	0.30	0.47	0.70
Hispanic (referent group)	0.34	0.46	0.43
Age			
18 to 29 (referent group)	0.37	0.49	0.31
30 to 49	0.38	0.45	0.33
50 to 64	0.27 ***	0.30 ***	0.31
65 and older	0.21 ***	0.16 ***	0.12 *
Citizenship			
Citizen	0.33 **	0.40 ***	0.32 **
Noncitizen (referent group)	0.29	0.23	0.17
Education			
Highest Grade Completed			
0 to 8 (referent group)	0.40	0.45	0.23
9 to 11	0.47 **	0.59 **	0.31
12	0.39	0.44	0.37
13 and above	0.26 ***	0.29 ***	0.26
Family Composition			
Mean number of adults age 18-59 (referent group)	0.32	0.37	0.28
One adult more than the mean number of adults age 18-59	0.34 ***	0.39 *	0.32 *
Mean number of adults age 60+ (referent group)	0.33	0.39	0.30
One adult more than the mean number of adults age 60+	0.37 ***	0.46 ***	0.33
Mean number of children less than age 6 (referent group)	0.32	0.37	0.28
One child more than the mean number of children less than age 6	0.40 ***	0.49 ***	0.42 ***
Mean number of children between ages 6 to 17 (referent group)	0.32	0.37	0.28
One child more than the mean number of children between ages 6 to 17	0.35 ***	0.43 ***	0.34 **
Marital Status			
Currently married	0.26 ***	0.29 ***	0.18 ***
Not currently married (referent group)	0.39	0.46	0.41
Employment Status			
Currently employed	0.33	0.38	0.29
Have not worked 1 to 5 months	0.83 ***	1.12 ***	0.63
Have not worked 6 to 11 months	0.35 *	0.41	0.09 **
Have not worked at least 12 months (referent group)	0.31	0.36	0.35
Ratio of Family Income to Poverty Level			
Less than 100 percent (referent group)	0.57	0.71	0.79
100 percent to less than 150 percent	0.46 ***	0.61 **	0.50 *
150 percent to less than 200 percent	0.42 ***	0.46 ***	0.25 ***
200 percent and above	0.20 ***	0.21 ***	0.16 ***
Net Worth			
Greater than \$0	0.32 **	0.40 ***	0.26
\$0 or negative (referent group)	0.35	0.33	0.36
Greater than \$25,000	0.23	0.28	0.18
\$25,000 or less (referent group)	0.43	0.49	0.41

Table D.1 Regression-Adjusted Rates of Entering SNAP, by Participant Characteristic

Individual Characteristics	Individuals in States Offering Broad-Based Categorical Eligibility	Individuals in States that Exclude All or Most Vehicles	Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit
Other Income			
Receive TANF	0.71 ***	0.89 ***	0.00
No TANF (referent group)	0.32	0.37	0.29
Receive SSI or general assistance	0.30 *	0.26 ***	0.57 **
No SSI or general assistance (referent group)	0.33	0.40	0.28
Receive WIC, Medicaid or housing subsidies	0.68 ***	0.81 ***	0.43 **
No WIC, Medicaid or housing subsidies (referent group)	0.25	0.30	0.27
Receive alimony or child support	0.45 ***	0.44	0.22
No receipt of alimony or child support (referent group)	0.32	0.38	0.30
Health Status and Medical Costs			
In fair or poor health	0.45 ***	0.63 ***	0.47 ***
Health good or better (referent group)	0.29	0.31	0.26
Out-of-pocket medical costs greater than \$1000	0.24 ***	0.29 ***	0.23
Out-of-pocket medical costs \$1000 or less (referent group)	0.34	0.40	0.31
Entry Trigger Events			
Job loss within family	0.48 ***	0.68 ***	0.36
No job loss within family (referent group)	0.31	0.34	0.28
Decrease in income within family	0.37 ***	0.40 *	0.37 ***
No decrease in income within family (referent group)	0.30	0.36	0.23
Separation or divorce within family	0.39	0.63 *	0.81 **
No separation or divorce within family (referent group)	0.33	0.38	0.29
Increase in family size within family	0.52 ***	0.68 ***	0.73 ***
No increase in family size within family (referent group)	0.31	0.35	0.26
State and Regional Measures			
State Economic Measures			
Mean state unemployment rate (referent group)	0.33	0.38	0.32
One percentage point above the mean state unemployment rate	0.33	0.38	0.35 **
20th percentile wage (referent group)	0.33	0.38	0.29
One dollar more than the 20th percentile wage	0.29 ***	0.36	0.26
Region of Residence			
Northeast	0.32 *	0.18	0.00 ***
Mid-Atlantic	0.37 ***	0.23	0.00
Midwest	0.35 ***	0.44 ***	0.16
Southeast	0.31	0.52 ***	0.00
Southwest	0.38 ***	0.49 ***	0.63
Mountain Plains	0.30	0.41 ***	0.91
Western (referent group)	0.28	0.20	0.00
SNAP Policy Variables			
Vehicle Rules			
State offers broad-based categorical eligibility			
State exclude all or most vehicles			
State excludes one or fewer vehicles for SNAP unit (referent group)			
Certification Period			
State average certification period (referent group)	0.33	0.39	0.30
State average certification period plus 1 month	0.33	0.41 **	0.31
Program Outreach Expenditures			
Mean outreach expenditures per capita (referent group)	0.33	0.39	1.19
One additional cent to mean outreach expenditures	0.33 ***	0.39	1.37 ***
Number of Spell-Month Observations	1,051,850	388,102	57,558

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Trigger Events But Not Instability Variables				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	10	28.7	45.1	55.3	
Sex					
Male	9	30.8	48.1	58.6	***
Female (referent group)	11	26.9	42.8	52.8	
Race/Ethnicity					
White, Non-Hispanic	11	28.4	44.8	54.9	
Black, Non-Hispanic	10	28.8	45.4	55.6	
Other, Non-Hispanic	11	27.1	43.0	53.0	
Hispanic (referent group)	10	29.5	46.2	56.5	
Age					
18 to 29 (referent group)	10	29.6	46.4	56.7	
30 to 49	10	28.7	45.2	55.4	
50 to 64	11	27.1	43.0	53.0	*
65 and older	11	28.1	44.3	54.4	
Citizenship					
Citizen	10	29.0	45.6	55.9	**
Noncitizen (referent group)	12	25.9	41.3	51.1	
Education					
Highest Grade Completed					
0 to 8 (referent group)	11	27.8	44.0	54.1	
9 to 11	11	28.0	44.3	54.4	
12	12	26.5	42.2	52.1	
13 and above	9	31.1	48.5	59.0	*
Family Composition					
Mean number of adults age 18-59 (referent group)	11	27.9	44.3	54.5	
One adult more than the mean number of adults age 18-59	9	31.1	48.6	59.2	***
Mean number of adults age 60+ (referent group)	10	28.5	45.0	55.2	
One adult more than the mean number of adults age 60+	8	32.4	50.3	61.0	***
Mean number of children less than age 6 (referent group)	10	28.6	45.1	55.3	
One child more than the mean number of children less than age 6	11	26.9	42.8	52.7	***
Mean number of children between ages 6 to 17 (referent group)	10	28.6	45.2	55.4	
One child more than the mean number of children between ages 6 to 17	11	27.1	43.0	53.0	***
Marital Status					
Currently married	11	27.7	43.8	53.8	
Not currently married (referent group)	10	29.2	45.9	56.2	
Employment Status					
Currently employed	9	30.4	47.6	58.0	***
Have not worked 1 to 5 months	10	28.7	45.2	55.4	
Have not worked 6 to 11 months	11	27.8	43.9	54.0	
Have not worked at least 12 months (referent group)	12	26.4	42.0	51.9	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	13	24.7	39.8	49.6	
100 percent to less than 150 percent	12	26.3	42.1	52.1	
150 percent to less than 200 percent	8	32.1	50.1	60.8	***
200 percent and above	8	33.6	52.0	62.9	***
Net Worth					
Greater than \$0	10	28.7	45.1	55.3	
\$0 or negative (referent group)	10	28.7	45.1	55.3	
Greater than \$25,000	10	28.7	45.1	55.3	
\$25,000 or less (referent group)	10	28.7	45.1	55.3	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Trigger Events But Not Instability Variables				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	8	34.2	52.5	63.2	**
No TANF (referent group)	10	28.4	44.8	55.0	
Receive SSI or general assistance	10	28.7	45.1	55.3	
No SSI or general assistance (referent group)	10	28.7	45.1	55.3	
Receive WIC, Medicaid or housing subsidies	10	28.7	45.1	55.3	
No WIC, Medicaid or housing subsidies (referent group)	10	28.7	45.1	55.3	
Receive alimony or child support	10	28.7	45.1	55.3	
No receipt of alimony or child support (referent group)	10	28.7	45.1	55.3	
Benefit History					
Spell is first ever	8	32.6	50.4	61.1	***
Spell is not first ever (referent group)	11	26.8	42.6	52.6	
Health Status and Medical Costs					
In fair or poor health	10	28.7	45.1	55.3	
Health good or better (referent group)	10	28.7	45.1	55.3	
Out-of-pocket medical costs greater than \$1000	10	28.7	45.1	55.3	
Out-of-pocket medical costs \$1000 or less (referent group)	10	28.7	45.1	55.3	
Exit Trigger Events					
Job gain within family	8	35.7	53.8	64.4	***
No job gain within family (referent group)	11	28.1	43.8	53.7	
Income increase within family	8	36.2	53.2	63.3	***
No income increase within family (referent group)	12	27.0	41.1	50.3	
New marriage within family	13	24.8	39.8	49.3	
No new marriage within family (referent group)	10	28.7	45.2	55.4	
Decrease in family size	9	31.5	48.4	58.8	***
No decrease in family size (referent group)	11	28.1	43.9	53.8	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	10	28.6	45.1	55.3	
One percentage point above the mean state unemployment rate	10	28.9	45.5	55.7	
20th percentile wage (referent group)	10	28.7	45.2	55.4	
One dollar more than the 20th percentile wage	10	29.4	46.1	56.4	
Region of Residence					
Northeast	12	25.9	41.3	51.1	
Mid-Atlantic	10	29.9	46.8	57.2	*
Midwest	11	27.1	43.0	53.1	
Southeast	12	25.7	41.0	50.8	
Southwest	8	35.1	53.6	64.4	***
Mountain Plains	8	34.0	52.3	63.0	***
Western (referent group)	11	26.9	42.7	52.7	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	10	28.8	45.3	55.5	
State exclude all or most vehicles	10	28.8	45.3	55.5	
State excludes one or fewer vehicles for SNAP unit (referent group)	13	24.7	39.6	49.1	
Certification Period					
State average certification period (referent group)	11	28.3	44.7	54.8	
State average certification period plus 1 month	11	27.5	43.5	53.6	***
Number of Spell-Month Observations	74,208				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Burststein Variables: Trigger Events and Burststein Variables				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	10	28.7	45.1	55.3	
Sex					
Male	9	30.2	47.3	57.7	***
Female (referent group)	11	27.3	43.4	53.4	
Race/Ethnicity					
White, Non-Hispanic	11	28.1	44.4	54.5	
Black, Non-Hispanic	10	29.0	45.6	55.9	
Other, Non-Hispanic	11	28.3	44.6	54.8	
Hispanic (referent group)	10	29.4	46.2	56.5	
Age					
18 to 29 (referent group)	10	29.8	46.7	57.0	
30 to 49	10	28.5	44.9	55.0	
50 to 64	11	27.2	43.2	53.1	*
65 and older	11	27.9	44.1	54.2	
Citizenship					
Citizen	10	29.2	45.9	56.1	***
Noncitizen (referent group)	13	24.8	39.7	49.3	
Education					
Highest Grade Completed					
0 to 8 (referent group)	10	28.9	45.5	55.8	
9 to 11	11	28.2	44.5	54.7	
12	12	26.6	42.4	52.3	
13 and above	9	30.6	47.8	58.2	
Family Composition					
Mean number of adults age 18-59 (referent group)	11	28.0	44.3	54.5	
One adult more than the mean number of adults age 18-59	9	31.0	48.4	59.0	***
Mean number of adults age 60+ (referent group)	10	28.5	45.0	55.2	
One adult more than the mean number of adults age 60+	8	32.2	50.0	60.6	***
Mean number of children less than age 6 (referent group)	10	28.6	45.1	55.3	
One child more than the mean number of children less than age 6	11	26.8	42.6	52.6	***
Mean number of children between ages 6 to 17 (referent group)	10	28.6	45.1	55.3	
One child more than the mean number of children between ages 6 to 17	11	26.9	42.8	52.8	***
Marital Status					
Currently married	11	27.0	42.8	52.8	***
Not currently married (referent group)	10	29.6	46.4	56.8	
Employment Status					
Currently employed	10	29.2	45.9	56.2	
Have not worked 1 to 5 months	10	28.4	44.9	55.0	
Have not worked 6 to 11 months	11	27.8	44.0	54.1	
Have not worked at least 12 months (referent group)	11	28.0	44.2	54.3	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	13	24.8	40.0	49.8	
100 percent to less than 150 percent	12	26.5	42.4	52.5	
150 percent to less than 200 percent	8	32.1	50.1	60.8	***
200 percent and above	8	33.1	51.3	62.1	***
Net Worth					
Greater than \$0	11	28.1	44.4	54.5	
\$0 or negative (referent group)	10	29.7	46.6	56.9	
Greater than \$25,000	10	29.2	45.9	56.2	
\$25,000 or less (referent group)	11	28.3	44.7	54.9	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Burstein Variables: Trigger Events and Burstein Variables				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	8	34.4	52.8	63.5	***
No TANF (referent group)	10	28.4	44.8	55.0	
Receive SSI or general assistance	13	24.6	39.5	49.1	***
No SSI or general assistance (referent group)	10	28.9	45.6	55.8	
Receive WIC, Medicaid or housing subsidies	15	22.5	36.6	45.9	***
No WIC, Medicaid or housing subsidies (referent group)	9	32.1	49.9	60.7	
Receive alimony or child support	11	28.2	44.5	54.6	
No receipt of alimony or child support (referent group)	10	28.7	45.2	55.4	
Benefit History					
Spell is first ever	9	31.8	49.5	60.1	***
Spell is not first ever (referent group)	11	27.1	43.0	53.0	
Health Status and Medical Costs					
In fair or poor health	12	26.1	41.7	51.5	***
Health good or better (referent group)	10	29.3	46.0	56.3	
Out-of-pocket medical costs greater than \$1000	9	30.6	47.7	58.1	
Out-of-pocket medical costs \$1000 or less (referent group)	10	28.5	44.9	55.1	
Exit Trigger Events					
Job gain within family	8	34.9	52.9	63.4	***
No job gain within family (referent group)	11	28.2	43.9	53.8	
Income increase within family	8	36.5	53.5	63.6	***
No income increase within family (referent group)	12	26.9	41.0	50.1	
New marriage within family	13	25.0	40.0	49.6	
No new marriage within family (referent group)	10	28.7	45.2	55.4	
Decrease in family size	9	31.6	48.5	58.8	***
No decrease in family size (referent group)	11	28.1	43.8	53.7	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	10	28.6	45.1	55.2	
One percentage point above the mean state unemployment rate	10	28.9	45.5	55.7	
20th percentile wage (referent group)	10	28.7	45.2	55.4	
One dollar more than the 20th percentile wage	10	29.5	46.2	56.5	
Region of Residence					
Northeast	11	28.0	44.3	54.4	
Mid-Atlantic	9	30.3	47.3	57.8	
Midwest	11	27.2	43.1	53.2	
Southeast	13	25.0	40.0	49.7	*
Southwest	8	33.9	52.1	62.8	***
Mountain Plains	8	33.6	51.7	62.5	***
Western (referent group)	11	27.7	43.8	53.9	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	10	28.8	45.3	55.5	
State exclude all or most vehicles	10	28.8	45.4	55.6	
State excludes one or fewer vehicles for SNAP unit (referent group)	13	24.3	39.1	48.5	
Certification Period					
State average certification period (referent group)	11	28.3	44.7	54.8	
State average certification period plus 1 month	11	27.5	43.5	53.6	***
Number of Spell-Month Observations		74,208			

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Single-Adult Families with Children				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	14	16.5	36.4	47.6	
Sex					
Male	9	22.3	47.3	60.0	**
Female (referent group)	16	15.2	34.4	45.2	
Race/Ethnicity					
White, Non-Hispanic	15	16.2	35.9	47.1	
Black, Non-Hispanic	17	15.0	33.7	44.4	
Other, Non-Hispanic	22	13.3	30.2	40.2	
Hispanic (referent group)	11	19.9	42.8	55.0	
Age					
18 to 29 (referent group)	13	17.0	37.5	49.0	
30 to 49	13	16.9	37.3	48.7	
50 to 64	18	14.3	32.4	42.9	
65 and older	> 51	4.1	10.0	14.0	
Citizenship					
Citizen	12	17.4	38.4	50.1	**
Noncitizen (referent group)	44	8.5	20.4	27.8	
Education					
Highest Grade Completed					
0 to 8 (referent group)	10	21.9	46.1	58.7	
9 to 11	14	16.4	36.4	47.5	
12	19	14.3	32.3	42.6	
13 and above	13	17.1	37.5	48.9	
Family Composition					
Mean number of adults age 18-59 (referent group)	48	8.0	19.1	26.0	
One adult more than the mean number of adults age 18-59	> 51	3.3	8.1	11.4	
Mean number of adults age 60+ (referent group)	14	16.5	36.4	47.6	
One adult more than the mean number of adults age 60+	14	16.5	36.4	47.6	
Mean number of children less than age 6 (referent group)	14	16.5	36.4	47.6	
One child more than the mean number of children less than age 6	14	16.4	36.2	47.3	
Mean number of children between ages 6 to 17 (referent group)	14	16.5	36.5	47.7	
One child more than the mean number of children between ages 6 to 17	14	16.4	36.2	47.3	
Marital Status					
Currently married	14	16.5	36.4	47.6	***
Not currently married (referent group)	14	16.5	36.4	47.6	
Employment Status					
Currently employed	13	17.2	37.8	49.2	
Have not worked 1 to 5 months	18	14.6	32.7	43.2	
Have not worked 6 to 11 months	19	14.2	31.9	42.2	
Have not worked at least 12 months (referent group)	15	15.7	35.0	45.9	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	16	15.2	34.1	44.9	
100 percent to less than 150 percent	14	16.5	36.5	47.8	
150 percent to less than 200 percent	14	16.3	36.2	47.4	
200 percent and above	9	23.9	49.6	62.5	**
Net Worth					
Greater than \$0	13	17.0	37.4	48.8	
\$0 or negative (referent group)	15	15.8	35.1	46.0	
Greater than \$25,000	12	17.6	38.5	50.1	
\$25,000 or less (referent group)	15	16.2	36.0	47.1	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Single-Adult Families with Children			
	Median	4 Months or Less	8 Months or Less	12 Months or Less
Other Income				
Receive TANF	6	32.5	62.4	75.4
No TANF (referent group)	14	16.4	36.2	47.3
Receive SSI or general assistance	10	21.2	44.9	57.3
No SSI or general assistance (referent group)	15	16.3	36.0	47.1
Receive WIC, Medicaid or housing subsidies	22	12.7	29.1	39.1 ***
No WIC, Medicaid or housing subsidies (referent group)	11	19.6	42.2	54.6
Receive alimony or child support	13	17.1	37.6	49.0
No receipt of alimony or child support (referent group)	15	16.1	35.7	46.8
Benefit History				
Spell is first ever	11	19.0	41.2	53.2
Spell is not first ever (referent group)	16	15.5	34.5	45.4
Health Status and Medical Costs				
In fair or poor health	24	12.5	28.7	38.3
Health good or better (referent group)	13	17.2	37.9	49.4
Out-of-pocket medical costs greater than \$1000	15	16.0	35.6	46.6
Out-of-pocket medical costs \$1000 or less (referent group)	14	16.5	36.5	47.7
Exit Trigger Events				
Job gain within family	16	15.4	34.5	45.3
No job gain within family (referent group)	14	16.5	36.6	47.8
Income increase within family	9	25.7	48.4	60.5 ***
No income increase within family (referent group)	26	14.1	28.8	37.9
New marriage within family	6	35.1	65.7	78.4 **
No new marriage within family (referent group)	15	16.3	35.9	47.1
Decrease in family size	19	13.7	31.5	41.8
No decrease in family size (referent group)	13	16.8	37.6	49.0
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate (referent group)	14	16.4	36.2	47.4
One percentage point above the mean state unemployment rate	13	17.1	37.5	48.9
20th percentile wage (referent group)	14	16.4	36.3	47.5
One dollar more than the 20th percentile wage	16	15.3	34.3	45.1
Region of Residence				
Northeast	13	17.0	37.5	48.9
Mid-Atlantic	13	17.5	38.4	49.9
Midwest	20	13.7	31.1	41.3
Southeast	22	13.2	30.0	39.9
Southwest	9	23.3	48.6	61.4
Mountain Plains	14	16.7	36.9	48.2
Western (referent group)	12	17.9	39.2	50.8
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	14	16.4	36.3	47.4
State exclude all or most vehicles	12	18.0	39.3	51.0
State excludes one or fewer vehicles for SNAP unit (referent group)	33	10.5	24.4	32.9
Certification Period				
State average certification period (referent group)	15	16.2	36.0	47.1
State average certification period plus 1 month	15	15.9	35.3	46.3
Number of Spell-Month Observations	6,933			

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Multiple-Adult Families with Children				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	10	28.6	45.2	56.4	
Sex					
Male	9	30.7	48.1	59.6	***
Female (referent group)	11	26.8	42.8	53.8	
Race/Ethnicity					
White, Non-Hispanic	10	28.1	44.5	55.7	
Black, Non-Hispanic	10	28.4	44.9	56.1	
Other, Non-Hispanic	10	29.7	46.7	58.0	
Hispanic (referent group)	10	29.0	45.7	57.0	
Age					
18 to 29 (referent group)	11	27.5	43.7	54.8	
30 to 49	10	28.2	44.7	55.9	
50 to 64	8	32.7	50.7	62.4	**
65 and older	9	29.8	46.9	58.3	
Citizenship					
Citizen	10	29.1	45.9	57.2	
Noncitizen (referent group)	12	26.1	41.8	52.6	
Education					
Highest Grade Completed					
0 to 8 (referent group)	10	28.3	44.8	56.0	
9 to 11	10	29.1	45.9	57.2	
12	11	27.4	43.6	54.6	
13 and above	10	29.6	46.6	57.9	
Family Composition					
Mean number of adults age 18-59 (referent group)	11	26.6	42.5	53.5	
One adult more than the mean number of adults age 18-59	10	28.8	45.6	56.9	***
Mean number of adults age 60+ (referent group)	10	28.7	45.3	56.6	
One adult more than the mean number of adults age 60+	9	30.8	48.3	59.8	*
Mean number of children less than age 6 (referent group)	10	29.4	46.2	57.6	
One child more than the mean number of children less than age 6	11	27.3	43.4	54.5	***
Mean number of children between ages 6 to 17 (referent group)	9	30.1	47.3	58.7	
One child more than the mean number of children between ages 6 to 17	11	27.6	43.9	55.0	***
Marital Status					
Currently married	11	26.8	42.8	53.9	***
Not currently married (referent group)	9	30.8	48.3	59.9	
Employment Status					
Currently employed	10	28.6	45.3	56.5	
Have not worked 1 to 5 months	11	27.7	43.9	55.0	
Have not worked 6 to 11 months	10	29.3	46.1	57.4	
Have not worked at least 12 months (referent group)	10	28.5	45.1	56.3	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	12	24.8	40.0	50.7	
100 percent to less than 150 percent	11	27.3	43.6	54.7	
150 percent to less than 200 percent	8	33.0	51.3	63.1	***
200 percent and above	9	31.6	49.4	61.1	***
Net Worth					
Greater than \$0	10	28.3	44.8	55.9	
\$0 or negative (referent group)	10	29.2	46.0	57.3	
Greater than \$25,000	9	30.7	48.1	59.6	**
\$25,000 or less (referent group)	11	27.4	43.5	54.6	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Multiple-Adult Families with Children				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	8	34.0	52.4	64.2	**
No TANF (referent group)	10	28.1	44.6	55.8	
Receive SSI or general assistance	10	27.9	44.3	55.4	
No SSI or general assistance (referent group)	10	28.6	45.2	56.4	
Receive WIC, Medicaid or housing subsidies	13	23.6	38.2	48.7	***
No WIC, Medicaid or housing subsidies (referent group)	9	31.3	49.0	60.6	
Receive alimony or child support	12	26.2	41.8	52.6	
No receipt of alimony or child support (referent group)	10	28.7	45.4	56.6	
Benefit History					
Spell is first ever	8	32.3	50.1	61.7	***
Spell is not first ever (referent group)	11	27.2	43.3	54.3	
Health Status and Medical Costs					
In fair or poor health	12	25.4	40.8	51.5	**
Health good or better (referent group)	10	29.1	45.9	57.3	
Out-of-pocket medical costs greater than \$1000	8	32.2	50.1	61.7	
Out-of-pocket medical costs \$1000 or less (referent group)	10	28.3	44.8	56.0	
Exit Trigger Events					
Job gain within family	9	31.4	48.7	60.1	
No job gain within family (referent group)	10	28.3	44.5	55.5	
Income increase within family	8	35.7	52.7	63.7	***
No income increase within family (referent group)	12	26.8	41.0	51.0	
New marriage within family	16	21.7	35.4	45.3	
No new marriage within family (referent group)	10	28.6	45.3	56.5	
Decrease in family size	9	31.7	48.6	59.9	**
No decrease in family size (referent group)	11	27.8	43.4	54.2	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	10	28.6	45.1	56.3	
One percentage point above the mean state unemployment rate	10	28.9	45.6	56.8	
20th percentile wage (referent group)	10	28.6	45.2	56.4	
One dollar more than the 20th percentile wage	10	29.0	45.7	57.0	
Region of Residence					
Northeast	12	25.8	41.4	52.2	
Mid-Atlantic	11	27.7	43.9	55.1	
Midwest	12	24.6	39.6	50.2	
Southeast	11	26.6	42.4	53.4	
Southwest	8	34.0	52.4	64.2	**
Mountain Plains	8	33.6	52.0	63.7	*
Western (referent group)	11	27.5	43.7	54.8	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	10	28.7	45.3	56.5	
State exclude all or most vehicles	10	28.8	45.4	56.7	
State excludes one or fewer vehicles for SNAP unit (referent group)	12	24.9	40.0	50.5	
Certification Period					
State average certification period (referent group)	10	28.3	44.8	56.0	
State average certification period plus 1 month	11	27.8	44.2	55.3	*
Number of Spell-Month Observations	30,906				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with Elderly Members				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	9	35.4	48.2	56.8	
Sex					
Male	9	36.1	49.1	57.8	
Female (referent group)	10	34.7	47.4	56.0	
Race/Ethnicity					
White, Non-Hispanic	10	33.9	46.5	55.0	**
Black, Non-Hispanic	11	33.0	45.4	53.8	**
Other, Non-Hispanic	8	39.4	53.1	62.0	
Hispanic (referent group)	7	41.2	55.3	64.3	
Age					
18 to 29 (referent group)	7	40.3	54.1	63.1	
30 to 49	8	39.0	52.7	61.6	
50 to 64	12	30.4	42.1	50.3	***
65 and older	9	34.9	47.7	56.4	
Citizenship					
Citizen	9	36.1	49.1	57.9	***
Noncitizen (referent group)	38	20.1	28.6	34.9	
Education					
Highest Grade Completed					
0 to 8 (referent group)	10	33.9	46.4	55.0	
9 to 11	8	37.8	51.1	60.0	
12	10	33.6	46.1	54.6	
13 and above	9	36.4	49.5	58.3	
Family Composition					
Mean number of adults age 18-59 (referent group)	8	37.4	50.9	60.0	
One adult more than the mean number of adults age 18-59	7	41.9	56.2	65.5	***
Mean number of adults age 60+ (referent group)	12	31.4	43.3	51.5	
One adult more than the mean number of adults age 60+	9	35.0	47.7	56.3	*
Mean number of children less than age 6 (referent group)	9	35.4	48.2	56.8	
One child more than the mean number of children less than age 6	9	35.4	48.2	56.8	***
Mean number of children between ages 6 to 17 (referent group)	9	35.4	48.2	56.8	
One child more than the mean number of children between ages 6 to 17	9	35.4	48.2	56.8	***
Marital Status					
Currently married	8	38.3	51.7	60.6	
Not currently married (referent group)	10	34.0	46.5	55.1	
Employment Status					
Currently employed	8	38.1	51.6	60.5	
Have not worked 1 to 5 months	16	26.7	37.4	45.1	*
Have not worked 6 to 11 months	16	26.4	37.0	44.6	*
Have not worked at least 12 months (referent group)	9	35.2	48.1	56.9	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	13	30.0	41.7	49.9	
100 percent to less than 150 percent	13	29.9	41.6	49.8	
150 percent to less than 200 percent	8	39.3	53.1	62.1	**
200 percent and above	8	38.2	51.8	60.8	**
Net Worth					
Greater than \$0	10	33.9	46.4	54.9	**
\$0 or negative (referent group)	7	40.9	54.7	63.7	
Greater than \$25,000	9	36.6	49.7	58.4	
\$25,000 or less (referent group)	10	34.0	46.5	55.0	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with Elderly Members			
	Median	4 Months or Less	8 Months or Less	12 Months or Less
Other Income				
Receive TANF	7	41.9	55.9	64.9
No TANF (referent group)	9	35.3	48.1	56.7
Receive SSI or general assistance	14	29.0	40.4	48.4
No SSI or general assistance (referent group)	9	36.1	49.2	58.0
Receive WIC, Medicaid or housing subsidies	14	27.9	39.1	47.2
No WIC, Medicaid or housing subsidies (referent group)	8	39.4	53.3	62.6
Receive alimony or child support	10	34.1	46.6	55.1
No receipt of alimony or child support (referent group)	9	35.4	48.2	56.8
Benefit History				
Spell is first ever	7	41.1	55.3	64.3
Spell is not first ever (referent group)	11	31.9	44.1	52.5
Health Status and Medical Costs				
In fair or poor health	8	38.0	51.3	60.1
Health good or better (referent group)	10	34.3	46.8	55.3
Out-of-pocket medical costs greater than \$1000	11	32.0	44.0	52.3
Out-of-pocket medical costs \$1000 or less (referent group)	9	35.8	48.6	57.3
Exit Trigger Events				
Job gain within family	5	48.6	63.1	71.9
No job gain within family (referent group)	10	34.8	47.1	55.4
Income increase within family	5	46.8	60.1	68.6
No income increase within family (referent group)	11	33.9	45.0	52.9
New marriage within family	7	40.0	53.7	62.6
No new marriage within family (referent group)	9	35.4	48.2	56.8
Decrease in family size	5	46.6	60.4	69.2
No decrease in family size (referent group)	11	33.9	45.6	53.9
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate (referent group)	9	35.4	48.2	56.8
One percentage point above the mean state unemployment rate	9	35.4	48.2	56.8
20th percentile wage (referent group)	9	35.4	48.2	56.8
One dollar more than the 20th percentile wage	9	36.8	49.9	58.6
Region of Residence				
Northeast	12	30.4	42.0	50.1
Mid-Atlantic	9	36.6	49.7	58.5
Midwest	8	38.0	51.4	60.2
Southeast	8	37.7	51.0	59.9
Southwest	10	34.5	47.2	55.8
Mountain Plains	4	50.1	65.0	74.0
Western (referent group)	12	30.7	42.4	50.5
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	9	36.2	49.1	57.7
State exclude all or most vehicles	11	32.8	44.9	53.3
State excludes one or fewer vehicles for SNAP unit (referent group)	8	38.5	51.8	60.6
Certification Period				
State average certification period (referent group)	9	34.9	47.8	56.5
State average certification period plus 1 month	10	34.0	46.6	55.2
Number of Spell-Month Observations	15,094			

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Nonelderly Nondisabled Childless Adults				
	4 Months or 8 Months or 12 Months				
	Median	Less	Less	or Less	
All Individuals	8	30.4	50.3	61.4	
Sex					
Male	8	31.4	51.7	63.0	
Female (referent group)	9	29.3	48.8	59.9	
Race/Ethnicity					
White, Non-Hispanic	8	31.2	51.6	62.9	*
Black, Non-Hispanic	7	34.1	55.5	66.9	**
Other, Non-Hispanic	14	21.4	37.3	47.1	
Hispanic (referent group)	11	25.3	43.2	53.8	
Age					
18 to 29 (referent group)	8	32.4	53.1	64.4	
30 to 49	9	30.0	49.9	61.0	
50 to 64	10	27.1	45.7	56.5	*
65 and older	8	32.4	53.1	64.4	***
Citizenship					
Citizen	8	30.2	50.0	61.1	
Noncitizen (referent group)	8	33.5	54.5	65.8	
Education					
Highest Grade Completed					
0 to 8 (referent group)	10	27.9	46.9	57.9	
9 to 11	10	27.0	45.6	56.4	
12	9	28.7	48.0	59.1	
13 and above	8	32.6	53.4	64.8	
Family Composition					
Mean number of adults age 18-59 (referent group)	8	30.7	50.9	62.2	
One adult more than the mean number of adults age 18-59	8	33.5	54.7	66.2	**
Mean number of adults age 60+ (referent group)	8	30.4	50.3	61.4	
One adult more than the mean number of adults age 60+	8	30.4	50.3	61.4	***
Mean number of children less than age 6 (referent group)	8	30.4	50.3	61.4	
One child more than the mean number of children less than age 6	8	30.4	50.3	61.4	***
Mean number of children between ages 6 to 17 (referent group)	8	30.4	50.3	61.4	
One child more than the mean number of children between ages 6 to 17	8	30.4	50.3	61.4	***
Marital Status					
Currently married	9	29.4	48.8	59.9	
Not currently married (referent group)	8	30.6	50.5	61.7	
Employment Status					
Currently employed	9	29.0	48.4	59.4	
Have not worked 1 to 5 months	7	34.2	55.3	66.7	
Have not worked 6 to 11 months	8	30.6	50.5	61.7	
Have not worked at least 12 months (referent group)	8	32.7	53.4	64.7	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	10	26.1	44.8	55.9	
100 percent to less than 150 percent	9	27.6	47.0	58.3	
150 percent to less than 200 percent	8	32.1	53.3	65.0	*
200 percent and above	7	37.0	59.6	71.3	***
Net Worth					
Greater than \$0	9	29.9	49.6	60.7	
\$0 or negative (referent group)	8	31.2	51.4	62.6	
Greater than \$25,000	9	28.8	48.0	59.0	
\$25,000 or less (referent group)	8	31.0	51.0	62.2	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Nonelderly Nondisabled Childless Adults				
	4 Months or 8 Months or 12 Months				
	Median	Less	Less	or Less	
Other Income					
Receive TANF	41	13.7	24.7	32.1	
No TANF (referent group)	8	30.4	50.3	61.5	
Receive SSI or general assistance	13	22.7	39.2	49.3	
No SSI or general assistance (referent group)	8	30.5	50.4	61.7	
Receive WIC, Medicaid or housing subsidies	13	22.0	38.3	48.4	***
No WIC, Medicaid or housing subsidies (referent group)	8	33.1	54.1	65.7	
Receive alimony or child support	13	23.1	39.7	49.9	
No receipt of alimony or child support (referent group)	8	30.5	50.6	61.8	
Benefit History					
Spell is first ever	7	34.6	56.3	68.0	***
Spell is not first ever (referent group)	10	26.5	45.2	56.2	
Health Status and Medical Costs					
In fair or poor health	10	27.1	45.7	56.5	
Health good or better (referent group)	8	31.0	51.2	62.4	
Out-of-pocket medical costs greater than \$1000	8	32.6	53.3	64.6	
Out-of-pocket medical costs \$1000 or less (referent group)	8	30.2	50.1	61.2	
Exit Trigger Events					
Job gain within family	5	45.6	67.9	78.5	***
No job gain within family (referent group)	9	29.1	47.2	57.7	
Income increase within family	7	35.6	55.7	66.7	***
No income increase within family (referent group)	10	28.9	46.8	57.3	
New marriage within family	27	16.1	28.9	37.2	
No new marriage within family (referent group)	8	30.5	50.5	61.8	
Decrease in family size	8	31.4	51.5	62.7	
No decrease in family size (referent group)	9	30.2	49.8	60.9	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	8	30.3	50.1	61.3	
One percentage point above the mean state unemployment rate	8	30.7	50.7	61.9	
20th percentile wage (referent group)	8	30.5	50.4	61.6	
One dollar more than the 20th percentile wage	7	33.9	55.0	66.4	
Region of Residence					
Northeast	8	30.6	51.3	62.7	
Mid-Atlantic	7	36.3	58.7	70.3	*
Midwest	9	28.8	48.7	60.0	
Southeast	13	22.4	39.3	49.5	
Southwest	6	38.4	61.4	73.0	**
Mountain Plains	6	42.1	65.8	77.1	**
Western (referent group)	9	27.9	47.5	58.6	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	8	31.0	51.0	62.2	
State exclude all or most vehicles	9	28.7	47.8	58.8	
State excludes one or fewer vehicles for SNAP unit (referent group)	12	24.6	41.9	52.2	
Certification Period					
State average certification period (referent group)	9	30.2	50.0	61.1	
State average certification period plus 1 month	9	29.2	48.7	59.8	**
Number of Spell-Month Observations	11,717				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Nonelderly Disabled Childless Adults				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	16	25.7	38.2	44.1	
Sex					
Male	15	26.8	39.8	45.8	
Female (referent group)	17	24.4	36.6	42.2	
Race/Ethnicity					
White, Non-Hispanic	22	22.6	34.1	39.6	
Black, Non-Hispanic	12	29.9	44.0	50.4	
Other, Non-Hispanic	14	27.3	40.6	46.7	
Hispanic (referent group)	13	29.5	43.5	49.8	
Age					
18 to 29 (referent group)	12	30.0	44.2	50.7	
30 to 49	18	23.7	35.7	41.4	
50 to 64	24	21.7	33.0	38.4	**
65 and older	12	30.0	44.2	50.7	***
Citizenship					
Citizen	15	26.0	38.6	44.5	
Noncitizen (referent group)	47	17.9	27.4	32.0	
Education					
Highest Grade Completed					
0 to 8 (referent group)	13	28.7	42.5	49.0	
9 to 11	39	18.5	28.5	33.4	*
12	22	22.3	33.8	39.4	
13 and above	10	32.5	47.6	54.4	
Family Composition					
Mean number of adults age 18-59 (referent group)	18	23.5	35.7	41.5	
One adult more than the mean number of adults age 18-59	13	27.8	41.6	47.9	**
Mean number of adults age 60+ (referent group)	16	25.7	38.2	44.1	
One adult more than the mean number of adults age 60+	16	25.7	38.2	44.1	***
Mean number of children less than age 6 (referent group)	16	25.7	38.2	44.1	
One child more than the mean number of children less than age 6	16	25.7	38.2	44.1	***
Mean number of children between ages 6 to 17 (referent group)	16	25.7	38.2	44.1	
One child more than the mean number of children between ages 6 to 17	16	25.7	38.2	44.1	***
Marital Status					
Currently married	42	18.4	28.2	32.9	**
Not currently married (referent group)	14	27.8	41.3	47.4	
Employment Status					
Currently employed	16	25.6	38.2	44.1	
Have not worked 1 to 5 months	15	26.8	39.8	45.9	
Have not worked 6 to 11 months	12	29.9	44.0	50.4	
Have not worked at least 12 months (referent group)	16	25.0	37.3	43.1	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	24	21.4	32.6	38.0	
100 percent to less than 150 percent	10	32.7	47.9	54.7	***
150 percent to less than 200 percent	22	22.0	33.4	38.9	
200 percent and above	10	32.1	47.1	53.9	***
Net Worth					
Greater than \$0	15	26.4	39.2	45.1	
\$0 or negative (referent group)	16	24.8	37.1	42.8	
Greater than \$25,000	27	20.8	31.6	36.8	*
\$25,000 or less (referent group)	14	27.4	40.7	46.8	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Nonelderly Disabled Childless Adults				
		4 Months or Less	8 Months or Less	12 Months or Less	
	Median	Less	Less	or Less	
Other Income					
Receive TANF	40	18.8	28.6	33.4	
No TANF (referent group)	16	25.7	38.3	44.1	
Receive SSI or general assistance	32	19.6	30.0	34.9	**
No SSI or general assistance (referent group)	14	27.7	41.2	47.3	
Receive WIC, Medicaid or housing subsidies	24	21.3	32.3	37.7	***
No WIC, Medicaid or housing subsidies (referent group)	11	31.1	45.5	52.2	
Receive alimony or child support	23	22.1	33.4	38.7	
No receipt of alimony or child support (referent group)	16	25.7	38.3	44.2	
Benefit History					
Spell is first ever	16	24.8	37.1	42.9	
Spell is not first ever (referent group)	15	26.0	38.7	44.6	
Health Status and Medical Costs					
In fair or poor health	24	21.3	32.4	37.7	**
Health good or better (referent group)	14	27.5	40.8	47.0	
Out-of-pocket medical costs greater than \$1000	13	29.1	42.8	49.1	
Out-of-pocket medical costs \$1000 or less (referent group)	16	25.3	37.8	43.6	
Exit Trigger Events					
Job gain within family	10	33.2	47.6	53.9	*
No job gain within family (referent group)	17	25.2	37.0	42.5	
Income increase within family	12	31.3	44.7	50.7	*
No income increase within family (referent group)	19	24.8	36.2	41.4	
New marriage within family	44	18.3	28.0	32.7	
No new marriage within family (referent group)	16	25.7	38.3	44.2	
Decrease in family size	13	30.3	43.7	49.8	
No decrease in family size (referent group)	18	24.8	36.5	42.0	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	16	25.7	38.3	44.1	
One percentage point above the mean state unemployment rate	16	25.0	37.4	43.2	
20th percentile wage (referent group)	16	25.6	38.2	44.1	
One dollar more than the 20th percentile wage	19	23.4	35.3	40.8	
Region of Residence					
Northeast	11	31.8	46.2	52.6	
Mid-Atlantic	8	36.6	52.3	59.0	
Midwest	14	27.5	40.5	46.5	
Southeast	46	18.1	27.5	32.1	***
Southwest	21	23.3	34.8	40.3	
Mountain Plains	14	28.3	41.5	47.6	
Western (referent group)	11	32.0	46.4	52.9	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	16	25.4	37.9	43.7	
State exclude all or most vehicles	13	28.4	41.9	48.1	
State excludes one or fewer vehicles for SNAP unit (referent group)	41	18.5	28.3	33.0	
Certification Period					
State average certification period (referent group)	16	25.2	37.9	43.9	
State average certification period plus 1 month	18	23.5	35.5	41.3	***
Number of Spell-Month Observations					
	9,558				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Citizen Adults and Citizen Children				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	10	26.3	44.4	56.0	
Sex					
Male	9	28.6	47.6	59.6	***
Female (referent group)	11	24.9	42.3	53.8	
Race/Ethnicity					
White, Non-Hispanic	10	26.1	44.1	55.7	
Black, Non-Hispanic	11	26.0	43.9	55.4	
Other, Non-Hispanic	9	28.2	47.1	59.0	
Hispanic (referent group)	10	26.6	44.8	56.4	
Age					
18 to 29 (referent group)	11	25.9	43.8	55.4	
30 to 49	11	25.7	43.5	55.0	
50 to 64	9	29.8	49.3	61.4	*
65 and older	10	26.8	45.1	56.8	
Citizenship					
Citizen	10	26.5	44.7	56.3	
Noncitizen (referent group)	12	23.0	39.5	50.5	
Education					
Highest Grade Completed					
0 to 8 (referent group)	10	26.0	44.0	55.6	
9 to 11	10	27.4	45.9	57.7	
12	11	24.5	41.7	53.0	
13 and above	10	27.6	46.3	58.1	
Family Composition					
Mean number of adults age 18-59 (referent group)	11	25.4	43.1	54.7	
One adult more than the mean number of adults age 18-59	10	27.0	45.4	57.2	***
Mean number of adults age 60+ (referent group)	10	26.4	44.6	56.3	
One adult more than the mean number of adults age 60+	9	28.6	47.6	59.6	*
Mean number of children less than age 6 (referent group)	10	27.0	45.4	57.2	
One child more than the mean number of children less than age 6	11	24.9	42.3	53.7	***
Mean number of children between ages 6 to 17 (referent group)	10	27.7	46.4	58.2	
One child more than the mean number of children between ages 6 to 17	11	25.4	43.0	54.5	***
Marital Status					
Currently married	11	24.7	42.0	53.4	**
Not currently married (referent group)	10	27.8	46.5	58.3	
Employment Status					
Currently employed	10	26.3	44.3	55.9	
Have not worked 1 to 5 months	10	26.4	44.5	56.1	
Have not worked 6 to 11 months	10	26.2	44.2	55.8	
Have not worked at least 12 months (referent group)	10	26.5	44.6	56.2	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	12	22.7	39.1	50.2	
100 percent to less than 150 percent	11	25.4	43.3	54.9	*
150 percent to less than 200 percent	9	29.9	49.6	61.8	***
200 percent and above	9	30.1	49.9	62.1	***
Net Worth					
Greater than \$0	10	26.1	44.1	55.6	
\$0 or negative (referent group)	10	26.8	45.0	56.7	
Greater than \$25,000	9	28.8	48.0	60.0	**
\$25,000 or less (referent group)	11	25.0	42.5	53.9	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Citizen Adults and Citizen Children				
		4 Months or Less	8 Months or Less	12 Months or Less	
	Median	Less	Less	or Less	
Other Income					
Receive TANF	8	31.2	51.3	63.5	**
No TANF (referent group)	11	26.0	43.9	55.5	
Receive SSI or general assistance	9	28.3	47.2	59.1	
No SSI or general assistance (referent group)	10	26.2	44.2	55.8	
Receive WIC, Medicaid or housing subsidies	15	20.8	36.3	46.9	***
No WIC, Medicaid or housing subsidies (referent group)	9	29.8	49.5	61.7	
Receive alimony or child support	10	26.7	44.9	56.5	
No receipt of alimony or child support (referent group)	10	26.3	44.3	55.9	
Benefit History					
Spell is first ever	9	29.5	48.8	60.8	***
Spell is not first ever (referent group)	11	25.3	42.8	54.2	
Health Status and Medical Costs					
In fair or poor health	12	22.8	39.2	50.2	**
Health good or better (referent group)	10	27.0	45.4	57.2	
Out-of-pocket medical costs greater than \$1000	9	28.9	48.1	60.0	
Out-of-pocket medical costs \$1000 or less (referent group)	10	26.1	44.1	55.7	
Exit Trigger Events					
Job gain within family	9	28.6	47.4	59.2	
No job gain within family (referent group)	11	26.2	43.9	55.4	
Income increase within family	8	33.2	51.9	63.4	***
No income increase within family (referent group)	12	24.7	40.1	50.5	
New marriage within family	9	29.2	48.5	60.5	
No new marriage within family (referent group)	10	26.3	44.3	56.0	
Decrease in family size	10	28.2	46.7	58.4	*
No decrease in family size (referent group)	11	25.9	43.4	54.7	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	10	26.3	44.4	56.0	
One percentage point above the mean state unemployment rate	10	26.6	44.7	56.4	
20th percentile wage (referent group)	10	26.4	44.4	56.0	
One dollar more than the 20th percentile wage	10	26.6	44.7	56.4	
Region of Residence					
Northeast	12	23.3	40.0	51.2	
Mid-Atlantic	11	25.8	43.7	55.4	
Midwest	13	22.6	38.9	49.9	**
Southeast	12	23.4	40.2	51.4	*
Southwest	8	32.3	52.9	65.2	**
Mountain Plains	9	29.6	49.1	61.3	
Western (referent group)	10	27.0	45.4	57.2	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	10	26.6	44.7	56.3	
State exclude all or most vehicles	10	26.2	44.2	55.8	
State excludes one or fewer vehicles for SNAP unit (referent group)	13	22.3	38.3	49.1	
Certification Period					
State average certification period (referent group)	10	26.1	44.1	55.6	
State average certification period plus 1 month	11	25.6	43.3	54.8	**
Number of Spell-Month Observations	33,071				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Noncitizen Adults and Citizen Children				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	13	28.0	40.1	48.8	
Sex					
Male	10	32.2	46.1	55.6	*
Female (referent group)	18	23.4	34.4	42.5	
Race/Ethnicity					
White, Non-Hispanic	14	27.4	39.3	47.8	
Black, Non-Hispanic	14	27.8	39.8	48.4	
Other, Non-Hispanic	9	35.0	49.2	58.8	
Hispanic (referent group)	14	27.8	39.8	48.5	
Age					
18 to 29 (referent group)	19	22.8	33.3	41.0	
30 to 49	11	30.9	44.1	53.4	
50 to 64	14	26.8	38.8	47.4	
65 and older	14	26.8	38.8	47.4	
Citizenship					
Citizen	32	16.7	24.7	30.8	
Noncitizen (referent group)	13	28.0	40.2	49.0	
Education					
Highest Grade Completed					
0 to 8 (referent group)	15	27.0	38.8	47.2	
9 to 11	19	23.6	34.3	42.0	
12	9	34.1	48.0	57.5	
13 and above	14	27.3	39.2	47.7	
Family Composition					
Mean number of adults age 18-59 (referent group)	20	22.0	32.2	40.0	
One adult more than the mean number of adults age 18-59	11	30.2	43.3	52.6	***
Mean number of adults age 60+ (referent group)	18	23.9	34.7	42.7	
One adult more than the mean number of adults age 60+	> 51	12.3	18.3	23.1	
Mean number of children less than age 6 (referent group)	13	28.2	40.4	49.1	
One child more than the mean number of children less than age 6	14	27.9	40.0	48.6	
Mean number of children between ages 6 to 17 (referent group)	12	29.7	42.6	51.5	
One child more than the mean number of children between ages 6 to 17	15	26.6	38.6	47.0	
Marital Status					
Currently married	16	25.5	37.0	45.3	
Not currently married (referent group)	10	33.2	47.0	56.6	
Employment Status					
Currently employed	13	28.5	41.0	49.8	
Have not worked 1 to 5 months	25	19.2	28.3	35.2	
Have not worked 6 to 11 months	8	36.1	50.7	60.5	
Have not worked at least 12 months (referent group)	13	27.7	40.0	48.7	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	12	28.4	42.0	51.3	
100 percent to less than 150 percent	20	21.1	32.1	39.9	
150 percent to less than 200 percent	7	40.7	57.5	68.0	*
200 percent and above	30	16.1	24.9	31.3	**
Net Worth					
Greater than \$0	13	28.0	40.1	48.8	
\$0 or negative (referent group)	13	28.0	40.1	48.8	
Greater than \$25,000	34	15.8	23.5	29.6	***
\$25,000 or less (referent group)	11	30.2	43.1	52.5	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Noncitizen Adults and Citizen Children				
		4 Months or Less	8 Months or Less	12 Months or Less	
	Median	Less	Less	or Less	
Other Income					
Receive TANF	3	68.5	84.5	91.7	**
No TANF (referent group)	14	27.2	39.2	47.9	
Receive SSI or general assistance	39	14.8	21.9	27.5	
No SSI or general assistance (referent group)	13	28.2	40.5	49.2	
Receive WIC, Medicaid or housing subsidies	11	31.5	44.7	53.8	
No WIC, Medicaid or housing subsidies (referent group)	15	27.1	38.9	47.3	
Receive alimony or child support	24	20.1	29.3	36.4	
No receipt of alimony or child support (referent group)	13	28.2	40.5	49.3	
Benefit History					
Spell is first ever	10	32.6	46.0	55.5	
Spell is not first ever (referent group)	16	25.6	36.8	45.1	
Health Status and Medical Costs					
In fair or poor health	15	26.8	38.5	47.0	
Health good or better (referent group)	13	28.1	40.3	49.0	
Out-of-pocket medical costs greater than \$1000	5	47.9	64.5	74.4	*
Out-of-pocket medical costs \$1000 or less (referent group)	14	27.5	39.5	48.0	
Exit Trigger Events					
Job gain within family	17	25.1	36.5	44.8	
No job gain within family (referent group)	13	28.5	41.0	49.9	
Income increase within family	5	47.2	60.6	68.4	***
No income increase within family (referent group)	26	22.8	31.1	36.6	
New marriage within family	> 51	9.4	14.2	18.0	
No new marriage within family (referent group)	13	28.0	40.3	49.0	
Decrease in family size	12	29.6	41.8	50.6	
No decrease in family size (referent group)	14	27.7	39.4	47.9	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	14	27.8	39.6	48.2	
One percentage point above the mean state unemployment rate	12	30.1	42.6	51.6	**
20th percentile wage (referent group)	13	28.3	40.5	49.3	
One dollar more than the 20th percentile wage	11	31.0	44.1	53.2	
Region of Residence					
Northeast	6	41.9	58.4	68.9	
Mid-Atlantic	23	20.0	30.0	37.4	
Midwest	40	14.3	21.8	27.6	
Southeast	20	22.1	32.9	40.9	
Southwest	7	41.3	57.7	68.2	**
Mountain Plains	4	60.5	78.1	87.0	**
Western (referent group)	18	23.2	34.4	42.7	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	16	24.7	36.0	45.0	
State exclude all or most vehicles	4	58.1	75.4	85.1	
State excludes one or fewer vehicles for SNAP unit (referent group)	8	35.5	50.1	60.8	
Certification Period					
State average certification period (referent group)	15	26.1	37.6	46.2	
State average certification period plus 1 month	18	24.1	34.9	43.1	*
Number of Spell-Month Observations	4,128				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with Earnings				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	9	31.9	49.0	59.8	
Sex					
Male	8	33.7	51.4	62.4	***
Female (referent group)	10	30.4	47.1	57.8	
Race/Ethnicity					
White, Non-Hispanic	9	31.7	48.7	59.5	
Black, Non-Hispanic	8	32.8	50.2	61.1	
Other, Non-Hispanic	9	30.6	47.3	58.0	
Hispanic (referent group)	9	31.9	49.0	59.8	
Age					
18 to 29 (referent group)	9	32.2	49.4	60.3	
30 to 49	9	31.7	48.7	59.5	
50 to 64	9	32.1	49.2	60.0	
65 and older	10	30.4	47.0	57.7	
Citizenship					
Citizen	9	32.2	49.4	60.2	
Noncitizen (referent group)	10	30.1	46.6	57.3	
Education					
Highest Grade Completed					
0 to 8 (referent group)	9	31.6	48.7	59.5	
9 to 11	9	30.5	47.2	57.9	
12	10	29.6	46.0	56.6	
13 and above	8	34.4	52.4	63.5	
Family Composition					
Mean number of adults age 18-59 (referent group)	9	30.5	47.2	57.9	
One adult more than the mean number of adults age 18-59	8	33.3	50.9	61.9	***
Mean number of adults age 60+ (referent group)	9	31.8	49.1	60.0	
One adult more than the mean number of adults age 60+	7	36.6	55.2	66.4	***
Mean number of children less than age 6 (referent group)	9	31.9	49.1	59.9	
One child more than the mean number of children less than age 6	9	30.5	47.1	57.8	*
Mean number of children between ages 6 to 17 (referent group)	9	32.0	49.3	60.2	
One child more than the mean number of children between ages 6 to 17	10	30.2	46.9	57.5	***
Marital Status					
Currently married	10	30.0	46.5	57.1	**
Not currently married (referent group)	8	33.2	50.8	61.7	
Employment Status					
Currently employed	8	32.6	50.0	60.9	
Have not worked 1 to 5 months	10	29.0	45.2	55.7	
Have not worked 6 to 11 months	9	31.2	48.1	58.8	
Have not worked at least 12 months (referent group)	10	30.4	47.0	57.7	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	12	26.1	41.4	51.7	
100 percent to less than 150 percent	10	29.3	45.9	56.6	**
150 percent to less than 200 percent	8	34.6	52.9	64.1	***
200 percent and above	8	35.5	54.0	65.2	***
Net Worth					
Greater than \$0	9	31.3	48.3	59.0	
\$0 or negative (referent group)	8	33.0	50.5	61.4	
Greater than \$25,000	8	33.4	51.0	62.0	*
\$25,000 or less (referent group)	9	31.0	47.9	58.7	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with Earnings				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	8	36.2	54.5	65.6	
No TANF (referent group)	9	31.7	48.8	59.6	
Receive SSI or general assistance	10	30.3	46.8	57.5	
No SSI or general assistance (referent group)	9	32.0	49.1	59.9	
Receive WIC, Medicaid or housing subsidies	13	24.2	38.7	48.6	***
No WIC, Medicaid or housing subsidies (referent group)	8	35.3	53.6	64.9	
Receive alimony or child support	10	30.2	46.7	57.4	
No receipt of alimony or child support (referent group)	9	32.0	49.2	60.0	
Benefit History					
Spell is first ever	8	35.6	53.9	65.0	***
Spell is not first ever (referent group)	10	30.0	46.6	57.3	
Health Status and Medical Costs					
In fair or poor health	11	28.5	44.4	54.9	**
Health good or better (referent group)	9	32.5	49.8	60.7	
Out-of-pocket medical costs greater than \$1000	8	35.3	53.4	64.5	*
Out-of-pocket medical costs \$1000 or less (referent group)	9	31.6	48.7	59.5	
Exit Trigger Events					
Job gain within family	8	35.7	53.6	64.5	**
No job gain within family (referent group)	9	31.6	48.3	58.9	
Income increase within family	6	42.0	59.1	69.4	***
No income increase within family (referent group)	11	29.4	43.5	53.0	
New marriage within family	12	25.8	40.7	50.7	
No new marriage within family (referent group)	9	31.9	49.1	59.9	
Decrease in family size	8	35.2	52.7	63.5	***
No decrease in family size (referent group)	9	31.2	47.5	58.1	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	9	31.8	48.9	59.7	
One percentage point above the mean state unemployment rate	9	32.5	49.8	60.6	**
20th percentile wage (referent group)	9	31.9	49.0	59.9	
One dollar more than the 20th percentile wage	8	32.8	50.2	61.0	
Region of Residence					
Northeast	10	29.8	46.2	56.9	
Mid-Atlantic	8	34.2	52.0	63.1	
Midwest	11	28.1	44.0	54.4	
Southeast	11	28.5	44.4	54.9	
Southwest	7	38.6	57.5	68.7	***
Mountain Plains	7	38.0	56.8	68.0	***
Western (referent group)	10	30.4	47.1	57.8	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	9	31.6	48.7	59.5	
State exclude all or most vehicles	8	33.8	51.5	62.5	**
State excludes one or fewer vehicles for SNAP unit (referent group)	12	25.9	40.8	50.8	
Certification Period					
State average certification period (referent group)	9	31.5	48.5	59.3	
State average certification period plus 1 month	9	30.7	47.4	58.1	***
Number of Spell-Month Observations	43,912				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families without Earnings				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	14	22.4	37.7	46.7	
Sex					
Male	13	23.5	39.2	48.5	
Female (referent group)	15	21.6	36.4	45.3	
Race/Ethnicity					
White, Non-Hispanic	15	21.9	36.9	45.8	
Black, Non-Hispanic	14	22.1	37.2	46.1	
Other, Non-Hispanic	14	22.4	37.6	46.6	
Hispanic (referent group)	12	24.6	40.8	50.3	
Age					
18 to 29 (referent group)	12	25.8	42.7	52.4	
30 to 49	15	21.7	36.7	45.6	**
50 to 64	19	19.0	32.5	40.7	***
65 and older	14	22.9	38.4	47.6	
Citizenship					
Citizen	13	23.0	38.7	47.9	***
Noncitizen (referent group)	37	13.9	24.3	31.1	
Education					
Highest Grade Completed					
0 to 8 (referent group)	12	25.0	41.4	50.9	
9 to 11	14	22.6	38.0	47.1	
12	16	20.9	35.3	44.0	*
13 and above	13	23.3	39.0	48.2	
Family Composition					
Mean number of adults age 18-59 (referent group)	12	24.3	40.5	50.0	
One adult more than the mean number of adults age 18-59	10	28.9	47.1	57.3	***
Mean number of adults age 60+ (referent group)	14	22.0	37.1	46.1	
One adult more than the mean number of adults age 60+	12	24.9	41.4	50.9	**
Mean number of children less than age 6 (referent group)	14	22.0	37.1	46.1	
One child more than the mean number of children less than age 6	16	20.1	34.3	42.8	*
Mean number of children between ages 6 to 17 (referent group)	14	22.2	37.3	46.2	
One child more than the mean number of children between ages 6 to 17	15	21.2	35.8	44.6	
Marital Status					
Currently married	16	21.0	35.5	44.2	
Not currently married (referent group)	14	22.9	38.4	47.5	
Employment Status					
Currently employed	16	20.9	35.5	44.2	
Have not worked 1 to 5 months	13	23.3	38.9	48.1	
Have not worked 6 to 11 months	16	20.9	35.4	44.1	
Have not worked at least 12 months (referent group)	14	22.7	38.1	47.2	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	16	20.9	35.5	44.3	
100 percent to less than 150 percent	14	22.3	37.6	46.7	
150 percent to less than 200 percent	10	28.9	47.1	57.3	***
200 percent and above	10	28.4	46.4	56.5	***
Net Worth					
Greater than \$0	15	22.0	37.0	46.0	
\$0 or negative (referent group)	13	23.2	38.9	48.1	
Greater than \$25,000	15	21.6	36.4	45.3	
\$25,000 or less (referent group)	14	22.8	38.3	47.4	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families without Earnings				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	9	29.3	47.7	57.8	**
No TANF (referent group)	14	22.2	37.3	46.3	
Receive SSI or general assistance	23	17.3	29.9	37.6	***
No SSI or general assistance (referent group)	13	23.3	39.0	48.2	
Receive WIC, Medicaid or housing subsidies	19	18.8	32.3	40.5	***
No WIC, Medicaid or housing subsidies (referent group)	12	25.7	42.6	52.4	
Receive alimony or child support	13	23.6	39.5	48.7	
No receipt of alimony or child support (referent group)	14	22.4	37.6	46.6	
Benefit History					
Spell is first ever	12	24.7	41.1	50.5	**
Spell is not first ever (referent group)	15	21.3	35.9	44.7	
Health Status and Medical Costs					
In fair or poor health	16	20.9	35.4	44.0	*
Health good or better (referent group)	14	23.1	38.7	47.9	
Out-of-pocket medical costs greater than \$1000	14	23.1	38.7	47.9	
Out-of-pocket medical costs \$1000 or less (referent group)	14	22.4	37.6	46.6	
Exit Trigger Events					
Job gain within family	8	33.3	52.0	62.1	***
No job gain within family (referent group)	16	21.7	35.6	44.1	
Income increase within family	12	25.9	42.0	51.3	**
No income increase within family (referent group)	16	21.8	36.0	44.5	
New marriage within family	13	23.8	39.8	49.1	
No new marriage within family (referent group)	14	22.4	37.7	46.7	
Decrease in family size	13	24.8	40.6	49.9	*
No decrease in family size (referent group)	15	22.1	36.7	45.5	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	14	22.5	37.8	46.9	
One percentage point above the mean state unemployment rate	14	22.2	37.4	46.4	
20th percentile wage (referent group)	14	22.5	37.7	46.7	
One dollar more than the 20th percentile wage	13	23.3	38.9	48.1	
Region of Residence					
Northeast	12	24.8	41.3	50.8	
Mid-Atlantic	15	21.7	36.7	45.6	
Midwest	12	24.5	40.8	50.3	
Southeast	21	18.1	31.2	39.2	**
Southwest	11	26.1	43.1	52.9	
Mountain Plains	12	24.4	40.7	50.2	
Western (referent group)	14	22.4	37.6	46.7	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	14	23.1	38.6	47.6	
State exclude all or most vehicles	16	20.2	34.2	42.7	
State excludes one or fewer vehicles for SNAP unit (referent group)	16	20.3	34.4	42.8	
Certification Period					
State average certification period (referent group)	14	22.2	37.5	46.6	
State average certification period plus 1 month	15	21.2	36.0	44.8	***
Number of Spell-Month Observations	30,296				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with Social Security or SSI				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	11	31.6	45.2	54.0	
Sex					
Male	10	32.7	46.6	55.5	
Female (referent group)	11	30.7	44.0	52.7	
Race/Ethnicity					
White, Non-Hispanic	12	29.7	42.8	51.4	***
Black, Non-Hispanic	10	32.6	46.5	55.4	
Other, Non-Hispanic	12	29.6	42.7	51.3	*
Hispanic (referent group)	8	35.6	50.3	59.5	
Age					
18 to 29 (referent group)	9	34.3	48.6	57.7	
30 to 49	11	30.5	43.7	52.4	*
50 to 64	12	29.5	42.5	51.0	**
65 and older	11	31.6	45.1	53.9	
Citizenship					
Citizen	10	32.2	46.0	54.9	***
Noncitizen (referent group)	33	19.2	28.5	35.2	
Education					
Highest Grade Completed					
0 to 8 (referent group)	11	30.6	43.9	52.7	
9 to 11	9	34.3	48.7	57.8	
12	12	29.4	42.4	51.0	
13 and above	10	32.8	46.7	55.7	
Family Composition					
Mean number of adults age 18-59 (referent group)	11	31.1	44.6	53.4	
One adult more than the mean number of adults age 18-59	9	33.8	48.0	57.1	***
Mean number of adults age 60+ (referent group)	12	29.9	43.0	51.7	
One adult more than the mean number of adults age 60+	10	33.2	47.3	56.4	***
Mean number of children less than age 6 (referent group)	11	31.4	44.9	53.7	
One child more than the mean number of children less than age 6	11	30.4	43.7	52.3	
Mean number of children between ages 6 to 17 (referent group)	11	31.3	44.9	53.7	
One child more than the mean number of children between ages 6 to 17	12	29.0	41.9	50.4	***
Marital Status					
Currently married	11	31.4	44.9	53.6	
Not currently married (referent group)	11	31.7	45.3	54.1	
Employment Status					
Currently employed	9	34.3	48.8	57.9	**
Have not worked 1 to 5 months	14	26.7	38.9	47.1	
Have not worked 6 to 11 months	12	29.6	42.8	51.4	
Have not worked at least 12 months (referent group)	11	30.6	44.1	52.8	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	15	25.6	37.6	45.7	
100 percent to less than 150 percent	13	28.4	41.3	49.9	
150 percent to less than 200 percent	9	33.9	48.3	57.6	***
200 percent and above	8	36.9	52.1	61.5	***
Net Worth					
Greater than \$0	11	30.8	44.1	52.8	
\$0 or negative (referent group)	9	33.6	47.7	56.7	
Greater than \$25,000	10	33.0	47.0	56.0	
\$25,000 or less (referent group)	11	30.6	43.9	52.6	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with Social Security or SSI				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	7	38.8	54.1	63.5	**
No TANF (referent group)	11	31.2	44.6	53.4	
Receive SSI or general assistance	13	27.6	40.1	48.4	**
No SSI or general assistance (referent group)	10	32.4	46.2	55.2	
Receive WIC, Medicaid or housing subsidies	13	27.5	39.9	48.3	***
No WIC, Medicaid or housing subsidies (referent group)	9	34.9	49.4	58.7	
Receive alimony or child support	10	32.0	45.6	54.4	
No receipt of alimony or child support (referent group)	11	31.6	45.2	54.0	
Benefit History					
Spell is first ever	10	32.7	46.5	55.5	
Spell is not first ever (referent group)	11	31.2	44.7	53.4	
Health Status and Medical Costs					
In fair or poor health	12	30.0	43.1	51.8	
Health good or better (referent group)	10	32.3	46.0	54.9	
Out-of-pocket medical costs greater than \$1000	9	34.0	48.2	57.3	
Out-of-pocket medical costs \$1000 or less (referent group)	11	31.4	44.9	53.7	
Exit Trigger Events					
Job gain within family	8	37.9	52.7	61.8	***
No job gain within family (referent group)	11	31.2	44.3	52.9	
Income increase within family	8	38.8	52.9	61.7	***
No income increase within family (referent group)	12	30.5	42.6	50.7	
New marriage within family	10	32.4	46.2	55.0	
No new marriage within family (referent group)	11	31.6	45.2	54.0	
Decrease in family size	7	39.7	54.1	63.1	***
No decrease in family size (referent group)	12	30.2	42.5	50.6	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	11	31.6	45.1	53.9	
One percentage point above the mean state unemployment rate	11	31.8	45.4	54.2	
20th percentile wage (referent group)	11	31.6	45.2	54.0	
One dollar more than the 20th percentile wage	10	32.4	46.2	55.1	
Region of Residence					
Northeast	11	30.6	43.9	52.6	
Mid-Atlantic	10	33.2	47.2	56.2	
Midwest	11	31.0	44.4	53.1	
Southeast	11	30.4	43.6	52.3	
Southwest	11	31.2	44.6	53.4	
Mountain Plains	6	42.2	58.1	67.5	***
Western (referent group)	11	31.0	44.4	53.1	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	10	32.4	46.1	54.9	
State exclude all or most vehicles	12	29.3	42.2	50.6	
State excludes one or fewer vehicles for SNAP unit (referent group)	12	30.0	43.0	51.6	
Certification Period					
State average certification period (referent group)	11	31.3	44.9	53.7	
State average certification period plus 1 month	11	30.5	43.8	52.5	***
Number of Spell-Month Observations	32,190				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families without Social Security or SSI				
		4 Months or 8 Months or	12 Months		
	Median	Less	Less	or Less	
All Individuals	10	26.7	45.1	56.1	
Sex					
Male	9	28.5	47.7	59.0	***
Female (referent group)	11	25.3	43.0	53.9	
Race/Ethnicity					
White, Non-Hispanic	10	27.3	46.0	57.1	
Black, Non-Hispanic	11	26.0	44.0	54.9	
Other, Non-Hispanic	10	26.8	45.1	56.2	
Hispanic (referent group)	11	26.2	44.3	55.3	
Age					
18 to 29 (referent group)	10	26.9	45.3	56.4	
30 to 49	10	26.9	45.3	56.4	
50 to 64	11	25.8	43.8	54.7	
65 and older	9	29.7	49.3	60.7	
Citizenship					
Citizen	10	27.1	45.5	56.6	
Noncitizen (referent group)	11	25.1	42.7	53.5	
Education					
Highest Grade Completed					
0 to 8 (referent group)	10	27.3	45.9	57.1	
9 to 11	12	24.2	41.5	52.1	
12	11	24.7	42.2	53.0	
13 and above	9	29.1	48.5	59.9	
Family Composition					
Mean number of adults age 18-59 (referent group)	11	25.9	44.0	55.1	
One adult more than the mean number of adults age 18-59	9	29.3	48.8	60.3	***
Mean number of adults age 60+ (referent group)	10	27.5	46.2	57.3	
One adult more than the mean number of adults age 60+	8	30.9	50.9	62.4	
Mean number of children less than age 6 (referent group)	10	26.9	45.3	56.4	
One child more than the mean number of children less than age 6	11	25.1	42.8	53.6	**
Mean number of children between ages 6 to 17 (referent group)	10	26.8	45.2	56.3	
One child more than the mean number of children between ages 6 to 17	11	25.5	43.4	54.3	**
Marital Status					
Currently married	12	23.9	40.9	51.5	***
Not currently married (referent group)	9	28.6	47.8	59.2	
Employment Status					
Currently employed	10	26.5	44.7	55.7	
Have not worked 1 to 5 months	9	28.6	47.8	59.1	
Have not worked 6 to 11 months	10	26.6	44.9	56.0	
Have not worked at least 12 months (referent group)	10	26.7	45.1	56.1	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	12	23.6	40.7	51.4	
100 percent to less than 150 percent	11	25.9	44.0	55.2	*
150 percent to less than 200 percent	8	30.2	50.2	61.8	***
200 percent and above	8	30.8	51.1	62.8	***
Net Worth					
Greater than \$0	10	26.4	44.5	55.5	
\$0 or negative (referent group)	10	27.5	46.1	57.3	
Greater than \$25,000	10	26.6	44.9	55.9	
\$25,000 or less (referent group)	10	26.8	45.2	56.2	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families without Social Security or SSI				
	4 Months or 8 Months or 12 Months				
	Median	Less	Less	or Less	
Other Income					
Receive TANF	9	29.2	48.6	59.9	
No TANF (referent group)	10	26.7	45.0	56.0	
Receive SSI or general assistance	23	17.1	30.3	39.1	**
No SSI or general assistance (referent group)	10	26.8	45.3	56.3	
Receive WIC, Medicaid or housing subsidies	16	19.7	34.7	44.5	***
No WIC, Medicaid or housing subsidies (referent group)	9	29.7	49.5	61.2	
Receive alimony or child support	11	25.6	43.5	54.4	
No receipt of alimony or child support (referent group)	10	26.8	45.2	56.3	
Benefit History					
Spell is first ever	8	30.9	51.0	62.6	***
Spell is not first ever (referent group)	12	24.3	41.6	52.3	
Health Status and Medical Costs					
In fair or poor health	13	22.7	39.2	49.5	***
Health good or better (referent group)	10	27.3	46.0	57.2	
Out-of-pocket medical costs greater than \$1000	10	28.0	46.9	58.1	
Out-of-pocket medical costs \$1000 or less (referent group)	10	26.6	44.9	56.0	
Exit Trigger Events					
Job gain within family	8	32.7	52.7	64.1	***
No job gain within family (referent group)	11	26.2	43.7	54.4	
Income increase within family	8	35.0	53.9	64.8	***
No income increase within family (referent group)	13	24.6	39.7	49.4	
New marriage within family	15	21.0	36.5	46.5	
No new marriage within family (referent group)	10	26.8	45.2	56.2	
Decrease in family size	10	27.2	45.6	56.7	
No decrease in family size (referent group)	10	26.7	44.9	55.8	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	10	26.7	45.0	56.0	
One percentage point above the mean state unemployment rate	10	27.1	45.6	56.6	
20th percentile wage (referent group)	10	26.8	45.1	56.2	
One dollar more than the 20th percentile wage	10	27.6	46.3	57.4	
Region of Residence					
Northeast	11	26.1	44.2	55.2	
Mid-Atlantic	9	28.7	48.1	59.4	
Midwest	11	24.8	42.3	53.1	
Southeast	14	21.5	37.4	47.5	**
Southwest	7	35.1	56.6	68.4	***
Mountain Plains	8	30.4	50.3	61.9	*
Western (referent group)	11	25.8	43.8	54.8	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	10	26.5	44.7	55.7	
State exclude all or most vehicles	9	28.5	47.7	59.0	
State excludes one or fewer vehicles for SNAP unit (referent group)	12	23.4	40.2	50.7	
Certification Period					
State average certification period (referent group)	10	26.4	44.6	55.6	
State average certification period plus 1 month	11	25.6	43.5	54.4	***
Number of Spell-Month Observations	42,018				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with TANF Income			
	Median	4 Months or Less	8 Months or Less	12 Months or Less
All Individuals	7	36.8	58.3	66.0
Sex				
Male	7	38.1	59.8	67.6
Female (referent group)	7	35.8	56.9	64.7
Race/Ethnicity				
White, Non-Hispanic	11	26.8	44.6	52.4 ***
Black, Non-Hispanic	6	39.9	61.8	70.5
Other, Non-Hispanic	11	27.3	45.3	53.2 *
Hispanic (referent group)	4	55.8	78.7	86.1
Age				
18 to 29 (referent group)	6	41.1	63.4	71.3
30 to 49	9	29.3	48.5	55.9
50 to 64	7	36.1	57.3	65.2
65 and older	8	34.1	54.9	62.7
Citizenship				
Citizen	7	37.9	59.8	67.8
Noncitizen (referent group)	23	21.6	37.5	44.0
Education				
Highest Grade Completed				
0 to 8 (referent group)	8	33.2	54.0	61.6
9 to 11	6	38.4	60.6	68.3
12	8	32.5	53.1	60.6
13 and above	5	43.5	66.5	74.2
Family Composition				
Mean number of adults age 18-59 (referent group)	7	36.7	58.1	65.8
One adult more than the mean number of adults age 18-59	7	36.8	58.3	66.0
Mean number of adults age 60+ (referent group)	7	34.8	56.6	64.5
One adult more than the mean number of adults age 60+	5	44.1	67.7	75.6
Mean number of children less than age 6 (referent group)	6	38.7	60.8	68.9
One child more than the mean number of children less than age 6	8	31.2	51.1	58.9 *
Mean number of children between ages 6 to 17 (referent group)	6	41.7	64.2	71.8
One child more than the mean number of children between ages 6 to 17	7	35.4	56.6	64.1 **
Marital Status				
Currently married	7	36.0	57.2	64.9
Not currently married (referent group)	7	37.1	58.7	66.4
Employment Status				
Currently employed	5	46.3	70.3	78.8
Have not worked 1 to 5 months	8	32.9	54.3	63.1
Have not worked 6 to 11 months	36	17.3	31.3	37.8
Have not worked at least 12 months (referent group)	8	31.6	52.6	61.3
Ratio of Family Income to Poverty Level				
Less than 100 percent (referent group)	6	42.9	65.6	73.2
100 percent to less than 150 percent	8	33.1	53.7	61.1
150 percent to less than 200 percent	8	32.5	52.8	60.2
200 percent and above	8	34.4	55.4	62.9
Net Worth				
Greater than \$0	8	34.4	55.2	62.7
\$0 or negative (referent group)	6	42.1	64.6	72.2
Greater than \$25,000	5	47.0	70.6	78.7 *
\$25,000 or less (referent group)	9	29.2	48.7	56.7

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with TANF Income			
	Median	4 Months or Less	8 Months or Less	12 Months or Less
Other Income				
Receive TANF				
No TANF (referent group)				
Receive SSI or general assistance	9	30.3	49.8	57.2
No SSI or general assistance (referent group)	7	37.7	59.4	67.2
Receive WIC, Medicaid or housing subsidies	8	32.3	52.7	60.4
No WIC, Medicaid or housing subsidies (referent group)	6	42.8	65.7	73.5
Receive alimony or child support	6	38.7	60.6	68.3
No receipt of alimony or child support (referent group)	7	36.8	58.2	65.9
Benefit History				
Spell is first ever	3	70.8	89.9	94.3 ***
Spell is not first ever (referent group)	8	34.6	54.3	61.7
Health Status and Medical Costs				
In fair or poor health	8	31.2	50.9	58.5
Health good or better (referent group)	7	38.0	59.6	67.5
Out-of-pocket medical costs greater than \$1000	4	62.5	84.7	90.5 **
Out-of-pocket medical costs \$1000 or less (referent group)	7	35.1	56.5	64.3
Exit Trigger Events				
Job gain within family	4	50.7	73.1	80.2
No job gain within family (referent group)	7	35.7	56.1	63.5
Income increase within family	4	52.1	72.1	78.8 **
No income increase within family (referent group)	8	33.6	50.7	57.3
New marriage within family	4	50.6	73.6	80.8
No new marriage within family (referent group)	7	36.8	58.1	65.7
Decrease in family size	5	44.1	65.3	72.5
No decrease in family size (referent group)	8	34.7	53.9	61.0
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate (referent group)	7	36.0	57.3	65.0
One percentage point above the mean state unemployment rate	7	37.2	58.8	66.6
20th percentile wage (referent group)	6	41.0	62.8	71.1
One dollar more than the 20th percentile wage	11	27.2	44.8	52.4 **
Region of Residence				
Northeast	6	40.9	66.6	73.4
Mid-Atlantic	4	50.3	76.2	82.5
Midwest	7	33.9	58.3	65.0
Southeast	6	39.0	64.5	71.3
Southwest	> 51	5.7	12.6	14.6 ***
Mountain Plains	3	71.3	91.7	95.4
Western (referent group)	6	41.0	66.7	73.5
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	7	37.8	59.2	66.9
State exclude all or most vehicles	8	34.3	54.9	62.5 ***
State excludes one or fewer vehicles for SNAP unit (referent group)	8	34.3	54.9	62.5
Certification Period				
State average certification period (referent group)	7	36.9	58.4	66.0
State average certification period plus 1 month	7	37.7	59.4	67.1
Number of Spell-Month Observations	2,115			

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families without TANF Income				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	11	28.3	44.6	54.9	
Sex					
Male	10	30.0	46.9	57.4	***
Female (referent group)	11	27.0	42.8	52.9	
Race/Ethnicity					
White, Non-Hispanic	11	28.1	44.2	54.5	
Black, Non-Hispanic	11	28.4	44.7	55.0	
Other, Non-Hispanic	11	27.9	44.0	54.2	
Hispanic (referent group)	10	28.9	45.5	55.8	
Age					
18 to 29 (referent group)	10	29.4	46.1	56.5	
30 to 49	11	28.4	44.6	54.9	
50 to 64	12	26.6	42.2	52.2	**
65 and older	11	27.7	43.8	53.9	
Citizenship					
Citizen	10	28.8	45.3	55.7	***
Noncitizen (referent group)	13	24.5	39.3	49.0	
Education					
Highest Grade Completed					
0 to 8 (referent group)	10	28.8	45.3	55.7	
9 to 11	11	27.4	43.4	53.6	
12	12	26.4	42.0	52.0	
13 and above	9	30.2	47.2	57.8	
Family Composition					
Mean number of adults age 18-59 (referent group)	11	27.7	43.9	54.2	
One adult more than the mean number of adults age 18-59	9	31.0	48.4	59.1	***
Mean number of adults age 60+ (referent group)	11	28.2	44.5	54.8	
One adult more than the mean number of adults age 60+	9	32.0	49.7	60.5	***
Mean number of children less than age 6 (referent group)	11	28.3	44.5	54.8	
One child more than the mean number of children less than age 6	12	26.6	42.3	52.3	***
Mean number of children between ages 6 to 17 (referent group)	11	28.2	44.6	54.9	
One child more than the mean number of children between ages 6 to 17	12	26.4	42.1	52.1	***
Marital Status					
Currently married	12	26.6	42.2	52.2	***
Not currently married (referent group)	10	29.4	46.0	56.5	
Employment Status					
Currently employed	10	28.8	45.2	55.6	
Have not worked 1 to 5 months	11	28.0	44.2	54.5	
Have not worked 6 to 11 months	11	28.2	44.5	54.8	
Have not worked at least 12 months (referent group)	11	27.7	43.8	54.0	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	13	24.4	39.4	49.2	
100 percent to less than 150 percent	12	26.2	41.9	52.1	*
150 percent to less than 200 percent	9	31.7	49.4	60.3	***
200 percent and above	8	32.8	50.9	61.9	***
Net Worth					
Greater than \$0	11	27.7	43.8	54.0	*
\$0 or negative (referent group)	10	29.6	46.3	56.7	
Greater than \$25,000	10	28.7	45.1	55.4	
\$25,000 or less (referent group)	11	28.2	44.4	54.6	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families without TANF Income				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF					
No TANF (referent group)					
Receive SSI or general assistance	13	24.3	39.0	48.6	**
No SSI or general assistance (referent group)	10	28.6	45.0	55.4	
Receive WIC, Medicaid or housing subsidies	16	21.9	35.7	45.0	***
No WIC, Medicaid or housing subsidies (referent group)	9	31.8	49.5	60.4	
Receive alimony or child support	11	28.0	44.2	54.4	
No receipt of alimony or child support (referent group)	11	28.4	44.6	54.9	
Benefit History					
Spell is first ever	9	31.4	48.8	59.5	***
Spell is not first ever (referent group)	12	26.7	42.4	52.5	
Health Status and Medical Costs					
In fair or poor health	12	25.9	41.2	51.2	***
Health good or better (referent group)	10	28.9	45.4	55.8	
Out-of-pocket medical costs greater than \$1000	10	30.0	46.9	57.3	
Out-of-pocket medical costs \$1000 or less (referent group)	11	28.2	44.4	54.7	
Exit Trigger Events					
Job gain within family	8	34.4	52.1	62.8	***
No job gain within family (referent group)	11	27.8	43.5	53.4	
Income increase within family	8	36.2	53.1	63.3	***
No income increase within family (referent group)	13	26.6	40.5	49.7	
New marriage within family	12	25.4	40.5	50.3	
No new marriage within family (referent group)	11	28.3	44.6	54.9	
Decrease in family size	9	31.0	47.7	58.1	***
No decrease in family size (referent group)	11	27.8	43.5	53.5	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	11	28.3	44.6	54.8	
One percentage point above the mean state unemployment rate	10	28.6	44.9	55.2	
20th percentile wage (referent group)	11	28.4	44.7	55.0	
One dollar more than the 20th percentile wage	10	29.5	46.2	56.7	
Region of Residence					
Northeast	11	28.1	44.4	54.7	
Mid-Atlantic	10	29.6	46.4	56.9	
Midwest	11	27.1	42.9	53.1	
Southeast	13	24.6	39.5	49.2	
Southwest	8	34.0	52.2	63.1	***
Mountain Plains	8	32.5	50.3	61.1	***
Western (referent group)	11	27.0	42.8	52.9	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	10	28.4	44.7	55.0	
State exclude all or most vehicles	10	28.7	45.1	55.4	*
State excludes one or fewer vehicles for SNAP unit (referent group)	14	24.1	38.6	48.2	
Certification Period					
State average certification period (referent group)	11	27.9	44.1	54.4	
State average certification period plus 1 month	11	27.0	42.9	53.0	***
Number of Spell-Month Observations	72,093				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in States with Certification Periods Longer than the Average Certification Period				
	4 Months or 8 Months or 12 Months				
	Median	Less	Less	or Less	
All Individuals	12	26.7	43.5	51.9	
Sex					
Male	10	28.4	46.0	54.7	**
Female (referent group)	13	25.2	41.4	49.6	
Race/Ethnicity					
White, Non-Hispanic	11	26.9	43.9	52.4	***
Black, Non-Hispanic	14	24.0	39.7	47.8	
Other, Non-Hispanic	12	26.3	43.1	51.5	
Hispanic (referent group)	9	30.4	48.7	57.6	
Age					
18 to 29 (referent group)	11	27.4	44.6	53.1	
30 to 49	12	26.1	42.6	51.0	
50 to 64	12	25.6	41.9	50.2	
65 and older	10	28.2	45.6	54.2	
Citizenship					
Citizen	11	26.9	43.8	52.2	
Noncitizen (referent group)	13	24.6	40.4	48.5	
Education					
Highest Grade Completed					
0 to 8 (referent group)	11	27.1	44.2	52.7	
9 to 11	11	27.6	44.8	53.4	
12	14	24.3	40.1	48.2	
13 and above	10	28.2	45.7	54.4	
Family Composition					
Mean number of adults age 18-59 (referent group)	12	25.8	42.7	51.2	***
One adult more than the mean number of adults age 18-59	9	29.7	48.1	57.1	
Mean number of adults age 60+ (referent group)	12	26.7	43.4	51.9	
One adult more than the mean number of adults age 60+	10	28.7	46.3	55.0	
Mean number of children less than age 6 (referent group)	12	26.7	43.5	51.9	
One child more than the mean number of children less than age 6	12	25.8	42.2	50.6	
Mean number of children between ages 6 to 17 (referent group)	12	26.6	43.4	51.8	
One child more than the mean number of children between ages 6 to 17	12	25.6	41.9	50.2	
Marital Status					
Currently married	14	24.0	39.6	47.7	***
Not currently married (referent group)	10	28.2	45.6	54.2	
Employment Status					
Currently employed	11	27.4	44.6	53.2	
Have not worked 1 to 5 months	16	22.6	37.7	45.5	
Have not worked 6 to 11 months	14	24.2	40.0	48.1	
Have not worked at least 12 months (referent group)	11	26.8	43.7	52.2	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	14	23.5	39.1	47.2	
100 percent to less than 150 percent	14	23.5	39.1	47.2	
150 percent to less than 200 percent	8	31.6	50.5	59.6	***
200 percent and above	10	29.5	47.6	56.6	***
Net Worth					
Greater than \$0	12	26.0	42.5	50.8	
\$0 or negative (referent group)	11	27.9	45.2	53.8	
Greater than \$25,000	12	26.1	42.7	51.1	
\$25,000 or less (referent group)	11	26.9	43.8	52.3	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

	Individuals in States with Certification Periods Longer than the Average Certification Period				
		4 Months or Less	8 Months or Less	12 Months or Less	
Individual Characteristics	Median				
Other Income					
Receive TANF	9	30.5	48.7	57.6	
No TANF (referent group)	12	26.5	43.3	51.7	
Receive SSI or general assistance	24	18.8	31.9	38.9	***
No SSI or general assistance (referent group)	11	27.3	44.5	53.1	
Receive WIC, Medicaid or housing subsidies	16	22.4	37.4	45.3	***
No WIC, Medicaid or housing subsidies (referent group)	10	29.2	47.2	56.1	
Receive alimony or child support	13	24.9	41.0	49.2	
No receipt of alimony or child support (referent group)	12	26.8	43.7	52.1	
Benefit History					
Spell is first ever	10	29.5	47.5	56.2	***
Spell is not first ever (referent group)	13	25.3	41.5	49.8	
Health Status and Medical Costs					
In fair or poor health	16	22.5	37.4	45.2	***
Health good or better (referent group)	11	27.7	44.9	53.5	
Out-of-pocket medical costs greater than \$1000	9	29.7	47.8	56.5	
Out-of-pocket medical costs \$1000 or less (referent group)	12	26.4	43.1	51.5	
Exit Trigger Events					
Job gain within family	9	31.7	49.9	58.8	**
No job gain within family (referent group)	12	26.3	42.5	50.8	
Income increase within family	8	33.8	51.3	59.9	***
No income increase within family (referent group)	14	25.3	39.8	47.4	
New marriage within family	12	26.7	43.5	51.9	
No new marriage within family (referent group)	12	26.7	43.5	51.9	
Decrease in family size	11	27.5	44.5	53.0	
No decrease in family size (referent group)	12	26.5	43.1	51.5	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	12	26.7	43.5	52.0	
One percentage point above the mean state unemployment rate	11	26.9	43.8	52.3	
20th percentile wage (referent group)	12	26.6	43.3	51.7	
One dollar more than the 20th percentile wage	10	28.5	46.0	54.7	
Region of Residence					
Northeast	15	22.9	38.1	46.0	
Mid-Atlantic	12	26.7	43.6	52.1	
Midwest	10	29.4	47.3	56.2	
Southeast	19	20.9	35.0	42.5	
Southwest	9	30.2	48.5	57.4	
Mountain Plains	9	29.7	47.8	56.7	
Western (referent group)	12	26.6	43.5	52.0	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	12	26.2	42.8	51.2	
State exclude all or most vehicles	9	30.2	48.4	57.3	*
State excludes one or fewer vehicles for SNAP unit (referent group)	16	22.0	36.7	44.3	
Certification Period					
State average certification period (referent group)					
State average certification period plus 1 month					
Number of Spell-Month Observations	28,062				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in States with Certification Periods at or Below the Average Certification Period				
	4 Months or 8 Months or 12 Months				
	Median	Less	Less	or Less	
All Individuals	10	29.7	46.0	57.2	
Sex					
Male	9	31.2	48.0	59.4	**
Female (referent group)	10	28.5	44.5	55.5	
Race/Ethnicity					
White, Non-Hispanic	10	28.6	44.5	55.5	
Black, Non-Hispanic	9	32.3	49.4	60.9	
Other, Non-Hispanic	10	30.3	46.8	58.1	
Hispanic (referent group)	10	29.5	45.7	56.9	
Age					
18 to 29 (referent group)	9	31.1	47.9	59.2	
30 to 49	10	29.8	46.1	57.3	
50 to 64	11	28.0	43.7	54.6	*
65 and older	11	27.7	43.3	54.2	
Citizenship					
Citizen	9	30.4	47.0	58.3	***
Noncitizen (referent group)	12	25.1	39.8	50.3	
Education					
Highest Grade Completed					
0 to 8 (referent group)	10	30.2	46.8	58.1	
9 to 11	10	28.4	44.3	55.4	
12	11	28.0	43.7	54.6	
13 and above	9	31.8	48.8	60.2	
Family Composition					
Mean number of adults age 18-59 (referent group)	10	29.1	45.2	56.4	
One adult more than the mean number of adults age 18-59	9	31.7	48.6	60.1	***
Mean number of adults age 60+ (referent group)	10	29.4	45.8	57.0	
One adult more than the mean number of adults age 60+	8	34.0	51.8	63.5	***
Mean number of children less than age 6 (referent group)	10	29.6	45.9	57.2	
One child more than the mean number of children less than age 6	11	27.5	43.1	54.0	***
Mean number of children between ages 6 to 17 (referent group)	10	29.7	46.2	57.4	
One child more than the mean number of children between ages 6 to 17	11	27.6	43.2	54.1	***
Marital Status					
Currently married	10	28.8	44.8	55.9	
Not currently married (referent group)	10	30.3	46.8	58.0	
Employment Status					
Currently employed	10	30.0	46.5	57.7	
Have not worked 1 to 5 months	9	31.3	48.1	59.5	
Have not worked 6 to 11 months	10	30.3	46.8	58.1	
Have not worked at least 12 months (referent group)	10	28.8	44.7	55.8	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	12	25.5	40.5	51.2	
100 percent to less than 150 percent	10	28.4	44.5	55.7	**
150 percent to less than 200 percent	9	31.9	49.2	60.9	***
200 percent and above	8	35.1	53.3	65.2	***
Net Worth					
Greater than \$0	10	29.3	45.5	56.6	
\$0 or negative (referent group)	9	30.7	47.3	58.6	
Greater than \$25,000	9	31.3	48.2	59.6	*
\$25,000 or less (referent group)	10	28.9	44.9	56.0	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

	Individuals in States with Certification Periods at or Below the Average Certification Period				
		4 Months or	8 Months or	12 Months	
Individual Characteristics	Median	Less	Less	or Less	
Other Income					
Receive TANF	7	37.1	55.5	67.3	***
No TANF (referent group)	10	29.4	45.7	56.9	
Receive SSI or general assistance	11	28.4	44.2	55.2	
No SSI or general assistance (referent group)	10	29.8	46.2	57.4	
Receive WIC, Medicaid or housing subsidies	15	22.6	36.3	46.4	***
No WIC, Medicaid or housing subsidies (referent group)	8	33.5	51.2	63.1	
Receive alimony or child support	10	29.9	46.3	57.5	
No receipt of alimony or child support (referent group)	10	29.7	46.0	57.2	
Benefit History					
Spell is first ever	8	33.1	50.6	62.2	***
Spell is not first ever (referent group)	11	28.0	43.7	54.8	
Health Status and Medical Costs					
In fair or poor health	11	28.2	44.0	55.0	
Health good or better (referent group)	10	30.1	46.5	57.8	
Out-of-pocket medical costs greater than \$1000	9	30.9	47.5	58.9	
Out-of-pocket medical costs \$1000 or less (referent group)	10	29.6	45.9	57.1	
Exit Trigger Events					
Job gain within family	8	36.6	54.4	65.8	***
No job gain within family (referent group)	10	29.2	44.7	55.5	
Income increase within family	7	38.1	54.9	65.8	***
No income increase within family (referent group)	12	27.7	41.6	51.5	
New marriage within family	10	29.7	46.0	57.2	
No new marriage within family (referent group)	10	29.7	46.0	57.2	
Decrease in family size	8	33.7	50.5	61.8	***
No decrease in family size (referent group)	11	28.9	44.2	55.0	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	10	29.7	45.9	57.1	
One percentage point above the mean state unemployment rate	10	29.9	46.2	57.4	
20th percentile wage (referent group)	10	29.7	46.0	57.2	
One dollar more than the 20th percentile wage	10	29.7	46.0	57.2	
Region of Residence					
Northeast	11	27.4	43.0	53.9	
Mid-Atlantic	9	32.3	49.5	61.0	
Midwest	11	27.4	42.9	53.8	
Southeast	11	27.9	43.5	54.5	
Southwest	8	34.7	52.6	64.3	**
Mountain Plains	8	34.1	51.8	63.4	*
Western (referent group)	10	29.0	45.1	56.3	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	10	30.1	46.5	57.7	
State exclude all or most vehicles	10	28.7	44.6	55.6	
State excludes one or fewer vehicles for SNAP unit (referent group)	10	28.8	44.8	55.8	
Certification Period					
State average certification period (referent group)					
State average certification period plus 1 month					
Number of Spell-Month Observations	46,146				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in States Offering Broad-Based Categorical Eligibility				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	11	27.8	44.2	54.3	
Sex					
Male	10	29.7	46.9	57.2	***
Female (referent group)	12	26.2	42.1	52.0	
Race/Ethnicity					
White, Non-Hispanic	11	28.1	44.7	54.8	
Black, Non-Hispanic	11	27.9	44.4	54.4	
Other, Non-Hispanic	11	27.4	43.7	53.7	
Hispanic (referent group)	11	27.2	43.4	53.4	
Age					
18 to 29 (referent group)	10	29.3	46.3	56.6	
30 to 49	11	27.3	43.6	53.5	*
50 to 64	12	26.3	42.1	51.9	**
65 and older	11	27.1	43.3	53.2	
Citizenship					
Citizen	10	28.4	45.2	55.3	***
Noncitizen (referent group)	14	23.2	37.7	47.0	
Education					
Highest Grade Completed					
0 to 8 (referent group)	11	27.5	44.0	54.0	
9 to 11	10	28.4	45.1	55.2	
12	12	25.7	41.4	51.1	
13 and above	10	29.4	46.5	56.7	
Family Composition					
Mean number of adults age 18-59 (referent group)	11	27.2	43.5	53.5	
One adult more than the mean number of adults age 18-59	9	29.9	47.3	57.7	***
Mean number of adults age 60+ (referent group)	11	27.6	44.1	54.2	
One adult more than the mean number of adults age 60+	9	30.9	48.5	59.0	***
Mean number of children less than age 6 (referent group)	11	27.7	44.2	54.2	
One child more than the mean number of children less than age 6	12	26.4	42.3	52.2	**
Mean number of children between ages 6 to 17 (referent group)	11	27.7	44.2	54.3	
One child more than the mean number of children between ages 6 to 17	12	26.2	42.1	52.0	***
Marital Status					
Currently married	12	26.3	42.1	52.0	**
Not currently married (referent group)	10	28.6	45.3	55.5	
Employment Status					
Currently employed	11	27.8	44.2	54.3	
Have not worked 1 to 5 months	10	28.3	44.9	55.1	
Have not worked 6 to 11 months	12	26.4	42.4	52.2	
Have not worked at least 12 months (referent group)	11	27.9	44.3	54.4	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	13	24.1	39.3	48.9	
100 percent to less than 150 percent	12	25.3	41.0	50.8	
150 percent to less than 200 percent	9	31.0	48.9	59.6	***
200 percent and above	8	32.4	50.7	61.5	***
Net Worth					
Greater than \$0	11	27.5	43.8	53.8	
\$0 or negative (referent group)	10	28.3	45.0	55.1	
Greater than \$25,000	11	27.8	44.3	54.3	
\$25,000 or less (referent group)	11	27.8	44.2	54.2	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in States Offering Broad-Based Categorical Eligibility				
	Median	4 Months or 8 Months or 12 Months			
		Less	Less	or Less	
Other Income					
Receive TANF	8	33.2	51.5	62.1	**
No TANF (referent group)	11	27.6	43.9	54.0	
Receive SSI or general assistance	14	23.4	38.0	47.3	***
No SSI or general assistance (referent group)	11	28.1	44.7	54.8	
Receive WIC, Medicaid or housing subsidies	15	22.1	36.3	45.5	***
No WIC, Medicaid or housing subsidies (referent group)	9	31.0	48.8	59.5	
Receive alimony or child support	10	28.4	45.1	55.2	
No receipt of alimony or child support (referent group)	11	27.7	44.2	54.2	
Benefit History					
Spell is first ever	9	30.6	48.2	58.6	***
Spell is not first ever (referent group)	12	26.4	42.3	52.1	
Health Status and Medical Costs					
In fair or poor health	12	25.1	40.5	50.1	***
Health good or better (referent group)	10	28.4	45.1	55.3	
Out-of-pocket medical costs greater than \$1000	10	29.7	46.9	57.2	
Out-of-pocket medical costs \$1000 or less (referent group)	11	27.6	44.0	54.0	
Exit Trigger Events					
Job gain within family	8	34.0	52.1	62.5	***
No job gain within family (referent group)	11	27.3	43.0	52.7	
Income increase within family	8	35.3	52.4	62.4	***
No income increase within family (referent group)	13	26.1	40.3	49.2	
New marriage within family	12	25.3	40.7	50.4	
No new marriage within family (referent group)	11	27.8	44.3	54.3	
Decrease in family size	9	31.2	48.2	58.4	***
No decrease in family size (referent group)	11	27.1	42.8	52.4	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	11	27.7	44.2	54.2	
One percentage point above the mean state unemployment rate	11	28.0	44.5	54.6	
20th percentile wage (referent group)	11	27.8	44.2	54.3	
One dollar more than the 20th percentile wage	10	28.2	44.8	54.9	
Region of Residence					
Northeast	11	26.9	43.0	53.0	
Mid-Atlantic	10	28.6	45.5	55.7	
Midwest	12	26.2	42.1	52.0	
Southeast	13	25.0	40.3	49.9	
Southwest	8	32.9	51.2	61.9	***
Mountain Plains	11	28.0	44.5	54.6	
Western (referent group)	11	27.0	43.2	53.1	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility					
State exclude all or most vehicles					
State excludes one or fewer vehicles for SNAP unit (referent group)					
Certification Period					
State average certification period (referent group)	11	27.6	44.1	54.1	
State average certification period plus 1 month	11	26.9	43.0	52.9	***
Number of Spell-Month Observations	59,332				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in States that Exclude All or Most Vehicles				
	4 Months or 8 Months or 12 Months or Less				
	Median	Less	Less	or Less	
All Individuals	9	32.5	48.6	60.3	
Sex					
Male	9	32.8	49.0	60.7	
Female (referent group)	9	32.3	48.3	60.0	
Race/Ethnicity					
White, Non-Hispanic	10	29.1	44.4	56.1	***
Black, Non-Hispanic	8	34.3	51.2	63.5	*
Other, Non-Hispanic	11	28.5	43.5	55.1	**
Hispanic (referent group)	6	41.4	59.9	72.3	
Age					
18 to 29 (referent group)	9	31.7	47.5	59.1	
30 to 49	8	34.1	50.6	62.5	
50 to 64	9	31.7	47.5	59.1	
65 and older	10	30.7	46.2	57.7	
Citizenship					
Citizen	9	32.2	48.2	59.9	
Noncitizen (referent group)	8	36.3	53.4	65.4	
Education					
Highest Grade Completed					
0 to 8 (referent group)	7	36.9	54.4	66.7	
9 to 11	11	29.0	44.1	55.6	*
12	11	28.9	44.0	55.6	**
13 and above	8	36.4	53.8	66.1	
Family Composition					
Mean number of adults age 18-59 (referent group)	9	31.4	47.3	59.1	
One adult more than the mean number of adults age 18-59	8	35.8	53.0	65.2	***
Mean number of adults age 60+ (referent group)	9	31.9	48.1	59.8	
One adult more than the mean number of adults age 60+	7	37.2	54.8	66.9	***
Mean number of children less than age 6 (referent group)	9	32.4	48.6	60.3	
One child more than the mean number of children less than age 6	11	28.9	43.9	55.2	**
Mean number of children between ages 6 to 17 (referent group)	9	32.6	48.9	60.6	
One child more than the mean number of children between ages 6 to 17	10	29.2	44.4	55.7	***
Marital Status					
Currently married	10	29.9	45.2	56.6	**
Not currently married (referent group)	8	34.4	51.1	63.0	
Employment Status					
Currently employed	8	35.2	52.1	64.1	***
Have not worked 1 to 5 months	10	30.7	46.2	57.8	
Have not worked 6 to 11 months	8	34.5	51.2	63.2	
Have not worked at least 12 months (referent group)	11	28.5	43.3	54.6	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	11	28.8	44.0	55.4	
100 percent to less than 150 percent	9	32.1	48.4	60.2	
150 percent to less than 200 percent	8	35.4	52.6	64.7	**
200 percent and above	8	35.5	52.7	64.8	**
Net Worth					
Greater than \$0	10	30.8	46.3	57.9	**
\$0 or negative (referent group)	8	36.5	53.6	65.7	
Greater than \$25,000	8	34.9	51.8	63.8	
\$25,000 or less (referent group)	10	30.9	46.6	58.2	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in States that Exclude All or Most Vehicles				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	6	43.0	61.6	73.6	*
No TANF (referent group)	9	32.0	48.1	59.8	
Receive SSI or general assistance	11	28.7	43.6	54.9	
No SSI or general assistance (referent group)	9	32.7	48.9	60.7	
Receive WIC, Medicaid or housing subsidies	14	24.3	37.5	48.0	***
No WIC, Medicaid or housing subsidies (referent group)	7	37.1	54.5	66.7	
Receive alimony or child support	12	26.1	40.0	50.9	
No receipt of alimony or child support (referent group)	9	32.9	49.1	60.9	
Benefit History					
Spell is first ever	7	37.0	54.5	66.7	***
Spell is not first ever (referent group)	10	30.2	45.7	57.3	
Health Status and Medical Costs					
In fair or poor health	10	31.1	46.8	58.4	
Health good or better (referent group)	9	32.9	49.1	60.8	
Out-of-pocket medical costs greater than \$1000	8	35.4	52.3	64.2	
Out-of-pocket medical costs \$1000 or less (referent group)	9	32.3	48.3	60.0	
Exit Trigger Events					
Job gain within family	8	35.7	52.4	64.3	
No job gain within family (referent group)	9	32.3	48.0	59.6	
Income increase within family	6	45.2	61.3	72.6	***
No income increase within family (referent group)	12	29.5	42.2	52.5	
New marriage within family	49	14.4	23.0	30.4	
No new marriage within family (referent group)	9	32.6	48.7	60.5	
Decrease in family size	9	32.6	48.7	60.4	
No decrease in family size (referent group)	9	32.5	48.6	60.3	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	9	32.4	48.5	60.2	
One percentage point above the mean state unemployment rate	9	33.1	49.3	61.1	
20th percentile wage (referent group)	9	32.6	48.7	60.5	
One dollar more than the 20th percentile wage	8	33.6	50.0	61.9	
Region of Residence					
Northeast	2	82.0	94.8	98.4	*
Mid-Atlantic	6	40.1	58.4	70.6	
Midwest	10	29.6	45.1	56.7	
Southeast	13	25.3	39.1	49.9	**
Southwest	7	39.2	57.3	69.5	
Mountain Plains	6	43.2	62.1	74.2	
Western (referent group)	8	35.7	52.9	65.1	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility					
State exclude all or most vehicles					
State excludes one or fewer vehicles for SNAP unit (referent group)					
Certification Period					
State average certification period (referent group)	10	30.8	46.4	58.0	
State average certification period plus 1 month	10	29.5	44.7	56.1	**
Number of Spell-Month Observations	13,232				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit			
	4 Months or 8 Months or 12 Months			
	Median	Less	Less	or Less
All Individuals	10	26.5	47.2	53.7
Sex				
Male	9	27.7	49.2	55.9
Female (referent group)	11	25.0	45.2	51.5
Race/Ethnicity				
White, Non-Hispanic	10	26.9	48.0	54.6
Black, Non-Hispanic	16	20.9	38.8	44.7
Other, Non-Hispanic	9	28.0	49.7	56.4
Hispanic (referent group)	8	29.9	52.4	59.2
Age				
18 to 29 (referent group)	15	22.4	40.5	46.4
30 to 49	8	29.4	51.2	57.8
50 to 64	7	35.4	59.4	66.4
65 and older	20	18.8	34.8	40.0
Citizenship				
Citizen	10	26.9	47.8	54.3
Noncitizen (referent group)	14	22.9	41.7	47.7
Education				
Highest Grade Completed				
0 to 8 (referent group)	4	53.0	80.7	87.2
9 to 11	15	20.4	39.9	46.4
12	7	33.4	59.2	67.0
13 and above	16	18.8	37.3	43.5
Family Composition				
Mean number of adults age 18-59 (referent group)	11	24.7	45.8	52.3
One adult more than the mean number of adults age 18-59	8	29.6	53.2	60.1
Mean number of adults age 60+ (referent group)	9	27.9	49.4	56.2
One adult more than the mean number of adults age 60+	6	38.7	64.0	71.2
Mean number of children less than age 6 (referent group)	10	26.6	47.7	54.4
One child more than the mean number of children less than age 6	11	25.0	45.2	51.7
Mean number of children between ages 6 to 17 (referent group)	10	27.0	47.8	54.2
One child more than the mean number of children between ages 6 to 17	12	25.0	44.8	51.0
Marital Status				
Currently married	15	21.6	39.7	45.7
Not currently married (referent group)	8	30.1	52.6	59.5
Employment Status				
Currently employed	10	27.1	48.1	54.6
Have not worked 1 to 5 months	13	23.4	42.5	48.5
Have not worked 6 to 11 months	8	31.3	54.1	60.9
Have not worked at least 12 months (referent group)	11	25.2	45.2	51.5
Ratio of Family Income to Poverty Level				
Less than 100 percent (referent group)	18	18.1	34.5	40.4
100 percent to less than 150 percent	11	24.5	45.0	52.0
150 percent to less than 200 percent	5	46.5	73.8	81.2
200 percent and above	6	37.9	64.0	71.8
Net Worth				
Greater than \$0	9	27.6	48.9	55.6
\$0 or negative (referent group)	13	24.1	43.6	49.9
Greater than \$25,000	15	22.6	40.8	46.5
\$25,000 or less (referent group)	8	30.6	52.8	59.4

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	10	26.5	47.2	53.7	***
No TANF (referent group)	10	26.5	47.2	53.7	
Receive SSI or general assistance	14	22.3	40.9	46.9	
No SSI or general assistance (referent group)	10	26.7	47.6	54.1	
Receive WIC, Medicaid or housing subsidies	22	17.1	32.6	37.8	*
No WIC, Medicaid or housing subsidies (referent group)	8	30.0	52.7	59.5	
Receive alimony or child support	7	33.3	56.9	63.8	
No receipt of alimony or child support (referent group)	10	26.3	47.0	53.4	
Benefit History					
Spell is first ever	9	28.1	49.8	56.6	
Spell is not first ever (referent group)	11	25.4	45.6	52.2	
Health Status and Medical Costs					
In fair or poor health	14	22.3	41.1	47.2	
Health good or better (referent group)	9	27.3	48.8	55.4	
Out-of-pocket medical costs greater than \$1000	14	23.0	42.0	48.2	
Out-of-pocket medical costs \$1000 or less (referent group)	10	26.7	47.8	54.4	
Exit Trigger Events					
Job gain within family	5	44.7	70.5	77.2	**
No job gain within family (referent group)	13	24.4	43.8	49.9	
Income increase within family	18	16.8	34.4	40.2	**
No income increase within family (referent group)	7	29.5	54.9	62.5	
New marriage within family	4	59.8	85.0	90.4	
No new marriage within family (referent group)	10	26.2	46.8	53.3	
Decrease in family size	6	41.1	64.7	71.7	**
No decrease in family size (referent group)	15	23.5	40.9	46.8	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	12	24.6	44.5	50.7	
One percentage point above the mean state unemployment rate	14	22.7	41.4	47.4	
20th percentile wage (referent group)	10	26.6	47.4	53.9	
One dollar more than the 20th percentile wage	9	27.5	48.7	55.3	
Region of Residence					
Northeast	16	20.8	39.0	44.6	***
Mid-Atlantic	16	20.8	39.0	44.6	***
Midwest	12	24.3	44.4	50.5	
Southeast	16	20.8	39.0	44.6	***
Southwest	6	40.2	65.9	72.8	
Mountain Plains	16	20.8	39.0	44.6	***
Western (referent group)	16	20.8	39.0	44.6	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility					
State exclude all or most vehicles					
State excludes one or fewer vehicles for SNAP unit (referent group)					
Certification Period					
State average certification period (referent group)	11	25.4	45.2	51.7	
State average certification period plus 1 month	13	24.3	43.6	49.9	
Number of Spell-Month Observations	1,644				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals Participating in SNAP for First Time				
	4 Months or 8 Months or 12 Months				
	Median	Less	Less	or Less	
All Individuals	8	31.6	50.4	59.2	
Sex					
Male	8	32.6	51.8	60.6	
Female (referent group)	9	30.7	49.2	58.0	
Race/Ethnicity					
White, Non-Hispanic	8	33.2	52.6	61.5	***
Black, Non-Hispanic	9	30.7	49.3	58.0	
Other, Non-Hispanic	7	36.5	56.8	65.9	***
Hispanic (referent group)	11	27.4	44.7	53.1	
Age					
18 to 29 (referent group)	8	33.9	53.4	62.4	
30 to 49	8	31.3	50.0	58.8	
50 to 64	9	29.7	47.8	56.4	*
65 and older	9	30.2	48.5	57.2	
Citizenship					
Citizen	8	31.7	50.5	59.3	
Noncitizen (referent group)	8	31.4	50.1	58.9	
Education					
Highest Grade Completed					
0 to 8 (referent group)	8	31.9	50.8	59.7	
9 to 11	8	31.8	50.7	59.6	
12	10	29.2	47.1	55.8	
13 and above	8	33.4	52.8	61.8	
Family Composition					
Mean number of adults age 18-59 (referent group)	8	31.5	50.4	59.4	
One adult more than the mean number of adults age 18-59	7	35.7	56.0	65.1	***
Mean number of adults age 60+ (referent group)	8	31.4	50.5	59.3	
One adult more than the mean number of adults age 60+	6	38.7	59.9	69.0	***
Mean number of children less than age 6 (referent group)	8	31.6	50.4	59.2	
One child more than the mean number of children less than age 6	9	31.0	49.6	58.4	
Mean number of children between ages 6 to 17 (referent group)	8	31.4	50.2	59.0	
One child more than the mean number of children between ages 6 to 17	9	30.4	48.8	57.5	
Marital Status					
Currently married	10	28.2	45.8	54.3	***
Not currently married (referent group)	8	34.0	53.6	62.6	
Employment Status					
Currently employed	9	31.2	49.9	58.6	
Have not worked 1 to 5 months	7	35.0	54.9	63.9	
Have not worked 6 to 11 months	10	29.5	47.6	56.2	
Have not worked at least 12 months (referent group)	8	31.9	50.8	59.6	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	11	26.6	44.2	52.9	
100 percent to less than 150 percent	12	26.1	43.5	52.1	
150 percent to less than 200 percent	8	33.2	53.3	62.6	***
200 percent and above	6	38.7	60.3	69.7	***
Net Worth					
Greater than \$0	8	32.1	51.1	59.9	
\$0 or negative (referent group)	9	30.6	49.0	57.7	
Greater than \$25,000	9	30.8	49.2	57.9	
\$25,000 or less (referent group)	8	32.3	51.3	60.1	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals Participating in SNAP for First Time				
	Median	4 Months or 8 Months or		12 Months or Less	
		Less	Less		
Other Income					
Receive TANF	6	39.9	61.0	70.0	
No TANF (referent group)	8	31.6	50.3	59.1	
Receive SSI or general assistance	12	26.0	42.6	50.8	*
No SSI or general assistance (referent group)	8	31.9	50.8	59.7	
Receive WIC, Medicaid or housing subsidies	16	21.4	36.1	43.9	***
No WIC, Medicaid or housing subsidies (referent group)	7	35.6	56.0	65.4	
Receive alimony or child support	8	31.5	50.2	59.0	
No receipt of alimony or child support (referent group)	8	31.7	50.4	59.2	
Benefit History					
Spell is first ever					
Spell is not first ever (referent group)					
Health Status and Medical Costs					
In fair or poor health	11	28.0	45.5	54.0	**
Health good or better (referent group)	8	32.4	51.5	60.4	
Out-of-pocket medical costs greater than \$1000	8	33.0	52.3	61.2	
Out-of-pocket medical costs \$1000 or less (referent group)	8	31.5	50.2	59.0	
Exit Trigger Events					
Job gain within family	7	38.8	59.1	68.0	***
No job gain within family (referent group)	9	31.1	49.2	57.8	
Income increase within family	6	41.7	61.0	69.5	***
No income increase within family (referent group)	11	29.3	45.2	53.1	
New marriage within family	7	35.4	55.4	64.4	
No new marriage within family (referent group)	8	31.6	50.4	59.2	
Decrease in family size	8	34.7	53.9	62.8	*
No decrease in family size (referent group)	9	31.1	49.3	57.9	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	8	31.4	50.0	58.8	
One percentage point above the mean state unemployment rate	8	32.3	51.3	60.1	***
20th percentile wage (referent group)	8	31.8	50.5	59.4	
One dollar more than the 20th percentile wage	7	35.6	55.6	64.6	**
Region of Residence					
Northeast	11	27.6	45.2	53.8	
Mid-Atlantic	9	30.1	48.8	57.7	
Midwest	8	32.0	51.3	60.3	**
Southeast	11	27.7	45.4	54.0	
Southwest	5	47.3	69.9	78.7	***
Mountain Plains	7	37.0	57.9	67.1	***
Western (referent group)	11	26.9	44.2	52.8	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	8	31.3	50.1	58.9	
State exclude all or most vehicles	8	33.9	53.5	62.4	*
State excludes one or fewer vehicles for SNAP unit (referent group)	13	25.1	41.3	49.4	
Certification Period					
State average certification period (referent group)	9	31.2	49.9	58.8	
State average certification period plus 1 month	9	30.4	48.7	57.5	***
Number of Spell-Month Observations	23,480				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals that have Participated in SNAP Previously				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	11	27.2	42.5	53.4	
Sex					
Male	10	29.3	45.4	56.6	***
Female (referent group)	12	25.6	40.3	51.0	
Race/Ethnicity					
White, Non-Hispanic	12	25.6	40.3	50.9	***
Black, Non-Hispanic	11	28.2	43.9	55.0	
Other, Non-Hispanic	13	25.0	39.4	49.9	**
Hispanic (referent group)	10	29.6	45.8	57.1	
Age					
18 to 29 (referent group)	11	28.3	43.9	55.0	
30 to 49	11	26.9	42.0	52.9	
50 to 64	12	25.9	40.7	51.3	
65 and older	11	26.9	42.0	52.8	
Citizenship					
Citizen	11	27.9	43.5	54.5	***
Noncitizen (referent group)	16	21.9	35.0	44.8	
Education					
Highest Grade Completed					
0 to 8 (referent group)	11	28.4	44.1	55.2	
9 to 11	12	26.5	41.5	52.3	
12	12	25.5	40.1	50.7	
13 and above	10	29.0	44.9	56.1	
Family Composition					
Mean number of adults age 18-59 (referent group)	12	26.4	41.4	52.3	
One adult more than the mean number of adults age 18-59	10	28.8	44.7	56.0	***
Mean number of adults age 60+ (referent group)	11	27.1	42.3	53.3	
One adult more than the mean number of adults age 60+	10	28.9	44.9	56.1	*
Mean number of children less than age 6 (referent group)	11	27.2	42.5	53.5	
One child more than the mean number of children less than age 6	13	24.9	39.3	49.8	***
Mean number of children between ages 6 to 17 (referent group)	11	27.4	42.7	53.7	
One child more than the mean number of children between ages 6 to 17	12	25.5	40.1	50.7	***
Marital Status					
Currently married	12	26.7	41.7	52.5	
Not currently married (referent group)	11	27.5	42.9	53.8	
Employment Status					
Currently employed	11	28.2	43.8	54.9	
Have not worked 1 to 5 months	12	25.9	40.7	51.3	
Have not worked 6 to 11 months	11	26.8	42.0	52.8	
Have not worked at least 12 months (referent group)	12	26.3	41.3	52.1	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	14	23.9	37.9	48.3	
100 percent to less than 150 percent	12	26.4	41.4	52.4	*
150 percent to less than 200 percent	9	31.9	49.0	60.6	***
200 percent and above	10	29.9	46.3	57.7	***
Net Worth					
Greater than \$0	12	26.3	41.3	52.0	**
\$0 or negative (referent group)	10	28.8	44.7	55.9	
Greater than \$25,000	10	28.6	44.4	55.5	
\$25,000 or less (referent group)	12	26.6	41.7	52.5	

Table D.2 Regression-Adjusted Median SNAP Spell Duration and Cumulative Exit Rates, by Participant Characteristic

Individual Characteristics	Individuals that have Participated in SNAP Previously				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	9	32.1	49.1	60.6	**
No TANF (referent group)	11	26.9	42.1	53.0	
Receive SSI or general assistance	14	23.5	37.3	47.5	**
No SSI or general assistance (referent group)	11	27.6	43.0	53.9	
Receive WIC, Medicaid or housing subsidies	15	22.7	36.2	46.3	***
No WIC, Medicaid or housing subsidies (referent group)	10	30.3	46.7	58.2	
Receive alimony or child support	11	26.9	42.1	52.9	
No receipt of alimony or child support (referent group)	11	27.2	42.5	53.4	
Benefit History					
Spell is first ever					
Spell is not first ever (referent group)					
Health Status and Medical Costs					
In fair or poor health	12	25.4	39.9	50.5	*
Health good or better (referent group)	11	27.7	43.2	54.1	
Out-of-pocket medical costs greater than \$1000	10	29.5	45.6	56.9	
Out-of-pocket medical costs \$1000 or less (referent group)	11	27.1	42.3	53.1	
Exit Trigger Events					
Job gain within family	9	33.1	49.8	61.2	***
No job gain within family (referent group)	12	26.7	41.3	51.9	
Income increase within family	8	34.3	50.1	61.0	***
No income increase within family (referent group)	13	25.7	38.8	48.5	
New marriage within family	16	22.2	35.4	45.3	
No new marriage within family (referent group)	11	27.3	42.6	53.5	
Decrease in family size	10	30.0	45.7	56.8	***
No decrease in family size (referent group)	12	26.6	41.2	51.7	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	11	27.2	42.5	53.4	
One percentage point above the mean state unemployment rate	11	27.2	42.5	53.4	
20th percentile wage (referent group)	11	27.2	42.4	53.3	
One dollar more than the 20th percentile wage	12	26.3	41.3	52.0	
Region of Residence					
Northeast	11	27.7	43.1	54.1	
Mid-Atlantic	9	30.6	47.0	58.4	
Midwest	13	24.8	39.1	49.5	*
Southeast	13	24.3	38.4	48.8	**
Southwest	10	28.7	44.4	55.6	
Mountain Plains	9	31.8	48.7	60.2	
Western (referent group)	11	28.2	43.8	54.9	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	11	27.6	43.0	53.9	
State exclude all or most vehicles	12	26.3	41.2	51.9	
State excludes one or fewer vehicles for SNAP unit (referent group)	14	23.9	37.9	48.1	
Certification Period					
State average certification period (referent group)	11	26.9	42.1	52.9	
State average certification period plus 1 month	12	26.2	41.1	51.8	***
Number of Spell-Month Observations	50,728				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Trigger Events But Not Instability Variables				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	20	22.2	35.0	42.2	
Sex					
Male	23	21.1	33.5	40.5	**
Female (referent group)	18	23.0	36.1	43.5	
Race/Ethnicity					
White, Non-Hispanic	23	20.9	33.1	40.1	
Black, Non-Hispanic	14	26.1	40.6	48.5	***
Other, Non-Hispanic	19	22.3	35.3	42.5	
Hispanic (referent group)	24	20.7	32.8	39.8	
Age					
18 to 29 (referent group)	16	23.9	37.5	45.0	
30 to 49	19	22.4	35.3	42.6	
50 to 64	23	20.9	33.2	40.2	**
65 and older	38	16.7	26.9	32.8	***
Citizenship					
Citizen	20	22.1	34.9	42.1	
Noncitizen (referent group)	19	22.4	35.3	42.6	
Education					
Highest Grade Completed					
0 to 8 (referent group)	17	23.3	36.7	44.2	
9 to 11	15	24.9	38.9	46.7	
12	16	23.7	37.2	44.7	
13 and above	28	19.3	30.8	37.5	**
Family Composition					
Mean number of adults age 18-59 (referent group)	20	22.1	35.0	42.2	
One adult more than the mean number of adults age 18-59	25	20.2	32.2	39.1	***
Mean number of adults age 60+ (referent group)	20	22.2	35.0	42.3	
One adult more than the mean number of adults age 60+	17	23.4	36.7	44.2	
Mean number of children less than age 6 (referent group)	20	21.9	34.6	41.8	
One child more than the mean number of children less than age 6	14	25.4	39.6	47.4	***
Mean number of children between ages 6 to 17 (referent group)	20	22.2	34.9	42.2	
One child more than the mean number of children between ages 6 to 17	19	22.6	35.6	42.9	
Marital Status					
Currently married	24	20.7	32.9	39.8	**
Not currently married (referent group)	18	22.9	36.0	43.4	
Employment Status					
Currently employed	25	20.3	32.3	39.1	***
Have not worked 1 to 5 months	18	22.9	36.1	43.4	
Have not worked 6 to 11 months	14	25.7	40.0	47.9	
Have not worked at least 12 months (referent group)	16	24.1	37.7	45.3	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	13	26.3	41.0	49.0	
100 percent to less than 150 percent	19	22.4	35.4	42.8	***
150 percent to less than 200 percent	24	20.5	32.7	39.6	***
200 percent and above	34	17.3	28.0	34.2	***
Net Worth					
Greater than \$0	20	22.2	35.0	42.2	
\$0 or negative (referent group)	20	22.2	35.0	42.2	
Greater than \$25,000	20	22.2	35.0	42.2	
\$25,000 or less (referent group)	20	22.2	35.0	42.2	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Trigger Events But Not Instability Variables				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	13	26.7	41.3	49.3	**
No TANF (referent group)	21	21.9	34.6	41.7	
Receive SSI or general assistance	20	22.2	35.0	42.2	
No SSI or general assistance (referent group)	20	22.2	35.0	42.2	
Receive WIC, Medicaid or housing subsidies	20	22.2	35.0	42.2	
No WIC, Medicaid or housing subsidies (referent group)	20	22.2	35.0	42.2	
Receive alimony or child support	20	22.2	35.0	42.2	
No receipt of alimony or child support (referent group)	20	22.2	35.0	42.2	
Benefit History					
Nonparticipation Spell is first ever	26	20.1	31.9	38.8	***
Spell is not first nonparticipation spell ever (referent group)	17	23.4	36.7	44.2	
Health Status and Medical Costs					
In fair or poor health	20	22.2	35.0	42.2	
Health good or better (referent group)	20	22.2	35.0	42.2	
Out-of-pocket medical costs greater than \$1000	20	22.2	35.0	42.2	
Out-of-pocket medical costs \$1000 or less (referent group)	20	22.2	35.0	42.2	
Entry Trigger Events					
Job loss within family	11	29.4	44.5	52.6	***
No job loss within family (referent group)	22	21.8	34.0	41.0	
Decrease in income within family	14	26.8	40.4	47.9	***
No decrease in income within family (referent group)	25	21.2	32.7	39.2	
Separation or divorce within family	16	24.4	38.1	45.7	
No separation or divorce within family (referent group)	20	22.2	34.9	42.2	
Increase in family size within family	12	28.0	42.8	50.9	***
No increase in family size within family (referent group)	21	21.9	34.4	41.4	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	20	22.3	35.1	42.4	
One percentage point above the mean state unemployment rate	21	21.8	34.4	41.5	**
20th percentile wage (referent group)	20	22.2	35.0	42.3	
One dollar more than the 20th percentile wage	17	23.3	36.6	44.0	
Region of Residence					
Northeast	24	20.6	32.7	39.6	
Mid-Atlantic	29	19.1	30.5	37.1	
Midwest	17	23.4	36.7	44.1	
Southeast	19	22.6	35.5	42.8	
Southwest	17	23.3	36.6	44.0	
Mountain Plains	19	22.7	35.7	43.0	
Western (referent group)	21	21.8	34.4	41.6	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	19	22.6	35.5	42.8	
State exclude all or most vehicles	23	21.1	33.5	40.5	
State excludes one or fewer vehicles for SNAP unit (referent group)	30	18.7	29.9	36.3	
Certification Period					
State average certification period (referent group)	20	22.2	35.0	42.2	
State average certification period plus 1 month	19	22.6	35.6	42.9	**
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	20	22.2	35	42.2	
One additional cent to mean outreach expenditures	20	22.2	35	42.2	
Number of Spell-Month Observations	67,240				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Burstein Variables: Trigger Events and Burstein Variables				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	20	22.2	35.0	42.2	
Sex					
Male	22	21.4	33.8	40.9	
Female (referent group)	19	22.7	35.8	43.1	
Race/Ethnicity					
White, Non-Hispanic	22	21.4	33.9	41.0	
Black, Non-Hispanic	15	25.2	39.3	47.0	***
Other, Non-Hispanic	20	22.0	34.7	41.9	
Hispanic (referent group)	24	20.6	32.7	39.6	
Age					
18 to 29 (referent group)	16	23.9	37.5	45.0	
30 to 49	20	22.3	35.1	42.4	
50 to 64	24	20.7	32.8	39.7	**
65 and older	35	17.4	27.9	34.1	***
Citizenship					
Citizen	20	22.0	34.8	41.9	
Noncitizen (referent group)	17	23.3	36.6	44.0	
Education					
Highest Grade Completed					
0 to 8 (referent group)	19	22.5	35.5	42.8	
9 to 11	16	24.2	37.9	45.5	
12	17	23.5	36.9	44.4	
13 and above	26	19.9	31.7	38.5	
Family Composition					
Mean number of adults age 18-59 (referent group)	20	22.1	35.0	42.2	
One adult more than the mean number of adults age 18-59	25	20.3	32.3	39.1	***
Mean number of adults age 60+ (referent group)	20	22.2	35.0	42.2	
One adult more than the mean number of adults age 60+	17	23.2	36.5	43.9	
Mean number of children less than age 6 (referent group)	20	21.9	34.6	41.8	
One child more than the mean number of children less than age 6	14	25.5	39.8	47.6	***
Mean number of children between ages 6 to 17 (referent group)	20	22.1	34.9	42.1	
One child more than the mean number of children between ages 6 to 17	19	22.6	35.6	42.9	
Marital Status					
Currently married	23	21.0	33.4	40.4	
Not currently married (referent group)	19	22.7	35.8	43.1	
Employment Status					
Currently employed	23	21.1	33.4	40.4	*
Have not worked 1 to 5 months	17	23.2	36.5	43.9	
Have not worked 6 to 11 months	15	24.7	38.5	46.2	
Have not worked at least 12 months (referent group)	18	23.0	36.2	43.5	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	14	25.8	40.2	48.2	
100 percent to less than 150 percent	20	22.1	34.9	42.2	***
150 percent to less than 200 percent	24	20.4	32.5	39.4	***
200 percent and above	31	18.1	29.2	35.6	***
Net Worth					
Greater than \$0	22	21.5	34.0	41.1	*
\$0 or negative (referent group)	17	23.2	36.5	43.9	
Greater than \$25,000	22	21.5	34.0	41.1	
\$25,000 or less (referent group)	19	22.4	35.3	42.6	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Burstein Variables: Trigger Events and Burstein Variables				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	15	24.9	38.9	46.6	
No TANF (referent group)	20	22.0	34.7	41.9	
Receive SSI or general assistance	21	21.9	34.6	41.8	
No SSI or general assistance (referent group)	20	22.2	35.0	42.2	
Receive WIC, Medicaid or housing subsidies	12	27.8	43.3	51.6	***
No WIC, Medicaid or housing subsidies (referent group)	29	18.5	30.0	36.6	
Receive alimony or child support	21	21.6	34.1	41.2	
No receipt of alimony or child support (referent group)	20	22.2	35.1	42.3	
Benefit History					
Nonparticipation Spell is first ever	25	20.3	32.3	39.2	***
Spell is not first nonparticipation spell ever (referent group)	17	23.2	36.5	43.9	
Health Status and Medical Costs					
In fair or poor health	16	24.3	38.0	45.6	***
Health good or better (referent group)	22	21.2	33.6	40.7	
Out-of-pocket medical costs greater than \$1000	35	17.4	28.0	34.1	***
Out-of-pocket medical costs \$1000 or less (referent group)	19	22.6	35.7	43.0	
Entry Trigger Events					
Job loss within family	11	29.2	44.4	52.5	***
No job loss within family (referent group)	22	21.8	34.1	41.0	
Decrease in income within family	14	27.0	40.7	48.2	***
No decrease in income within family (referent group)	26	21.2	32.6	39.1	
Separation or divorce within family	16	24.2	37.9	45.5	
No separation or divorce within family (referent group)	20	22.2	34.9	42.1	
Increase in family size within family	12	27.9	42.8	50.8	***
No increase in family size within family (referent group)	21	21.9	34.4	41.4	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	20	22.3	35.1	42.4	
One percentage point above the mean state unemployment rate	21	21.8	34.4	41.5	**
20th percentile wage (referent group)	20	22.2	35.0	42.2	
One dollar more than the 20th percentile wage	18	22.9	36.1	43.4	
Region of Residence					
Northeast	33	18.0	28.8	35.1	
Mid-Atlantic	28	19.2	30.7	37.3	
Midwest	18	23.1	36.3	43.7	
Southeast	17	23.4	36.8	44.3	
Southwest	16	23.9	37.5	45.0	
Mountain Plains	16	24.1	37.7	45.3	
Western (referent group)	23	21.2	33.5	40.6	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	19	22.6	35.5	42.8	
State exclude all or most vehicles	23	21.1	33.5	40.4	
State excludes one or fewer vehicles for SNAP unit (referent group)	31	18.6	29.7	36.1	
Certification Period					
State average certification period (referent group)	20	22.2	35.0	42.2	
State average certification period plus 1 month	19	22.6	35.5	42.8	**
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	20	22.2	35	42.2	
One additional cent to mean outreach expenditures	20	22.2	35	42.2	
Number of Spell-Month Observations	67,240				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Single-Adult Families with Children				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	11	32.0	44.6	53.4	
Sex					
Male	32	22.7	32.7	39.9	**
Female (referent group)	10	33.7	47.0	56.0	
Race/Ethnicity					
White, Non-Hispanic	11	31.4	43.9	52.6	
Black, Non-Hispanic	8	37.3	51.3	60.6	
Other, Non-Hispanic	12	30.3	42.5	51.0	
Hispanic (referent group)	19	27.3	38.6	46.6	
Age					
18 to 29 (referent group)	10	32.7	45.7	54.6	
30 to 49	10	32.9	46.0	54.9	
50 to 64	28	24.0	34.4	41.9	
65 and older	>51	8.7	12.9	16.3	
Citizenship					
Citizen	11	31.8	44.4	53.1	
Noncitizen (referent group)	10	33.7	46.8	55.7	
Education					
Highest Grade Completed					
0 to 8 (referent group)	5	46.1	61.8	71.5	
9 to 11	7	41.3	56.2	65.9	
12	12	30.8	43.3	52.1	
13 and above	12	29.4	41.6	50.2	
Family Composition					
Mean number of adults age 18-59 (referent group)	>51	16.5	24.0	29.7	
One adult more than the mean number of adults age 18-59	>51	8.5	12.5	15.7	
Mean number of adults age 60+ (referent group)	11	32.0	44.6	53.4	
One adult more than the mean number of adults age 60+	11	32.0	44.6	53.4	***
Mean number of children less than age 6 (referent group)	12	30.7	43.1	51.8	
One child more than the mean number of children less than age 6	9	35.6	49.2	58.4	
Mean number of children between ages 6 to 17 (referent group)	11	32.1	44.9	53.6	
One child more than the mean number of children between ages 6 to 17	11	31.7	44.3	53.0	
Marital Status					
Currently married	11	32.0	44.6	53.4	
Not currently married (referent group)	11	32.0	44.6	53.4	
Employment Status					
Currently employed	11	31.1	44.0	53.0	
Have not worked 1 to 5 months	13	28.8	41.0	49.7	
Have not worked 6 to 11 months	4	56.2	72.8	81.8	***
Have not worked at least 12 months (referent group)	15	28.1	40.1	48.7	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	9	34.4	48.1	57.4	
100 percent to less than 150 percent	9	34.6	48.4	57.6	
150 percent to less than 200 percent	41	20.4	29.7	36.6	**
200 percent and above	21	26.0	37.3	45.4	
Net Worth					
Greater than \$0	10	33.2	46.2	55.1	
\$0 or negative (referent group)	12	30.3	42.5	51.0	
Greater than \$25,000	10	33.0	46.0	54.8	
\$25,000 or less (referent group)	11	31.8	44.4	53.1	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Single-Adult Families with Children				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	4	50.1	66.3	75.7	**
No TANF (referent group)	12	30.8	43.4	52.2	
Receive SSI or general assistance	6	45.2	60.7	70.3	*
No SSI or general assistance (referent group)	12	30.7	43.2	52.0	
Receive WIC, Medicaid or housing subsidies	8	38.1	52.8	62.5	***
No WIC, Medicaid or housing subsidies (referent group)	19	26.5	38.1	46.4	
Receive alimony or child support	11	32.6	45.4	54.2	
No receipt of alimony or child support (referent group)	11	31.7	44.3	52.9	
Benefit History					
Nonparticipation Spell is first ever	15	28.7	40.5	48.9	
Spell is not first nonparticipation spell ever (referent group)	10	34.0	47.4	56.4	
Health Status and Medical Costs					
In fair or poor health	12	29.7	41.8	50.2	
Health good or better (referent group)	11	32.4	45.2	54.0	
Out-of-pocket medical costs greater than \$1000	22	26.2	37.2	45.1	
Out-of-pocket medical costs \$1000 or less (referent group)	11	32.1	44.8	53.6	
Entry Trigger Events					
Job loss within family	5	48.9	64.1	73.0	**
No job loss within family (referent group)	12	31.6	43.6	51.7	
Decrease in income within family	7	40.5	53.8	62.3	**
No decrease in income within family (referent group)	16	30.1	41.0	48.5	
Separation or divorce within family	>51	0.0	0.0	0.0	
No separation or divorce within family (referent group)	11	32.0	44.8	53.6	
Increase in family size within family	11	32.2	45.0	53.7	
No increase in family size within family (referent group)	11	31.9	44.6	53.3	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	11	32.2	45.0	53.7	
One percentage point above the mean state unemployment rate	11	31.5	44.0	52.7	
20th percentile wage (referent group)	11	32.2	44.9	53.6	
One dollar more than the 20th percentile wage	8	36.6	50.4	59.5	
Region of Residence					
Northeast	37	21.7	31.3	38.2	*
Mid-Atlantic	21	26.5	37.7	45.5	
Midwest	11	32.3	45.2	53.9	
Southeast	11	32.2	45.1	53.8	
Southwest	9	34.9	48.5	57.5	
Mountain Plains	13	29.5	41.6	50.0	
Western (referent group)	7	38.9	53.4	62.7	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	11	31.4	43.9	52.5	
State exclude all or most vehicles	10	34.3	47.6	56.6	
State excludes one or fewer vehicles for SNAP unit (referent group)	9	34.5	47.8	56.8	
Certification Period					
State average certification period (referent group)	11	32.0	44.6	53.3	
State average certification period plus 1 month	10	33.4	46.3	55.2	
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	11	32.1	44.8	53.6	
One additional cent to mean outreach expenditures	11	32	44.6	53.4	
Number of Spell-Month Observations	5,404				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Multiple-Adult Families with Children				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	16	21.7	36.0	44.5	
Sex					
Male	16	21.8	36.2	44.7	
Female (referent group)	17	21.6	35.9	44.3	
Race/Ethnicity					
White, Non-Hispanic	16	22.2	36.7	45.3	
Black, Non-Hispanic	15	23.1	38.1	46.8	*
Other, Non-Hispanic	14	23.6	38.9	47.8	
Hispanic (referent group)	21	19.8	33.1	41.1	
Age					
18 to 29 (referent group)	14	23.9	39.4	48.4	
30 to 49	19	20.4	34.1	42.3	**
50 to 64	17	21.2	35.4	43.8	
65 and older	32	16.3	27.8	35.0	**
Citizenship					
Citizen	16	21.7	36.1	44.6	
Noncitizen (referent group)	17	21.5	35.7	44.2	
Education					
Highest Grade Completed					
0 to 8 (referent group)	19	20.5	34.3	42.5	
9 to 11	14	23.8	39.2	48.1	
12	14	23.3	38.5	47.3	
13 and above	23	19.1	32.1	40.0	
Family Composition					
Mean number of adults age 18-59 (referent group)	15	22.9	37.9	46.6	
One adult more than the mean number of adults age 18-59	18	20.9	34.8	43.1	***
Mean number of adults age 60+ (referent group)	16	21.8	36.2	44.7	
One adult more than the mean number of adults age 60+	15	23.1	38.1	46.9	
Mean number of children less than age 6 (referent group)	20	20.3	34.0	42.2	
One child more than the mean number of children less than age 6	14	23.5	38.7	47.7	***
Mean number of children between ages 6 to 17 (referent group)	17	21.4	35.6	44.0	
One child more than the mean number of children between ages 6 to 17	16	21.9	36.3	44.8	
Marital Status					
Currently married	18	20.9	34.9	43.2	
Not currently married (referent group)	15	22.5	37.3	45.9	
Employment Status					
Currently employed	20	20.1	33.6	41.8	**
Have not worked 1 to 5 months	13	24.7	40.6	49.7	
Have not worked 6 to 11 months	14	23.1	38.2	47.1	
Have not worked at least 12 months (referent group)	14	23.3	38.5	47.3	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	12	25.7	42.0	51.4	
100 percent to less than 150 percent	19	20.6	34.4	42.8	***
150 percent to less than 200 percent	18	20.8	34.8	43.2	**
200 percent and above	25	18.3	31.0	38.7	***
Net Worth					
Greater than \$0	17	21.2	35.3	43.7	
\$0 or negative (referent group)	15	22.5	37.2	45.9	
Greater than \$25,000	21	19.8	33.2	41.2	*
\$25,000 or less (referent group)	15	22.6	37.4	46.1	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Multiple-Adult Families with Children				
		4 Months or Less	8 Months or Less	12 Months or Less	
	Median	Less	Less	or Less	
Other Income					
Receive TANF	15	23.0	38.0	46.7	
No TANF (referent group)	17	21.5	35.8	44.2	
Receive SSI or general assistance	32	16.4	27.9	35.1	***
No SSI or general assistance (referent group)	16	22.4	37.1	45.7	
Receive WIC, Medicaid or housing subsidies	10	28.0	45.8	55.5	***
No WIC, Medicaid or housing subsidies (referent group)	26	17.6	30.3	37.9	
Receive alimony or child support	21	19.9	33.4	41.5	
No receipt of alimony or child support (referent group)	16	21.9	36.4	44.9	
Benefit History					
Nonparticipation Spell is first ever	21	20.0	33.4	41.6	*
Spell is not first nonparticipation spell ever (referent group)	15	22.4	37.1	45.8	
Health Status and Medical Costs					
In fair or poor health	13	24.7	40.4	49.5	***
Health good or better (referent group)	19	20.5	34.2	42.5	
Out-of-pocket medical costs greater than \$1000	33	16.2	27.6	34.6	***
Out-of-pocket medical costs \$1000 or less (referent group)	16	22.3	37.0	45.6	
Entry Trigger Events					
Job loss within family	10	30.1	47.4	57.0	***
No job loss within family (referent group)	19	21.2	34.7	42.8	
Decrease in income within family	14	24.2	39.0	47.6	**
No decrease in income within family (referent group)	20	21.1	34.4	42.4	
Separation or divorce within family	21	19.9	33.4	41.5	
No separation or divorce within family (referent group)	16	21.7	36.0	44.5	
Increase in family size within family	9	30.7	48.3	57.9	***
No increase in family size within family (referent group)	18	21.3	34.9	43.0	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	16	21.8	36.2	44.7	
One percentage point above the mean state unemployment rate	18	21.1	35.1	43.4	***
20th percentile wage (referent group)	16	21.7	36.0	44.5	
One dollar more than the 20th percentile wage	15	22.5	37.2	45.8	
Region of Residence					
Northeast	25	18.5	31.2	39.0	
Mid-Atlantic	21	19.8	33.1	41.2	
Midwest	16	21.7	36.0	44.5	
Southeast	14	23.4	38.6	47.4	
Southwest	16	21.7	36.0	44.5	
Mountain Plains	16	22.1	36.6	45.2	
Western (referent group)	16	22.1	36.7	45.2	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	16	21.9	36.3	44.8	
State exclude all or most vehicles	18	21.1	35.2	43.5	
State excludes one or fewer vehicles for SNAP unit (referent group)	18	20.9	34.9	43.2	
Certification Period					
State average certification period (referent group)	16	21.8	36.2	44.6	
State average certification period plus 1 month	16	22.4	37.0	45.6	**
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	16	21.7	36.1	44.5	
One additional cent to mean outreach expenditures	16	21.7	36	44.5	
Number of Spell-Month Observations	30,423				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with Elderly Members			
	Median	4 Months or Less	8 Months or Less	12 Months or Less
All Individuals	30	19.1	30.9	35.7
Sex				
Male	27	20.0	32.2	37.2
Female (referent group)	33	18.3	29.6	34.4
Race/Ethnicity				
White, Non-Hispanic	33	18.1	29.4	34.2
Black, Non-Hispanic	17	24.4	38.5	44.3
Other, Non-Hispanic	37	17.1	27.8	32.4
Hispanic (referent group)	42	16.2	26.3	30.7
Age				
18 to 29 (referent group)	27	20.1	32.3	37.4
30 to 49	26	20.5	32.9	38.1
50 to 64	32	18.5	29.9	34.7
65 and older	32	18.5	29.9	34.7
Citizenship				
Citizen	32	18.6	30.2	35.1
Noncitizen (referent group)	13	27.6	43.1	49.3
Education				
Highest Grade Completed				
0 to 8 (referent group)	21	22.2	35.4	40.9
9 to 11	32	18.5	30.0	34.9
12	32	18.5	30.1	34.9
13 and above	32	18.5	30.0	34.8
Family Composition				
Mean number of adults age 18-59 (referent group)	24	21.2	33.7	38.9
One adult more than the mean number of adults age 18-59	18	23.8	37.5	43.1
Mean number of adults age 60+ (referent group)	42	16.4	26.7	31.1
One adult more than the mean number of adults age 60+	30	19.0	30.7	35.7
Mean number of children less than age 6 (referent group)	30	19.1	30.9	35.7
One child more than the mean number of children less than age 6	30	19.1	30.9	35.7
Mean number of children between ages 6 to 17 (referent group)	30	19.1	30.9	35.7
One child more than the mean number of children between ages 6 to 17	30	19.1	30.9	35.7
Marital Status				
Currently married	24	21.3	34.1	39.4
Not currently married (referent group)	34	18.1	29.4	34.1
Employment Status				
Currently employed	36	17.6	28.5	33.2
Have not worked 1 to 5 months	29	19.4	31.3	36.2
Have not worked 6 to 11 months	13	27.2	42.5	48.6
Have not worked at least 12 months (referent group)	29	19.3	31.2	36.1
Ratio of Family Income to Poverty Level				
Less than 100 percent (referent group)	16	24.1	38.3	44.2
100 percent to less than 150 percent	18	23.2	37.0	42.7
150 percent to less than 200 percent	28	19.3	31.3	36.4
200 percent and above	>51	14.1	23.3	27.4
Net Worth				
Greater than \$0	31	18.9	30.6	35.4
\$0 or negative (referent group)	28	19.7	31.7	36.7
Greater than \$25,000	37	17.4	28.3	32.9
\$25,000 or less (referent group)	25	20.6	33.1	38.3

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with Elderly Members			
	Median	4 Months or Less	8 Months or Less	12 Months or Less
Other Income				
Receive TANF	>51	12.1	20.1	23.5
No TANF (referent group)	30	19.2	31.0	35.9
Receive SSI or general assistance	28	19.9	32.0	37.0
No SSI or general assistance (referent group)	31	18.9	30.6	35.4
Receive WIC, Medicaid or housing subsidies	19	23.1	37.0	42.6
No WIC, Medicaid or housing subsidies (referent group)	42	16.1	26.5	30.9
Receive alimony or child support	10	31.2	47.9	54.4
No receipt of alimony or child support (referent group)	30	19.0	30.7	35.6
Benefit History				
Nonparticipation Spell is first ever	31	19.0	30.6	35.5
Spell is not first nonparticipation spell ever (referent group)	30	19.2	31.0	35.9
Health Status and Medical Costs				
In fair or poor health	24	21.2	34.0	39.3
Health good or better (referent group)	40	16.6	27.1	31.5
Out-of-pocket medical costs greater than \$1000	33	18.3	29.6	34.4
Out-of-pocket medical costs \$1000 or less (referent group)	30	19.3	31.1	36.0
Entry Trigger Events				
Job loss within family	21	22.6	35.9	41.2
No job loss within family (referent group)	31	19.1	30.6	35.4
Decrease in income within family	29	19.6	31.5	36.4
No decrease in income within family (referent group)	31	19.1	30.7	35.5
Separation or divorce within family	8	36.1	53.9	60.6
No separation or divorce within family (referent group)	31	19.1	30.5	35.4
Increase in family size within family	>51	13.7	22.6	26.4
No increase in family size within family (referent group)	30	19.2	30.9	35.8
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate (referent group)	31	18.8	30.4	35.2
One percentage point above the mean state unemployment rate	28	19.9	32.0	37.0
20th percentile wage (referent group)	30	19.3	31.1	36.0
One dollar more than the 20th percentile wage	21	22.4	35.7	41.0
Region of Residence				
Northeast	39	16.8	27.5	32.1
Mid-Atlantic	46	15.5	25.5	29.8
Midwest	32	18.3	29.8	34.6
Southeast	27	19.8	32.1	37.2
Southwest	10	30.2	46.7	53.2
Mountain Plains	29	19.3	31.3	36.3
Western (referent group)	>51	14.7	24.3	28.4
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	32	18.5	30.1	34.9
State exclude all or most vehicles	21	22.0	35.2	40.6
State excludes one or fewer vehicles for SNAP unit (referent group)	>51	9.6	16.1	18.9
Certification Period				
State average certification period (referent group)	30	19.1	30.9	35.7
State average certification period plus 1 month	30	19.1	30.9	35.7
Program Outreach Expenditures				
Mean outreach expenditures per capita (referent group)	31	18.9	30.6	35.4
One additional cent to mean outreach expenditures	30	19.1	30.9	35.7
Number of Spell-Month Observations	13,831			

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Nonelderly Nondisabled Childless Adults				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	26	20.5	31.1	38.3	
Sex					
Male	32	18.2	27.8	34.4	**
Female (referent group)	19	23.1	34.7	42.6	
Race/Ethnicity					
White, Non-Hispanic	30	18.4	28.3	35.1	**
Black, Non-Hispanic	19	23.2	35.0	42.9	
Other, Non-Hispanic	45	14.3	22.2	27.8	**
Hispanic (referent group)	12	28.4	42.2	51.0	
Age					
18 to 29 (referent group)	29	19.2	29.2	36.1	
30 to 49	21	22.3	33.6	41.2	
50 to 64	28	19.6	29.9	36.9	
65 and older	29	19.2	29.2	36.1	***
Citizenship					
Citizen	27	20.0	30.5	37.6	
Noncitizen (referent group)	11	30.3	44.6	53.6	
Education					
Highest Grade Completed					
0 to 8 (referent group)	47	13.9	21.5	27.0	
9 to 11	14	26.3	39.1	47.5	*
12	21	22.3	33.6	41.2	
13 and above	31	18.5	28.1	34.9	
Family Composition					
Mean number of adults age 18-59 (referent group)	33	17.7	27.2	33.8	
One adult more than the mean number of adults age 18-59	47	13.5	21.1	26.5	***
Mean number of adults age 60+ (referent group)	26	20.5	31.1	38.3	
One adult more than the mean number of adults age 60+	26	20.5	31.1	38.3	***
Mean number of children less than age 6 (referent group)	26	20.5	31.1	38.3	
One child more than the mean number of children less than age 6	26	20.5	31.1	38.3	***
Mean number of children between ages 6 to 17 (referent group)	26	20.5	31.1	38.3	
One child more than the mean number of children between ages 6 to 17	26	20.5	31.1	38.3	***
Marital Status					
Currently married	47	13.9	21.5	26.9	*
Not currently married (referent group)	24	21.1	32.0	39.4	
Employment Status					
Currently employed	26	20.3	30.9	38.2	
Have not worked 1 to 5 months	28	19.6	29.9	36.9	
Have not worked 6 to 11 months	44	14.9	23.0	28.7	**
Have not worked at least 12 months (referent group)	17	23.9	36.0	44.0	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	18	23.4	35.3	43.1	
100 percent to less than 150 percent	23	21.4	32.4	39.8	
150 percent to less than 200 percent	36	16.9	26.0	32.3	*
200 percent and above	37	16.7	25.7	31.9	**
Net Worth					
Greater than \$0	30	19.0	28.9	35.8	
\$0 or negative (referent group)	20	22.6	34.0	41.7	
Greater than \$25,000	16	24.7	36.9	45.1	*
\$25,000 or less (referent group)	28	19.4	29.6	36.6	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

	Individuals in Families Containing Nonelderly Nondisabled Childless Adults				
Individual Characteristics	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	>51	12.6	19.6	24.5	
No TANF (referent group)	25	20.7	31.3	38.6	
Receive SSI or general assistance	9	33.9	49.1	58.5	
No SSI or general assistance (referent group)	26	20.4	30.9	38.1	
Receive WIC, Medicaid or housing subsidies	12	27.6	41.1	50.0	***
No WIC, Medicaid or housing subsidies (referent group)	30	18.6	28.6	35.6	
Receive alimony or child support	33	18.1	27.6	34.2	
No receipt of alimony or child support (referent group)	25	20.6	31.1	38.4	
Benefit History					
Nonparticipation Spell is first ever	31	18.4	28.0	34.7	**
Spell is not first nonparticipation spell ever (referent group)	20	22.8	34.4	42.1	
Health Status and Medical Costs					
In fair or poor health	13	27.3	40.5	49.2	***
Health good or better (referent group)	29	19.3	29.3	36.3	
Out-of-pocket medical costs greater than \$1000	>51	11.6	18.1	22.7	**
Out-of-pocket medical costs \$1000 or less (referent group)	23	21.2	32.1	39.5	
Entry Trigger Events					
Job loss within family	15	26.1	38.6	46.7	
No job loss within family (referent group)	27	20.2	30.4	37.3	
Decrease in income within family	13	29.7	41.9	49.7	***
No decrease in income within family (referent group)	37	19.0	27.5	33.3	
Separation or divorce within family	>51	0.0	0.0	0.0	
No separation or divorce within family (referent group)	26	20.6	31.1	38.3	
Increase in family size within family	15	25.9	38.4	46.6	
No increase in family size within family (referent group)	27	20.4	30.7	37.8	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	26	20.5	31.2	38.5	
One percentage point above the mean state unemployment rate	28	19.6	29.9	36.9	*
20th percentile wage (referent group)	26	20.5	31.0	38.2	
One dollar more than the 20th percentile wage	26	20.2	30.6	37.8	
Region of Residence					
Northeast	46	13.8	21.4	26.9	
Mid-Atlantic	44	14.8	22.8	28.7	
Midwest	25	20.4	30.9	38.3	
Southeast	18	23.3	35.0	43.0	**
Southwest	13	27.5	40.7	49.6	***
Mountain Plains	13	27.7	41.0	49.9	**
Western (referent group)	44	14.5	22.4	28.2	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	24	21.2	32.0	39.3	
State exclude all or most vehicles	33	18.2	27.6	34.2	
State excludes one or fewer vehicles for SNAP unit (referent group)	40	16.4	25.0	31.1	
Certification Period					
State average certification period (referent group)	26	20.5	31.1	38.2	
State average certification period plus 1 month	24	21.1	31.9	39.3	
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	25	21	31.7	39	
One additional cent to mean outreach expenditures	26	20.5	31.1	38.3	**
Number of Spell-Month Observations	10,993				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Nonelderly Disabled Childless Adults			
	Median	4 Months or Less	8 Months or Less	12 Months or Less
All Individuals	21	23.0	34.7	38.5
Sex				
Male	23	22.2	33.6	37.3
Female (referent group)	18	24.0	36.1	40.0
Race/Ethnicity				
White, Non-Hispanic	24	21.8	33.2	36.9
Black, Non-Hispanic	15	27.6	41.0	45.4
Other, Non-Hispanic	21	22.8	34.6	38.4
Hispanic (referent group)	35	18.9	29.0	32.4
Age				
18 to 29 (referent group)	25	21.7	32.9	36.5
30 to 49	19	23.7	35.5	39.4
50 to 64	16	25.0	37.4	41.4
65 and older	25	21.7	32.9	36.5
Citizenship				
Citizen	21	22.9	34.5	38.3
Noncitizen (referent group)	14	28.8	42.5	46.9
Education				
Highest Grade Completed				
0 to 8 (referent group)	14	28.4	42.2	46.5
9 to 11	44	17.4	26.7	29.8
12	14	27.8	41.2	45.5
13 and above	30	20.2	30.8	34.3
Family Composition				
Mean number of adults age 18-59 (referent group)	21	23.0	34.6	38.4
One adult more than the mean number of adults age 18-59	20	23.5	35.3	39.2
Mean number of adults age 60+ (referent group)	21	23.0	34.7	38.5
One adult more than the mean number of adults age 60+	21	23.0	34.7	38.5
Mean number of children less than age 6 (referent group)	21	23.0	34.7	38.5
One child more than the mean number of children less than age 6	21	23.0	34.7	38.5
Mean number of children between ages 6 to 17 (referent group)	21	23.0	34.7	38.5
One child more than the mean number of children between ages 6 to 17	21	23.0	34.7	38.5
Marital Status				
Currently married	48	16.1	25.0	27.9
Not currently married (referent group)	17	24.3	36.7	40.7
Employment Status				
Currently employed	27	21.0	31.9	35.5
Have not worked 1 to 5 months	14	28.3	41.9	46.2
Have not worked 6 to 11 months	16	26.0	38.8	42.9
Have not worked at least 12 months (referent group)	20	23.1	34.8	38.7
Ratio of Family Income to Poverty Level				
Less than 100 percent (referent group)	16	25.8	38.8	43.0
100 percent to less than 150 percent	16	24.7	37.2	41.3
150 percent to less than 200 percent	19	23.6	35.7	39.7
200 percent and above	50	15.2	23.6	26.5
Net Worth				
Greater than \$0	28	20.6	31.3	34.9
\$0 or negative (referent group)	16	26.2	39.1	43.3
Greater than \$25,000	14	29.2	42.9	47.3
\$25,000 or less (referent group)	24	21.8	32.8	36.5

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Nonelderly Disabled Childless Adults			
		4 Months or Less	8 Months or Less	12 Months or Less
	Median	Less	Less	or Less
Other Income				
Receive TANF	>51	6.6	10.5	11.9
No TANF (referent group)	20	23.2	35.0	38.8
Receive SSI or general assistance	14	28.7	42.7	47.1
No SSI or general assistance (referent group)	28	20.3	31.1	34.7
Receive WIC, Medicaid or housing subsidies	15	26.3	39.9	44.2
No WIC, Medicaid or housing subsidies (referent group)	38	17.8	27.8	31.1
Receive alimony or child support	15	27.4	40.7	44.9
No receipt of alimony or child support (referent group)	21	22.9	34.6	38.4
Benefit History				
Nonparticipation Spell is first ever	28	20.4	31.1	34.7
Spell is not first nonparticipation spell ever (referent group)	17	24.4	36.7	40.8
Health Status and Medical Costs				
In fair or poor health	35	19.0	29.1	32.5
Health good or better (referent group)	15	26.6	39.8	44.1
Out-of-pocket medical costs greater than \$1000	>51	14.9	23.2	26.0
Out-of-pocket medical costs \$1000 or less (referent group)	18	23.9	36.1	40.1
Entry Trigger Events				
Job loss within family	21	22.8	34.4	38.2
No job loss within family (referent group)	20	23.1	34.7	38.6
Decrease in income within family	9	35.7	49.4	53.7
No decrease in income within family (referent group)	36	21.0	30.2	33.4
Separation or divorce within family	4	51.2	69.2	74.2
No separation or divorce within family (referent group)	21	23.0	34.6	38.3
Increase in family size within family	27	20.9	31.8	35.4
No increase in family size within family (referent group)	20	23.2	35.0	38.9
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate (referent group)	21	22.9	34.5	38.3
One percentage point above the mean state unemployment rate	20	23.3	35.0	38.9
20th percentile wage (referent group)	21	22.9	34.4	38.2
One dollar more than the 20th percentile wage	40	18.0	27.4	30.6
Region of Residence				
Northeast	13	29.6	43.8	48.4
Mid-Atlantic	28	20.3	31.1	34.7
Midwest	13	30.1	44.4	49.0
Southeast	39	17.7	27.3	30.6
Southwest	25	21.2	32.4	36.1
Mountain Plains	6	42.0	59.3	64.5
Western (referent group)	36	18.4	28.4	31.7
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	14	28.3	41.8	46.1
State exclude all or most vehicles	>51	14.1	21.9	24.5
State excludes one or fewer vehicles for SNAP unit (referent group)	>51	13.6	21.2	23.7
Certification Period				
State average certification period (referent group)	20	22.7	34.5	38.4
State average certification period plus 1 month	24	21.3	32.5	36.3
Program Outreach Expenditures				
Mean outreach expenditures per capita (referent group)	21	22.7	34.2	38
One additional cent to mean outreach expenditures	21	23	34.7	38.5
Number of Spell-Month Observations	6,589			

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Citizen Adults and Citizen Children				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	16	23.2	36.7	45.3	
Sex					
Male	19	21.8	34.8	43.2	
Female (referent group)	15	23.9	37.8	46.6	
Race/Ethnicity					
White, Non-Hispanic	16	23.1	36.6	45.2	
Black, Non-Hispanic	13	25.2	39.6	48.6	*
Other, Non-Hispanic	19	21.8	34.7	43.1	
Hispanic (referent group)	19	21.5	34.4	42.6	
Age					
18 to 29 (referent group)	13	25.7	40.4	49.6	
30 to 49	18	21.9	35.0	43.4	**
50 to 64	19	21.5	34.4	42.7	*
65 and older	37	15.9	26.1	32.9	***
Citizenship					
Citizen	16	23.4	37.1	45.8	*
Noncitizen (referent group)	28	18.6	30.0	37.5	
Education					
Highest Grade Completed					
0 to 8 (referent group)	16	23.4	37.1	45.8	
9 to 11	13	25.9	40.6	49.9	
12	13	25.1	39.6	48.7	
13 and above	23	20.1	32.3	40.3	
Family Composition					
Mean number of adults age 18-59 (referent group)	15	23.6	37.4	46.1	
One adult more than the mean number of adults age 18-59	19	21.9	34.9	43.2	***
Mean number of adults age 60+ (referent group)	16	23.3	36.9	45.6	
One adult more than the mean number of adults age 60+	14	24.5	38.7	47.5	
Mean number of children less than age 6 (referent group)	18	21.9	34.9	43.3	
One child more than the mean number of children less than age 6	13	25.3	39.8	48.9	***
Mean number of children between ages 6 to 17 (referent group)	17	22.6	35.9	44.3	
One child more than the mean number of children between ages 6 to 17	15	23.6	37.4	46.1	*
Marital Status					
Currently married	17	22.3	35.5	44.0	
Not currently married (referent group)	15	23.7	37.5	46.2	
Employment Status					
Currently employed	19	21.6	34.5	42.7	
Have not worked 1 to 5 months	12	26.9	42.1	51.3	
Have not worked 6 to 11 months	11	28.9	44.8	54.3	*
Have not worked at least 12 months (referent group)	15	23.9	37.9	46.7	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	12	27.0	42.3	51.7	
100 percent to less than 150 percent	16	23.3	37.0	45.7	**
150 percent to less than 200 percent	21	20.7	33.2	41.4	***
200 percent and above	25	19.3	31.2	39.0	***
Net Worth					
Greater than \$0	16	23.4	37.1	45.8	
\$0 or negative (referent group)	17	22.7	36.1	44.6	
Greater than \$25,000	20	21.2	33.8	42.0	*
\$25,000 or less (referent group)	15	24.1	38.1	46.9	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Citizen Adults and Citizen Children				
		4 Months or Less	8 Months or Less	12 Months or Less	
	Median	Less	Less	or Less	
Other Income					
Receive TANF	12	27.1	42.2	51.6	*
No TANF (referent group)	16	22.7	36.1	44.7	
Receive SSI or general assistance	26	19.3	31.0	38.8	**
No SSI or general assistance (referent group)	15	23.7	37.5	46.2	
Receive WIC, Medicaid or housing subsidies	10	28.8	45.1	54.9	***
No WIC, Medicaid or housing subsidies (referent group)	24	18.9	30.9	38.8	
Receive alimony or child support	18	22.3	35.5	43.9	
No receipt of alimony or child support (referent group)	16	23.3	37.0	45.6	
Benefit History					
Nonparticipation Spell is first ever	20	21.2	33.9	42.1	**
Spell is not first nonparticipation spell ever (referent group)	15	24.0	37.9	46.7	
Health Status and Medical Costs					
In fair or poor health	12	26.7	41.8	51.0	***
Health good or better (referent group)	18	21.9	34.9	43.2	
Out-of-pocket medical costs greater than \$1000	31	17.6	28.5	35.8	***
Out-of-pocket medical costs \$1000 or less (referent group)	15	23.7	37.6	46.3	
Entry Trigger Events					
Job loss within family	8	33.9	50.6	60.3	***
No job loss within family (referent group)	19	22.5	35.2	43.3	
Decrease in income within family	13	26.9	41.0	49.7	***
No decrease in income within family (referent group)	20	22.2	34.5	42.4	
Separation or divorce within family	18	22.2	35.4	43.8	
No separation or divorce within family (referent group)	16	23.2	36.7	45.3	
Increase in family size within family	10	29.7	45.4	54.9	***
No increase in family size within family (referent group)	17	22.8	35.8	44.2	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	16	23.3	36.9	45.5	
One percentage point above the mean state unemployment rate	17	22.6	35.9	44.3	**
20th percentile wage (referent group)	16	23.3	36.8	45.4	
One dollar more than the 20th percentile wage	14	25.2	39.6	48.6	
Region of Residence					
Northeast	25	19.5	31.4	39.2	
Mid-Atlantic	22	20.7	33.2	41.3	
Midwest	16	23.5	37.2	45.9	
Southeast	12	26.3	41.2	50.4	
Southwest	17	22.5	35.8	44.2	
Mountain Plains	15	23.8	37.7	46.4	
Western (referent group)	16	23.1	36.6	45.2	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	16	23.1	36.6	45.2	
State exclude all or most vehicles	15	23.7	37.5	46.3	
State excludes one or fewer vehicles for SNAP unit (referent group)	20	21.3	34.0	42.2	
Certification Period					
State average certification period (referent group)	16	23.3	36.9	45.5	
State average certification period plus 1 month	15	24.2	38.1	46.9	***
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	16	23.4	37	45.6	
One additional cent to mean outreach expenditures	16	23.2	36.7	45.3	**
Number of Spell-Month Observations	32,510				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Noncitizen Adults and Citizen Children			
	Median	4 Months or Less	8 Months or Less	12 Months or Less
All Individuals	12	23.5	42.0	51.1
Sex				
Male	8	29.1	50.5	60.4 *
Female (referent group)	31	19.3	35.3	43.5
Race/Ethnicity				
White, Non-Hispanic	8	31.6	54.4	64.9
Black, Non-Hispanic	3	75.8	95.0	98.3 *
Other, Non-Hispanic	6	36.9	61.5	72.1
Hispanic (referent group)	17	21.5	39.3	48.4
Age				
18 to 29 (referent group)	12	23.4	42.1	51.3
30 to 49	14	22.4	40.4	49.4
50 to 64	7	34.0	57.4	67.7
65 and older	3	74.0	94.0	97.8
Citizenship				
Citizen	8	31.4	53.6	63.7
Noncitizen (referent group)	12	23.5	41.9	51.0
Education				
Highest Grade Completed				
0 to 8 (referent group)	17	22.2	39.9	48.7
9 to 11	10	27.2	47.6	57.1
12	16	22.4	40.2	49.0
13 and above	11	25.5	45.0	54.4
Family Composition				
Mean number of adults age 18-59 (referent group)	9	27.3	49.3	59.7
One adult more than the mean number of adults age 18-59	31	17.8	34.1	42.6 ***
Mean number of adults age 60+ (referent group)	11	25.4	44.8	54.2
One adult more than the mean number of adults age 60+	8	31.8	54.2	64.2
Mean number of children less than age 6 (referent group)	20	21.2	38.6	47.2
One child more than the mean number of children less than age 6	11	24.3	43.6	52.8
Mean number of children between ages 6 to 17 (referent group)	12	24.0	42.9	52.2
One child more than the mean number of children between ages 6 to 17	12	22.8	41.0	50.1
Marital Status				
Currently married	9	27.6	48.3	58.1
Not currently married (referent group)	37	17.9	33.1	41.0
Employment Status				
Currently employed	22	20.9	37.9	46.5
Have not worked 1 to 5 months	11	24.5	43.6	52.9
Have not worked 6 to 11 months	16	22.2	40.0	48.9
Have not worked at least 12 months (referent group)	8	29.9	51.6	61.6
Ratio of Family Income to Poverty Level				
Less than 100 percent (referent group)	12	23.1	41.2	50.2
100 percent to less than 150 percent	12	23.2	41.5	50.4
150 percent to less than 200 percent	35	18.8	34.3	42.3
200 percent and above	7	33.8	56.9	67.0
Net Worth				
Greater than \$0	29	18.3	35.1	43.6 ***
\$0 or negative (referent group)	6	37.8	63.6	74.1
Greater than \$25,000	10	26.7	46.7	56.4
\$25,000 or less (referent group)	12	23.1	41.3	50.4

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families Containing Noncitizen Adults and Citizen Children				
		4 Months or Less	8 Months or Less	12 Months or Less	
	Median				
Other Income					
Receive TANF	8	32.7	55.2	65.3	
No TANF (referent group)	13	22.9	40.9	49.8	
Receive SSI or general assistance	>51	13.4	25.2	31.5	
No SSI or general assistance (referent group)	12	23.8	42.3	51.5	
Receive WIC, Medicaid or housing subsidies	8	31.8	54.8	64.4	*
No WIC, Medicaid or housing subsidies (referent group)	22	20.9	38.3	46.5	
Receive alimony or child support	11	25.0	44.3	53.6	
No receipt of alimony or child support (referent group)	12	23.4	41.8	50.9	
Benefit History					
Nonparticipation Spell is first ever	29	19.5	35.6	44.1	
Spell is not first nonparticipation spell ever (referent group)	10	26.6	46.8	56.7	
Health Status and Medical Costs					
In fair or poor health	>51	16.7	30.5	37.9	*
Health good or better (referent group)	10	27.0	46.9	56.6	
Out-of-pocket medical costs greater than \$1000	8	29.2	50.5	60.3	
Out-of-pocket medical costs \$1000 or less (referent group)	12	23.3	41.7	50.8	
Entry Trigger Events					
Job loss within family	9	28.4	49.2	58.9	
No job loss within family (referent group)	12	23.5	41.8	50.8	
Decrease in income within family	11	25.1	43.8	53.1	
No decrease in income within family (referent group)	12	23.3	41.1	50.0	
Separation or divorce within family	23	20.7	37.5	46.0	
No separation or divorce within family (referent group)	12	23.5	42.0	51.1	
Increase in family size within family	11	25.4	44.6	54.0	
No increase in family size within family (referent group)	12	23.4	41.7	50.7	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	12	24.0	42.8	52.2	
One percentage point above the mean state unemployment rate	15	22.2	40.0	49.1	
20th percentile wage (referent group)	12	22.9	41.4	50.6	
One dollar more than the 20th percentile wage	30	19.1	35.2	43.5	
Region of Residence					
Northeast	4	56.1	82.4	90.5	*
Mid-Atlantic	11	24.2	43.9	53.9	
Midwest	6	37.5	62.7	73.6	
Southeast	>51	10.5	20.6	26.5	*
Southwest	8	31.1	54.1	64.9	
Mountain Plains	>51	5.1	10.3	13.4	*
Western (referent group)	11	24.0	43.7	53.7	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	11	24.7	43.7	53.0	
State exclude all or most vehicles	>51	14.0	26.2	32.8	
State excludes one or fewer vehicles for SNAP unit (referent group)	>51	15.5	28.9	36.0	
Certification Period					
State average certification period (referent group)	12	23.7	42.4	52.6	
State average certification period plus 1 month	19	20.9	38.1	47.7	*
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	11	24.7	44.8	54.7	
One additional cent to mean outreach expenditures	12	23.5	42	51.1	**
Number of Spell-Month Observations	2,819				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with Earnings				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	25	20.1	32.8	39.6	
Sex					
Male	28	19.1	31.3	37.9	*
Female (referent group)	23	20.8	33.9	40.8	
Race/Ethnicity					
White, Non-Hispanic	25	20.2	32.9	39.7	
Black, Non-Hispanic	21	21.6	35.0	42.1	**
Other, Non-Hispanic	19	22.2	35.9	43.1	**
Hispanic (referent group)	31	18.1	29.8	36.2	
Age					
18 to 29 (referent group)	23	20.7	33.7	40.6	
30 to 49	25	20.2	32.9	39.7	
50 to 64	27	19.3	31.6	38.2	
65 and older	38	16.5	27.4	33.4	
Citizenship					
Citizen	25	20.0	32.6	39.4	
Noncitizen (referent group)	23	20.8	33.8	40.8	
Education					
Highest Grade Completed					
0 to 8 (referent group)	27	19.5	31.9	38.6	
9 to 11	18	22.4	36.2	43.5	
12	21	21.2	34.5	41.6	
13 and above	31	18.2	30.0	36.4	
Family Composition					
Mean number of adults age 18-59 (referent group)	23	20.6	33.7	40.6	
One adult more than the mean number of adults age 18-59	29	18.7	30.8	37.3	***
Mean number of adults age 60+ (referent group)	25	20.1	32.8	39.5	
One adult more than the mean number of adults age 60+	26	19.8	32.4	39.2	
Mean number of children less than age 6 (referent group)	27	19.4	31.8	38.5	
One child more than the mean number of children less than age 6	15	23.9	38.4	46.0	***
Mean number of children between ages 6 to 17 (referent group)	25	20.0	32.6	39.4	
One child more than the mean number of children between ages 6 to 17	23	20.6	33.6	40.5	
Marital Status					
Currently married	30	18.4	30.2	36.6	**
Not currently married (referent group)	22	21.2	34.4	41.4	
Employment Status					
Currently employed	27	19.4	31.8	38.5	
Have not worked 1 to 5 months	13	26.1	41.6	49.5	*
Have not worked 6 to 11 months	29	18.6	30.6	37.1	
Have not worked at least 12 months (referent group)	22	21.1	34.4	41.4	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	15	24.2	38.9	46.5	
100 percent to less than 150 percent	24	20.2	33.1	40.0	***
150 percent to less than 200 percent	29	18.8	30.9	37.4	***
200 percent and above	32	17.7	29.3	35.6	***
Net Worth					
Greater than \$0	27	19.4	31.7	38.3	*
\$0 or negative (referent group)	21	21.4	34.7	41.8	
Greater than \$25,000	27	19.4	31.8	38.4	
\$25,000 or less (referent group)	24	20.4	33.2	40.1	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with Earnings				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	24	20.3	33.1	39.9	
No TANF (referent group)	25	20.1	32.8	39.5	
Receive SSI or general assistance	28	19.2	31.4	38.0	
No SSI or general assistance (referent group)	25	20.2	32.9	39.7	
Receive WIC, Medicaid or housing subsidies	12	26.1	42.1	50.2	***
No WIC, Medicaid or housing subsidies (referent group)	34	16.9	28.4	34.6	
Receive alimony or child support	27	19.5	31.9	38.5	
No receipt of alimony or child support (referent group)	25	20.2	32.9	39.7	
Benefit History					
Nonparticipation Spell is first ever	29	18.6	30.6	37.1	**
Spell is not first nonparticipation spell ever (referent group)	23	20.8	34.0	40.9	
Health Status and Medical Costs					
In fair or poor health	17	23.0	37.1	44.5	***
Health good or better (referent group)	28	19.1	31.3	37.9	
Out-of-pocket medical costs greater than \$1000	>51	13.6	22.9	28.1	***
Out-of-pocket medical costs \$1000 or less (referent group)	22	20.8	34.0	41.0	
Entry Trigger Events					
Job loss within family	11	29.0	44.8	52.7	***
No job loss within family (referent group)	28	19.5	31.4	37.8	
Decrease in income within family	20	22.3	35.4	42.4	**
No decrease in income within family (referent group)	29	19.5	31.4	37.8	
Separation or divorce within family	21	21.6	35.0	42.1	
No separation or divorce within family (referent group)	25	20.1	32.8	39.5	
Increase in family size within family	11	28.6	44.5	52.5	***
No increase in family size within family (referent group)	27	19.7	31.9	38.4	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	25	20.2	32.9	39.7	
One percentage point above the mean state unemployment rate	27	19.6	32.1	38.8	**
20th percentile wage (referent group)	25	20.1	32.8	39.6	
One dollar more than the 20th percentile wage	24	20.6	33.5	40.4	
Region of Residence					
Northeast	44	15.1	25.3	30.9	*
Mid-Atlantic	37	16.7	27.7	33.7	
Midwest	20	21.7	35.2	42.4	
Southeast	20	21.9	35.5	42.7	
Southwest	21	21.2	34.5	41.6	
Mountain Plains	22	21.2	34.4	41.5	
Western (referent group)	28	19.0	31.2	37.8	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	24	20.4	33.3	40.1	
State exclude all or most vehicles	27	19.4	31.8	38.4	
State excludes one or fewer vehicles for SNAP unit (referent group)	40	16.1	26.6	32.4	
Certification Period					
State average certification period (referent group)	25	20.2	32.9	39.7	
State average certification period plus 1 month	24	20.6	33.5	40.4	*
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	25	20.1	32.8	39.6	
One additional cent to mean outreach expenditures	25	20.1	32.8	39.6	
Number of Spell-Month Observations	48,718				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families without Earnings				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	13	27.6	40.6	48.9	
Sex					
Male	13	27.5	40.4	48.7	
Female (referent group)	13	27.7	40.8	49.1	
Race/Ethnicity					
White, Non-Hispanic	16	24.2	36.2	44.1	
Black, Non-Hispanic	8	35.0	50.4	59.7	**
Other, Non-Hispanic	23	21.1	31.9	39.2	*
Hispanic (referent group)	13	27.7	40.9	49.4	
Age					
18 to 29 (referent group)	9	33.2	48.0	57.0	
30 to 49	13	27.7	40.9	49.2	**
50 to 64	16	24.7	36.8	44.7	***
65 and older	23	21.4	32.2	39.4	***
Citizenship					
Citizen	14	27.0	39.9	48.2	**
Noncitizen (referent group)	8	37.2	52.9	62.3	
Education					
Highest Grade Completed					
0 to 8 (referent group)	12	28.8	42.4	51.0	
9 to 11	11	30.2	44.2	53.0	
12	12	29.2	42.8	51.5	
13 and above	17	24.0	35.8	43.6	
Family Composition					
Mean number of adults age 18-59 (referent group)	14	27.0	39.9	48.0	
One adult more than the mean number of adults age 18-59	15	26.1	38.6	46.7	
Mean number of adults age 60+ (referent group)	13	27.3	40.3	48.6	
One adult more than the mean number of adults age 60+	11	30.1	44.0	52.7	
Mean number of children less than age 6 (referent group)	13	27.6	40.6	48.9	
One child more than the mean number of children less than age 6	13	27.3	40.3	48.5	
Mean number of children between ages 6 to 17 (referent group)	13	27.7	40.8	49.1	
One child more than the mean number of children between ages 6 to 17	13	28.3	41.6	50.0	
Marital Status					
Currently married	12	29.3	42.9	51.4	
Not currently married (referent group)	14	27.1	40.0	48.2	
Employment Status					
Currently employed	20	22.6	33.9	41.3	
Have not worked 1 to 5 months	17	24.1	35.9	43.7	
Have not worked 6 to 11 months	10	33.0	47.7	56.7	*
Have not worked at least 12 months (referent group)	13	27.9	41.0	49.4	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	12	29.4	43.0	51.5	
100 percent to less than 150 percent	14	26.7	39.3	47.5	
150 percent to less than 200 percent	15	26.0	38.4	46.4	
200 percent and above	35	17.4	26.4	32.6	***
Net Worth					
Greater than \$0	13	27.5	40.5	48.8	
\$0 or negative (referent group)	13	27.7	40.8	49.1	
Greater than \$25,000	13	27.4	40.3	48.6	
\$25,000 or less (referent group)	13	27.7	40.7	49.0	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families without Earnings			
	Median	4 Months or Less	8 Months or Less	12 Months or Less
Other Income				
Receive TANF	11	30.6	44.6	53.4
No TANF (referent group)	13	27.3	40.3	48.5
Receive SSI or general assistance	13	27.9	41.1	49.4
No SSI or general assistance (referent group)	13	27.5	40.5	48.8
Receive WIC, Medicaid or housing subsidies	10	32.4	47.2	56.3
No WIC, Medicaid or housing subsidies (referent group)	19	22.7	34.3	41.9
Receive alimony or child support	13	28.1	41.2	49.6
No receipt of alimony or child support (referent group)	13	27.6	40.6	48.8
Benefit History				
Nonparticipation Spell is first ever	16	24.4	36.4	44.2
Spell is not first nonparticipation spell ever (referent group)	12	29.5	43.3	51.9
Health Status and Medical Costs				
In fair or poor health	13	27.8	40.8	49.1
Health good or better (referent group)	13	27.5	40.5	48.7
Out-of-pocket medical costs greater than \$1000	12	29.6	43.3	51.9
Out-of-pocket medical costs \$1000 or less (referent group)	13	27.4	40.4	48.7
Entry Trigger Events				
Job loss within family	13	27.8	40.9	49.2
No job loss within family (referent group)	13	27.6	40.6	48.9
Decrease in income within family	6	43.3	57.9	66.2
No decrease in income within family (referent group)	18	26.0	36.6	43.4
Separation or divorce within family	15	25.8	38.3	46.3
No separation or divorce within family (referent group)	13	27.6	40.6	48.9
Increase in family size within family	15	26.0	38.5	46.6
No increase in family size within family (referent group)	13	27.7	40.8	49.1
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate (referent group)	13	27.8	40.8	49.1
One percentage point above the mean state unemployment rate	13	27.3	40.3	48.5
20th percentile wage (referent group)	13	27.7	40.7	49.0
One dollar more than the 20th percentile wage	12	29.7	43.4	52.0
Region of Residence				
Northeast	19	23.4	34.9	42.3
Mid-Atlantic	16	24.6	36.6	44.3
Midwest	13	28.0	41.1	49.4
Southeast	13	28.2	41.4	49.7
Southwest	12	29.3	42.8	51.3
Mountain Plains	10	32.6	47.1	55.9
Western (referent group)	12	28.6	41.9	50.3
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	13	28.1	41.2	49.6
State exclude all or most vehicles	15	25.5	37.8	45.7
State excludes one or fewer vehicles for SNAP unit (referent group)	12	28.6	41.9	50.4
Certification Period				
State average certification period (referent group)	13	27.5	40.5	48.7
State average certification period plus 1 month	13	28.0	41.1	49.5
Program Outreach Expenditures				
Mean outreach expenditures per capita (referent group)	13	27.7	40.8	49.1
One additional cent to mean outreach expenditures	13	27.6	40.6	48.9
Number of Spell-Month Observations	18,522			

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with Social Security or SSI				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	19	21.8	35.7	42.1	
Sex					
Male	18	22.2	36.3	42.8	
Female (referent group)	19	21.4	35.2	41.6	
Race/Ethnicity					
White, Non-Hispanic	19	21.7	35.6	42.1	
Black, Non-Hispanic	16	23.6	38.5	45.3	
Other, Non-Hispanic	27	18.3	30.6	36.4	
Hispanic (referent group)	22	20.4	33.7	39.9	
Age					
18 to 29 (referent group)	14	25.1	40.6	47.6	
30 to 49	18	21.8	35.8	42.3	*
50 to 64	22	20.3	33.6	39.8	**
65 and older	28	18.1	30.1	35.9	***
Citizenship					
Citizen	19	21.5	35.3	41.7	*
Noncitizen (referent group)	12	27.4	43.9	51.1	
Education					
Highest Grade Completed					
0 to 8 (referent group)	21	20.4	33.7	39.9	
9 to 11	18	21.8	35.9	42.4	
12	16	23.6	38.5	45.3	
13 and above	23	20.0	33.1	39.2	
Family Composition					
Mean number of adults age 18-59 (referent group)	19	21.8	35.7	42.2	
One adult more than the mean number of adults age 18-59	20	21.0	34.6	40.9	
Mean number of adults age 60+ (referent group)	20	21.1	34.8	41.1	
One adult more than the mean number of adults age 60+	16	23.1	37.7	44.3	*
Mean number of children less than age 6 (referent group)	18	21.9	36.0	42.5	
One child more than the mean number of children less than age 6	16	23.3	38.0	44.8	
Mean number of children between ages 6 to 17 (referent group)	19	21.8	35.8	42.3	
One child more than the mean number of children between ages 6 to 17	15	23.9	38.8	45.7	***
Marital Status					
Currently married	19	21.8	35.8	42.2	
Not currently married (referent group)	19	21.7	35.7	42.1	
Employment Status					
Currently employed	23	19.8	32.8	38.9	*
Have not worked 1 to 5 months	21	20.7	34.3	40.5	
Have not worked 6 to 11 months	12	27.5	44.1	51.4	*
Have not worked at least 12 months (referent group)	17	22.5	36.8	43.4	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	14	25.5	41.2	48.3	
100 percent to less than 150 percent	16	23.0	37.6	44.3	
150 percent to less than 200 percent	20	21.2	35.0	41.4	**
200 percent and above	28	18.0	30.1	35.9	***
Net Worth					
Greater than \$0	21	20.4	33.8	40.0	**
\$0 or negative (referent group)	15	24.3	39.4	46.3	
Greater than \$25,000	18	22.4	36.6	43.1	
\$25,000 or less (referent group)	19	21.5	35.2	41.6	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with Social Security or SSI				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	15	24.1	39.1	45.9	
No TANF (referent group)	19	21.6	35.4	41.8	
Receive SSI or general assistance	19	21.9	35.9	42.3	
No SSI or general assistance (referent group)	19	21.7	35.6	42.1	
Receive WIC, Medicaid or housing subsidies	14	25.0	41.0	48.1	***
No WIC, Medicaid or housing subsidies (referent group)	27	17.8	30.2	36.0	
Receive alimony or child support	14	24.9	40.3	47.3	
No receipt of alimony or child support (referent group)	19	21.4	35.2	41.6	
Benefit History					
Nonparticipation Spell is first ever	24	19.5	32.4	38.5	**
Spell is not first nonparticipation spell ever (referent group)	17	22.7	37.2	43.8	
Health Status and Medical Costs					
In fair or poor health	16	23.1	37.7	44.3	*
Health good or better (referent group)	21	20.7	34.1	40.3	
Out-of-pocket medical costs greater than \$1000	35	15.6	26.4	31.6	***
Out-of-pocket medical costs \$1000 or less (referent group)	17	22.4	36.8	43.4	
Entry Trigger Events					
Job loss within family	12	27.7	43.8	51.0	**
No job loss within family (referent group)	20	21.5	35.0	41.3	
Decrease in income within family	18	22.5	36.6	43.1	
No decrease in income within family (referent group)	19	21.6	35.4	41.7	
Separation or divorce within family	8	33.4	51.8	59.6	*
No separation or divorce within family (referent group)	19	21.7	35.5	42.0	
Increase in family size within family	8	32.9	50.7	58.3	***
No increase in family size within family (referent group)	20	21.4	34.7	40.8	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	19	21.8	35.8	42.2	
One percentage point above the mean state unemployment rate	19	21.7	35.6	42.0	
20th percentile wage (referent group)	19	21.9	35.8	42.3	
One dollar more than the 20th percentile wage	13	25.8	41.5	48.5	***
Region of Residence					
Northeast	24	19.4	32.3	38.3	
Mid-Atlantic	23	19.7	32.7	38.8	
Midwest	16	23.3	38.1	44.8	**
Southeast	17	22.5	36.9	43.5	*
Southwest	13	26.1	42.0	49.2	***
Mountain Plains	16	23.0	37.6	44.3	
Western (referent group)	27	18.3	30.5	36.3	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	18	22.3	36.5	43.0	
State exclude all or most vehicles	22	20.1	33.3	39.4	
State excludes one or fewer vehicles for SNAP unit (referent group)	22	20.3	33.6	39.7	
Certification Period					
State average certification period (referent group)	19	21.8	35.7	42.1	
State average certification period plus 1 month	19	21.8	35.7	42.2	
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	19	21.8	35.8	42.3	
One additional cent to mean outreach expenditures	19	21.8	35.7	42.1	
Number of Spell-Month Observations	28,651				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families without Social Security or SSI				
	Median	4 Months or 8 Months or 12 Months			
		Less	Less	or Less	
All Individuals	21	22.4	34.4	42.2	
Sex					
Male	26	20.8	32.2	39.6	**
Female (referent group)	18	23.6	36.2	44.2	
Race/Ethnicity					
White, Non-Hispanic	24	21.4	32.9	40.5	
Black, Non-Hispanic	13	26.6	40.3	48.8	***
Other, Non-Hispanic	20	22.7	34.9	42.7	
Hispanic (referent group)	25	21.2	32.7	40.2	
Age					
18 to 29 (referent group)	19	23.1	35.4	43.3	
30 to 49	22	22.1	33.9	41.6	
50 to 64	23	21.9	33.7	41.4	
65 and older	33	18.9	29.4	36.3	
Citizenship					
Citizen	21	22.3	34.3	42.0	
Noncitizen (referent group)	19	23.1	35.3	43.2	
Education					
Highest Grade Completed					
0 to 8 (referent group)	16	24.8	37.7	46.0	
9 to 11	13	26.7	40.5	49.1	
12	18	23.5	36.0	44.0	
13 and above	30	19.7	30.6	37.8	**
Family Composition					
Mean number of adults age 18-59 (referent group)	21	22.4	34.5	42.3	
One adult more than the mean number of adults age 18-59	31	19.4	30.2	37.3	***
Mean number of adults age 60+ (referent group)	26	20.9	32.2	39.7	
One adult more than the mean number of adults age 60+	44	16.5	25.8	32.1	**
Mean number of children less than age 6 (referent group)	23	21.5	33.2	40.8	
One child more than the mean number of children less than age 6	14	25.7	39.0	47.5	***
Mean number of children between ages 6 to 17 (referent group)	21	22.5	34.5	42.2	
One child more than the mean number of children between ages 6 to 17	22	22.2	34.1	41.8	
Marital Status					
Currently married	25	21.0	32.4	39.9	
Not currently married (referent group)	19	23.2	35.6	43.5	
Employment Status					
Currently employed	23	21.9	33.6	41.3	
Have not worked 1 to 5 months	16	24.1	36.8	44.9	
Have not worked 6 to 11 months	16	24.2	36.9	45.0	
Have not worked at least 12 months (referent group)	20	22.8	35.0	42.8	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	14	25.9	39.3	47.8	
100 percent to less than 150 percent	24	21.2	32.8	40.3	***
150 percent to less than 200 percent	28	20.0	31.1	38.3	***
200 percent and above	35	18.2	28.5	35.3	***
Net Worth					
Greater than \$0	21	22.5	34.5	42.3	
\$0 or negative (referent group)	21	22.4	34.4	42.1	
Greater than \$25,000	26	21.0	32.3	39.8	
\$25,000 or less (referent group)	20	23.0	35.2	43.0	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families without Social Security or SSI				
	Median	4 Months or	8 Months or	12 Months	
		Less	Less	or Less	
Other Income					
Receive TANF	15	25.4	38.6	46.9	
No TANF (referent group)	21	22.3	34.2	42.0	
Receive SSI or general assistance	14	26.2	39.6	48.0	
No SSI or general assistance (referent group)	21	22.4	34.4	42.1	
Receive WIC, Medicaid or housing subsidies	10	30.5	45.9	55.2	***
No WIC, Medicaid or housing subsidies (referent group)	30	19.1	30.1	37.2	
Receive alimony or child support	29	20.0	30.9	38.1	
No receipt of alimony or child support (referent group)	20	22.8	34.9	42.7	
Benefit History					
Nonparticipation Spell is first ever	26	20.8	32.1	39.6	**
Spell is not first nonparticipation spell ever (referent group)	18	23.5	36.0	44.0	
Health Status and Medical Costs					
In fair or poor health	15	25.2	38.3	46.6	**
Health good or better (referent group)	23	21.8	33.5	41.1	
Out-of-pocket medical costs greater than \$1000	31	19.3	30.0	37.0	*
Out-of-pocket medical costs \$1000 or less (referent group)	20	22.7	34.9	42.7	
Entry Trigger Events					
Job loss within family	11	30.6	45.0	53.7	***
No job loss within family (referent group)	24	22.0	33.4	40.7	
Decrease in income within family	12	29.9	42.9	51.0	***
No decrease in income within family (referent group)	33	20.8	30.7	37.2	
Separation or divorce within family	>51	14.5	22.9	28.6	
No separation or divorce within family (referent group)	21	22.5	34.5	42.3	
Increase in family size within family	15	25.1	38.0	46.2	
No increase in family size within family (referent group)	22	22.3	34.2	41.8	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	21	22.6	34.7	42.5	
One percentage point above the mean state unemployment rate	23	21.9	33.6	41.2	***
20th percentile wage (referent group)	21	22.3	34.3	42.0	
One dollar more than the 20th percentile wage	26	20.8	32.1	39.5	
Region of Residence					
Northeast	45	16.2	25.4	31.6	***
Mid-Atlantic	30	19.6	30.5	37.6	
Midwest	18	23.5	35.9	43.9	
Southeast	18	23.7	36.2	44.2	
Southwest	22	22.1	34.0	41.7	
Mountain Plains	16	24.6	37.5	45.7	
Western (referent group)	18	23.6	36.0	44.0	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	20	22.7	34.8	42.6	
State exclude all or most vehicles	22	22.2	34.0	41.7	
State excludes one or fewer vehicles for SNAP unit (referent group)	40	17.3	27.0	33.5	
Certification Period					
State average certification period (referent group)	21	22.6	34.6	42.4	
State average certification period plus 1 month	19	23.3	35.6	43.5	***
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	21	22.5	34.5	42.3	
One additional cent to mean outreach expenditures	21	22.4	34.4	42.2	
Number of Spell-Month Observations	38,589				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with TANF Income				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	11	22.8	39.4	55.2	
Sex					
Male	11	22.4	39.0	54.6	
Female (referent group)	11	23.0	39.8	55.6	
Race/Ethnicity					
White, Non-Hispanic	10	24.0	43.7	60.2	*
Black, Non-Hispanic	6	37.1	62.1	78.9	***
Other, Non-Hispanic	12	20.8	38.6	54.2	
Hispanic (referent group)	28	13.8	26.8	39.3	
Age					
18 to 29 (referent group)	11	23.6	40.8	57.3	
30 to 49	12	21.0	36.8	52.4	
50 to 64	9	28.1	47.7	65.0	
65 and older	20	16.1	28.9	42.4	
Citizenship					
Citizen	11	23.4	40.7	56.6	
Noncitizen (referent group)	15	18.3	32.6	46.7	
Education					
Highest Grade Completed					
0 to 8 (referent group)	20	14.5	26.9	41.2	
9 to 11	11	22.8	40.6	58.6	
12	8	32.2	54.4	73.4	**
13 and above	20	14.5	26.9	41.2	
Family Composition					
Mean number of adults age 18-59 (referent group)	10	24.1	43.6	60.9	
One adult more than the mean number of adults age 18-59	14	17.4	32.6	47.6	***
Mean number of adults age 60+ (referent group)	11	24.0	41.1	57.9	
One adult more than the mean number of adults age 60+	13	19.7	34.5	49.9	
Mean number of children less than age 6 (referent group)	11	22.8	39.6	55.4	
One child more than the mean number of children less than age 6	11	22.4	38.9	54.6	
Mean number of children between ages 6 to 17 (referent group)	12	21.5	38.1	53.2	
One child more than the mean number of children between ages 6 to 17	10	24.8	43.2	59.2	
Marital Status					
Currently married	9	29.6	49.3	65.9	
Not currently married (referent group)	12	20.8	35.9	50.5	
Employment Status					
Currently employed	16	16.8	30.9	44.7	
Have not worked 1 to 5 months	6	41.0	66.1	82.5	
Have not worked 6 to 11 months	4	51.4	77.3	90.9	***
Have not worked at least 12 months (referent group)	11	21.9	39.3	55.1	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	11	23.8	41.0	57.1	
100 percent to less than 150 percent	11	22.8	39.6	55.4	
150 percent to less than 200 percent	15	18.3	32.3	46.5	
200 percent and above	11	23.2	40.2	56.1	
Net Worth					
Greater than \$0	12	19.9	35.0	50.3	
\$0 or negative (referent group)	9	27.4	46.6	63.9	
Greater than \$25,000	8	32.3	53.1	69.3	
\$25,000 or less (referent group)	13	20.6	35.8	49.6	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families with TANF Income				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF					
No TANF (referent group)					
Receive SSI or general assistance	>51	11.5	20.0	29.4	***
No SSI or general assistance (referent group)	10	27.1	45.4	61.4	
Receive WIC, Medicaid or housing subsidies	11	23.2	40.4	56.2	
No WIC, Medicaid or housing subsidies (referent group)	12	21.8	38.1	53.5	
Receive alimony or child support	12	20.8	36.3	51.5	
No receipt of alimony or child support (referent group)	11	22.9	39.6	55.5	
Benefit History					
Nonparticipation Spell is first ever	18	15.3	28.7	43.3	*
Spell is not first nonparticipation spell ever (referent group)	10	25.6	45.4	63.7	
Health Status and Medical Costs					
In fair or poor health	8	31.4	52.6	69.3	***
Health good or better (referent group)	15	17.8	32.0	45.4	
Out-of-pocket medical costs greater than \$1000	38	13.6	24.7	36.1	
Out-of-pocket medical costs \$1000 or less (referent group)	11	24.0	41.5	57.3	
Entry Trigger Events					
Job loss within family	8	33.1	53.9	70.9	
No job loss within family (referent group)	12	22.5	38.4	53.8	
Decrease in income within family	12	19.2	34.7	50.5	
No decrease in income within family (referent group)	10	23.5	41.7	58.9	
Separation or divorce within family	>51	11.1	20.2	30.5	
No separation or divorce within family (referent group)	11	22.8	39.5	55.7	
Increase in family size within family	7	35.4	56.0	71.7	*
No increase in family size within family (referent group)	12	22.4	37.4	51.0	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	11	23.4	40.6	56.0	
One percentage point above the mean state unemployment rate	12	21.8	38.1	53.0	
20th percentile wage (referent group)	10	24.4	42.0	58.6	
One dollar more than the 20th percentile wage	14	19.0	33.6	48.5	
Region of Residence					
Northeast	5	44.3	70.4	86.7	
Mid-Atlantic	31	12.4	24.0	36.5	**
Midwest	16	15.5	29.5	44.0	*
Southeast	26	13.1	25.3	38.3	*
Southwest	11	21.2	39.0	55.9	
Mountain Plains	>51	2.7	5.6	9.0	***
Western (referent group)	8	29.5	51.6	70.0	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	11	23.7	41.1	58.5	
State exclude all or most vehicles	21	15.7	28.1	42.3	***
State excludes one or fewer vehicles for SNAP unit (referent group)	21	15.7	28.1	42.3	
Certification Period					
State average certification period (referent group)	11	23.0	39.7	55.3	
State average certification period plus 1 month	11	22.8	39.5	55.0	
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	11	22.4	38.8	54.5	
One additional cent to mean outreach expenditures	11	22.8	39.4	55.2	
Number of Spell-Month Observations	2,783				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families without TANF Income				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	21	22.1	34.7	41.5	
Sex					
Male	23	21.4	33.6	40.2	
Female (referent group)	20	22.7	35.5	42.4	
Race/Ethnicity					
White, Non-Hispanic	23	21.3	33.6	40.2	
Black, Non-Hispanic	15	24.9	38.7	45.9	***
Other, Non-Hispanic	21	22.0	34.6	41.4	
Hispanic (referent group)	25	20.8	32.7	39.3	
Age					
18 to 29 (referent group)	16	24.1	37.5	44.6	
30 to 49	20	22.3	34.9	41.7	
50 to 64	26	20.4	32.2	38.6	**
65 and older	37	17.0	27.1	32.8	***
Citizenship					
Citizen	22	21.9	34.4	41.1	
Noncitizen (referent group)	16	24.1	37.5	44.6	
Education					
Highest Grade Completed					
0 to 8 (referent group)	20	22.6	35.4	42.2	
9 to 11	16	24.3	37.8	45.0	
12	18	23.1	36.1	43.1	
13 and above	26	20.1	31.8	38.2	
Family Composition					
Mean number of adults age 18-59 (referent group)	21	22.1	34.7	41.5	
One adult more than the mean number of adults age 18-59	26	20.2	32.1	38.5	***
Mean number of adults age 60+ (referent group)	21	22.2	34.8	41.6	
One adult more than the mean number of adults age 60+	17	23.6	36.8	43.8	
Mean number of children less than age 6 (referent group)	21	21.9	34.4	41.1	
One child more than the mean number of children less than age 6	14	25.8	40.0	47.4	***
Mean number of children between ages 6 to 17 (referent group)	21	22.1	34.7	41.5	
One child more than the mean number of children between ages 6 to 17	21	22.3	35.0	41.8	
Marital Status					
Currently married	24	20.8	32.8	39.3	*
Not currently married (referent group)	19	22.8	35.7	42.5	
Employment Status					
Currently employed	23	21.2	33.4	40.0	
Have not worked 1 to 5 months	19	22.9	35.9	42.8	
Have not worked 6 to 11 months	17	23.6	36.8	43.8	
Have not worked at least 12 months (referent group)	19	22.9	35.9	42.8	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	14	25.8	40.0	47.4	
100 percent to less than 150 percent	21	22.1	34.8	41.6	***
150 percent to less than 200 percent	25	20.4	32.4	38.9	***
200 percent and above	33	17.8	28.5	34.4	***
Net Worth					
Greater than \$0	22	21.6	34.0	40.7	
\$0 or negative (referent group)	19	23.0	35.9	42.8	
Greater than \$25,000	23	21.2	33.4	40.0	
\$25,000 or less (referent group)	20	22.5	35.2	42.1	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in Families without TANF Income				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF					
No TANF (referent group)					
Receive SSI or general assistance	18	23.3	36.4	43.4	
No SSI or general assistance (referent group)	21	21.9	34.5	41.2	
Receive WIC, Medicaid or housing subsidies	12	27.9	43.3	51.2	***
No WIC, Medicaid or housing subsidies (referent group)	30	18.5	29.8	36.0	
Receive alimony or child support	22	21.8	34.2	40.9	
No receipt of alimony or child support (referent group)	21	22.2	34.8	41.5	
Benefit History					
Nonparticipation Spell is first ever	26	20.3	32.2	38.6	***
Spell is not first nonparticipation spell ever (referent group)	19	23.1	36.1	43.1	
Health Status and Medical Costs					
In fair or poor health	17	23.9	37.2	44.3	**
Health good or better (referent group)	23	21.4	33.6	40.3	
Out-of-pocket medical costs greater than \$1000	35	17.6	28.1	33.9	***
Out-of-pocket medical costs \$1000 or less (referent group)	20	22.6	35.4	42.2	
Entry Trigger Events					
Job loss within family	12	29.4	44.3	51.9	***
No job loss within family (referent group)	23	21.8	33.8	40.2	
Decrease in income within family	14	27.5	41.0	48.1	***
No decrease in income within family (referent group)	27	21.0	32.1	38.1	
Separation or divorce within family	16	24.6	38.2	45.4	
No separation or divorce within family (referent group)	21	22.1	34.7	41.4	
Increase in family size within family	13	27.3	41.7	49.2	***
No increase in family size within family (referent group)	22	21.9	34.2	40.8	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	21	22.2	34.9	41.6	
One percentage point above the mean state unemployment rate	22	21.7	34.2	40.9	**
20th percentile wage (referent group)	21	22.2	34.8	41.6	
One dollar more than the 20th percentile wage	18	23.4	36.5	43.5	
Region of Residence					
Northeast	41	16.1	25.9	31.4	**
Mid-Atlantic	28	19.5	31.0	37.2	
Midwest	18	23.2	36.3	43.2	
Southeast	18	23.3	36.4	43.4	
Southwest	16	24.3	37.8	44.9	*
Mountain Plains	16	24.0	37.4	44.5	
Western (referent group)	24	20.9	32.9	39.5	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	20	22.5	35.2	42.0	
State exclude all or most vehicles	23	21.3	33.6	40.2	
State excludes one or fewer vehicles for SNAP unit (referent group)	33	18.3	29.1	35.1	
Certification Period					
State average certification period (referent group)	21	22.2	34.7	41.5	
State average certification period plus 1 month	20	22.5	35.3	42.1	*
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	21	22.2	34.8	41.5	
One additional cent to mean outreach expenditures	21	22.1	34.7	41.5	
Number of Spell-Month Observations	64,457				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in States with Certification Periods Longer than the Average Certification Period				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	18	23.4	35.6	42.2	
Sex					
Male	19	23.1	35.1	41.6	
Female (referent group)	18	23.7	36.0	42.7	
Race/Ethnicity					
White, Non-Hispanic	21	21.8	33.4	39.8	*
Black, Non-Hispanic	15	26.0	39.2	46.3	
Other, Non-Hispanic	25	20.1	31.0	37.0	*
Hispanic (referent group)	15	25.9	39.1	46.1	
Age					
18 to 29 (referent group)	15	25.4	38.3	45.2	
30 to 49	20	22.5	34.2	40.7	
50 to 64	21	22.2	33.8	40.2	
65 and older	21	22.0	33.6	39.9	
Citizenship					
Citizen	18	23.4	35.6	42.2	
Noncitizen (referent group)	17	23.8	36.1	42.7	
Education					
Highest Grade Completed					
0 to 8 (referent group)	28	19.1	29.5	35.3	
9 to 11	14	26.7	40.1	47.3	**
12	18	23.6	35.9	42.5	
13 and above	19	22.8	34.7	41.2	
Family Composition					
Mean number of adults age 18-59 (referent group)	18	23.3	35.5	42.1	
One adult more than the mean number of adults age 18-59	22	21.5	33.0	39.3	***
Mean number of adults age 60+ (referent group)	18	23.5	35.6	42.3	
One adult more than the mean number of adults age 60+	17	24.1	36.5	43.2	
Mean number of children less than age 6 (referent group)	19	23.1	35.1	41.7	
One child more than the mean number of children less than age 6	13	28.0	41.8	49.1	***
Mean number of children between ages 6 to 17 (referent group)	18	23.4	35.6	42.2	
One child more than the mean number of children between ages 6 to 17	17	24.1	36.5	43.2	
Marital Status					
Currently married	21	22.1	33.8	40.2	
Not currently married (referent group)	17	24.0	36.4	43.1	
Employment Status					
Currently employed	21	22.1	33.8	40.2	*
Have not worked 1 to 5 months	19	22.7	34.7	41.2	
Have not worked 6 to 11 months	19	23.0	35.1	41.7	
Have not worked at least 12 months (referent group)	16	25.2	38.0	45.0	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	14	26.6	40.0	47.2	
100 percent to less than 150 percent	15	25.2	38.2	45.2	
150 percent to less than 200 percent	22	21.5	33.0	39.4	**
200 percent and above	29	18.5	28.7	34.5	***
Net Worth					
Greater than \$0	22	21.6	33.2	39.5	**
\$0 or negative (referent group)	14	26.3	39.7	46.8	
Greater than \$25,000	14	26.5	39.9	47.0	**
\$25,000 or less (referent group)	21	22.2	33.9	40.3	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in States with Certification Periods Longer than the Average Certification Period				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	10	32.5	47.8	55.6	***
No TANF (referent group)	19	22.8	34.8	41.3	
Receive SSI or general assistance	28	19.1	29.4	35.1	**
No SSI or general assistance (referent group)	17	24.1	36.5	43.2	
Receive WIC, Medicaid or housing subsidies	11	29.5	44.3	52.0	***
No WIC, Medicaid or housing subsidies (referent group)	26	19.4	30.2	36.3	
Receive alimony or child support	16	25.0	37.8	44.6	
No receipt of alimony or child support (referent group)	19	23.2	35.3	41.9	
Benefit History					
Nonparticipation Spell is first ever	21	21.8	33.3	39.6	*
Spell is not first nonparticipation spell ever (referent group)	16	24.4	36.9	43.7	
Health Status and Medical Costs					
In fair or poor health	14	26.3	39.6	46.7	**
Health good or better (referent group)	21	22.1	33.8	40.3	
Out-of-pocket medical costs greater than \$1000	44	14.9	23.4	28.2	***
Out-of-pocket medical costs \$1000 or less (referent group)	17	24.2	36.7	43.4	
Entry Trigger Events					
Job loss within family	8	35.6	51.0	58.7	***
No job loss within family (referent group)	21	22.8	34.1	40.4	
Decrease in income within family	13	28.8	41.8	48.7	***
No decrease in income within family (referent group)	23	22.4	33.2	39.1	
Separation or divorce within family	44	14.9	23.4	28.2	
No separation or divorce within family (referent group)	18	23.5	35.8	42.4	
Increase in family size within family	8	36.4	51.9	59.8	***
No increase in family size within family (referent group)	20	23.0	34.5	40.8	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	18	23.4	35.5	42.1	
One percentage point above the mean state unemployment rate	19	23.2	35.3	41.8	
20th percentile wage (referent group)	18	23.4	35.6	42.2	
One dollar more than the 20th percentile wage	18	23.4	35.5	42.1	
Region of Residence					
Northeast	23	21.0	32.2	38.3	**
Mid-Atlantic	23	21.1	32.3	38.5	*
Midwest	17	24.0	36.3	43.0	
Southeast	18	23.4	35.5	42.1	
Southwest	18	23.5	35.7	42.3	
Mountain Plains	12	29.7	44.1	51.6	
Western (referent group)	12	29.8	44.2	51.7	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	17	23.9	36.3	43.0	
State exclude all or most vehicles	22	21.6	33.1	39.4	
State excludes one or fewer vehicles for SNAP unit (referent group)	23	20.9	32.1	38.3	
Certification Period					
State average certification period (referent group)					
State average certification period plus 1 month					
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	18	23.3	35.4	42	
One additional cent to mean outreach expenditures	18	23.4	35.6	42.2	
Number of Spell-Month Observations	24,968				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in States with Certification Periods at or Below the Average Certification Period				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	21	21.5	34.6	42.2	
Sex					
Male	25	20.5	33.1	40.5	
Female (referent group)	19	22.2	35.7	43.5	
Race/Ethnicity					
White, Non-Hispanic	23	21.0	33.9	41.4	
Black, Non-Hispanic	14	25.4	40.3	48.7	***
Other, Non-Hispanic	20	21.9	35.3	43.0	
Hispanic (referent group)	29	19.1	31.1	38.1	
Age					
18 to 29 (referent group)	17	23.1	37.0	44.9	
30 to 49	19	22.4	36.0	43.8	
50 to 64	27	19.7	32.1	39.3	*
65 and older	50	14.2	23.7	29.4	***
Citizenship					
Citizen	22	21.4	34.5	42.0	
Noncitizen (referent group)	20	22.1	35.5	43.2	
Education					
Highest Grade Completed					
0 to 8 (referent group)	14	25.3	40.2	48.5	
9 to 11	19	22.0	35.5	43.2	
12	16	23.5	37.6	45.7	
13 and above	32	18.2	29.9	36.7	***
Family Composition					
Mean number of adults age 18-59 (referent group)	21	21.5	34.7	42.3	
One adult more than the mean number of adults age 18-59	27	19.6	32.0	39.1	***
Mean number of adults age 60+ (referent group)	21	21.5	34.7	42.2	
One adult more than the mean number of adults age 60+	17	23.2	37.1	45.0	
Mean number of children less than age 6 (referent group)	22	21.2	34.3	41.9	
One child more than the mean number of children less than age 6	15	24.5	39.2	47.4	***
Mean number of children between ages 6 to 17 (referent group)	22	21.4	34.6	42.1	
One child more than the mean number of children between ages 6 to 17	20	21.8	35.2	42.8	
Marital Status					
Currently married	26	20.0	32.4	39.7	*
Not currently married (referent group)	19	22.2	35.8	43.5	
Employment Status					
Currently employed	25	20.4	33.1	40.4	
Have not worked 1 to 5 months	17	23.0	36.9	44.8	
Have not worked 6 to 11 months	13	25.9	41.0	49.4	*
Have not worked at least 12 months (referent group)	20	21.8	35.2	42.9	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	13	25.4	40.4	48.8	
100 percent to less than 150 percent	27	19.7	32.1	39.4	***
150 percent to less than 200 percent	25	20.0	32.6	39.9	***
200 percent and above	32	18.1	29.7	36.6	***
Net Worth					
Greater than \$0	22	21.3	34.4	42.0	
\$0 or negative (referent group)	21	21.7	34.9	42.5	
Greater than \$25,000	29	19.1	31.2	38.2	**
\$25,000 or less (referent group)	19	22.4	36.1	43.9	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in States with Certification Periods at or Below the Average Certification Period				
	Median	4 Months or	8 Months or	12 Months	
		Less	Less	or Less	
Other Income					
Receive TANF	22	21.3	34.4	42.0	
No TANF (referent group)	21	21.5	34.6	42.2	
Receive SSI or general assistance	16	23.6	37.7	45.7	
No SSI or general assistance (referent group)	22	21.1	34.1	41.6	
Receive WIC, Medicaid or housing subsidies	12	27.2	43.4	52.1	***
No WIC, Medicaid or housing subsidies (referent group)	32	17.8	29.6	36.5	
Receive alimony or child support	30	18.8	30.6	37.6	
No receipt of alimony or child support (referent group)	21	21.8	35.0	42.7	
Benefit History					
Nonparticipation Spell is first ever	27	19.7	32.0	39.2	**
Spell is not first nonparticipation spell ever (referent group)	19	22.4	36.1	43.8	
Health Status and Medical Costs					
In fair or poor health	17	23.2	37.1	45.0	*
Health good or better (referent group)	24	20.7	33.5	40.9	
Out-of-pocket medical costs greater than \$1000	31	18.6	30.4	37.3	*
Out-of-pocket medical costs \$1000 or less (referent group)	20	21.7	35.1	42.7	
Entry Trigger Events					
Job loss within family	13	26.2	41.1	49.3	**
No job loss within family (referent group)	23	21.2	34.0	41.3	
Decrease in income within family	14	25.9	39.9	47.7	***
No decrease in income within family (referent group)	28	20.5	32.3	39.2	
Separation or divorce within family	8	35.0	53.2	62.5	**
No separation or divorce within family (referent group)	22	21.4	34.5	42.1	
Increase in family size within family	18	22.8	36.5	44.3	
No increase in family size within family (referent group)	22	21.4	34.5	42.0	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	20	21.9	35.2	42.8	
One percentage point above the mean state unemployment rate	23	21.1	34.1	41.5	***
20th percentile wage (referent group)	21	21.6	34.8	42.3	
One dollar more than the 20th percentile wage	17	23.0	36.9	44.7	
Region of Residence					
Northeast	16	23.5	37.6	45.5	
Mid-Atlantic	43	15.8	26.1	32.2	
Midwest	20	21.9	35.2	42.9	
Southeast	20	22.0	35.3	43.0	
Southwest	15	24.2	38.5	46.6	*
Mountain Plains	28	19.5	31.7	38.8	
Western (referent group)	26	20.1	32.5	39.7	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	21	21.8	35.0	42.6	
State exclude all or most vehicles	24	20.8	33.6	41.0	
State excludes one or fewer vehicles for SNAP unit (referent group)	34	17.9	29.3	36.0	
Certification Period					
State average certification period (referent group)					
State average certification period plus 1 month					
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	21	21.5	34.7	42.2	
One additional cent to mean outreach expenditures	21	21.5	34.6	42.2	
Number of Spell-Month Observations	42,272				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in States Offering Broad-Based Categorical Eligibility				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	20	22.4	35.0	41.5	
Sex					
Male	23	21.3	33.4	39.7	*
Female (referent group)	18	23.2	36.2	42.9	
Race/Ethnicity					
White, Non-Hispanic	22	21.8	34.2	40.6	
Black, Non-Hispanic	15	25.0	38.7	45.6	**
Other, Non-Hispanic	23	21.5	33.8	40.2	
Hispanic (referent group)	24	21.2	33.3	39.6	
Age					
18 to 29 (referent group)	18	23.4	36.4	43.1	
30 to 49	19	23.1	35.9	42.6	
50 to 64	24	21.2	33.3	39.6	
65 and older	34	17.9	28.5	34.1	**
Citizenship					
Citizen	21	22.2	34.8	41.3	
Noncitizen (referent group)	18	23.5	36.6	43.3	
Education					
Highest Grade Completed					
0 to 8 (referent group)	18	23.2	36.2	43.0	
9 to 11	16	24.3	37.8	44.6	
12	17	23.7	36.9	43.7	
13 and above	27	20.1	31.7	37.8	*
Family Composition					
Mean number of adults age 18-59 (referent group)	20	22.4	35.0	41.6	
One adult more than the mean number of adults age 18-59	26	20.3	32.1	38.3	***
Mean number of adults age 60+ (referent group)	20	22.5	35.1	41.6	
One adult more than the mean number of adults age 60+	17	23.6	36.8	43.5	
Mean number of children less than age 6 (referent group)	21	22.2	34.7	41.2	
One child more than the mean number of children less than age 6	15	25.4	39.2	46.3	***
Mean number of children between ages 6 to 17 (referent group)	20	22.4	35.0	41.5	
One child more than the mean number of children between ages 6 to 17	20	22.7	35.5	42.1	
Marital Status					
Currently married	24	20.8	32.8	39.0	*
Not currently married (referent group)	18	23.2	36.1	42.8	
Employment Status					
Currently employed	23	21.2	33.3	39.6	*
Have not worked 1 to 5 months	18	23.1	36.1	42.7	
Have not worked 6 to 11 months	16	24.9	38.5	45.5	
Have not worked at least 12 months (referent group)	18	23.3	36.4	43.1	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	15	25.5	39.5	46.6	
100 percent to less than 150 percent	18	23.1	36.1	42.8	*
150 percent to less than 200 percent	26	20.4	32.1	38.3	***
200 percent and above	31	18.6	29.5	35.3	***
Net Worth					
Greater than \$0	22	21.6	33.8	40.2	*
\$0 or negative (referent group)	17	23.6	36.8	43.5	
Greater than \$25,000	22	21.6	33.9	40.3	
\$25,000 or less (referent group)	20	22.7	35.4	42.0	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in States Offering Broad-Based Categorical Eligibility				
		4 Months or Less	8 Months or Less	12 Months or Less	
	Median	Less	Less	or Less	
Other Income					
Receive TANF	13	27.1	41.5	48.8	**
No TANF (referent group)	21	22.1	34.6	41.0	
Receive SSI or general assistance	19	22.9	35.8	42.4	
No SSI or general assistance (referent group)	20	22.3	34.9	41.4	
Receive WIC, Medicaid or housing subsidies	12	28.0	43.3	50.8	***
No WIC, Medicaid or housing subsidies (referent group)	30	18.6	29.9	35.9	
Receive alimony or child support	22	21.8	34.2	40.6	
No receipt of alimony or child support (referent group)	20	22.5	35.1	41.6	
Benefit History					
Nonparticipation Spell is first ever	27	19.9	31.4	37.5	***
Spell is not first nonparticipation spell ever (referent group)	17	23.8	37.0	43.8	
Health Status and Medical Costs					
In fair or poor health	17	23.7	36.9	43.6	*
Health good or better (referent group)	22	21.8	34.2	40.6	
Out-of-pocket medical costs greater than \$1000	33	18.2	28.9	34.6	***
Out-of-pocket medical costs \$1000 or less (referent group)	19	22.8	35.6	42.2	
Entry Trigger Events					
Job loss within family	12	29.6	44.5	51.9	***
No job loss within family (referent group)	22	22.1	34.2	40.4	
Decrease in income within family	14	27.7	41.3	48.1	***
No decrease in income within family (referent group)	27	21.4	32.5	38.3	
Separation or divorce within family	16	24.4	37.8	44.6	
No separation or divorce within family (referent group)	20	22.4	35.0	41.5	
Increase in family size within family	12	28.9	43.7	51.1	***
No increase in family size within family (referent group)	22	22.2	34.4	40.8	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	20	22.5	35.1	41.7	
One percentage point above the mean state unemployment rate	21	22.2	34.7	41.2	
20th percentile wage (referent group)	20	22.5	35.1	41.6	
One dollar more than the 20th percentile wage	17	23.8	36.9	43.7	
Region of Residence					
Northeast	34	18.0	28.6	34.3	
Mid-Atlantic	27	19.9	31.5	37.5	
Midwest	18	23.5	36.6	43.3	
Southeast	16	24.5	38.0	44.9	*
Southwest	15	25.3	39.1	46.1	**
Mountain Plains	22	21.8	34.1	40.5	
Western (referent group)	24	20.9	32.8	39.1	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility					
State exclude all or most vehicles					
State excludes one or fewer vehicles for SNAP unit (referent group)					
Certification Period					
State average certification period (referent group)	21	22.3	34.9	41.4	
State average certification period plus 1 month	19	22.8	35.5	42.1	**
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	20	22.4	35	41.5	
One additional cent to mean outreach expenditures	20	22.4	35	41.5	
Number of Spell-Month Observations	52,873				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in States that Exclude All or Most Vehicles				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	18	21.4	35.5	46.3	
Sex					
Male	16	22.1	36.4	47.5	
Female (referent group)	19	20.9	34.7	45.4	
Race/Ethnicity					
White, Non-Hispanic	23	19.6	32.8	43.1	
Black, Non-Hispanic	9	29.7	47.4	59.9	***
Other, Non-Hispanic	21	20.2	33.7	44.3	
Hispanic (referent group)	33	16.6	28.1	37.4	
Age					
18 to 29 (referent group)	11	27.0	43.7	56.0	
30 to 49	22	19.7	32.9	43.4	***
50 to 64	28	17.9	30.1	40.0	***
65 and older	42	14.0	24.0	32.4	***
Citizenship					
Citizen	18	21.3	35.3	46.1	
Noncitizen (referent group)	14	23.0	37.8	49.1	
Education					
Highest Grade Completed					
0 to 8 (referent group)	20	20.9	34.6	45.2	
9 to 11	12	24.8	40.4	52.0	
12	16	22.1	36.4	47.4	
13 and above	23	19.6	32.7	43.0	
Family Composition					
Mean number of adults age 18-59 (referent group)	18	21.4	35.8	46.6	
One adult more than the mean number of adults age 18-59	25	18.9	31.9	42.0	***
Mean number of adults age 60+ (referent group)	18	21.4	35.5	46.3	
One adult more than the mean number of adults age 60+	16	22.3	36.8	47.8	
Mean number of children less than age 6 (referent group)	18	20.8	34.7	45.9	
One child more than the mean number of children less than age 6	11	26.7	43.5	56.0	***
Mean number of children between ages 6 to 17 (referent group)	18	21.4	35.4	46.3	
One child more than the mean number of children between ages 6 to 17	18	21.6	35.8	46.7	
Marital Status					
Currently married	12	24.5	40.1	51.7	**
Not currently married (referent group)	22	19.9	33.2	43.6	
Employment Status					
Currently employed	19	21.1	35.0	45.7	
Have not worked 1 to 5 months	14	23.0	37.9	49.2	
Have not worked 6 to 11 months	11	26.0	42.3	54.2	
Have not worked at least 12 months (referent group)	20	20.8	34.6	45.2	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	11	26.1	42.5	54.6	
100 percent to less than 150 percent	27	18.0	30.4	40.3	***
150 percent to less than 200 percent	13	23.3	38.4	49.9	
200 percent and above	31	16.7	28.3	37.8	***
Net Worth					
Greater than \$0	17	21.7	35.9	46.8	
\$0 or negative (referent group)	20	20.5	34.1	44.7	
Greater than \$25,000	16	22.1	36.5	47.5	
\$25,000 or less (referent group)	19	21.0	34.8	45.5	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in States that Exclude All or Most Vehicles				
		4 Months or Less	8 Months or Less	12 Months or Less	
	Median				
Other Income					
Receive TANF	>51	12.4	21.3	29.1	**
No TANF (referent group)	16	22.0	36.5	47.8	
Receive SSI or general assistance	27	18.3	30.8	40.6	
No SSI or general assistance (referent group)	17	21.8	36.1	47.0	
Receive WIC, Medicaid or housing subsidies	11	26.4	43.1	55.3	***
No WIC, Medicaid or housing subsidies (referent group)	25	18.4	31.2	41.4	
Receive alimony or child support	13	23.4	38.4	49.8	
No receipt of alimony or child support (referent group)	18	21.3	35.2	46.0	
Benefit History					
Nonparticipation Spell is first ever	17	22.0	36.3	47.3	
Spell is not first nonparticipation spell ever (referent group)	19	21.1	34.9	45.7	
Health Status and Medical Costs					
In fair or poor health	11	26.3	42.6	54.5	***
Health good or better (referent group)	23	19.5	32.5	42.8	
Out-of-pocket medical costs greater than \$1000	44	13.9	24.0	32.2	***
Out-of-pocket medical costs \$1000 or less (referent group)	15	22.5	37.3	48.5	
Entry Trigger Events					
Job loss within family	11	26.8	42.8	54.7	*
No job loss within family (referent group)	20	21.0	34.3	44.9	
Decrease in income within family	14	23.5	38.0	49.0	
No decrease in income within family (referent group)	21	21.0	34.2	44.6	
Separation or divorce within family	11	27.1	43.7	55.8	
No separation or divorce within family (referent group)	18	21.4	35.4	46.2	
Increase in family size within family	12	24.0	39.0	50.3	
No increase in family size within family (referent group)	19	21.3	35.0	45.7	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	18	21.8	36.1	46.6	
One percentage point above the mean state unemployment rate	23	20.1	33.6	43.6	***
20th percentile wage (referent group)	18	21.3	35.3	46.2	
One dollar more than the 20th percentile wage	20	20.5	34.1	44.7	
Region of Residence					
Northeast	>51	0.0	0.0	0.0	
Mid-Atlantic	41	14.2	24.4	32.8	***
Midwest	10	27.9	45.0	57.3	
Southeast	18	21.4	35.5	46.4	
Southwest	27	18.1	30.4	40.3	*
Mountain Plains	19	20.7	34.5	45.3	
Western (referent group)	9	29.4	47.1	59.7	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility					
State exclude all or most vehicles					
State excludes one or fewer vehicles for SNAP unit (referent group)					
Certification Period					
State average certification period (referent group)	17	21.8	36.0	47.0	
State average certification period plus 1 month	16	22.2	36.6	47.6	
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	13	23.6	38.6	49.8	
One additional cent to mean outreach expenditures	18	21.4	35.5	46.3	
Number of Spell-Month Observations	12,722				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit			
	Median	4 Months or Less	8 Months or Less	12 Months or Less
All Individuals	25	19.7	29.8	36.5
Sex				
Male	25	19.8	29.9	36.7
Female (referent group)	25	19.6	29.6	36.4
Race/Ethnicity				
White, Non-Hispanic	23	22.2	32.2	38.4
Black, Non-Hispanic	24	21.8	31.6	37.7
Other, Non-Hispanic	49	10.7	15.6	18.9
Hispanic (referent group)	7	39.4	55.1	63.8
Age				
18 to 29 (referent group)	23	20.6	30.8	38.4
30 to 49	31	14.7	22.1	28.1
50 to 64	7	37.6	53.9	64.0
65 and older	14	25.5	37.7	46.5
Citizenship				
Citizen	25	18.2	27.8	34.3
Noncitizen (referent group)	12	29.0	43.0	51.6
Education				
Highest Grade Completed				
0 to 8 (referent group)	>51	9.2	15.1	20.2
9 to 11	7	36.3	54.6	65.2
12	10	29.3	45.2	55.5
13 and above	31	15.9	25.6	33.3
Family Composition				
Mean number of adults age 18-59 (referent group)	23	19.2	30.0	38.0
One adult more than the mean number of adults age 18-59	13	24.8	38.2	47.5
Mean number of adults age 60+ (referent group)	25	18.8	28.5	35.1
One adult more than the mean number of adults age 60+	30	15.1	23.1	28.7
Mean number of children less than age 6 (referent group)	25	19.7	29.8	36.5
One child more than the mean number of children less than age 6	25	19.7	29.8	36.6
Mean number of children between ages 6 to 17 (referent group)	24	19.0	29.3	35.7
One child more than the mean number of children between ages 6 to 17	14	24.7	37.4	45.1
Marital Status				
Currently married	35	12.9	19.6	24.1
Not currently married (referent group)	19	23.2	34.4	41.6
Employment Status				
Currently employed	20	24.0	34.5	41.8
Have not worked 1 to 5 months	49	9.6	13.8	17.0
Have not worked 6 to 11 months	>51	1.7	2.3	2.8
Have not worked at least 12 months (referent group)	22	23.1	33.2	40.3
Ratio of Family Income to Poverty Level				
Less than 100 percent (referent group)	11	30.1	43.8	53.4
100 percent to less than 150 percent	27	17.2	25.5	32.0
150 percent to less than 200 percent	18	22.6	33.3	41.4
200 percent and above	>51	9.0	13.2	16.8
Net Worth				
Greater than \$0	25	19.5	29.5	36.3
\$0 or negative (referent group)	24	19.8	30.0	36.8
Greater than \$25,000	35	13.1	20.3	25.2
\$25,000 or less (referent group)	19	22.2	33.7	41.0

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals in States that Exclude One or Fewer Vehicles for SNAP Unit				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
Other Income					
Receive TANF	25	19.7	29.8	36.5	***
No TANF (referent group)	25	19.7	29.8	36.5	
Receive SSI or general assistance	26	18.1	27.5	34.0	
No SSI or general assistance (referent group)	24	19.9	30.1	37.0	
Receive WIC, Medicaid or housing subsidies	7	37.6	54.8	64.1	***
No WIC, Medicaid or housing subsidies (referent group)	29	13.9	21.8	26.8	
Receive alimony or child support	>51	2.9	4.7	5.9	
No receipt of alimony or child support (referent group)	22	21.2	32.7	39.5	
Benefit History					
Nonparticipation Spell is first ever	10	30.4	45.8	55.2	**
Spell is not first nonparticipation spell ever (referent group)	30	14.6	22.8	28.7	
Health Status and Medical Costs					
In fair or poor health	11	29.9	44.3	52.4	
Health good or better (referent group)	30	16.8	25.6	31.1	
Out-of-pocket medical costs greater than \$1000	35	13.2	20.2	25.1	
Out-of-pocket medical costs \$1000 or less (referent group)	24	19.9	30.1	36.9	
Entry Trigger Events					
Job loss within family	12	28.1	41.5	50.0	
No job loss within family (referent group)	25	19.4	29.4	36.2	
Decrease in income within family	7	39.8	54.2	61.4	***
No decrease in income within family (referent group)	35	17.5	25.0	29.1	
Separation or divorce within family	>51	0.0	0.0	0.0	
No separation or divorce within family (referent group)	24	19.7	30.0	36.9	
Increase in family size within family	27	17.3	26.3	32.5	
No increase in family size within family (referent group)	24	19.7	29.8	36.6	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	18	25.0	35.4	42.7	
One percentage point above the mean state unemployment rate	13	28.5	40.2	48.0	***
20th percentile wage (referent group)	24	19.9	30.1	37.0	
One dollar more than the 20th percentile wage	23	21.0	31.8	38.9	
Region of Residence					
Northeast	4	51.5	74.5	82.4	***
Mid-Atlantic	4	51.5	74.5	82.4	***
Midwest	>51	3.3	6.5	8.1	***
Southeast	4	51.5	74.5	82.4	***
Southwest	11	26.4	45.2	53.3	
Mountain Plains	4	51.5	74.5	82.4	***
Western (referent group)	4	51.5	74.5	82.4	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility					
State exclude all or most vehicles					
State excludes one or fewer vehicles for SNAP unit (referent group)					
Certification Period					
State average certification period (referent group)	19	22.8	33.7	41.2	
State average certification period plus 1 month	14	26.0	38.2	46.3	
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	3	70.5	87.8	93.9	
One additional cent to mean outreach expenditures	25	19.7	29.8	36.5	**
Number of Spell-Month Observations	1,645				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals Participating in SNAP for First Time				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	27	19.3	31.1	39.4	
Sex					
Male	28	19.0	30.6	38.9	
Female (referent group)	26	19.5	31.5	39.9	
Race/Ethnicity					
White, Non-Hispanic	33	17.9	29.0	37.0	
Black, Non-Hispanic	16	22.1	35.2	44.3	*
Other, Non-Hispanic	13	24.6	38.8	48.4	**
Hispanic (referent group)	32	18.0	29.2	37.2	
Age					
18 to 29 (referent group)	24	20.1	32.3	40.9	
30 to 49	27	19.2	31.0	39.3	
50 to 64	24	19.9	32.0	40.5	
65 and older	48	15.3	25.0	32.2	
Citizenship					
Citizen	26	19.5	31.5	39.9	
Noncitizen (referent group)	35	17.6	28.5	36.4	
Education					
Highest Grade Completed					
0 to 8 (referent group)	21	20.7	33.2	42.1	
9 to 11	15	23.2	36.8	46.3	
12	17	21.5	34.5	43.6	
13 and above	44	15.6	25.5	32.8	**
Family Composition					
Mean number of adults age 18-59 (referent group)	28	18.8	30.5	38.8	
One adult more than the mean number of adults age 18-59	36	17.3	28.2	36.1	**
Mean number of adults age 60+ (referent group)	27	19.3	31.2	39.5	
One adult more than the mean number of adults age 60+	22	20.4	32.8	41.5	
Mean number of children less than age 6 (referent group)	27	19.1	30.9	39.3	
One child more than the mean number of children less than age 6	15	23.0	36.6	46.0	***
Mean number of children between ages 6 to 17 (referent group)	27	19.3	31.1	39.4	
One child more than the mean number of children between ages 6 to 17	27	19.4	31.2	39.6	
Marital Status					
Currently married	33	17.9	29.0	37.0	
Not currently married (referent group)	24	20.0	32.2	40.8	
Employment Status					
Currently employed	24	20.1	32.2	40.8	
Have not worked 1 to 5 months	>51	14.4	23.7	30.5	
Have not worked 6 to 11 months	20	20.9	33.5	42.3	
Have not worked at least 12 months (referent group)	29	18.7	30.2	38.4	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	14	23.3	37.3	46.9	
100 percent to less than 150 percent	18	21.3	34.3	43.5	
150 percent to less than 200 percent	37	16.8	27.5	35.4	***
200 percent and above	>51	13.4	22.3	29.0	***
Net Worth					
Greater than \$0	25	19.9	31.9	40.5	
\$0 or negative (referent group)	32	18.2	29.5	37.6	
Greater than \$25,000	38	17.0	27.7	35.4	**
\$25,000 or less (referent group)	23	20.3	32.6	41.3	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals Participating in SNAP for First Time			
		4 Months or Less	8 Months or Less	12 Months or Less
	Median	Less	Less	or Less
Other Income				
Receive TANF	15	23.2	36.8	46.1
No TANF (referent group)	28	19.1	30.7	39.0
Receive SSI or general assistance	47	15.4	25.3	32.4
No SSI or general assistance (referent group)	25	19.8	31.9	40.4
Receive WIC, Medicaid or housing subsidies	12	26.3	41.5	51.6
No WIC, Medicaid or housing subsidies (referent group)	41	15.9	26.1	33.6
Receive alimony or child support	35	17.7	28.7	36.6
No receipt of alimony or child support (referent group)	27	19.4	31.3	39.7
Benefit History				
Nonparticipation Spell is first ever				
Spell is not first nonparticipation spell ever (referent group)				
Health Status and Medical Costs				
In fair or poor health	18	21.7	34.6	43.6
Health good or better (referent group)	31	18.3	29.7	37.7
Out-of-pocket medical costs greater than \$1000	48	15.3	25.1	32.2
Out-of-pocket medical costs \$1000 or less (referent group)	26	19.6	31.6	40.1
Entry Trigger Events				
Job loss within family	21	20.9	33.3	42.0
No job loss within family (referent group)	28	19.2	30.9	39.1
Decrease in income within family	15	24.6	37.5	46.4
No decrease in income within family (referent group)	37	18.3	28.6	35.9
Separation or divorce within family	10	30.4	46.7	57.3
No separation or divorce within family (referent group)	28	19.2	30.9	39.3
Increase in family size within family	12	27.5	42.3	52.2
No increase in family size within family (referent group)	30	18.9	30.1	38.1
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate (referent group)	27	19.4	31.2	39.6
One percentage point above the mean state unemployment rate	28	19.1	30.8	39.0
20th percentile wage (referent group)	27	19.1	30.9	39.3
One dollar more than the 20th percentile wage	32	18.0	29.2	37.3
Region of Residence				
Northeast	>51	14.3	23.6	30.4
Mid-Atlantic	>51	14.6	24.1	31.0
Midwest	21	20.5	33.0	41.9
Southeast	15	23.1	36.9	46.3
Southwest	24	19.9	32.2	40.8
Mountain Plains	15	23.2	37.0	46.5
Western (referent group)	43	16.1	26.4	34.0
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	27	19.2	31.0	39.3
State exclude all or most vehicles	28	18.9	30.6	38.9
State excludes one or fewer vehicles for SNAP unit (referent group)	15	23.0	36.5	45.8
Certification Period				
State average certification period (referent group)	27	19.3	31.2	39.5
State average certification period plus 1 month	25	19.7	31.7	40.2
Program Outreach Expenditures				
Mean outreach expenditures per capita (referent group)	27	19.4	31.2	39.5
One additional cent to mean outreach expenditures	27	19.3	31.1	39.4
Number of Spell-Month Observations	27,651			

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals that have Participated in SNAP Previously				
	Median	4 Months or Less	8 Months or Less	12 Months or Less	
All Individuals	18	23.9	37.3	43.8	
Sex					
Male	19	22.9	35.9	42.3	
Female (referent group)	16	24.5	38.2	44.8	
Race/Ethnicity					
White, Non-Hispanic	18	23.8	37.2	43.7	
Black, Non-Hispanic	13	27.0	41.7	48.7	***
Other, Non-Hispanic	25	20.4	32.4	38.3	
Hispanic (referent group)	22	21.8	34.3	40.5	
Age					
18 to 29 (referent group)	15	26.0	40.4	47.2	
30 to 49	17	24.3	38.0	44.5	
50 to 64	25	20.5	32.4	38.3	***
65 and older	29	18.7	29.8	35.4	***
Citizenship					
Citizen	18	23.6	36.8	43.3	
Noncitizen (referent group)	14	26.8	41.4	48.3	
Education					
Highest Grade Completed					
0 to 8 (referent group)	19	23.2	36.4	42.8	
9 to 11	15	25.4	39.5	46.2	
12	16	24.6	38.4	45.0	
13 and above	20	22.5	35.3	41.6	
Family Composition					
Mean number of adults age 18-59 (referent group)	17	24.1	37.8	44.4	
One adult more than the mean number of adults age 18-59	22	21.7	34.4	40.5	***
Mean number of adults age 60+ (referent group)	18	23.9	37.3	43.8	
One adult more than the mean number of adults age 60+	17	24.4	38.1	44.7	
Mean number of children less than age 6 (referent group)	18	23.5	36.8	43.3	
One child more than the mean number of children less than age 6	13	27.2	41.9	49.0	***
Mean number of children between ages 6 to 17 (referent group)	18	23.8	37.2	43.7	
One child more than the mean number of children between ages 6 to 17	16	24.7	38.4	45.0	
Marital Status					
Currently married	21	22.2	35.0	41.2	*
Not currently married (referent group)	16	24.6	38.4	45.0	
Employment Status					
Currently employed	22	21.7	34.3	40.5	***
Have not worked 1 to 5 months	12	28.4	43.7	50.9	
Have not worked 6 to 11 months	15	25.8	40.1	46.9	
Have not worked at least 12 months (referent group)	15	25.3	39.4	46.2	
Ratio of Family Income to Poverty Level					
Less than 100 percent (referent group)	13	27.2	42.0	49.0	
100 percent to less than 150 percent	20	22.5	35.4	41.8	***
150 percent to less than 200 percent	20	22.5	35.5	41.8	***
200 percent and above	23	21.1	33.4	39.4	***
Net Worth					
Greater than \$0	20	22.3	35.1	41.4	***
\$0 or negative (referent group)	14	26.4	40.9	47.8	
Greater than \$25,000	16	24.6	38.3	45.0	
\$25,000 or less (referent group)	18	23.6	36.9	43.3	

Table D.3 Regression-Adjusted Median SNAP Nonparticipation Duration and Cumulative Re-entry Rates, by Participant Characteristic

Individual Characteristics	Individuals that have Participated in SNAP Previously				
		4 Months or Less	8 Months or Less	12 Months or Less	
	Median	Less	Less	or Less	
Other Income					
Receive TANF	14	26.8	41.4	48.4	
No TANF (referent group)	18	23.7	37.0	43.5	
Receive SSI or general assistance	15	26.1	40.5	47.3	
No SSI or general assistance (referent group)	18	23.5	36.8	43.3	
Receive WIC, Medicaid or housing subsidies	12	28.7	44.5	51.8	**
No WIC, Medicaid or housing subsidies (referent group)	24	20.2	32.5	38.5	
Receive alimony or child support	19	23.3	36.4	42.8	
No receipt of alimony or child support (referent group)	17	23.9	37.4	43.9	
Benefit History					
Nonparticipation Spell is first ever					
Spell is not first nonparticipation spell ever (referent group)					
Health Status and Medical Costs					
In fair or poor health	15	25.8	40.0	46.8	**
Health good or better (referent group)	19	23.0	36.0	42.4	
Out-of-pocket medical costs greater than \$1000	28	19.0	30.3	36.0	**
Out-of-pocket medical costs \$1000 or less (referent group)	17	24.3	38.0	44.6	
Entry Trigger Events					
Job loss within family	8	33.9	50.1	57.4	**
No job loss within family (referent group)	20	23.4	36.0	42.1	
Decrease in income within family	13	28.6	42.8	49.5	**
No decrease in income within family (referent group)	22	22.9	34.9	40.9	
Separation or divorce within family	27	19.7	31.3	37.1	
No separation or divorce within family (referent group)	18	23.9	37.3	43.8	
Increase in family size within family	13	27.9	42.7	49.6	
No increase in family size within family (referent group)	18	23.7	36.9	43.3	
State and Regional Measures					
State Economic Measures					
Mean state unemployment rate (referent group)	17	24.0	37.4	43.9	
One percentage point above the mean state unemployment rate	18	23.4	36.6	43.0	**
20th percentile wage (referent group)	18	23.9	37.4	43.9	
One dollar more than the 20th percentile wage	15	25.9	40.1	46.9	*
Region of Residence					
Northeast	27	19.5	30.9	36.6	*
Mid-Atlantic	22	21.6	34.0	40.1	
Midwest	16	24.8	38.5	45.2	
Southeast	19	23.1	36.2	42.5	
Southwest	14	26.6	41.1	47.9	
Mountain Plains	16	24.7	38.5	45.1	
Western (referent group)	17	24.2	37.8	44.4	
SNAP Policy Variables					
Vehicle Rules					
State offers broad-based categorical eligibility	16	24.5	38.2	44.7	**
State exclude all or most vehicles	20	22.6	35.5	41.8	**
State excludes one or fewer vehicles for SNAP unit (referent group)	40	15.6	25.2	30.1	
Certification Period					
State average certification period (referent group)	18	23.8	37.3	43.8	
State average certification period plus 1 month	17	24.2	37.8	44.3	
Program Outreach Expenditures					
Mean outreach expenditures per capita (referent group)	18	23.9	37.3	43.8	
One additional cent to mean outreach expenditures	18	23.9	37.3	43.8	
Number of Spell-Month Observations	39,589				

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test

***Significantly different from referent group at .01, two-tailed test

Appendix E

Trigger Events and SNAP Dynamics: The Role of Instability in Employment, Income, and Family Composition

Many studies have found evidence that instability in employment, income, and family composition can alter how trigger events differentially affect the likelihood of an individual entering or exiting SNAP based on that individual's past experience (Gleason et al. 1998, Cody et al. 2007, Mabli et al. 2011b, and Mabli and Ohls 2012). In this appendix we examine how individuals' usual circumstances affect the association between experiencing entry trigger events and entering SNAP, and experiencing exit trigger events and exiting SNAP.

A. Sample and Methodology

In the main model specification for analyzing SNAP entry in Chapter III we restricted the entry sample to those who have a SNAP nonparticipation spell in or after month 5 of the panel to ensure that the period prior to entry will be long enough to observe possible entry trigger events. When we examine how individuals' usual circumstances affect the association between experiencing entry trigger events and entering SNAP, we further restrict the sample to those who have a SNAP nonparticipation spell in or after month 17 of the panel to ensure that the period prior to entry will be long enough to observe usual circumstances over a 12-month window and trigger events over a four-month window. In that case, individuals in month 17 have their usual circumstance variables defined over months 1 through 12 and their trigger event variables defined over months 13 through 16. Similarly, for individuals in month 22, the trigger event window is measured from month 18 through month 21 and the usual circumstance window is measured from month 6 through month 17.

The same restrictions apply to the duration entry sample from Chapter IV when examining the role of instability in employment, income, and family composition. In that analysis, month 6 was the first sample month for samples used in the main model specification and month 17 is the first sample month in the restricted sample.

The model used to examine instability consists of all the variables included in the main model specifications, plus several instability variables:

- **Usual Circumstances Measures (for SNAP entry).** We include variables measuring instability in employment, income, or family composition. The definitions of these variables are identical to those in Cody et al. (2007) and Mabli et al. (2011b), with the variables counting the number of times members of the individual's family make certain transitions such as changes in employment, income, marital status, and family composition in a twelve-month period. For example, the employment instability variable counts the number of employment transitions that occurred in the individual's family over twelve months and divides by the number of family members in order to account for

the possibility that families with more adults may experience more transitions. Similarly, the income instability variable counts the number of income changes that occurred in the individual's family over twelve months and averages by family size. Family composition instability is defined in a similar way as well. The instability variable associated with the marital status entry trigger variable measures the average number of marriages among all family members over their lifetimes.²⁵ We note that the entry (and exit) trigger variables measure transitions in the direction traditionally associated with entry (and exit) into SNAP, but the usual circumstance variables may not. For example, in the SNAP entry model, the employment trigger indicates whether an individual experienced a job loss in the four-month period because this is a common determinant of entry into SNAP. The usual circumstance variable associated with employment, however, measures employment instability (transitions from employment to unemployment and from unemployment to employment).²⁶

- **Usual Circumstances Measures (for SNAP exit).** The instability measures used in the SNAP duration model are defined similarly to those used in the entry analysis, except that we use a window of varying length, rather than twelve months, to define the instability measures for program exit. The exploratory models in Cody et al. (2007) and Mabli et al. (2011b) examined the length of the window over which instability variables should be measured and concluded that using a window of varying length was preferred to a window of fixed length when analyzing program exit. A “varying window” means that instability in income will be defined only over the length of the SNAP participation spell rather than extending into the period preceding the start of the spell.

B. SNAP Entry

The analysis of trigger events and SNAP entry presented in Chapter III measures the triggers in an absolute sense—that is, it identifies the triggers for an individual regardless of long-term patterns in employment, income, marital status, and family structure. Prior studies of SNAP determinants, however, suggest that some triggers may have more influence on SNAP entry if the trigger's resultant change to the individual's status represents a deviation from the individual's long-term characteristics.

Using the 2008 SIPP panel, we found that the size of the association between losing a job and the probability of entering SNAP was diminished when we controlled for more longer-lasting conditions, such as greater instability in employment (Table E.1). The regression-adjusted entry rate for individuals with a high level of instability in employment, as measured by having the

²⁵ The Wave 2 Topical Module history of the SIPP was used to calculate the number of times an individual was married before Wave 2 of the panel. Monthly data in the core wave files was then used to update this measure throughout the remainder of the panel.

²⁶ Cody et al. (2007) performed extensive exploratory work by estimating multiple specifications of the regression model that differed in the lengths of time over which usual circumstances were defined. In the current study we use the preferred specification from Cody et al. (2007) and Mabli et al. (2011b) to estimate all models that include the usual circumstance variables.

greatest number of transitions between employment and nonemployment over a 12-month period, was the same (0.31 percent) for those that experienced a job loss and those that did not experience one. This compares to entry rates of 0.57 percent and 0.32 percent, respectively, for individuals with low instability in employment—a 0.25 percentage point difference. Thus, the association experiencing a job loss and entering SNAP was much smaller for individuals with greater employment instability.

Table E.1 Regression-Adjusted Monthly Rates of Entry into SNAP, by Participant Trigger Event and Usual Circumstances

	Instability Level in Employment, Income, Marital Status or Family Composition History		
	Low Instability 0	Moderate Instability 1	High Instability 2
Job Loss	0.57	0.42	0.31
No Job Loss	0.32	0.32	0.31
Difference	0.25	0.11	0.00
Income Decrease	0.36	0.37	0.38
No Income Decrease	0.29	0.33	0.37
Difference	0.07	0.04	0.01
Separation or Divorce	0.78	0.29	0.11
No Separation or Divorce	0.37	0.32	0.28
Difference	0.41	-0.02	-0.17
Increase in Family Size	0.48	0.66	0.89
No Increase in Family Size	0.27	0.44	0.70
Difference	0.21	0.22	0.20

Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Note: Job loss, income decrease, and increase in family size statistically significant at 0.01 level for all instability levels.

The size of the association between experiencing a decrease in income and the probability of entering SNAP was also smaller for individuals with greater instability in income. The regression-adjusted entry rate for individuals with a high level of instability in income was 0.38 percent for those that experienced a decrease in income and 0.37 percent for those without an income decrease—a 0.01 percentage point difference. This compares to entry rates of 0.36 percent and 0.29 percent for individuals with a low level instability in income—a 0.07 percentage point difference.

Although the same relationship existed for increases in family size and SNAP entry in terms of being statistically significant, the magnitudes of the differences in the association across

instability levels were very small. The regression-adjusted entry rate for individuals with a high level of instability in family composition was 0.89 percent for those that experienced an increase in family size and 0.70 percent for those without an increase in family size—a 0.20 percentage point difference. This compares to entry rates of 0.48 percent and 0.27 percent for individuals with the least instability in family size or the number of dependents—a 0.21 percentage point difference.

C. SNAP Duration

As in the entry analysis, we examined whether some trigger events had more influence on SNAP spell length if the trigger's resultant change to the individual's status represented a deviation from the individual's long-term characteristics. We found that the size of the association between experiencing an increase in income and the probability of exiting SNAP was smaller for individuals with greater instability in income (Table E.2). The regression-adjusted median spell length for individuals with a high level of instability in income was 5.5 months for those that experience an increase in income and 5.1 months for those without an increase in income—a 0.5-month difference. This compares to median spell lengths of 6.3 months and 4.0 months, respectively, for individuals with *less* instability in income—a 2.3-month difference.

Table E.2 Regression-Adjusted Median Spell Lengths, by Participant Trigger Event and Usual Circumstances

	Instability Level in Employment, Income, Marital Status or Family Composition History		
	Low Instability 0	Moderate Instability 1	High Instability 2
Job Gain	6.0	6.3	6.6
No Job Gain	4.5	4.7	4.9
Difference	1.5	1.6	1.7
Income Increase	6.3	5.9	5.5
No Income Increase	4.0	4.5	5.1
Difference	2.3	1.4	0.5
Marriage	3.3	4.6	6.4
No marriage	4.7	4.8	4.8
Difference	-1.4	-0.1	1.7
Decrease in Family Size	5.1	5.2	5.4
No Decrease in Family Size	4.6	4.6	4.6
Difference	0.5	0.7	0.8

Source: Decision Demographics tabulations of the 2008 SIPP Panel.

Note: Income increase statistically significant at 0.01 level for all instability levels.

Appendix F

Empirical Model

The participation and nonparticipation models estimated in this report can be motivated conceptually by defining a latent variable P^* that is the net benefit of participation (see Mabli and Ohls 2012). We assume the net benefit of participation for individual i is related to a set of covariates and an error term by $P_{i,t}^* = B'X_{i,t} + \varepsilon_{i,t}$ where $X_{i,t}$ is a set of explanatory variables, B is a parameter vector that includes an intercept term, and $\varepsilon_{i,t}$ is an error term that follows a logistic distribution. Since P^* is not observed, the dependent variable in the estimation of our entry model is then defined as equal to 1 if the net benefit $P^* > 0$ (an individual participates) and is equal to 0 otherwise (an individual does not participate). Thus, the probability of entering the program in month t is defined to be

$$\lambda_{i,t} = \Pr(P^* > 0) \text{ where } \lambda_{i,t} = \frac{1}{(1 + \exp(-B'X_{i,t}))}$$

We estimate the logistic regression models of SNAP entry using maximum likelihood estimation. The log likelihood function can be written in terms of the entry probabilities as

$$\log L(B) = \sum_i^n \left\{ y_i \log \left[\lambda_{i,t} \prod_{s=1}^{t_i-1} (1 - \lambda_{i,s}) \right] + (1 - y_i) \log \left[\prod_{s=1}^{t_i} (1 - \lambda_{i,s}) \right] \right\}$$

where $i=1, \dots, n$ indexes individuals in the sample, y equals 1 if individual i enters in month t and equals zero otherwise. The exit model is defined analogously, with the dependent variable set equal to 1 if the individual does not participate and equal to 0 otherwise. Thus, the exit probability is $\lambda_{i,t} = \Pr(P^* < 0)$. All analyses are weighted using SIPP longitudinal panel weights.

Appendix G

Determinants of SNAP Participation, Geographic Access to Food, and Neighborhood Characteristics

Analyses of SNAP determinants have traditionally explored how SNAP entry or exit rates are associated with demographic, economic, and household characteristics, such as age, race and ethnicity, education, family composition, and presence of and sources of income. All of the model specifications in Gleason et al. (1998), Cody et al. (2007), and Mabli et al. (2011b), and the main model specification for entry, duration, and re-entry in this report, have included these sets of variables that have been created exclusively from SIPP data. To further enrich our understanding of SNAP determinants, this study draws from three additional data sources: (1) the American Community Survey (ACS) summary files, (2) the Economic Research Service (ERS) Food Access Research Atlas, and (3) a proprietary mortgage foreclosure data resource. In this appendix we examine the associations of SNAP entry, exit, and re-entry with the standard set of demographic, economic, and household characteristics and with this new set of housing and geographic variables. As in Chapters III, IV, and V, to make the findings more accessible to a policy audience, we translate all model results to regression-adjusted SNAP entry rates, median SNAP spell lengths, and median SNAP nonparticipation spell lengths; the raw regression coefficients are found in tables in Appendix H. Below, we present findings for the full sample of individuals and then discuss how the findings differ across subgroups.

A. Defining new variables and subgroups

These data sources enable us to define variables and subgroups measuring foreclosure experience, neighborhood contextual factors, and geographic access to food. We merged each new data source to the SIPP-based analysis file described in Chapter II and conducted analyses to verify data quality and construct preliminary summary analysis variables. (Appendix A summarizes these data and their match to our SIPP analysis file.) Below, we describe each of these data sources:

ACS neighborhood contextual data. To create variables and subgroups that describe the income and program participation levels of individuals' neighborhoods (in this case neighborhood is denoted by a sample member's census tract), we used the 2008-2012 Census Bureau ACS population characteristics summary files tabulated according to the 2010 census tract geographic boundaries. We linked the ACS data to our SIPP-based analysis file by census tract. Although the public-use SIPP data contain no geographic identifiers below the State level, we secured permission to use monthly census tract of residence information for SIPP respondents from within the Census Bureau. Because the 2010 census tract assignments for SIPP were available only through Wave 10, we held respondents' Wave 10 residence constant through Wave 14. The 2008 SIPP panel was created under the 2000 census tract system

which is available for all waves, but the ACS data for the analysis period utilizes 2010 tracts.

ERS 2010 Food Access Research Atlas Data. Low access to healthy food is defined as being far from a supermarket, supercenter, or large grocery store ("supermarket" for short). A census tract is considered to have low access if a significant number or share of individuals in the tract are far from a supermarket. To create variables and subgroups that describe the degree to which individuals have access to food, we used the 2010 Food Access Research Atlas.²⁷ This dataset defines geographic areas in which households have limited food access in order to provide a spatial overview of a community's ability to access healthy food. The atlas is created from several integrated data sources: the 2010 Decennial Census, the 2006-2010 American Community Survey, and a 2010 list of supermarkets (derived from merging the 2010 Store Tracking and Redemption System (STARS) directory of stores authorized to accept SNAP benefits and the 2010 Trade Dimensions TDLinx directory of stores). Like the ACS data, the food access data are linked to our SIPP-based analysis file by census tract.

Mortgage Foreclosure Data. We also linked data from the SIPP to an internal Census Bureau mortgage foreclosure data set, comprised of mortgage foreclosure actions collected by commercial data provider RealtyTrac. RealtyTrac mined nationwide foreclosure events from registers of Deeds offices across the country from the period January 2005 through December 2011. The Census Bureau identified SIPP respondents in these data by matching the foreclosure event address to the SIPP household address, as masked by internal Master Address File Identification Numbers (O'Donnell 2011). This match was done at the month level. The foreclosure data do not cover the whole study period, so we limit analysis of these subgroups to the associated first 10 waves.

We defined four variables

- A binary variable indicating whether an individual lived in a housing unit affected by a foreclosure event
- A binary variable indicating whether an individual lived in a high poverty neighborhood
- A binary variable indicating whether an individual lived in a high SNAP participation neighborhood
- A binary variable indicating whether an individual lived in a census tract with a low level of food access

²⁷ <http://www.ers.usda.gov/data-products/food-access-research-atlas.aspx>

We replicated the entry, duration, and re-entry models from Chapters III, IV, and V and added these variables to the model. We estimated the models once for the full sample and again for subgroups defined by the four variables (for example, one subgroup consisting of individuals living in a housing unit affected by a foreclosure event and a second subgroup consisting of individuals not living in a housing unit affected by a foreclosure event).

B. Determinants of SNAP Entry

Full Sample Analysis. Almost all of the demographic, economic, and state characteristics, and trigger events that were associated with entry in the main model specification presented in Chapter III and summarized in Table VI.1 were associated with entry when controlling for recent foreclosure experiences, neighborhood income and SNAP participation levels, and geographic access to food.²⁸

Characteristics of an individual's neighborhood were associated with SNAP entry. The entry rate was 0.35 percent for individuals that lived in a high poverty neighborhood, compared to 0.33 percent for those that did not. Similarly, the entry rate was 0.42 percent for individuals that lived in a neighborhood with a high SNAP participation rate, compared to 0.29 percent for those that did not. SNAP entry was not associated with having experienced a recent foreclosure event or living in an area with low geographic access to food.

Subgroup Analyses. The associations between SNAP entry and demographic, economic, and household factors generally did not differ across subgroups defined by foreclosure, neighborhood characteristics, and geographic access to food. For example, changes in employment, income, and family composition were associated with increased entry for all of the subgroups (Table G.1).

Associations between SNAP entry and SNAP policies did differ across these subgroups, however. Living in a State that offers broad-based categorical eligibility or living in a State that excludes all or most vehicles from countable assets, compared to living in a State that excludes one or no vehicles per SNAP unit from countable assets, was associated with higher entry rates for individuals that had not experienced a recent foreclosure event (relative to those that did); for individuals not living in a high poverty neighborhood (relative to those that were); for individuals not living in a high SNAP participation neighborhood (relative to those that were); and for individuals living not living in an area with low geographic access to food (relative to those that were). The consistency in findings across the latter three subgroups might reflect a greater likelihood that individuals living in neighborhoods with lower poverty, lower SNAP participation rates, and higher access to food have assets that exceed the federal eligibility requirements.

²⁸ The exception was the positive association between experiencing a separation or divorce and entering SNAP. This was no longer significant in the expanded model.

Living in States with longer certification periods was positively associated with entry for individuals living in a high poverty neighborhood, but was negatively associated with entry for individuals not living in a high poverty neighborhood. The same was true for individuals living in a neighborhood with a high SNAP participation rate.

C. Determinants of SNAP Duration

Full Sample Analysis. All of the demographic and economic characteristics and trigger event variables that were associated with SNAP median spell length in the main model specification presented in Chapter IV and summarized in Table VI.2 were associated with median spell length when controlling for whether the individual experienced a recent foreclosure, neighborhood poverty and SNAP participation rates, and geographic access to food (Table G.2).

Unlike in the main model specification for SNAP duration, where we found no association with State policies, controlling for these additional foreclosure and neighborhood characteristics did identify an association with duration. Median spell lengths were shorter in States offering broad-based categorical eligibility (10 months) and in States without broad-based categorical eligibility policies but that exclude all or most vehicles (10 months), than in States excluding one or fewer vehicles per SNAP unit from countable assets (13 months).

Several characteristics of an individual's neighborhood were associated with SNAP spell length. The median spell length was one month shorter for individuals that lived in a high poverty neighborhood than those that did not (10 and 11 months, respectively). In contrast, it was three months longer for individuals that lived in a neighborhood with a high SNAP participation rate than those that did not (12 and 9 months, respectively). The length of time on SNAP was not associated with having experienced a recent foreclosure event or living in an area with low geographic access to food.

Subgroup Analyses. Several associations between demographic, economic, and household factors and SNAP spell length differed across subgroups defined by neighborhood characteristics (Table G.2). Age was an important determinant of SNAP spell length for individuals that lived in neighborhoods with high poverty rates, in that younger individuals had shorter spell lengths, but was not associated with spell length for those in neighborhoods with lower poverty rates. The same was true for individuals that lived in a neighborhood with a high SNAP participation rate, relative to those that did not. These groups also showed differences in the association between being married and leaving SNAP. In addition, for individuals living in a high poverty neighborhood or living in a neighborhood with a high SNAP participation rate, those that were married spent 4 to 5 months longer on the program, on average, compared to those that were not married. There was no association between marital status and SNAP spell length for individuals not living in a high poverty neighborhood or not living in a neighborhood with a high SNAP participation rate.

Associations between SNAP spell length and SNAP policies differed across the foreclosure, neighborhood characteristic, and geographic access to food subgroups. Living in a State that offers broad-based categorical eligibility or living in a State that excludes all or most vehicles from countable assets, compared to living in a State that excludes one or no vehicles per SNAP unit from countable assets, was associated with shorter regression-adjusted median spell lengths for individuals that had not experienced a recent foreclosure event (relative to those that did); for individuals not living in a high poverty neighborhood (relative to those that were); for individuals not living in a neighborhood with a high SNAP participation rate (relative to those that were); and for individuals not living in an area with low geographic access to food. Notably, these were the same subgroups for which entry rates were higher.

There were no differences in SNAP spell length according to whether an individual lived in a state with longer certification periods according to whether individuals lived in a high poverty neighborhood or a neighborhood with a high SNAP participation rate. Surprisingly, for individuals that had experienced a recent foreclosure event, spell lengths were one-month shorter for individuals in states with longer certification periods compared to those in states with shorter periods; there was no association for individuals that had not experienced a recent foreclosure event.

D. Determinants of SNAP Re-entry

Full Sample Analysis. Many of the demographic and economic characteristics and trigger event variables that were associated with SNAP median nonparticipation spell length in the main model specification presented in Chapter V and summarized in Table VI.3 were also associated with median spell length when controlling for whether the individual experienced a recent foreclosure, neighborhood income and SNAP participation levels, and geographic access to food (Table G.3). However, several factors that were not associated with re-entry in the main model were associated with it in the model that controlled for foreclosure and neighborhood contextual variables, including being female and receiving TANF.

The median SNAP nonparticipation spell length was five months shorter for individuals that had recently experienced a foreclosure event relative to those that had not (15 versus 20 months, respectively). It was also 11 months shorter for individuals living in a neighborhood with a high SNAP participation rate (15 months), compared to living in a neighborhood with a lower SNAP participation rate (26 months). Finally, the median spell length was 5 months shorter for individuals living in a low food access area, relative to living in an area with greater geographic access to food (18 versus 23 months, respectively). Although in the SNAP entry analysis, individuals were more likely to enter SNAP if they lived in a neighborhood with a high SNAP participation rate, there were no associations in the entry analysis with having experienced a foreclosure or living in a low food access area; these latter associations are specific to SNAP re-entry.

Subgroup Analyses. Many of the associations between demographic, economic, and household factors and SNAP nonparticipation spell length did not differ across subgroups defined by neighborhood characteristics (Table G.3). Two exceptions were age and citizenship status. Age was an important determinant of SNAP nonparticipation spell length for individuals that lived in neighborhoods with high poverty rates, in that younger individuals re-entered SNAP more quickly than older individuals, but was not associated with spell length for those in neighborhoods with lower poverty rates. The same was true for individuals that lived in a neighborhood with a high SNAP participation rate, relative to those that did not, and for individuals that did not live in low food access areas, relative to those that did not. For individuals living in a high SNAP participation neighborhood, those that were noncitizens spent four months fewer off the program compared to those that were citizens; noncitizens in low food access areas spent 10 fewer months off the program than citizens in low food access areas (23 months versus 13 months, respectively). There was no association between citizenship and SNAP nonparticipation spell length for individuals not living in a high SNAP participation neighborhood, nor for individuals in areas with higher levels of food access.

Associations between SNAP nonparticipation spell length and SNAP policies differed across the foreclosure, neighborhood characteristic, and geographic access to food subgroups. Living in a State that offers broad-based categorical eligibility or living in a State that excludes all or most vehicles from countable assets, compared to living in a State that excludes one or no vehicles per SNAP unit from countable assets, was associated with shorter median nonparticipation spell lengths only for individuals that were not living in an area with low geographic access to food; there were no associations for individuals in low food access areas.

There were differences across subgroups in SNAP nonparticipation spell length according to whether an individual lived in a state with longer certification periods. Re-entry was quicker for individuals in states with longer certification periods, compared to those in states with shorter certification periods, for individuals that had not experienced a recent foreclosure, individuals that were not living in a high poverty neighborhood, individuals that were not living in a neighborhood with a high SNAP participation rate, and individuals that were not living in a low food access area; there were no associations between certification periods and re-entry for the complements of these groups.

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

	Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Individual Demographic Characteristics	
All Individuals	0.34
Sex	
Male	0.31 ***
Female (referent group)	0.37
Race/Ethnicity	
White, non-Hispanic	0.31 **
Black, non-Hispanic	0.42 ***
Other, non-Hispanic	0.35
Hispanic (referent group)	0.34
Age	
18 to 29 (referent group)	0.40
30 to 49	0.39
50 to 64	0.27 ***
65 and older	0.19 ***
Citizenship	
Citizen	0.35 ***
Noncitizen (referent group)	0.28
Education Level	
Highest Grade Completed	
0 to 8 (referent group)	0.42
9 to 11	0.48 **
12	0.39
13 and above	0.27 ***
Family Composition	
Mean number of adults age 18-59 (referent group)	0.33
Mean number of adults age 18-59 plus one	0.35 ***
Mean number of adults age 60+ (referent group)	0.34
Mean number of adults age 60+ plus one	0.38 ***
Mean number of children less than age 6 (referent group)	0.33
Mean number of children less than age 6 plus one	0.42 ***
Mean number of children between ages 6 to 18 (referent group)	0.33
Mean number of children between ages 6 to 18 plus one	0.37 ***
Marital Status	
Currently married	0.26 ***
Not currently married (referent group)	0.40
Employment Status	
Currently Employed	0.34
Have not worked 1 to 5 months	0.90 ***
Have not worked 6 to 11 months	0.35
Have not worked at least 12 months (referent group)	0.32
Ratio of Family Income to Poverty Level	
Less than 1.0 (referent group)	0.59
1.0 to less than 1.5	0.48 ***
1.5 to less than 2.0	0.41 ***
2.0 and above	0.21 ***

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

	Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Individual Demographic Characteristics	
Net Worth	
Net worth is greater than 0	0.33
Net worth 0 or negative (referent group)	0.35
Net worth greater than \$25,000	0.24 ***
Net worth \$25,000 or less (referent group)	0.44
Other Income	
Receive TANF	0.71 ***
No TANF (referent group)	0.33
Receive SSI or general assistance	0.30 ***
No SSI or general assistance (referent group)	0.34
Receive WIC, Medicaid or housing subsidies	0.68 ***
No WIC, Medicaid or housing subsidies (referent group)	0.26
Receive alimony or child support	0.45 ***
No receipt of alimony or child support (referent group)	0.33
Health Status and Medical Costs	
In fair or poor health	0.49 ***
Health good or better (referent group)	0.30
Out-of-pocket medical costs greater than \$1000	0.25 ***
Out-of-pocket medical costs \$1000 or less (referent group)	0.35
Entry Trigger Events	
Job loss within family	0.52 ***
No job loss within family (referent group)	0.32
Decrease in income within family	0.38 ***
No decrease in income within family (referent group)	0.31
Separation or divorce within family	0.39
No separation or divorce within family (referent group)	0.34
Increase in family size within family	0.56 ***
No increase in family size within family (referent group)	0.32
State and Regional Measures	
State Economic Measures	
Mean state unemployment rate (referent group)	0.34
One percentage point above the mean state unemployment rate	0.34 ***
20th percentile wage (referent group)	0.34
One dollar more than the 20th percentile wage	0.31 **
Region of Residence	
Northeast	0.31 **
Mid-Atlantic	0.34 ***
Midwest	0.34 ***
Southeast	0.36 ***
Southwest	0.40 ***
Mountain Plains	0.39 ***
Western (referent group)	0.27
SNAP Policy Variables	
Vehicle Rules	
State offers broad-based categorical eligibility	0.34 **
State exclude all or most vehicles	0.35 ***
State excludes one or fewer vehicles for SNAP unit (referent group)	0.28

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

	Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Individual Demographic Characteristics	
Certification Period	
State average certification period (referent group)	0.34
State average certification period plus 1 month	0.34
Program Outreach Expenditures	
Mean outreach expenditures per capita (referent group)	0.34
One additional cent to mean outreach expenditures	0.34 ***
Neighborhood Characteristics	
Mortgage Foreclosure Status (During Study Period)	
Individuals in housing units affected by foreclosure event (referent group)	0.37
Individuals not in housing units affected by foreclosure event	0.34
Characteristics of Individual's Neighborhood	
Individuals living in high poverty neighborhood (referent group)	0.35
Individuals not living in high poverty neighborhood	0.33 **
Individuals living in high SNAP participation neighborhood (referent group)	0.42
Individuals not living in high SNAP participation neighborhood	0.29 ***
Geographic Access to Food	
Individuals in low food access census tracts (referent group)	0.33
Individuals not in low food access census tracts	0.34
Number of Spell-Month Observations	1,497,510

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

Individual Demographic Characteristics	Individuals in Housing Units Affected by Foreclosure Event	Individuals not in Housing Units Affected by Foreclosure Event
All Individuals	0.54	0.33
Sex		
Male	0.51	0.30 ***
Female (referent group)	0.56	0.36
Race/Ethnicity		
White, non-Hispanic	0.56 *	0.30 ***
Black, non-Hispanic	0.90 ***	0.40 ***
Other, non-Hispanic	0.29	0.35
Hispanic (referent group)	0.41	0.34
Age		
18 to 29 (referent group)	0.72	0.39
30 to 49	0.47 **	0.38
50 to 64	0.54	0.26 ***
65 and older	0.36 *	0.19 ***
Citizenship		
Citizen	0.51	0.34 ***
Noncitizen (referent group)	0.69	0.26
Education Level		
Highest Grade Completed		
0 to 8 (referent group)	0.84	0.40
9 to 11	0.71	0.48 **
12	0.50 **	0.38
13 and above	0.50 **	0.26 ***
Family Composition		
Mean number of adults age 18-59 (referent group)	0.56	0.32
Mean number of adults age 18-59 plus one	0.53	0.35 ***
Mean number of adults age 60+ (referent group)	0.59	0.33
Mean number of adults age 60+ plus one	0.84 **	0.37 ***
Mean number of children less than age 6 (referent group)	0.53	0.32
Mean number of children less than age 6 plus one	0.58	0.41 ***
Mean number of children between ages 6 to 18 (referent group)	0.47	0.32
Mean number of children between ages 6 to 18 plus one	0.62 ***	0.35 ***
Marital Status		
Currently married	0.56	0.25 ***
Not currently married (referent group)	0.52	0.40
Employment Status		
Currently Employed	0.53	0.33
Have not worked 1 to 5 months	1.26 **	0.90 ***
Have not worked 6 to 11 months	0.47	0.35 *
Have not worked at least 12 months (referent group)	0.53	0.31
Ratio of Family Income to Poverty Level		
Less than 1.0 (referent group)	0.96	0.58
1.0 to less than 1.5	0.60 **	0.47 ***
1.5 to less than 2.0	0.49 ***	0.41 ***
2.0 and above	0.41 ***	0.20 ***

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

Individual Demographic Characteristics	Individuals in Housing Units Affected by Foreclosure Event	Individuals not in Housing Units Affected by Foreclosure Event
Net Worth		
Net worth is greater than 0	0.52	0.33
Net worth 0 or negative (referent group)	0.58	0.34
Net worth greater than \$25,000	0.45	0.23 ***
Net worth \$25,000 or less (referent group)	0.59	0.43
Other Income		
Receive TANF	3.12 ***	0.68 ***
No TANF (referent group)	0.53	0.32
Receive SSI or general assistance	0.38	0.29 ***
No SSI or general assistance (referent group)	0.56	0.33
Receive WIC, Medicaid or housing subsidies	1.25 ***	0.66 ***
No WIC, Medicaid or housing subsidies (referent group)	0.43	0.26
Receive alimony or child support	0.63	0.44 ***
No receipt of alimony or child support (referent group)	0.53	0.32
Health Status and Medical Costs		
In fair or poor health	0.77 ***	0.47 ***
Health good or better (referent group)	0.48	0.29
Out-of-pocket medical costs greater than \$1000	0.29 ***	0.25 ***
Out-of-pocket medical costs \$1000 or less (referent group)	0.59	0.34
Entry Trigger Events		
Job loss within family	0.73 **	0.51 ***
No job loss within family (referent group)	0.51	0.31
Decrease in income within family	0.49	0.38 ***
No decrease in income within family (referent group)	0.59	0.30
Separation or divorce within family	1.28 **	0.34
No separation or divorce within family (referent group)	0.53	0.33
Increase in family size within family	1.18 ***	0.53 ***
No increase in family size within family (referent group)	0.49	0.31
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	0.52	0.33
One percentage point above the mean state unemployment rate	0.56 **	0.33 **
20th percentile wage (referent group)	0.53	0.33
One dollar more than the 20th percentile wage	0.36 **	0.31 *
Region of Residence		
Northeast	0.22	0.30
Mid-Atlantic	0.82 ***	0.32 ***
Midwest	0.51 **	0.34 ***
Southeast	0.71 ***	0.35 ***
Southwest	0.87 ***	0.38 ***
Mountain Plains	2.05 ***	0.36 ***
Western (referent group)	0.31	0.27
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.56	0.33 **
State exclude all or most vehicles	0.48	0.35 ***
State excludes one or fewer vehicles for SNAP unit (referent group)	0.56	0.27

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

	Individuals in Housing Units Affected by Foreclosure Event	Individuals not in Housing Units Affected by Foreclosure Event
Individual Demographic Characteristics		
Certification Period		
State average certification period (referent group)	0.54	0.33
State average certification period plus 1 month	0.53	0.33
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	0.55	0.33
One additional cent to mean outreach expenditures	0.55 **	0.33 ***
Neighborhood Characteristics		
Mortgage Foreclosure Status (During Study Period)		
Individuals in housing units affected by foreclosure event (referent group)		
Individuals not in housing units affected by foreclosure event		
Characteristics of Individual's Neighborhood		
Individuals living in high poverty neighborhood (referent group)	0.49	0.35
Individuals not living in high poverty neighborhood	0.57	0.32 **
Individuals living in high SNAP participation neighborhood (referent group)	0.63	0.41
Individuals not living in high SNAP participation neighborhood	0.50	0.28 ***
Geographic Access to Food		
Individuals in low food access census tracts (referent group)	0.46	0.32
Individuals not in low food access census tracts	0.61 **	0.33
Number of Spell-Month Observations	50,266	1,447,244

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

Individual Demographic Characteristics	Individuals Living in High Poverty Neighborhood	Individuals not Living in High Poverty Neighborhood
All Individuals	0.69	0.24
Sex		
Male	0.61 ***	0.22 ***
Female (referent group)	0.77	0.26
Race/Ethnicity		
White, non-Hispanic	0.64	0.22 *
Black, non-Hispanic	0.82 ***	0.32 ***
Other, non-Hispanic	0.59	0.27
Hispanic (referent group)	0.67	0.25
Age		
18 to 29 (referent group)	0.77	0.29
30 to 49	0.77	0.28
50 to 64	0.57 ***	0.19 ***
65 and older	0.42 ***	0.13 ***
Citizenship		
Citizen	0.72 ***	0.25 ***
Noncitizen (referent group)	0.58	0.19
Education Level		
Highest Grade Completed		
0 to 8 (referent group)	0.79	0.32
9 to 11	0.88	0.38 *
12	0.75	0.28
13 and above	0.58 ***	0.19 ***
Family Composition		
Mean number of adults age 18-59 (referent group)	0.67	0.24
Mean number of adults age 18-59 plus one	0.77 ***	0.24
Mean number of adults age 60+ (referent group)	0.69	0.25
Mean number of adults age 60+ plus one	0.66	0.30 ***
Mean number of children less than age 6 (referent group)	0.67	0.24
Mean number of children less than age 6 plus one	0.86 ***	0.30 ***
Mean number of children between ages 6 to 18 (referent group)	0.67	0.24
Mean number of children between ages 6 to 18 plus one	0.75 ***	0.27 ***
Marital Status		
Currently married	0.56 ***	0.18 ***
Not currently married (referent group)	0.79	0.30
Employment Status		
Currently Employed	0.70	0.24
Have not worked 1 to 5 months	2.03 ***	0.59 ***
Have not worked 6 to 11 months	0.68	0.27 **
Have not worked at least 12 months (referent group)	0.65	0.23
Ratio of Family Income to Poverty Level		
Less than 1.0 (referent group)	1.18	0.43
1.0 to less than 1.5	0.81 ***	0.41
1.5 to less than 2.0	0.70 ***	0.33 ***
2.0 and above	0.42 ***	0.15 ***

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

Individual Demographic Characteristics	Individuals Living in High Poverty Neighborhood	Individuals not Living in High Poverty Neighborhood
Net Worth		
Net worth is greater than 0	0.66 **	0.24
Net worth 0 or negative (referent group)	0.75	0.24
Net worth greater than \$25,000	0.50 ***	0.18 ***
Net worth \$25,000 or less (referent group)	0.83	0.33
Other Income		
Receive TANF	0.98 ***	0.99 ***
No TANF (referent group)	0.69	0.23
Receive SSI or general assistance	0.63	0.21 **
No SSI or general assistance (referent group)	0.70	0.24
Receive WIC, Medicaid or housing subsidies	1.17 ***	0.59 ***
No WIC, Medicaid or housing subsidies (referent group)	0.54	0.19
Receive alimony or child support	0.85 ***	0.34 ***
No receipt of alimony or child support (referent group)	0.68	0.23
Health Status and Medical Costs		
In fair or poor health	0.91 ***	0.38 ***
Health good or better (referent group)	0.62	0.21
Out-of-pocket medical costs greater than \$1000	0.48 ***	0.19 ***
Out-of-pocket medical costs \$1000 or less (referent group)	0.72	0.25
Entry Trigger Events		
Job loss within family	1.02 ***	0.38 ***
No job loss within family (referent group)	0.66	0.22
Decrease in income within family	0.74 **	0.28 ***
No decrease in income within family (referent group)	0.66	0.21
Separation or divorce within family	0.64	0.31
No separation or divorce within family (referent group)	0.69	0.24
Increase in family size within family	0.99 ***	0.43 ***
No increase in family size within family (referent group)	0.67	0.23
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	0.69	0.24
One percentage point above the mean state unemployment rate	0.70 **	0.24 *
20th percentile wage (referent group)	0.69	0.24
One dollar more than the 20th percentile wage	0.66	0.22 **
Region of Residence		
Northeast	0.86 ***	0.18
Mid-Atlantic	0.74 ***	0.24 ***
Midwest	0.74 ***	0.25 ***
Southeast	0.64 **	0.29 ***
Southwest	0.78 ***	0.32 ***
Mountain Plains	0.88 ***	0.27 ***
Western (referent group)	0.54	0.18
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.69	0.24 **
State exclude all or most vehicles	0.70	0.26 ***
State excludes one or fewer vehicles for SNAP unit (referent group)	0.65	0.18

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

	Individuals Living in High Poverty Neighborhood	Individuals not Living in High Poverty Neighborhood
Individual Demographic Characteristics		
Certification Period		
State average certification period (referent group)	0.69	0.24
State average certification period plus 1 month	0.68 *	0.25 ***
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	0.69	0.24
One additional cent to mean outreach expenditures	0.68 ***	0.24
Neighborhood Characteristics		
Mortgage Foreclosure Status (During Study Period)		
Individuals in housing units affected by foreclosure event (referent group)	0.60	0.32
Individuals not in housing units affected by foreclosure event	0.70	0.24 ***
Characteristics of Individual's Neighborhood		
Individuals living in high poverty neighborhood (referent group)		
Individuals not living in high poverty neighborhood		
Individuals living in high SNAP participation neighborhood (referent group)	0.75	0.34
Individuals not living in high SNAP participation neighborhood	0.55 ***	0.23 ***
Geographic Access to Food		
Individuals in low food access census tracts (referent group)	0.69	0.23
Individuals not in low food access census tracts	0.69	0.24
Number of Spell-Month Observations	331,021	1,130,098

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

	Individuals Living in High SNAP Participation Neighborhood	Individuals not Living in High SNAP Participation Neighborhood
Individual Demographic Characteristics		
All Individuals	0.72	0.24
Sex		
Male	0.63 ***	0.22 ***
Female (referent group)	0.80	0.25
Race/Ethnicity		
White, non-Hispanic	0.68	0.21 ***
Black, non-Hispanic	0.83 ***	0.34 ***
Other, non-Hispanic	0.68	0.26
Hispanic (referent group)	0.67	0.25
Age		
18 to 29 (referent group)	0.83	0.29
30 to 49	0.82	0.28
50 to 64	0.57 ***	0.19 ***
65 and older	0.45 ***	0.12 ***
Citizenship		
Citizen	0.74 **	0.25 ***
Noncitizen (referent group)	0.62	0.18
Education Level		
Highest Grade Completed		
0 to 8 (referent group)	0.81	0.33
9 to 11	0.93	0.38 *
12	0.77	0.29 *
13 and above	0.60 ***	0.18 ***
Family Composition		
Mean number of adults age 18-59 (referent group)	0.70	0.23
Mean number of adults age 18-59 plus one	0.78 ***	0.24
Mean number of adults age 60+ (referent group)	0.72	0.24
Mean number of adults age 60+ plus one	0.77	0.29 ***
Mean number of children less than age 6 (referent group)	0.70	0.23
Mean number of children less than age 6 plus one	0.86 ***	0.30 ***
Mean number of children between ages 6 to 18 (referent group)	0.70	0.23
Mean number of children between ages 6 to 18 plus one	0.79 ***	0.26 ***
Marital Status		
Currently married	0.58 ***	0.18 ***
Not currently married (referent group)	0.82	0.29
Employment Status		
Currently Employed	0.74 **	0.23
Have not worked 1 to 5 months	2.15 ***	0.54 ***
Have not worked 6 to 11 months	0.74	0.25
Have not worked at least 12 months (referent group)	0.66	0.23
Ratio of Family Income to Poverty Level		
Less than 1.0 (referent group)	1.17	0.45
1.0 to less than 1.5	0.85 ***	0.38 ***
1.5 to less than 2.0	0.76 ***	0.31 ***
2.0 and above	0.46 ***	0.15 ***

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

	Individuals Living in High SNAP Participation Neighborhood	Individuals not Living in High SNAP Participation Neighborhood
Individual Demographic Characteristics		
Net Worth		
Net worth is greater than 0	0.70 *	0.24
Net worth 0 or negative (referent group)	0.76	0.23
Net worth greater than \$25,000	0.50 ***	0.17 ***
Net worth \$25,000 or less (referent group)	0.88	0.32
Other Income		
Receive TANF	1.08 ***	0.69 ***
No TANF (referent group)	0.71	0.23
Receive SSI or general assistance	0.67	0.20 ***
No SSI or general assistance (referent group)	0.72	0.24
Receive WIC, Medicaid or housing subsidies	1.26 ***	0.55 ***
No WIC, Medicaid or housing subsidies (referent group)	0.56	0.18
Receive alimony or child support	0.95 ***	0.30 ***
No receipt of alimony or child support (referent group)	0.70	0.23
Health Status and Medical Costs		
In fair or poor health	0.97 ***	0.36 ***
Health good or better (referent group)	0.64	0.21
Out-of-pocket medical costs greater than \$1000	0.45 ***	0.20 ***
Out-of-pocket medical costs \$1000 or less (referent group)	0.76	0.24
Entry Trigger Events		
Job loss within family	1.04 ***	0.38 ***
No job loss within family (referent group)	0.68	0.22
Decrease in income within family	0.80 ***	0.27 ***
No decrease in income within family (referent group)	0.67	0.21
Separation or divorce within family	0.78	0.28
No separation or divorce within family (referent group)	0.72	0.24
Increase in family size within family	1.05 ***	0.42 ***
No increase in family size within family (referent group)	0.69	0.22
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	0.72	0.24
One percentage point above the mean state unemployment rate	0.73 *	0.24 *
20th percentile wage (referent group)	0.72	0.23
One dollar more than the 20th percentile wage	0.72	0.20 ***
Region of Residence		
Northeast	0.79 ***	0.19
Mid-Atlantic	0.86 ***	0.23 ***
Midwest	0.87 ***	0.22 **
Southeast	0.62	0.31 ***
Southwest	0.76 ***	0.32 ***
Mountain Plains	0.89 ***	0.28 ***
Western (referent group)	0.57	0.18
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.72	0.23 *
State exclude all or most vehicles	0.75	0.25 **
State excludes one or fewer vehicles for SNAP unit (referent group)	0.61	0.19

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

	Individuals Living in High SNAP Participation Neighborhood	Individuals not Living in High SNAP Participation Neighborhood
Individual Demographic Characteristics		
Certification Period		
State average certification period (referent group)	0.72	0.24
State average certification period plus 1 month	0.70 ***	0.25 ***
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	0.71	0.24
One additional cent to mean outreach expenditures	0.71 **	0.24
Neighborhood Characteristics		
Mortgage Foreclosure Status (During Study Period)		
Individuals in housing units affected by foreclosure event (referent group)	0.61	0.31
Individuals not in housing units affected by foreclosure event	0.73 *	0.23 ***
Characteristics of Individual's Neighborhood		
Individuals living in high poverty neighborhood (referent group)	0.73	0.25
Individuals not living in high poverty neighborhood	0.67 *	0.23 *
Individuals living in high SNAP participation neighborhood (referent group)		
Individuals not living in high SNAP participation neighborhood		
Geographic Access to Food		
Individuals in low food access census tracts (referent group)	0.74	0.22
Individuals not in low food access census tracts	0.71	0.25 ***
Number of Spell-Month Observations	329,305	1,168,205

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

Individual Demographic Characteristics	Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
All Individuals	0.29	0.37
Sex		
Male	0.28 **	0.33 ***
Female (referent group)	0.31	0.41
Race/Ethnicity		
White, non-Hispanic	0.27	0.34 *
Black, non-Hispanic	0.37 ***	0.45 ***
Other, non-Hispanic	0.33	0.37
Hispanic (referent group)	0.29	0.38
Age		
18 to 29 (referent group)	0.34	0.43
30 to 49	0.32	0.44
50 to 64	0.25 ***	0.29 ***
65 and older	0.15 ***	0.22 ***
Citizenship		
Citizen	0.30	0.39 ***
Noncitizen (referent group)	0.28	0.29
Education Level		
Highest Grade Completed		
0 to 8 (referent group)	0.41	0.43
9 to 11	0.43	0.53 ***
12	0.34 *	0.42
13 and above	0.23 ***	0.30 ***
Family Composition		
Mean number of adults age 18-59 (referent group)	0.29	0.37
Mean number of adults age 18-59 plus one	0.30	0.40 ***
Mean number of adults age 60+ (referent group)	0.29	0.38
Mean number of adults age 60+ plus one	0.28	0.45 ***
Mean number of children less than age 6 (referent group)	0.28	0.36
Mean number of children less than age 6 plus one	0.36 ***	0.46 ***
Mean number of children between ages 6 to 18 (referent group)	0.28	0.36
Mean number of children between ages 6 to 18 plus one	0.33 ***	0.40 ***
Marital Status		
Currently married	0.23 ***	0.28 ***
Not currently married (referent group)	0.35	0.45
Employment Status		
Currently Employed	0.29	0.37
Have not worked 1 to 5 months	0.72 ***	1.05 ***
Have not worked 6 to 11 months	0.32	0.38
Have not worked at least 12 months (referent group)	0.29	0.35
Ratio of Family Income to Poverty Level		
Less than 1.0 (referent group)	0.49	0.67
1.0 to less than 1.5	0.40 ***	0.53 ***
1.5 to less than 2.0	0.44	0.41 ***
2.0 and above	0.18 ***	0.23 ***

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

	Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
Individual Demographic Characteristics		
Net Worth		
Net worth is greater than 0	0.29	0.37
Net worth 0 or negative (referent group)	0.31	0.37
Net worth greater than \$25,000	0.21 ***	0.27 ***
Net worth \$25,000 or less (referent group)	0.39	0.48
Other Income		
Receive TANF	0.75 ***	0.74 ***
No TANF (referent group)	0.29	0.36
Receive SSI or general assistance	0.27	0.32 **
No SSI or general assistance (referent group)	0.30	0.38
Receive WIC, Medicaid or housing subsidies	0.61 ***	0.74 ***
No WIC, Medicaid or housing subsidies (referent group)	0.23	0.29
Receive alimony or child support	0.41 ***	0.47 ***
No receipt of alimony or child support (referent group)	0.28	0.37
Health Status and Medical Costs		
In fair or poor health	0.41 ***	0.54 ***
Health good or better (referent group)	0.26	0.32
Out-of-pocket medical costs greater than \$1000	0.23 ***	0.27 ***
Out-of-pocket medical costs \$1000 or less (referent group)	0.31	0.39
Entry Trigger Events		
Job loss within family	0.46 ***	0.57 ***
No job loss within family (referent group)	0.27	0.35
Decrease in income within family	0.33 ***	0.41 ***
No decrease in income within family (referent group)	0.26	0.34
Separation or divorce within family	0.50 ***	0.30
No separation or divorce within family (referent group)	0.29	0.37
Increase in family size within family	0.46 ***	0.64 ***
No increase in family size within family (referent group)	0.28	0.35
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	0.29	0.37
One percentage point above the mean state unemployment rate	0.30 ***	0.37
20th percentile wage (referent group)	0.29	0.37
One dollar more than the 20th percentile wage	0.25 ***	0.36
Region of Residence		
Northeast	0.19 **	0.39 ***
Mid-Atlantic	0.29	0.38 ***
Midwest	0.28	0.39 ***
Southeast	0.32 **	0.39 ***
Southwest	0.32 **	0.47 ***
Mountain Plains	0.35 **	0.43 ***
Western (referent group)	0.26	0.27
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.29	0.37 ***
State exclude all or most vehicles	0.30	0.40 ***
State excludes one or fewer vehicles for SNAP unit (referent group)	0.30	0.26

Table G.1 Regression-Adjusted Rates of SNAP Entry, by Neighborhood and Participant Characteristics

	Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
Individual Demographic Characteristics		
Certification Period		
State average certification period (referent group)	0.30	0.37
State average certification period plus 1 month	0.30 *	0.37
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	0.29	0.37
One additional cent to mean outreach expenditures	0.29	0.37 ***
Neighborhood Characteristics		
Mortgage Foreclosure Status (During Study Period)		
Individuals in housing units affected by foreclosure event (referent group)	0.30	0.42
Individuals not in housing units affected by foreclosure event	0.29	0.37 *
Characteristics of Individual's Neighborhood		
Individuals living in high poverty neighborhood (referent group)	0.29	0.40
Individuals not living in high poverty neighborhood	0.29	0.35 **
Individuals living in high SNAP participation neighborhood (referent group)	0.40	0.44
Individuals not living in high SNAP participation neighborhood	0.25 ***	0.33 ***
Geographic Access to Food		
Individuals in low food access census tracts (referent group)		
Individuals not in low food access census tracts		
Number of Spell-Month Observations	649,996	812,123

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Individual Demographic Characteristics	Median
All Individuals	10
Sex	
Male	9 ***
Female (referent group)	11
Race/Ethnicity	
White, non-Hispanic	11
Black, non-Hispanic	10
Other, non-Hispanic	11
Hispanic (referent group)	10
Age	
18 to 29 (referent group)	10
30 to 49	10
50 to 64	11 **
65 and older	11
Citizenship	
Citizen	10 ***
Noncitizen (referent group)	14
Education Level	
Highest Grade Completed	
0 to 8 (referent group)	10
9 to 11	10
12	12
13 and above	9
Family Composition	
Mean number of adults age 18-59 (referent group)	11
Mean number of adults age 18-59 plus one	9 ***
Mean number of adults age 60+ (referent group)	10
Mean number of adults age 60+ plus one	8 ***
Mean number of children less than age 6 (referent group)	10
Mean number of children less than age 6 plus one	12 ***
Mean number of children between ages 6 to 18 (referent group)	10
Mean number of children between ages 6 to 18 plus one	11 ***
Marital Status	
Currently married	11 ***
Not currently married (referent group)	10
Employment Status	
Currently Employed	10
Have not worked 1 to 5 months	11
Have not worked 6 to 11 months	11
Have not worked at least 12 months (referent group)	11
Ratio of Family Income to Poverty Level	
Less than 1.0 (referent group)	13
1.0 to less than 1.5	11 **
1.5 to less than 2.0	8 ***
2.0 and above	8 ***

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Individual Demographic Characteristics	Median
Net Worth	
Net worth is greater than 0	11
Net worth 0 or negative (referent group)	10
Net worth greater than \$25,000	10
Net worth \$25,000 or less (referent group)	10
Other Income	
Receive TANF	8 ***
No TANF (referent group)	10
Receive SSI or general assistance	14 ***
No SSI or general assistance (referent group)	10
Receive WIC, Medicaid or housing subsidies	15 ***
No WIC, Medicaid or housing subsidies (referent group)	8
Receive alimony or child support	11
No receipt of alimony or child support (referent group)	10
Benefit History	
Spell is first ever	9 ***
Spell is not first ever (referent group)	11
Health Status and Medical Costs	
In fair or poor health	12 ***
Health good or better (referent group)	10
Out-of-pocket medical costs greater than \$1000	10
Out-of-pocket medical costs \$1000 or less (referent group)	10
Exit Trigger Events	
Job gain within family	8 ***
No job gain within family (referent group)	11
Income increase within family	8 ***
No income increase within family (referent group)	12
New marriage within family	12
No new marriage within family (referent group)	10
Decrease in family size	9 ***
No decrease in family size (referent group)	11
State and Regional Measures	
State Economic Measures	
Mean state unemployment rate (referent group)	10
One percentage point above the mean state unemployment rate	10
20th percentile wage (referent group)	10
One dollar more than the 20th percentile wage	10
Region of Residence	
Northeast	10
Mid-Atlantic	9
Midwest	11
Southeast	13 **
Southwest	8 ***
Mountain Plains	8 **
Western (referent group)	11

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Individual Demographic Characteristics	Median
SNAP Policy Variables	
Vehicle Rules	
State offers broad-based categorical eligibility	10 **
State exclude all or most vehicles	10 *
State excludes one or fewer vehicles for SNAP unit (referent group)	15
Certification Period	
State average certification period (referent group)	11
State average certification period plus 1 month	11 ***
Neighborhood Characteristics	
Mortgage Foreclosure Status (During Study Period)	
Individuals in housing units affected by foreclosure event (referent group)	11
Individuals not in housing units affected by foreclosure event	10
Characteristics of Individual's Neighborhood	
Individuals living in high poverty neighborhood (referent group)	10
Individuals not living in high poverty neighborhood	11 *
Individuals living in high SNAP participation neighborhood (referent group)	12
Individuals not living in high SNAP participation neighborhood	9 ***
Geographic Access to Food	
Individuals in low food access census tracts (referent group)	10
Individuals not in low food access census tracts	11
Number of Spell-Month Observations	74,208

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Individuals in Housing Units Affected by Foreclosure Event	Individuals not in Housing Units Affected by Foreclosure Event
Individual Demographic Characteristics	Median	Median
All Individuals	10	10
Sex		
Male	9	10 ***
Female (referent group)	11	11
Race/Ethnicity		
White, non-Hispanic	10	11 *
Black, non-Hispanic	11	10
Other, non-Hispanic	5 *	11
Hispanic (referent group)	10	10
Age		
18 to 29 (referent group)	10	10
30 to 49	10	10
50 to 64	9	11 **
65 and older	8	11
Citizenship		
Citizen	9 *	10 ***
Noncitizen (referent group)	16	14
Education Level		
Highest Grade Completed		
0 to 8 (referent group)	6	11
9 to 11	7	11
12	10	12
13 and above	11	9
Family Composition		
Mean number of adults age 18-59 (referent group)	10	11
Mean number of adults age 18-59 plus one	9 **	9 ***
Mean number of adults age 60+ (referent group)	9	10
Mean number of adults age 60+ plus one	8	9 ***
Mean number of children less than age 6 (referent group)	10	10
Mean number of children less than age 6 plus one	12 *	12 ***
Mean number of children between ages 6 to 18 (referent group)	9	10
Mean number of children between ages 6 to 18 plus one	11 ***	11 ***
Marital Status		
Currently married	10	12 ***
Not currently married (referent group)	9	10
Employment Status		
Currently Employed	7 ***	10
Have not worked 1 to 5 months	10	11
Have not worked 6 to 11 months	8	11
Have not worked at least 12 months (referent group)	15	10
Ratio of Family Income to Poverty Level		
Less than 1.0 (referent group)	12	13
1.0 to less than 1.5	10	11 *
1.5 to less than 2.0	8 *	8 ***
2.0 and above	9	8 ***

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Individuals in Housing Units Affected by Foreclosure Event	Individuals not in Housing Units Affected by Foreclosure Event
	Median	Median
Individual Demographic Characteristics		
Net Worth		
Net worth is greater than 0	8	11 **
Net worth 0 or negative (referent group)	12	10
Net worth greater than \$25,000	14 *	10
Net worth \$25,000 or less (referent group)	8	11
Other Income		
Receive TANF	10	7 ***
No TANF (referent group)	10	11
Receive SSI or general assistance	9	14 ***
No SSI or general assistance (referent group)	10	10
Receive WIC, Medicaid or housing subsidies	12	16 ***
No WIC, Medicaid or housing subsidies (referent group)	9	8
Receive alimony or child support	7	11
No receipt of alimony or child support (referent group)	10	10
Benefit History		
Spell is first ever	7 **	9 ***
Spell is not first ever (referent group)	11	11
Health Status and Medical Costs		
In fair or poor health	16 **	12 **
Health good or better (referent group)	9	10
Out-of-pocket medical costs greater than \$1000	7	10
Out-of-pocket medical costs \$1000 or less (referent group)	10	11
Exit Trigger Events		
Job gain within family	6 ***	8 ***
No job gain within family (referent group)	11	11
Income increase within family	8 *	8 ***
No income increase within family (referent group)	11	13
New marriage within family	> 51	11
No new marriage within family (referent group)	9	10
Decrease in family size	8	9 ***
No decrease in family size (referent group)	11	11
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	9	10
One percentage point above the mean state unemployment rate	10	10
20th percentile wage (referent group)	10	10
One dollar more than the 20th percentile wage	11	10
Region of Residence		
Northeast	24	10
Mid-Atlantic	11	9 *
Midwest	14 **	11
Southeast	8	13 **
Southwest	11	8 ***
Mountain Plains	9	8 **
Western (referent group)	8	11

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Individuals in Housing Units Affected by Foreclosure Event Median	Individuals not in Housing Units Affected by Foreclosure Event Median
Individual Demographic Characteristics		
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	10	10 **
State exclude all or most vehicles	8	11 *
State excludes one or fewer vehicles for SNAP unit (referent group)	8	15
Certification Period		
State average certification period (referent group)	9	11
State average certification period plus 1 month	8 *	11 ***
Neighborhood Characteristics		
Mortgage Foreclosure Status (During Study Period)		
Individuals in housing units affected by foreclosure event (referent group)		
Individuals not in housing units affected by foreclosure event		
Characteristics of Individual's Neighborhood		
Individuals living in high poverty neighborhood (referent group)	7	10
Individuals not living in high poverty neighborhood	11 *	11
Individuals living in high SNAP participation neighborhood (referent group)	12	12
Individuals not living in high SNAP participation neighborhood	9	9 ***
Geographic Access to Food		
Individuals in low food access census tracts (referent group)	9	10
Individuals not in low food access census tracts	11	11
Number of Spell-Month Observations	4,192	70,016

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Individuals Living in High Poverty Neighborhood	Individuals not Living in High Poverty Neighborhood
Individual Demographic Characteristics	Median	Median
All Individuals	11	10
Sex		
Male	9 ***	9
Female (referent group)	12	10
Race/Ethnicity		
White, non-Hispanic	12	10
Black, non-Hispanic	11	10
Other, non-Hispanic	14	9
Hispanic (referent group)	11	9
Age		
18 to 29 (referent group)	11	9
30 to 49	11	10 *
50 to 64	12	11 **
65 and older	11	11 *
Citizenship		
Citizen	11 ***	10 **
Noncitizen (referent group)	16	13
Education Level		
Highest Grade Completed		
0 to 8 (referent group)	10	10
9 to 11	12	10
12	12 *	11
13 and above	10	9
Family Composition		
Mean number of adults age 18-59 (referent group)	12	10
Mean number of adults age 18-59 plus one	9 ***	9 ***
Mean number of adults age 60+ (referent group)	11	10
Mean number of adults age 60+ plus one	8 ***	8 ***
Mean number of children less than age 6 (referent group)	11	10
Mean number of children less than age 6 plus one	12	11 ***
Mean number of children between ages 6 to 18 (referent group)	11	10
Mean number of children between ages 6 to 18 plus one	13 ***	11 **
Marital Status		
Currently married	14 ***	10
Not currently married (referent group)	10	10
Employment Status		
Currently Employed	11	9 **
Have not worked 1 to 5 months	12	10
Have not worked 6 to 11 months	12	10
Have not worked at least 12 months (referent group)	11	11
Ratio of Family Income to Poverty Level		
Less than 1.0 (referent group)	14	12
1.0 to less than 1.5	10 ***	12
1.5 to less than 2.0	9 ***	8 ***
2.0 and above	9 ***	8 ***

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Individuals Living in High Poverty Neighborhood	Individuals not Living in High Poverty Neighborhood
	Median	Median
Individual Demographic Characteristics		
Net Worth		
Net worth is greater than 0	12 ***	10
Net worth 0 or negative (referent group)	9	11
Net worth greater than \$25,000	10	10
Net worth \$25,000 or less (referent group)	12	10
Other Income		
Receive TANF	8 *	7 ***
No TANF (referent group)	11	10
Receive SSI or general assistance	20 ***	11
No SSI or general assistance (referent group)	11	10
Receive WIC, Medicaid or housing subsidies	15 ***	16 ***
No WIC, Medicaid or housing subsidies (referent group)	9	8
Receive alimony or child support	10	11
No receipt of alimony or child support (referent group)	11	10
Benefit History		
Spell is first ever	10 **	8 ***
Spell is not first ever (referent group)	12	11
Health Status and Medical Costs		
In fair or poor health	13 *	11 **
Health good or better (referent group)	11	10
Out-of-pocket medical costs greater than \$1000	10	9
Out-of-pocket medical costs \$1000 or less (referent group)	11	10
Exit Trigger Events		
Job gain within family	8 ***	8 ***
No job gain within family (referent group)	12	10
Income increase within family	8 ***	7 ***
No income increase within family (referent group)	13	12
New marriage within family	13	12
No new marriage within family (referent group)	11	10
Decrease in family size	10 *	9 ***
No decrease in family size (referent group)	12	11
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	11	10
One percentage point above the mean state unemployment rate	11	10
20th percentile wage (referent group)	11	10
One dollar more than the 20th percentile wage	11	10
Region of Residence		
Northeast	8 *	12
Mid-Atlantic	11	9
Midwest	12	11
Southeast	15 **	12
Southwest	8	8 ***
Mountain Plains	11	7 ***
Western (referent group)	11	10

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Individuals Living in High Poverty Neighborhood	Individuals not Living in High Poverty Neighborhood
	Median	Median
Individual Demographic Characteristics		
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	12	10 ***
State exclude all or most vehicles	10	11 ***
State excludes one or fewer vehicles for SNAP unit (referent group)	8	26
Certification Period		
State average certification period (referent group)	11	10
State average certification period plus 1 month	12 ***	11 ***
Neighborhood Characteristics		
Mortgage Foreclosure Status (During Study Period)		
Individuals in housing units affected by foreclosure event (referent group)	10	10
Individuals not in housing units affected by foreclosure event	11	10
Characteristics of Individual's Neighborhood		
Individuals living in high poverty neighborhood (referent group)		
Individuals not living in high poverty neighborhood		
Individuals living in high SNAP participation neighborhood (referent group)	12	13
Individuals not living in high SNAP participation neighborhood	10	9 ***
Geographic Access to Food		
Individuals in low food access census tracts (referent group)	11	10
Individuals not in low food access census tracts	11	10
Number of Spell-Month Observations	35,491	37,333

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Individuals Living in High SNAP Participation Neighborhood	Individuals not Living in High SNAP Participation Neighborhood
Individual Demographic Characteristics	Median	Median
All Individuals	12	9
Sex		
Male	11 ***	9 *
Female (referent group)	13	10
Race/Ethnicity		
White, non-Hispanic	12	10
Black, non-Hispanic	13	8
Other, non-Hispanic	15	9
Hispanic (referent group)	11	9
Age		
18 to 29 (referent group)	12	8
30 to 49	12	9 *
50 to 64	13	10 **
65 and older	10	12 **
Citizenship		
Citizen	12 *	9 ***
Noncitizen (referent group)	15	12
Education Level		
Highest Grade Completed		
0 to 8 (referent group)	11	10
9 to 11	12	9
12	13	10
13 and above	11	8
Family Composition		
Mean number of adults age 18-59 (referent group)	13	9
Mean number of adults age 18-59 plus one	10 ***	8 ***
Mean number of adults age 60+ (referent group)	12	9
Mean number of adults age 60+ plus one	10 ***	8 ***
Mean number of children less than age 6 (referent group)	12	9
Mean number of children less than age 6 plus one	13 *	10 ***
Mean number of children between ages 6 to 18 (referent group)	12	9
Mean number of children between ages 6 to 18 plus one	14 ***	10 **
Marital Status		
Currently married	16 ***	9
Not currently married (referent group)	11	9
Employment Status		
Currently Employed	12	9
Have not worked 1 to 5 months	14	8
Have not worked 6 to 11 months	14	9
Have not worked at least 12 months (referent group)	12	10
Ratio of Family Income to Poverty Level		
Less than 1.0 (referent group)	14	12
1.0 to less than 1.5	13	10 **
1.5 to less than 2.0	10 ***	8 ***
2.0 and above	10 ***	7 ***

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Individuals Living in High SNAP Participation Neighborhood	Individuals not Living in High SNAP Participation Neighborhood
	Median	Median
Individual Demographic Characteristics		
Net Worth		
Net worth is greater than 0	12	9
Net worth 0 or negative (referent group)	12	9
Net worth greater than \$25,000	12	9
Net worth \$25,000 or less (referent group)	12	9
Other Income		
Receive TANF	12	6 ***
No TANF (referent group)	12	9
Receive SSI or general assistance	21 ***	11
No SSI or general assistance (referent group)	12	9
Receive WIC, Medicaid or housing subsidies	16 ***	14 ***
No WIC, Medicaid or housing subsidies (referent group)	10	8
Receive alimony or child support	12	10
No receipt of alimony or child support (referent group)	12	9
Benefit History		
Spell is first ever	11	8 ***
Spell is not first ever (referent group)	12	11
Health Status and Medical Costs		
In fair or poor health	14 **	10
Health good or better (referent group)	12	9
Out-of-pocket medical costs greater than \$1000	10	9
Out-of-pocket medical costs \$1000 or less (referent group)	12	9
Exit Trigger Events		
Job gain within family	9 ***	7 ***
No job gain within family (referent group)	13	10
Income increase within family	10 ***	6 ***
No income increase within family (referent group)	13	12
New marriage within family	13	13
No new marriage within family (referent group)	12	9
Decrease in family size	10 ***	9
No decrease in family size (referent group)	13	9
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	12	9
One percentage point above the mean state unemployment rate	12	9
20th percentile wage (referent group)	12	9
One dollar more than the 20th percentile wage	11	9
Region of Residence		
Northeast	10 *	12
Mid-Atlantic	11	8
Midwest	12	11
Southeast	15	12 **
Southwest	10 **	7 *
Mountain Plains	12	7 **
Western (referent group)	14	9

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Individuals Living in High SNAP Participation Neighborhood	Individuals not Living in High SNAP Participation Neighborhood
	Median	Median
Individual Demographic Characteristics		
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	12	9 ***
State exclude all or most vehicles	11	10 ***
State excludes one or fewer vehicles for SNAP unit (referent group)	10	27
Certification Period		
State average certification period (referent group)	12	9
State average certification period plus 1 month	13 ***	10 ***
Neighborhood Characteristics		
Mortgage Foreclosure Status (During Study Period)		
Individuals in housing units affected by foreclosure event (referent group)	11	10
Individuals not in housing units affected by foreclosure event	12	9
Characteristics of Individual's Neighborhood		
Individuals living in high poverty neighborhood (referent group)	11	10
Individuals not living in high poverty neighborhood	15 ***	9
Individuals living in high SNAP participation neighborhood (referent group)		
Individuals not living in high SNAP participation neighborhood		
Geographic Access to Food		
Individuals in low food access census tracts (referent group)	12	9
Individuals not in low food access census tracts	12	9
Number of Spell-Month Observations	37,613	36,595

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
	Median	Median
Individual Demographic Characteristics		
All Individuals	10	10
Sex		
Male	9 **	9 ***
Female (referent group)	11	11
Race/Ethnicity		
White, non-Hispanic	11	11
Black, non-Hispanic	11	10
Other, non-Hispanic	8	13 **
Hispanic (referent group)	10	10
Age		
18 to 29 (referent group)	10	10
30 to 49	10	11
50 to 64	11	12
65 and older	13	10
Citizenship		
Citizen	10 ***	10 ***
Noncitizen (referent group)	14	14
Education Level		
Highest Grade Completed		
0 to 8 (referent group)	10	11
9 to 11	11	10
12	11	12
13 and above	10	9
Family Composition		
Mean number of adults age 18-59 (referent group)	10	11
Mean number of adults age 18-59 plus one	9 ***	9 ***
Mean number of adults age 60+ (referent group)	10	11
Mean number of adults age 60+ plus one	9 *	8 ***
Mean number of children less than age 6 (referent group)	10	10
Mean number of children less than age 6 plus one	10	12 ***
Mean number of children between ages 6 to 18 (referent group)	10	10
Mean number of children between ages 6 to 18 plus one	11 **	12 ***
Marital Status		
Currently married	11 **	11 *
Not currently married (referent group)	9	10
Employment Status		
Currently Employed	11 *	10 **
Have not worked 1 to 5 months	10	11
Have not worked 6 to 11 months	13 **	10
Have not worked at least 12 months (referent group)	9	12
Ratio of Family Income to Poverty Level		
Less than 1.0 (referent group)	13	13
1.0 to less than 1.5	13	11 **
1.5 to less than 2.0	8 ***	10 ***
2.0 and above	8 ***	8 ***

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
	Median	Median
Individual Demographic Characteristics		
Net Worth		
Net worth is greater than 0	10	11
Net worth 0 or negative (referent group)	10	10
Net worth greater than \$25,000	9 **	11
Net worth \$25,000 or less (referent group)	11	10
Other Income		
Receive TANF	12	7 ***
No TANF (referent group)	10	11
Receive SSI or general assistance	12	15 ***
No SSI or general assistance (referent group)	10	10
Receive WIC, Medicaid or housing subsidies	16 ***	14 ***
No WIC, Medicaid or housing subsidies (referent group)	8	9
Receive alimony or child support	10	11
No receipt of alimony or child support (referent group)	10	10
Benefit History		
Spell is first ever	8 ***	9 ***
Spell is not first ever (referent group)	11	11
Health Status and Medical Costs		
In fair or poor health	13 ***	11
Health good or better (referent group)	10	10
Out-of-pocket medical costs greater than \$1000	12	8 **
Out-of-pocket medical costs \$1000 or less (referent group)	10	11
Exit Trigger Events		
Job gain within family	8 ***	7 ***
No job gain within family (referent group)	11	11
Income increase within family	8 ***	7 ***
No income increase within family (referent group)	12	13
New marriage within family	7	23 *
No new marriage within family (referent group)	10	10
Decrease in family size	10	9 ***
No decrease in family size (referent group)	11	11
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	10	10
One percentage point above the mean state unemployment rate	10	10
20th percentile wage (referent group)	10	10
One dollar more than the 20th percentile wage	9	11
Region of Residence		
Northeast	11	10
Mid-Atlantic	11	9 *
Midwest	12	11
Southeast	11	14 *
Southwest	9	8 ***
Mountain Plains	9	8 **
Western (referent group)	11	11

Table G.2 Regression-Adjusted Median SNAP Participation Spell Length, by Neighborhood and Participant Characteristics

	Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
	Median	Median
Individual Demographic Characteristics		
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	10	10 **
State exclude all or most vehicles	10	10 **
State excludes one or fewer vehicles for SNAP unit (referent group)	12	26
Certification Period		
State average certification period (referent group)	10	11
State average certification period plus 1 month	11	11 ***
Neighborhood Characteristics		
Mortgage Foreclosure Status (During Study Period)		
Individuals in housing units affected by foreclosure event (referent group)	10	12
Individuals not in housing units affected by foreclosure event	10	10
Characteristics of Individual's Neighborhood		
Individuals living in high poverty neighborhood (referent group)	10	10
Individuals not living in high poverty neighborhood	10	11 *
Individuals living in high SNAP participation neighborhood (referent group)	11	12
Individuals not living in high SNAP participation neighborhood	10 *	9 ***
Geographic Access to Food		
Individuals in low food access census tracts (referent group)		
Individuals not in low food access census tracts		
Number of Spell-Month Observations	27,814	45,046

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Individual Demographic Characteristics	Median
All Individuals	20
Sex	
Male	22 *
Female (referent group)	18
Race	
White, non-Hispanic	20 *
Black, non-Hispanic	15 ***
Other, non-Hispanic	19
Hispanic (referent group)	26
Age	
18 to 29 (referent group)	16
30 to 49	19
50 to 64	24 **
65 and older	36 ***
Citizenship	
Citizen	20
Noncitizen (referent group)	17
Education Level	
Highest Grade Completed	
0 to 8 (referent group)	18
9 to 11	16
12	17
13 and above	25 *
Family Composition	
Mean number of adults age 18-59 (referent group)	20 ***
Mean number of adults age 18-59 plus one	25
Mean number of adults age 60+ (referent group)	20
Mean number of adults age 60+ plus one	17
Mean number of children less than age 6 (referent group)	20 ***
Mean number of children less than age 6 plus one	14
Mean number of children between ages 6 to 18 (referent group)	20
Mean number of children between ages 6 to 18 plus one	18
Marital Status	
Currently married	22
Not currently married (referent group)	19
Employment Status	
Currently employed	23 *
Have not worked 1 to 5 months	17
Have not worked 6 to 11 months	15
Have not worked at least 12 months (referent group)	17
Ratio of Family Income to Poverty Level	
Less than 1.0 (referent group)	14
1.0 to less than 1.5	20 ***
1.5 to less than 2.0	24 ***
2.0 and above	31 ***

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables Median
Individual Demographic Characteristics	
Net Worth	
Net worth is greater than 0	21
Net worth 0 or negative (referent group)	17
Net worth greater than \$25,000	21
Net worth \$25,000 or less (referent group)	19
Other Income	
Receive TANF	14 **
No TANF (referent group)	20
Receive SSI or general assistance	20
No SSI or general assistance (referent group)	20
Receive WIC, Medicaid or housing subsidies	11 ***
No WIC, Medicaid or housing subsidies (referent group)	29
Receive alimony or child support	22
No receipt of alimony or child support (referent group)	19
Benefit History	
Nonparticipation Spell is first ever	24 ***
Nonparticipation Spell is not first ever (referent group)	17
Health Status and Medical Costs	
In fair or poor health	16 ***
Health good or better (referent group)	22
Out-of-pocket medical costs greater than \$1000	34 ***
Out-of-pocket medical costs \$1000 or less (referent group)	18
Entry Trigger Events	
Job loss within family	11 ***
No job loss within family (referent group)	22
Decrease in income within family	14 ***
No decrease in income within family (referent group)	26
Separation or divorce within family	27
No separation or divorce within family (referent group)	20
Increase in family size within family	12 ***
No increase in family size within family (referent group)	21
State and Regional Measures	
State Economic Measures	
Mean state unemployment rate (referent group)	19 **
One percentage point above the mean state unemployment rate	21
20th percentile wage (referent group)	20
One dollar more than the 20th percentile wage	17
Region of Residence	
Northeast	36 **
Mid-Atlantic	28
Midwest	19
Southeast	16
Southwest	15 *
Mountain Plains	15
Western (referent group)	22

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Individual Demographic Characteristics	Median
SNAP Policy Variables	
Vehicle Rules	
State offers broad-based categorical eligibility	19
State exclude all or most vehicles	23
State excludes one or fewer vehicles for SNAP unit (referent group)	30
Certification Period	
State average certification period (referent group)	20
State average certification period plus 1 month	19 **
Program Outreach Expenditures	
Mean outreach expenditures per capita (referent group)	20
One additional cent to mean outreach expenditures per capita	20
Neighborhood Characteristics	
Mortgage Foreclosure Status (During Study Period)	
Individuals in housing units affected by foreclosure event (referent group)	15
Individuals not in housing units affected by foreclosure event	20 *
Characteristics of Individual's Neighborhood	
Individuals living in high poverty neighborhood (referent group)	21
Individuals not living in high poverty neighborhood	19
Individuals living in high SNAP participation neighborhood (referent group)	15
Individuals not living in high SNAP participation neighborhood	26 ***
Geographic Access to Food	
Individuals in low food access census tracts (referent group)	23
Individuals not in low food access census tracts	18 **
Number of Spell-Month Observations	67,240

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Individuals in Housing Units Affected by Foreclosure Event	Individuals not in Housing Units Affected by Foreclosure Event
	Median	Median
Individual Demographic Characteristics		
All Individuals	18	20
Sex		
Male	18	22 *
Female (referent group)	18	18
Race		
White, non-Hispanic	33 *	19 **
Black, non-Hispanic	13	15 ***
Other, non-Hispanic	16	19
Hispanic (referent group)	12	27
Age		
18 to 29 (referent group)	10	16
30 to 49	20 *	19
50 to 64	17	24 **
65 and older	> 51 ***	33 ***
Citizenship		
Citizen	16	20
Noncitizen (referent group)	35	16
Education Level		
Highest Grade Completed		
0 to 8 (referent group)	14	18
9 to 11	39	15
12	15	17
13 and above	16	26
Family Composition		
Mean number of adults age 18-59 (referent group)	17	20 ***
Mean number of adults age 18-59 plus one	21	26
Mean number of adults age 60+ (referent group)	17	20
Mean number of adults age 60+ plus one	13	17
Mean number of children less than age 6 (referent group)	18	20 ***
Mean number of children less than age 6 plus one	22	13
Mean number of children between ages 6 to 18 (referent group)	19	20
Mean number of children between ages 6 to 18 plus one	16	19
Marital Status		
Currently married	22	23
Not currently married (referent group)	16	19
Employment Status		
Currently employed	19	23 *
Have not worked 1 to 5 months	19	16
Have not worked 6 to 11 months	19	15
Have not worked at least 12 months (referent group)	17	18
Ratio of Family Income to Poverty Level		
Less than 1.0 (referent group)	13	13
1.0 to less than 1.5	11	21 ***
1.5 to less than 2.0	21	24 ***
2.0 and above	38 **	31 ***

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Individuals in Housing Units Affected by Foreclosure Event Median	Individuals not in Housing Units Affected by Foreclosure Event Median
Individual Demographic Characteristics		
Net Worth		
Net worth is greater than 0	25	21
Net worth 0 or negative (referent group)	13	18
Net worth greater than \$25,000	14	22
Net worth \$25,000 or less (referent group)	21	19
Other Income		
Receive TANF	4 ***	15
No TANF (referent group)	22	20
Receive SSI or general assistance	14	21
No SSI or general assistance (referent group)	19	20
Receive WIC, Medicaid or housing subsidies	8 ***	12 ***
No WIC, Medicaid or housing subsidies (referent group)	27	29
Receive alimony or child support	16	23
No receipt of alimony or child support (referent group)	19	20
Benefit History		
Nonparticipation Spell is first ever	14	25 ***
Nonparticipation Spell is not first ever (referent group)	23	17
Health Status and Medical Costs		
In fair or poor health	15	16 ***
Health good or better (referent group)	21	22
Out-of-pocket medical costs greater than \$1000	27	34 ***
Out-of-pocket medical costs \$1000 or less (referent group)	17	19
Entry Trigger Events		
Job loss within family	6 ***	12 ***
No job loss within family (referent group)	23	22
Decrease in income within family	22	13 ***
No decrease in income within family (referent group)	16	26
Separation or divorce within family	> 51	19
No separation or divorce within family (referent group)	17	20
Increase in family size within family	8	12 ***
No increase in family size within family (referent group)	21	21
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	16	20 **
One percentage point above the mean state unemployment rate	19	21
20th percentile wage (referent group)	19	20
One dollar more than the 20th percentile wage	26	17
Region of Residence		
Northeast	8	38 **
Mid-Atlantic	32	28
Midwest	19	19
Southeast	16	17
Southwest	13	15
Mountain Plains	6 **	16
Western (referent group)	38	21

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Individuals in Housing Units Affected by Foreclosure Event Median	Individuals not in Housing Units Affected by Foreclosure Event Median
Individual Demographic Characteristics		
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	15	19
State exclude all or most vehicles	39	22
State excludes one or fewer vehicles for SNAP unit (referent group)	41	31
Certification Period		
State average certification period (referent group)	20	20
State average certification period plus 1 month	22	19 **
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	17	20
One additional cent to mean outreach expenditures per capita	18 *	20
Neighborhood Characteristics		
Mortgage Foreclosure Status (During Study Period)		
Individuals in housing units affected by foreclosure event (referent group)		
Individuals not in housing units affected by foreclosure event		
Characteristics of Individual's Neighborhood		
Individuals living in high poverty neighborhood (referent group)	18	21
Individuals not living in high poverty neighborhood	18	19
Individuals living in high SNAP participation neighborhood (referent group)	15	15
Individuals not living in high SNAP participation neighborhood	22	27 ***
Geographic Access to Food		
Individuals in low food access census tracts (referent group)	19	23
Individuals not in low food access census tracts	18	18 **
Number of Spell-Month Observations	4,537	62,703

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Individuals Living in High Poverty Neighborhood	Individuals not Living in High Poverty Neighborhood
Individual Demographic Characteristics	Median	Median
All Individuals	14	26
Sex		
Male	15	27
Female (referent group)	13	24
Race		
White, non-Hispanic	14 *	26
Black, non-Hispanic	11 ***	21
Other, non-Hispanic	12 *	27
Hispanic (referent group)	21	29
Age		
18 to 29 (referent group)	12	22
30 to 49	13	26
50 to 64	19 **	27
65 and older	39 ***	34
Citizenship		
Citizen	15 **	25 *
Noncitizen (referent group)	10	38
Education Level		
Highest Grade Completed		
0 to 8 (referent group)	12	24
9 to 11	13	19
12	12	24
13 and above	20 *	30
Family Composition		
Mean number of adults age 18-59 (referent group)	14 **	26 ***
Mean number of adults age 18-59 plus one	16	32
Mean number of adults age 60+ (referent group)	14	26
Mean number of adults age 60+ plus one	12	24
Mean number of children less than age 6 (referent group)	15 ***	26 ***
Mean number of children less than age 6 plus one	11	19
Mean number of children between ages 6 to 18 (referent group)	14	26
Mean number of children between ages 6 to 18 plus one	13	24
Marital Status		
Currently married	15	29
Not currently married (referent group)	14	24
Employment Status		
Currently employed	15	29 *
Have not worked 1 to 5 months	12	27
Have not worked 6 to 11 months	10	21
Have not worked at least 12 months (referent group)	14	22
Ratio of Family Income to Poverty Level		
Less than 1.0 (referent group)	10	18
1.0 to less than 1.5	16 ***	23
1.5 to less than 2.0	18 ***	26 *
2.0 and above	22 ***	37 ***

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

Individual Demographic Characteristics	Individuals Living in High Poverty Neighborhood	Individuals not Living in High Poverty Neighborhood
	Median	Median
Net Worth		
Net worth is greater than 0	16 ***	25
Net worth 0 or negative (referent group)	12	27
Net worth greater than \$25,000	15	29
Net worth \$25,000 or less (referent group)	14	24
Other Income		
Receive TANF	12	15 *
No TANF (referent group)	14	26
Receive SSI or general assistance	16	24
No SSI or general assistance (referent group)	14	26
Receive WIC, Medicaid or housing subsidies	11 ***	12 ***
No WIC, Medicaid or housing subsidies (referent group)	18	38
Receive alimony or child support	15	29
No receipt of alimony or child support (referent group)	14	25
Benefit History		
Nonparticipation Spell is first ever	14	34 ***
Nonparticipation Spell is not first ever (referent group)	14	21
Health Status and Medical Costs		
In fair or poor health	10 ***	23
Health good or better (referent group)	16	27
Out-of-pocket medical costs greater than \$1000	35 ***	34
Out-of-pocket medical costs \$1000 or less (referent group)	13	25
Entry Trigger Events		
Job loss within family	8 ***	15 ***
No job loss within family (referent group)	15	28
Decrease in income within family	12 *	15 ***
No decrease in income within family (referent group)	15	35
Separation or divorce within family	10	45
No separation or divorce within family (referent group)	14	26
Increase in family size within family	11	13 ***
No increase in family size within family (referent group)	14	28
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	14 ***	26
One percentage point above the mean state unemployment rate	15	26
20th percentile wage (referent group)	14	26
One dollar more than the 20th percentile wage	13	23
Region of Residence		
Northeast	13	> 51 ***
Mid-Atlantic	40 **	25
Midwest	12 *	28
Southeast	14	20
Southwest	13	16 *
Mountain Plains	8 ***	27
Western (referent group)	17	27

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Individuals Living in High Poverty Neighborhood	Individuals not Living in High Poverty Neighborhood
	Median	Median
Individual Demographic Characteristics		
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	14	24
State exclude all or most vehicles	14	34
State excludes one or fewer vehicles for SNAP unit (referent group)	30	28
Certification Period		
State average certification period (referent group)	14	26
State average certification period plus 1 month	14	24 *
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	14	26
One additional cent to mean outreach expenditures per capita	14	26
Neighborhood Characteristics		
Mortgage Foreclosure Status (During Study Period)		
Individuals in housing units affected by foreclosure event (referent group)	12	19
Individuals not in housing units affected by foreclosure event	14	26
Characteristics of Individual's Neighborhood		
Individuals living in high poverty neighborhood (referent group)		
Individuals not living in high poverty neighborhood		
Individuals living in high SNAP participation neighborhood (referent group)	14	14
Individuals not living in high SNAP participation neighborhood	16	29 ***
Geographic Access to Food		
Individuals in low food access census tracts (referent group)	14	30
Individuals not in low food access census tracts	14	23 **
Number of Spell-Month Observations	29,957	35,817

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Individuals Living in High SNAP Participation Neighborhood	Individuals not Living in High SNAP Participation Neighborhood
Individual Demographic Characteristics	Median	Median
All Individuals	13	28
Sex		
Male	15 *	30
Female (referent group)	12	26
Race		
White, non-Hispanic	13 *	29
Black, non-Hispanic	11 ***	21 *
Other, non-Hispanic	11 *	28
Hispanic (referent group)	19	32
Age		
18 to 29 (referent group)	11	24
30 to 49	13	28
50 to 64	16 *	34
65 and older	32 ***	35
Citizenship		
Citizen	14 *	28
Noncitizen (referent group)	10	32
Education Level		
Highest Grade Completed		
0 to 8 (referent group)	12	27
9 to 11	13	19
12	12	24
13 and above	17 *	35
Family Composition		
Mean number of adults age 18-59 (referent group)	13 ***	28 ***
Mean number of adults age 18-59 plus one	16	35
Mean number of adults age 60+ (referent group)	13	28
Mean number of adults age 60+ plus one	11	27
Mean number of children less than age 6 (referent group)	14 ***	28 ***
Mean number of children less than age 6 plus one	10	19
Mean number of children between ages 6 to 18 (referent group)	13 *	28
Mean number of children between ages 6 to 18 plus one	12	27
Marital Status		
Currently married	16	29
Not currently married (referent group)	12	27
Employment Status		
Currently employed	14	32 *
Have not worked 1 to 5 months	11	28
Have not worked 6 to 11 months	10	21
Have not worked at least 12 months (referent group)	13	24
Ratio of Family Income to Poverty Level		
Less than 1.0 (referent group)	10	19
1.0 to less than 1.5	14 **	28 **
1.5 to less than 2.0	15 ***	34 ***
2.0 and above	23 ***	37 ***

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Individuals Living in High SNAP Participation Neighborhood	Individuals not Living in High SNAP Participation Neighborhood
	Median	Median
Individual Demographic Characteristics		
Net Worth		
Net worth is greater than 0	16 **	28
Net worth 0 or negative (referent group)	11	28
Net worth greater than \$25,000	13	31
Net worth \$25,000 or less (referent group)	14	26
Other Income		
Receive TANF	10	19
No TANF (referent group)	14	28
Receive SSI or general assistance	19	20
No SSI or general assistance (referent group)	13	29
Receive WIC, Medicaid or housing subsidies	10 ***	13 ***
No WIC, Medicaid or housing subsidies (referent group)	18	40
Receive alimony or child support	14	31
No receipt of alimony or child support (referent group)	13	28
Benefit History		
Nonparticipation Spell is first ever	13	38 ***
Nonparticipation Spell is not first ever (referent group)	14	22
Health Status and Medical Costs		
In fair or poor health	11 **	21 **
Health good or better (referent group)	15	31
Out-of-pocket medical costs greater than \$1000	29 ***	40 *
Out-of-pocket medical costs \$1000 or less (referent group)	13	27
Entry Trigger Events		
Job loss within family	9 **	13 ***
No job loss within family (referent group)	14	31
Decrease in income within family	11 ***	16 ***
No decrease in income within family (referent group)	15	38
Separation or divorce within family	10	> 51
No separation or divorce within family (referent group)	14	28
Increase in family size within family	8 ***	16 **
No increase in family size within family (referent group)	14	29
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	13 **	28 *
One percentage point above the mean state unemployment rate	14	29
20th percentile wage (referent group)	13 **	28
One dollar more than the 20th percentile wage	11	30
Region of Residence		
Northeast	15	> 51 ***
Mid-Atlantic	21	34
Midwest	12 *	30
Southeast	14	18 *
Southwest	12	20
Mountain Plains	8 ***	25
Western (referent group)	16	31

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Individuals Living in High SNAP Participation Neighborhood	Individuals not Living in High SNAP Participation Neighborhood
	Median	Median
Individual Demographic Characteristics		
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	12 *	27
State exclude all or most vehicles	18	30
State excludes one or fewer vehicles for SNAP unit (referent group)	29	35
Certification Period		
State average certification period (referent group)	13	28
State average certification period plus 1 month	13	26 **
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	13	28
One additional cent to mean outreach expenditures per capita	13	28
Neighborhood Characteristics		
Mortgage Foreclosure Status (During Study Period)		
Individuals in housing units affected by foreclosure event (referent group)	13	18
Individuals not in housing units affected by foreclosure event	14	29 *
Characteristics of Individual's Neighborhood		
Individuals living in high poverty neighborhood (referent group)	14	23
Individuals not living in high poverty neighborhood	11 *	29
Individuals living in high SNAP participation neighborhood (referent group)		
Individuals not living in high SNAP participation neighborhood		
Geographic Access to Food		
Individuals in low food access census tracts (referent group)	13	35
Individuals not in low food access census tracts	14	23 ***
Number of Spell-Month Observations	29,971	37,269

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

Individual Demographic Characteristics	Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
	Median	Median
All Individuals	22	18
Sex		
Male	22	22 **
Female (referent group)	21	16
Race		
White, non-Hispanic	22	18 *
Black, non-Hispanic	21	13 ***
Other, non-Hispanic	20	20
Hispanic (referent group)	24	28
Age		
18 to 29 (referent group)	22	14
30 to 49	24	16
50 to 64	18	26 ***
65 and older	19	45 ***
Citizenship		
Citizen	23 **	18
Noncitizen (referent group)	13	19
Education Level		
Highest Grade Completed		
0 to 8 (referent group)	28	15
9 to 11	26	12
12	17 *	16
13 and above	23	28 **
Family Composition		
Mean number of adults age 18-59 (referent group)	22	18 ***
Mean number of adults age 18-59 plus one	24	27
Mean number of adults age 60+ (referent group)	22	18
Mean number of adults age 60+ plus one	23	16
Mean number of children less than age 6 (referent group)	23 ***	18 ***
Mean number of children less than age 6 plus one	15	13
Mean number of children between ages 6 to 18 (referent group)	22	18 **
Mean number of children between ages 6 to 18 plus one	22	16
Marital Status		
Currently married	28 **	18
Not currently married (referent group)	18	18
Employment Status		
Currently employed	23	21
Have not worked 1 to 5 months	27	15
Have not worked 6 to 11 months	21	14
Have not worked at least 12 months (referent group)	19	16
Ratio of Family Income to Poverty Level		
Less than 1.0 (referent group)	14	13
1.0 to less than 1.5	21 **	19 **
1.5 to less than 2.0	26 ***	21 **
2.0 and above	38 ***	27 ***

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
	Median	Median
Individual Demographic Characteristics		
Net Worth		
Net worth is greater than 0	23	19
Net worth 0 or negative (referent group)	20	17
Net worth greater than \$25,000	29 **	17
Net worth \$25,000 or less (referent group)	19	18
Other Income		
Receive TANF	14	14
No TANF (referent group)	22	19
Receive SSI or general assistance	14 **	26
No SSI or general assistance (referent group)	23	17
Receive WIC, Medicaid or housing subsidies	13 ***	11 ***
No WIC, Medicaid or housing subsidies (referent group)	30	29
Receive alimony or child support	25	20
No receipt of alimony or child support (referent group)	21	18
Benefit History		
Nonparticipation Spell is first ever	24	26 ***
Nonparticipation Spell is not first ever (referent group)	21	15
Health Status and Medical Costs		
In fair or poor health	21	13 ***
Health good or better (referent group)	22	22
Out-of-pocket medical costs greater than \$1000	26	39 ***
Out-of-pocket medical costs \$1000 or less (referent group)	21	16
Entry Trigger Events		
Job loss within family	10 ***	11 ***
No job loss within family (referent group)	24	20
Decrease in income within family	13 ***	14 ***
No decrease in income within family (referent group)	30	22
Separation or divorce within family	17	31
No separation or divorce within family (referent group)	22	18
Increase in family size within family	13 **	12 ***
No increase in family size within family (referent group)	23	19
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate (referent group)	22 ***	18
One percentage point above the mean state unemployment rate	24	18
20th percentile wage (referent group)	22 *	18 **
One dollar more than the 20th percentile wage	29	14
Region of Residence		
Northeast	22	40 **
Mid-Atlantic	27	29
Midwest	32	13 **
Southeast	17	17
Southwest	25	11 ***
Mountain Plains	13	17
Western (referent group)	21	21

Table G.3 Regression-Adjusted Median SNAP Participation Spell Lengths, by Neighborhood and Participant Characteristics

	Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
	Median	Median
Individual Demographic Characteristics		
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	20	17 **
State exclude all or most vehicles	30	19 *
State excludes one or fewer vehicles for SNAP unit (referent group)	21	> 51
Certification Period		
State average certification period (referent group)	22	18
State average certification period plus 1 month	21	17 ***
Program Outreach Expenditures		
Mean outreach expenditures per capita (referent group)	22	18
One additional cent to mean outreach expenditures per capita	22 *	18
Neighborhood Characteristics		
Mortgage Foreclosure Status (During Study Period)		
Individuals in housing units affected by foreclosure event (referent group)	14	14
Individuals not in housing units affected by foreclosure event	23 *	19
Characteristics of Individual's Neighborhood		
Individuals living in high poverty neighborhood (referent group)	24	19
Individuals not living in high poverty neighborhood	20	18
Individuals living in high SNAP participation neighborhood (referent group)	14	16
Individuals not living in high SNAP participation neighborhood	31 ***	22 *
Geographic Access to Food		
Individuals in low food access census tracts (referent group)		
Individuals not in low food access census tracts		
Number of Spell-Month Observations	26,154	39,620

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.1 Regression Coefficients for SNAP Entry Models, by Neighborhood and Participant Characteristic

		Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables	
Individual Characteristics		Estimate	Sig
Variable			
Intercept		-4.9824	***
Sex			
Male		-0.1862	***
Race/Ethnicity			
White, Non-Hispanic		-0.0901	**
Black, Non-Hispanic		0.2245	***
Other, Non-Hispanic		0.0445	
Age			
30 to 49		-0.0267	
50 to 64		-0.3767	***
65 and older		-0.7489	***
Citizenship			
Citizen		0.2245	***
Education			
Highest Grade Completed			
9 to 11		0.1449	**
12		-0.0804	
13 and above		-0.4472	***
Family Composition			
Mean number of adults age 18-59		0.0597	***
Mean number of adults age 60+		0.0994	***
Mean number of children less than age 6		0.2418	***
Mean number of children between ages 6 to 17		0.1121	***
Marital Status			
Currently married		-0.4361	***
Employment Status			
Currently employed		0.0440	
Have not worked 1 to 5 months		1.0574	***
Have not worked 6 to 11 months		0.0805	
Ratio of Family Income to Poverty Level			
100 percent to less than 150 percent		-0.2206	***
150 percent to less than 200 percent		-0.3629	***
200 percent and above		-1.0600	***
Net Worth			
Greater than \$0		-0.0364	
Greater than \$25,000		-0.6052	***

Table H.1 Regression Coefficients for SNAP Entry Models, by Neighborhood and Participant Characteristic

		Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Individual Characteristics		
Variable	Estimate	Sig
Other Income		
Receive TANF	0.7770	***
Receive other means-tested cash benefits	-0.1453	***
Receive other means-tested noncash benefits	0.9742	***
Receive alimony or child support	0.3160	***
Health Status and Medical Costs		
In fair or poor health	0.5088	***
Out-of-pocket medical costs greater than \$1000	-0.3510	***
Entry Trigger Events		
Job loss within family	0.5098	***
Decrease in income within family	0.2095	***
Separation or divorce within family	0.1555	
Increase in family size within family	0.5685	***
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	0.0191	***
20th percentile wage	-0.0795	**
Region of Residence		
Northeast	0.1546	**
Mid-Atlantic	0.2524	***
Midwest	0.2584	***
Southeast	0.2987	***
Southwest	0.4236	***
Mountain Plains	0.3948	***
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.1817	**
State exclude all or most vehicles	0.2386	***
Certification Period		
State average certification period	0.0072	
Program Outreach Expenditures		
Mean outreach expenditures per capita	-0.3478	***
Neighborhood Characteristics		
Individuals in housing units affected by foreclosure event	0.0937	
Individuals living in high poverty neighborhood	0.0805	**
Individuals living in high SNAP participation neighborhood	0.3611	***
Individuals in low food access census tracts	-0.0470	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.1 Regression Coefficients for SNAP Entry Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals in Housing Units Affected by Foreclosure Event	Individuals not in Housing Units Affected by Foreclosure Event
	Estimate Sig	Estimate Sig
Intercept	-1.9812	-5.1288 ***
Sex		
Male	-0.1036	-0.1988 ***
Race/Ethnicity		
White, Non-Hispanic	0.3263 *	-0.1438 ***
Black, Non-Hispanic	0.8247 ***	0.1405 ***
Other, Non-Hispanic	-0.3290	0.0040
Age		
30 to 49	-0.4280 **	-0.0055
50 to 64	-0.2889	-0.4025 ***
65 and older	-0.7112 *	-0.7397 ***
Citizenship		
Citizen	-0.3105	0.2816 ***
Education		
Highest Grade Completed		
9 to 11	-0.1643	0.1664 **
12	-0.5346 **	-0.0505
13 and above	-0.5393 **	-0.4476 ***
Family Composition		
Mean number of adults age 18-59	-0.0488	0.0672 ***
Mean number of adults age 60+	0.3696 **	0.1013 ***
Mean number of children less than age 6	0.0939	0.2580 ***
Mean number of children between ages 6 to 17	0.2845 ***	0.0868 ***
Marital Status		
Currently married	0.0748	-0.4639 ***
Employment Status		
Currently employed	0.0140	0.0517
Have not worked 1 to 5 months	0.9047 **	1.0839 ***
Have not worked 6 to 11 months	-0.1150	0.1072 *
Ratio of Family Income to Poverty Level		
100 percent to less than 150 percent	-0.4938 **	-0.2152 ***
150 percent to less than 200 percent	-0.6955 ***	-0.3572 ***
200 percent and above	-0.8669 ***	-1.0862 ***
Net Worth		
Greater than \$0	-0.1177	-0.0421
Greater than \$25,000	-0.2734	-0.6200 ***

Table H.1 Regression Coefficients for SNAP Entry Models, by Neighborhood and Participant Characteristic

Individual Characteristics	Individuals in Housing Units Affected by Foreclosure Event		Individuals not in Housing Units Affected by Foreclosure Event	
	Estimate	Sig	Estimate	Sig
Other Income				
Receive TANF	1.8741	***	0.7595	***
Receive other means-tested cash benefits	-0.4060		-0.1472	***
Receive other means-tested noncash benefits	1.1034	***	0.9682	***
Receive alimony or child support	0.1739		0.3153	***
Health Status and Medical Costs				
In fair or poor health	0.4923	***	0.5075	***
Out-of-pocket medical costs greater than \$1000	-0.7436	***	-0.3096	***
Entry Trigger Events				
Job loss within family	0.3707	**	0.5262	***
Decrease in income within family	-0.1975		0.2406	***
Separation or divorce within family	0.9101	**	0.0287	
Increase in family size within family	0.9077	***	0.5406	***
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	0.0670	**	0.0163	**
20th percentile wage	-0.4010	**	-0.0620	*
Region of Residence				
Northeast	-0.3429		0.1213	
Mid-Atlantic	0.9868	***	0.1816	***
Midwest	0.5006	**	0.2434	***
Southeast	0.8380	***	0.2503	***
Southwest	1.0437	***	0.3583	***
Mountain Plains	1.9477	***	0.2928	***
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	-0.0104		0.1893	**
State exclude all or most vehicles	-0.1676		0.2627	***
Certification Period				
State average certification period	-0.0093		0.0100	
Program Outreach Expenditures				
Mean outreach expenditures per capita	1.4172	**	-0.4755	***
Neighborhood Characteristics				
Individuals in housing units affected by foreclosure event				
Individuals living in high poverty neighborhood	-0.1528		0.0934	**
Individuals living in high SNAP participation neighborhood	0.2387		0.3742	***
Individuals in low food access census tracts	-0.2884	**	-0.0345	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.1 Regression Coefficients for SNAP Entry Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals Living in High Poverty Neighborhood		Individuals not Living in High Poverty Neighborhood	
	Estimate	Sig	Estimate	Sig
Intercept	-4.6076	***	-5.4351	***
Sex				
Male	-0.2307	***	-0.1637	***
Race/Ethnicity				
White, Non-Hispanic	-0.0395		-0.1086	*
Black, Non-Hispanic	0.2074	***	0.2778	***
Other, Non-Hispanic	-0.1310		0.0772	
Age				
30 to 49	-0.0015		-0.0303	
50 to 64	-0.3156	***	-0.4231	***
65 and older	-0.6215	***	-0.8411	***
Citizenship				
Citizen	0.2189	***	0.2786	***
Education				
Highest Grade Completed				
9 to 11	0.1102		0.1778	*
12	-0.0498		-0.1204	
13 and above	-0.3259	***	-0.5251	***
Family Composition				
Mean number of adults age 18-59	0.1514	***	-0.0039	
Mean number of adults age 60+	-0.0406		0.2074	***
Mean number of children less than age 6	0.2549	***	0.2461	***
Mean number of children between ages 6 to 17	0.1101	***	0.1261	***
Marital Status				
Currently married	-0.3565	***	-0.4991	***
Employment Status				
Currently employed	0.0770		0.0227	
Have not worked 1 to 5 months	1.1825	***	0.9605	***
Have not worked 6 to 11 months	0.0452		0.1676	**
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	-0.3920	***	-0.0345	
150 percent to less than 200 percent	-0.5376	***	-0.2589	***
200 percent and above	-1.0541	***	-1.0441	***
Net Worth				
Greater than \$0	-0.1274	**	0.0197	
Greater than \$25,000	-0.5238	***	-0.6265	***

Table H.1 Regression Coefficients for SNAP Entry Models, by Neighborhood and Participant Characteristic

Individual Characteristics	Individuals Living in High Poverty Neighborhood		Individuals not Living in High Poverty Neighborhood	
	Estimate	Sig	Estimate	Sig
Other Income				
Receive TANF	0.3717	***	1.4877	***
Receive other means-tested cash benefits	-0.1155		-0.1612	**
Receive other means-tested noncash benefits	0.7818	***	1.1821	***
Receive alimony or child support	0.2211	***	0.3703	***
Health Status and Medical Costs				
In fair or poor health	0.3862	***	0.6143	***
Out-of-pocket medical costs greater than \$1000	-0.4133	***	-0.2573	***
Entry Trigger Events				
Job loss within family	0.4502	***	0.5503	***
Decrease in income within family	0.1149	**	0.2969	***
Separation or divorce within family	-0.0750		0.2695	
Increase in family size within family	0.4074	***	0.6615	***
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	0.0205	**	0.0155	*
20th percentile wage	-0.0477		-0.1005	**
Region of Residence				
Northeast	0.4813	***	-0.0260	
Mid-Atlantic	0.3292	***	0.2853	***
Midwest	0.3200	***	0.3274	***
Southeast	0.1803	**	0.4607	***
Southwest	0.3806	***	0.5526	***
Mountain Plains	0.5046	***	0.3787	***
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.0680		0.2821	**
State exclude all or most vehicles	0.0695		0.3630	***
Certification Period				
State average certification period	-0.0193	*	0.0322	***
Program Outreach Expenditures				
Mean outreach expenditures per capita	-0.6183	***	-0.0866	
Neighborhood Characteristics				
Individuals in housing units affected by foreclosure event	-0.1557		0.3031	***
Individuals living in high poverty neighborhood				
Individuals living in high SNAP participation neighborhood	0.3144	***	0.4082	***
Individuals in low food access census tracts	0.0015		-0.0425	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.1 Regression Coefficients for SNAP Entry Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals Living in High SNAP Participation Neighborhood		Individuals not Living in High SNAP Participation Neighborhood	
	Estimate	Sig	Estimate	Sig
Intercept	-4.8414	***	-4.9501	***
Sex				
Male	-0.2492	***	-0.1408	***
Race/Ethnicity				
White, Non-Hispanic	0.0155		-0.1619	***
Black, Non-Hispanic	0.2140	***	0.3259	***
Other, Non-Hispanic	0.0115		0.0356	
Age				
30 to 49	-0.0083		-0.0380	
50 to 64	-0.3876	***	-0.4196	***
65 and older	-0.6273	***	-0.8811	***
Citizenship				
Citizen	0.1761	**	0.3025	***
Education				
Highest Grade Completed				
9 to 11	0.1423		0.1586	*
12	-0.0402		-0.1329	*
13 and above	-0.3033	***	-0.5857	***
Family Composition				
Mean number of adults age 18-59	0.1046	***	0.0292	
Mean number of adults age 60+	0.0611		0.1722	***
Mean number of children less than age 6	0.2002	***	0.2759	***
Mean number of children between ages 6 to 17	0.1131	***	0.1024	***
Marital Status				
Currently married	-0.3536	***	-0.4764	***
Employment Status				
Currently employed	0.1152	**	0.0030	
Have not worked 1 to 5 months	1.2294	***	0.8709	***
Have not worked 6 to 11 months	0.1155		0.0862	
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	-0.3239	***	-0.1731	***
150 percent to less than 200 percent	-0.4434	***	-0.3618	***
200 percent and above	-0.9610	***	-1.1319	***
Net Worth				
Greater than \$0	-0.0887	*	0.0259	
Greater than \$25,000	-0.5783	***	-0.6257	***

Table H.1 Regression Coefficients for SNAP Entry Models, by Neighborhood and Participant Characteristic

	Individuals Living in High SNAP Participation Neighborhood		Individuals not Living in High SNAP Participation Neighborhood	
Individual Characteristics				
Variable	Estimate	Sig	Estimate	Sig
Other Income				
Receive TANF	0.4354	***	1.1268	***
Receive other means-tested cash benefits	-0.0813		-0.2007	***
Receive other means-tested noncash benefits	0.8354	***	1.1137	***
Receive alimony or child support	0.3045	***	0.2783	***
Health Status and Medical Costs				
In fair or poor health	0.4353	***	0.5540	***
Out-of-pocket medical costs greater than \$1000	-0.5301	***	-0.1926	***
Entry Trigger Events				
Job loss within family	0.4295	***	0.5540	***
Decrease in income within family	0.1791	***	0.2385	***
Separation or divorce within family	0.0865		0.1677	
Increase in family size within family	0.4314	***	0.6450	***
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	0.0169	*	0.0166	*
20th percentile wage	-0.0008		-0.1416	***
Region of Residence				
Northeast	0.3453	***	0.0678	
Mid-Atlantic	0.4226	***	0.2441	***
Midwest	0.4352	***	0.1965	**
Southeast	0.0903		0.5686	***
Southwest	0.2929	***	0.5935	***
Mountain Plains	0.4671	***	0.4722	***
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.1555		0.2296	*
State exclude all or most vehicles	0.1984		0.2945	**
Certification Period				
State average certification period	-0.0269	***	0.0404	***
Program Outreach Expenditures				
Mean outreach expenditures per capita	-0.3862	**	-0.2177	
Neighborhood Characteristics				
Individuals in housing units affected by foreclosure event	-0.1705	*	0.3095	***
Individuals living in high poverty neighborhood	0.0982	*	0.0934	*
Individuals living in high SNAP participation neighborhood				
Individuals in low food access census tracts	0.0422		-0.1077	***

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.1 Regression Coefficients for SNAP Entry Models, by Neighborhood and Participant Characteristic

Individual Characteristics		Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
Variable	Estimate Sig	Estimate Sig	
Intercept	-4.1151 ***	-5.5752 ***	
Sex			
Male	-0.1138 **	-0.2376 ***	
Race/Ethnicity			
White, Non-Hispanic	-0.0956	-0.1003 *	
Black, Non-Hispanic	0.2457 ***	0.1789 ***	
Other, Non-Hispanic	0.1129	-0.0168	
Age			
30 to 49	-0.0738	0.0055	
50 to 64	-0.3143 ***	-0.4002 ***	
65 and older	-0.8336 ***	-0.6928 ***	
Citizenship			
Citizen	0.0385	0.2950 ***	
Education			
Highest Grade Completed			
9 to 11	0.0472	0.2185 ***	
12	-0.1792 *	-0.0137	
13 and above	-0.5789 ***	-0.3651 ***	
Family Composition			
Mean number of adults age 18-59	0.0229	0.0809 ***	
Mean number of adults age 60+	-0.0380	0.1722 ***	
Mean number of children less than age 6	0.2322 ***	0.2498 ***	
Mean number of children between ages 6 to 17	0.1435 ***	0.0997 ***	
Marital Status			
Currently married	-0.4116 ***	-0.4599 ***	
Employment Status			
Currently employed	0.0151	0.0640	
Have not worked 1 to 5 months	0.9582 ***	1.1328 ***	
Have not worked 6 to 11 months	0.1025	0.0788	
Ratio of Family Income to Poverty Level			
100 percent to less than 150 percent	-0.2079 ***	-0.2320 ***	
150 percent to less than 200 percent	-0.0990	-0.5037 ***	
200 percent and above	-0.9999 ***	-1.0835 ***	
Net Worth			
Greater than \$0	-0.0928	-0.0086	
Greater than \$25,000	-0.6428 ***	-0.5870 ***	

Table H.1 Regression Coefficients for SNAP Entry Models, by Neighborhood and Participant Characteristic

Individual Characteristics	Individuals in Low Food Access Census Tracts		Individuals not in Low Food Access Census Tracts	
	Estimate	Sig	Estimate	Sig
Other Income				
Receive TANF	0.9748	***	0.7343	***
Receive other means-tested cash benefits	-0.0923		-0.1761	**
Receive other means-tested noncash benefits	0.9896	***	0.9612	***
Receive alimony or child support	0.3838	***	0.2498	***
Health Status and Medical Costs				
In fair or poor health	0.4506	***	0.5302	***
Out-of-pocket medical costs greater than \$1000	-0.2990	***	-0.3736	***
Entry Trigger Events				
Job loss within family	0.5418	***	0.4985	***
Decrease in income within family	0.2340	***	0.1910	***
Separation or divorce within family	0.5563	***	-0.2101	
Increase in family size within family	0.5122	***	0.6171	***
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	0.0354	***	0.0097	
20th percentile wage	-0.1504	***	-0.0338	
Region of Residence				
Northeast	-0.3386	**	0.3686	***
Mid-Atlantic	0.1116		0.3383	***
Midwest	0.0851		0.3699	***
Southeast	0.2205	**	0.3518	***
Southwest	0.2123	**	0.5542	***
Mountain Plains	0.2996	**	0.4508	***
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	-0.0330		0.3574	***
State exclude all or most vehicles	-0.0225		0.4425	***
Certification Period				
State average certification period	0.0218	*	-0.0007	
Program Outreach Expenditures				
Mean outreach expenditures per capita	-0.0096		-0.4956	***
Neighborhood Characteristics				
Individuals in housing units affected by foreclosure event	0.0048		0.1404	*
Individuals living in high poverty neighborhood	0.0000		0.1217	**
Individuals living in high SNAP participation neighborhood	0.4798	***	0.2937	***
Individuals in low food access census tracts	.		.	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics		Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Variable	Estimate	Sig
Intercept	-4.6986	***
Sex		
Male	0.1299	***
Race/Ethnicity		
White, non-Hispanic	-0.0863	
Black, non-Hispanic	-0.0290	
Other, non-Hispanic	-0.0718	
Age		
18 to 29 (referent group)	-0.0551	
30 to 49	-0.1189	**
50 to 64	-0.1020	
Citizenship		
Citizen	0.2487	***
Education Level		
Highest Grade Completed		
9 to 11	-0.0174	
12	-0.0966	
13 and above	0.0678	
Family Composition		
Mean number of adults age 18-59	0.1299	***
Mean number of adults age 60+	0.1742	***
Mean number of children less than age 6	-0.0826	***
Mean number of children between ages 6 to 17	-0.0801	***
Marital Status		
Currently married	-0.1289	***
Employment Status		
Currently employed	0.0429	
Have not worked 1 to 5 months	0.0096	
Have not worked 6 to 11 months	-0.0240	
Ratio of Family Income to Poverty Level		
100 percent to less than 150 percent	0.1000	**
150 percent to less than 200 percent	0.3277	***
200 percent and above	0.3653	***

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics		Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Variable	Estimate	Sig
Net Worth		
Greater than \$0	-0.0698	
Greater than \$25,000	0.0316	
Other Income		
Receive TANF	0.2694	***
Receive other means-tested cash benefits	-0.2283	***
Receive other means-tested noncash benefits	-0.4412	***
Receive alimony or child support	-0.0177	
Health Status and Medical Costs		
In fair or poor health	-0.1306	***
Out-of-pocket medical costs greater than \$1000	0.0700	
Exit Trigger Events		
Job gain within family	0.2888	***
Income increase within family	0.3924	***
New marriage within family	-0.1493	
Decrease in family size	0.1368	***
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	0.0103	
20th percentile wage	0.0238	
Region of Residence		
Northeast	0.0301	
Mid-Atlantic	0.1177	
Midwest	-0.0133	
Southeast	-0.1344	**
Southwest	0.2374	***
Mountain Plains	0.2298	**
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.2696	**
State exclude all or most vehicles	0.2575	*
Certification Period		
State average certification period	-0.0377	***

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics		Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Variable	Estimate	Sig
SNAP Spell Characteristics		
Spell is first ever	0.1985	***
Spell duration 1-4 months	1.2100	***
Spell duration 5-8 months	0.8342	***
Spell duration 9-12 months	0.6458	***
Spell duration 13-16 months	0.4397	***
Spell Start year 2008	0.2146	
Spell Start year 2009	0.3307	***
Spell Start year 2010	0.3517	***
Spell Start year 2011	0.3425	***
Neighborhood Characteristics		
Individuals in housing units affected by foreclosure event	-0.0246	
Individuals living in high poverty neighborhood	0.0830	*
Individuals living in high SNAP participation neighborhood	-0.1674	***
Individuals in low food access census tracts	0.0299	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics	Individuals in Housing Units Affected by Foreclosure Event	Individuals not in Housing Units Affected by Foreclosure Event
	Estimate Sig	Estimate Sig
Variable		
Intercept	-3.6429 **	-4.8007 ***
Sex		
Male	0.2070	0.1213 ***
Race/Ethnicity		
White, non-Hispanic	0.0386	-0.0927 *
Black, non-Hispanic	-0.0620	-0.0212
Other, non-Hispanic	0.8543 *	-0.1044
Age		
18 to 29 (referent group)	0.0447	-0.0567
30 to 49	0.1226	-0.1252 **
50 to 64	0.1869	-0.1058
Citizenship		
Citizen	0.5511 *	0.2473 ***
Education Level		
Highest Grade Completed		
9 to 11	-0.0858	0.0076
12	-0.4957	-0.0588
13 and above	-0.5870	0.1122
Family Composition		
Mean number of adults age 18-59	0.1454 **	0.1351 ***
Mean number of adults age 60+	0.2198	0.1571 ***
Mean number of children less than age 6	-0.2565 *	-0.0816 ***
Mean number of children between ages 6 to 17	-0.2317 ***	-0.0667 ***
Marital Status		
Currently married	-0.1243	-0.1423 ***
Employment Status		
Currently employed	0.6736 ***	0.0158
Have not worked 1 to 5 months	0.3364	-0.0020
Have not worked 6 to 11 months	0.5349	-0.0456
Ratio of Family Income to Poverty Level		
100 percent to less than 150 percent	0.1215	0.0924 *
150 percent to less than 200 percent	0.4510 *	0.3245 ***
200 percent and above	0.2776	0.3593 ***

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics	Individuals in Housing Units Affected by Foreclosure Event	Individuals not in Housing Units Affected by Foreclosure Event
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	0.3733	-0.1003 **
Greater than \$25,000	-0.4878 *	0.0481
Other Income		
Receive TANF	-0.0245	0.3028 ***
Receive other means-tested cash benefits	0.0826	-0.2583 ***
Receive other means-tested noncash benefits	-0.2976	-0.4579 ***
Receive alimony or child support	0.3944	-0.0541
Health Status and Medical Costs		
In fair or poor health	-0.5122 **	-0.1130 **
Out-of-pocket medical costs greater than \$1000	0.2874	0.0719
Exit Trigger Events		
Job gain within family	0.6329 ***	0.2601 ***
Income increase within family	0.3552 *	0.3953 ***
New marriage within family	-13.7316	-0.0094
Decrease in family size	0.2600	0.1234 ***
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	-0.0259	0.0129
20th percentile wage	-0.1293	0.0362
Region of Residence		
Northeast	-0.9288	0.0648
Mid-Atlantic	-0.3482	0.1358 *
Midwest	-0.5991 **	-0.0079
Southeast	-0.0583	-0.1558 **
Southwest	-0.3365	0.2407 ***
Mountain Plains	-0.1951	0.2401 **
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	-0.2904	0.2853 **
State exclude all or most vehicles	-0.0262	0.2610 *
Certification Period		
State average certification period	0.0786 *	-0.0418 ***

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics	Individuals in Housing Units Affected by Foreclosure Event	Individuals not in Housing Units Affected by Foreclosure Event
	Estimate Sig	Estimate Sig
SNAP Spell Characteristics		
Spell is first ever	0.4355 **	0.1948 ***
Spell duration 1-4 months	0.4250	1.2346 ***
Spell duration 5-8 months	0.2395	0.8521 ***
Spell duration 9-12 months	0.3606	0.6534 ***
Spell duration 13-16 months	0.0484	0.4561 ***
Spell Start year 2008	2.4813 **	0.2182
Spell Start year 2009	0.4817	0.3290 ***
Spell Start year 2010	0.3149	0.3619 ***
Spell Start year 2011	-0.1475	0.3651 ***
Neighborhood Characteristics		
Individuals in housing units affected by foreclosure event	.	.
Individuals living in high poverty neighborhood	0.4037 *	0.0727
Individuals living in high SNAP participation neighborhood	-0.2828	-0.1658 ***
Individuals in low food access census tracts	0.2182	0.0234

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics		Individuals Living in High Poverty Neighborhood	Individuals not Living in High Poverty Neighborhood
Variable	Estimate Sig	Estimate Sig	
Intercept	-3.9464 ***	-5.0258 ***	
Sex			
Male	0.1905 ***	0.0721	
Race/Ethnicity			
White, non-Hispanic	-0.0678	-0.1017	
Black, non-Hispanic	-0.0101	-0.0567	
Other, non-Hispanic	-0.1718	-0.0151	
Age			
18 to 29 (referent group)	0.0289	-0.1188 *	
30 to 49	-0.0742	-0.1907 **	
50 to 64	0.0359	-0.2128 *	
Citizenship			
Citizen	0.2618 ***	0.2430 **	
Education Level			
Highest Grade Completed			
9 to 11	-0.1401	0.0664	
12	-0.1645 *	-0.0632	
13 and above	-0.0201	0.1268	
Family Composition			
Mean number of adults age 18-59	0.1699 ***	0.0869 ***	
Mean number of adults age 60+	0.1728 ***	0.1625 ***	
Mean number of children less than age 6	-0.0402	-0.1156 ***	
Mean number of children between ages 6 to 17	-0.1145 ***	-0.0551 **	
Marital Status			
Currently married	-0.2223 ***	-0.0317	
Employment Status			
Currently employed	-0.0323	0.1260 **	
Have not worked 1 to 5 months	-0.0533	0.0934	
Have not worked 6 to 11 months	-0.1086	0.0685	
Ratio of Family Income to Poverty Level			
100 percent to less than 150 percent	0.2068 ***	0.0219	
150 percent to less than 200 percent	0.3191 ***	0.3418 ***	
200 percent and above	0.2805 ***	0.4317 ***	

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics	Individuals Living in High Poverty Neighborhood	Individuals not Living in High Poverty Neighborhood
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	-0.2023 ***	0.1013
Greater than \$25,000	0.1156	-0.0413
Other Income		
Receive TANF	0.2571 *	0.3637 ***
Receive other means-tested cash benefits	-0.3859 ***	-0.0711
Receive other means-tested noncash benefits	-0.3503 ***	-0.5524 ***
Receive alimony or child support	0.0943	-0.1051
Health Status and Medical Costs		
In fair or poor health	-0.1336 *	-0.1354 **
Out-of-pocket medical costs greater than \$1000	0.0732	0.0642
Exit Trigger Events		
Job gain within family	0.2946 ***	0.2598 ***
Income increase within family	0.2753 ***	0.4948 ***
New marriage within family	-0.0978	-0.1605
Decrease in family size	0.1112 *	0.1748 ***
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	0.0182	0.0048
20th percentile wage	0.0326	0.0052
Region of Residence		
Northeast	0.2518 *	-0.1579
Mid-Atlantic	0.0071	0.1577
Midwest	-0.0731	-0.0074
Southeast	-0.2259 **	-0.1186
Southwest	0.1773	0.2856 ***
Mountain Plains	0.0085	0.3644 ***
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	-0.1972	0.6418 ***
State exclude all or most vehicles	-0.1023	0.5551 ***
Certification Period		
State average certification period	-0.0450 ***	-0.0409 ***

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics		Individuals Living in High Poverty Neighborhood	Individuals not Living in High Poverty Neighborhood
Variable	Estimate Sig	Estimate Sig	
SNAP Spell Characteristics			
Spell is first ever	0.1449 **	0.2290 ***	
Spell duration 1-4 months	1.0808 ***	1.2564 ***	
Spell duration 5-8 months	0.7536 ***	0.8632 ***	
Spell duration 9-12 months	0.3782 ***	0.8201 ***	
Spell duration 13-16 months	0.3066 ***	0.5379 ***	
Spell Start year 2008	-0.3599	0.4526 **	
Spell Start year 2009	0.1546	0.4749 ***	
Spell Start year 2010	0.2702 ***	0.4187 ***	
Spell Start year 2011	0.3074 ***	0.3889 ***	
Neighborhood Characteristics			
Individuals in housing units affected by foreclosure event	0.0489	-0.0473	
Individuals living in high poverty neighborhood	.	.	
Individuals living in high SNAP participation neighborhood	-0.0958	-0.2784 ***	
Individuals in low food access census tracts	0.0000	0.0244	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics	Individuals Living in High SNAP Participation Neighborhood	Individuals not Living in High SNAP Participation Neighborhood
	Estimate Sig	Estimate Sig
Variable		
Intercept	-4.7730 ***	-4.8057 ***
Sex		
Male	0.1800 ***	0.0865 *
Race/Ethnicity		
White, non-Hispanic	-0.0391	-0.1064
Black, non-Hispanic	-0.0908	0.0273
Other, non-Hispanic	-0.2035	-0.0054
Age		
18 to 29 (referent group)	0.0385	-0.1139 *
30 to 49	-0.0281	-0.1816 **
50 to 64	0.1625	-0.3033 **
Citizenship		
Citizen	0.1771 *	0.2565 **
Education Level		
Highest Grade Completed		
9 to 11	-0.0604	0.0376
12	-0.1153	-0.0650
13 and above	0.0446	0.1084
Family Composition		
Mean number of adults age 18-59	0.1885 ***	0.0847 ***
Mean number of adults age 60+	0.1606 ***	0.1675 ***
Mean number of children less than age 6	-0.0650 *	-0.1056 ***
Mean number of children between ages 6 to 17	-0.0983 ***	-0.0665 **
Marital Status		
Currently married	-0.2592 ***	-0.0182
Employment Status		
Currently employed	0.0496	0.0392
Have not worked 1 to 5 months	-0.0684	0.1102
Have not worked 6 to 11 months	-0.0950	0.0440
Ratio of Family Income to Poverty Level		
100 percent to less than 150 percent	0.0827	0.1426 **
150 percent to less than 200 percent	0.2712 ***	0.4116 ***
200 percent and above	0.2798 ***	0.4661 ***

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics	Individuals Living in High SNAP Participation Neighborhood	Individuals not Living in High SNAP Participation Neighborhood
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	-0.0458	-0.0480
Greater than \$25,000	0.0178	0.0172
Other Income		
Receive TANF	0.0125	0.4956 ***
Receive other means-tested cash benefits	-0.3524 ***	-0.1526
Receive other means-tested noncash benefits	-0.3500 ***	-0.5072 ***
Receive alimony or child support	0.0313	-0.0332
Health Status and Medical Costs		
In fair or poor health	-0.1464 **	-0.1062
Out-of-pocket medical costs greater than \$1000	0.1374	0.0413
Exit Trigger Events		
Job gain within family	0.2748 ***	0.2782 ***
Income increase within family	0.1965 ***	0.5524 ***
New marriage within family	-0.0550	-0.2865
Decrease in family size	0.2099 ***	0.0835
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	0.0190	0.0010
20th percentile wage	0.0427	-0.0041
Region of Residence		
Northeast	0.2509 *	-0.2015
Mid-Atlantic	0.1883	0.0822
Midwest	0.0871	-0.1511
Southeast	-0.0405	-0.2026 **
Southwest	0.2760 **	0.1978 *
Mountain Plains	0.1225	0.2568 **
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	-0.1426	0.7129 ***
State exclude all or most vehicles	-0.0621	0.6201 ***
Certification Period		
State average certification period	-0.0392 ***	-0.0371 ***

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals Living in High SNAP Participation Neighborhood	Individuals not Living in High SNAP Participation Neighborhood
	Estimate Sig	Estimate Sig
SNAP Spell Characteristics		
Spell is first ever	0.0965	0.2903 ***
Spell duration 1-4 months	1.1597 ***	1.2002 ***
Spell duration 5-8 months	0.7485 ***	0.8625 ***
Spell duration 9-12 months	0.5399 ***	0.7009 ***
Spell duration 13-16 months	0.3929 ***	0.4621 ***
Spell Start year 2008	-0.0082	0.3287 *
Spell Start year 2009	0.2481 **	0.4077 ***
Spell Start year 2010	0.3973 ***	0.3217 ***
Spell Start year 2011	0.3461 ***	0.3475 ***
Neighborhood Characteristics		
Individuals in housing units affected by foreclosure event	0.0418	-0.0553
Individuals living in high poverty neighborhood	0.1988 ***	-0.0689
Individuals living in high SNAP participation neighborhood	.	.
Individuals in low food access census tracts	0.0497	-0.0025

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics		Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
Variable	Estimate Sig	Estimate Sig	
Intercept	-5.2903 ***	-4.5055 ***	
Sex			
Male	0.1325 **	0.1299 ***	
Race/Ethnicity			
White, non-Hispanic	-0.0669	-0.1105	
Black, non-Hispanic	-0.0837	0.0007	
Other, non-Hispanic	0.1408	-0.2122 **	
Age			
18 to 29 (referent group)	-0.0371	-0.0629	
30 to 49	-0.1104	-0.1225	
50 to 64	-0.2623	-0.0254	
Citizenship			
Citizen	0.3236 ***	0.2287 ***	
Education Level			
Highest Grade Completed			
9 to 11	-0.0327	0.0352	
12	-0.0614	-0.0775	
13 and above	0.0461	0.1202	
Family Composition			
Mean number of adults age 18-59	0.1159 ***	0.1408 ***	
Mean number of adults age 60+	0.1271 *	0.1964 ***	
Mean number of children less than age 6	-0.0221	-0.1232 ***	
Mean number of children between ages 6 to 17	-0.0652 **	-0.0899 ***	
Marital Status			
Currently married	-0.1571 **	-0.0967 *	
Employment Status			
Currently employed	-0.1265 *	0.1429 **	
Have not worked 1 to 5 months	-0.0819	0.0610	
Have not worked 6 to 11 months	-0.2672 **	0.1403	
Ratio of Family Income to Poverty Level			
100 percent to less than 150 percent	-0.0058	0.1336 **	
150 percent to less than 200 percent	0.5066 ***	0.2086 ***	
200 percent and above	0.4823 ***	0.3083 ***	

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics		Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
Variable	Estimate Sig	Estimate Sig	
Net Worth			
Greater than \$0	-0.0334	-0.0804	
Greater than \$25,000	0.1828 **	-0.0559	
Other Income			
Receive TANF	-0.1061	0.4000 ***	
Receive other means-tested cash benefits	-0.1144	-0.2843 ***	
Receive other means-tested noncash benefits	-0.5879 ***	-0.3528 ***	
Receive alimony or child support	0.0306	-0.0272	
Health Status and Medical Costs			
In fair or poor health	-0.2242 ***	-0.0898	
Out-of-pocket medical costs greater than \$1000	-0.1319	0.1745 **	
Exit Trigger Events			
Job gain within family	0.2361 ***	0.3200 ***	
Income increase within family	0.3318 ***	0.4486 ***	
New marriage within family	0.4368	-0.4809 *	
Decrease in family size	0.0755	0.1712 ***	
State and Regional Measures			
State Economic Measures			
Mean state unemployment rate	0.0080	0.0103	
20th percentile wage	0.0804	-0.0198	
Region of Residence			
Northeast	-0.0540	0.0954	
Mid-Atlantic	-0.0027	0.1703 *	
Midwest	-0.0867	0.0292	
Southeast	-0.0307	-0.1583 *	
Southwest	0.1856	0.2689 ***	
Mountain Plains	0.1620	0.2506 **	
SNAP Policy Variables			
Vehicle Rules			
State offers broad-based categorical eligibility	0.1427	0.5398 **	
State exclude all or most vehicles	0.1166	0.5361 **	
Certification Period			
State average certification period	-0.0182	-0.0463 ***	

Table H.2 Regression Coefficients for Duration of SNAP Participation Spell Models, by Neighborhood and Participant Characteristic

Individual Characteristics		Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
Variable	Estimate Sig	Estimate Sig	
SNAP Spell Characteristics			
Spell is first ever	0.2593 ***	0.1766 ***	
Spell duration 1-4 months	1.0456 ***	1.2775 ***	
Spell duration 5-8 months	0.8709 ***	0.7819 ***	
Spell duration 9-12 months	0.6814 ***	0.6151 ***	
Spell duration 13-16 months	0.5583 ***	0.3566 ***	
Spell Start year 2008	0.3897	0.1541	
Spell Start year 2009	0.5038 ***	0.2188 **	
Spell Start year 2010	0.5425 ***	0.2193 ***	
Spell Start year 2011	0.4508 ***	0.2750 ***	
Neighborhood Characteristics			
Individuals in housing units affected by foreclosure event	0.0466	-0.0936	
Individuals living in high poverty neighborhood	0.0483	0.0979 *	
Individuals living in high SNAP participation neighborhood	-0.1470 *	-0.1983 ***	
Individuals in low food access census tracts	.	.	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

		Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables	
Individual Characteristics			
Variable		Estimate	Sig
Intercept		-5.3286	***
Sex			
Male		-0.0851	*
Race/Ethnicity			
White, Non-Hispanic		0.1177	*
Black, Non-Hispanic		0.2452	***
Other, Non-Hispanic		0.1327	
Age			
30 to 49		-0.0877	
50 to 64		-0.1764	**
65 and older		-0.3998	***
Citizenship			
Citizen		-0.0692	
Education			
Highest Grade Completed			
9 to 11		0.0568	
12		0.0248	
13 and above		-0.1545	*
Family Composition			
Mean number of adults age 18-59		-0.1068	***
Mean number of adults age 60+		0.0558	
Mean number of children less than age 6		0.1883	***
Mean number of children between ages 6 to 17		0.0257	
Marital Status			
Currently married		-0.0746	
Employment Status			
Currently employed		-0.1079	*
Have not worked 1 to 5 months		0.0046	
Have not worked 6 to 11 months		0.0776	
Ratio of Family Income to Poverty Level			
100 percent to less than 150 percent		-0.1897	***
150 percent to less than 200 percent		-0.2692	***
200 percent and above		-0.4089	***

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics		Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables
Variable	Estimate	Sig
Net Worth		
Greater than \$0	-0.0885	
Greater than \$25,000	-0.0437	
Other Income		
Receive TANF	0.1938	**
Receive other means-tested cash benefits	-0.0059	
Receive other means-tested noncash benefits	0.4930	***
Receive alimony or child support	-0.0612	
Health Status and Medical Costs		
In fair or poor health	0.1592	***
Out-of-pocket medical costs greater than \$1000	-0.2888	***
Entry Trigger Events		
Job loss within family	0.3556	***
Decrease in income within family	0.2949	***
Separation or divorce within family	-0.1433	
Increase in family size within family	0.3121	***
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	-0.0286	**
20th percentile wage	0.0482	
Region of Residence		
Northeast	-0.2585	**
Mid-Atlantic	-0.1257	
Midwest	0.0595	
Southeast	0.1116	
Southwest	0.1704	*
Mountain Plains	0.1882	
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.2255	
State exclude all or most vehicles	0.1279	
Certification Period		
State average certification period	0.0223	**
Program Outreach Expenditures		
Mean outreach expenditures per capita	0.2091	

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

		Burstein Variables plus Addition of 4 Neighborhood Characteristic Variables	
Individual Characteristics			
Variable		Estimate	Sig
SNAP Nonparticipation Spell Characteristics			
Nonparticipation Spell is first ever		-0.1488	***
Nonparticipation Spell duration 1-4 months		1.6104	***
Nonparticipation Spell duration 5-8 months		1.2016	***
Nonparticipation Spell duration 9-12 months		0.7603	***
Nonparticipation Spell duration 13-16 months		0.5652	***
Nonparticipation Spell Start year 2008		0.4067	**
Nonparticipation Spell Start year 2009		0.6149	***
Nonparticipation Spell Start year 2010		0.4805	***
Nonparticipation Spell Start year 2011		0.3221	***
Neighborhood Characteristics			
Individuals in housing units affected by foreclosure event		0.1547	*
Individuals living in high poverty neighborhood		-0.0431	
Individuals living in high SNAP participation neighborhood		0.2650	***
Individuals in low food access census tracts		-0.0952	**

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals in Housing Units Affected by Foreclosure Event	Individuals not in Housing Units Affected by Foreclosure Event
	Estimate Sig	Estimate Sig
Intercept	-2.3983	-5.4508 ***
Sex		
Male	-0.0043	-0.0926 *
Race/Ethnicity		
White, Non-Hispanic	-0.6704 *	0.1478 **
Black, Non-Hispanic	-0.0574	0.2516 ***
Other, Non-Hispanic	-0.2215	0.1488
Age		
30 to 49	-0.4446 *	-0.0674
50 to 64	-0.3808	-0.1747 **
65 and older	-2.0982 ***	-0.3292 ***
Citizenship		
Citizen	0.4399	-0.1079
Education		
Highest Grade Completed		
9 to 11	-0.6664	0.0900
12	-0.0805	0.0365
13 and above	-0.1326	-0.1497
Family Composition		
Mean number of adults age 18-59	-0.0806	-0.1092 ***
Mean number of adults age 60+	0.2299	0.0516
Mean number of children less than age 6	-0.0938	0.2044 ***
Mean number of children between ages 6 to 17	0.1040	0.0149
Marital Status		
Currently married	-0.1362	-0.0854
Employment Status		
Currently employed	-0.0432	-0.1060 *
Have not worked 1 to 5 months	-0.0344	0.0349
Have not worked 6 to 11 months	-0.0526	0.0820
Ratio of Family Income to Poverty Level		
100 percent to less than 150 percent	0.0623	-0.2130 ***
150 percent to less than 200 percent	-0.3393	-0.2778 ***
200 percent and above	-0.7359 **	-0.4097 ***

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals in Housing Units Affected by Foreclosure Event	Individuals not in Housing Units Affected by Foreclosure Event
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	-0.4691	-0.0652
Greater than \$25,000	0.2247	-0.0631
Other Income		
Receive TANF	1.3211 ***	0.1423
Receive other means-tested cash benefits	0.1883	-0.0262
Receive other means-tested noncash benefits	0.7543 ***	0.4806 ***
Receive alimony or child support	0.0963	-0.0620
Health Status and Medical Costs		
In fair or poor health	0.2125	0.1568 ***
Out-of-pocket medical costs greater than \$1000	-0.2188	-0.2840 ***
Entry Trigger Events		
Job loss within family	0.8389 ***	0.3188 ***
Decrease in income within family	-0.1728	0.3311 ***
Separation or divorce within family	-14.1781	0.0141
Increase in family size within family	0.4754	0.2817 ***
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	-0.0751	-0.0268 **
20th percentile wage	-0.1789	0.0593
Region of Residence		
Northeast	0.9122	-0.3051 **
Mid-Atlantic	0.1141	-0.1455
Midwest	0.3984	0.0423
Southeast	0.4854	0.0794
Southwest	0.6773	0.1597
Mountain Plains	1.2043 **	0.1163
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.6222	0.2187
State exclude all or most vehicles	0.0646	0.1639
Certification Period		
State average certification period	-0.0577	0.0260 **
Program Outreach Expenditures		
Mean outreach expenditures per capita	1.8764 *	0.1549

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals in Housing Units Affected by Foreclosure Event		Individuals not in Housing Units Affected by Foreclosure Event	
	Estimate	Sig	Estimate	Sig
SNAP Nonparticipation Spell Characteristics				
Nonparticipation Spell is first ever	0.2622		-0.1725	***
Nonparticipation Spell duration 1-4 months	1.1952	***	1.6229	***
Nonparticipation Spell duration 5-8 months	1.2183	***	1.1948	***
Nonparticipation Spell duration 9-12 months	-0.0087		0.8036	***
Nonparticipation Spell duration 13-16 months	0.7918	**	0.5402	***
Nonparticipation Spell Start year 2008	-0.1580		0.3766	**
Nonparticipation Spell Start year 2009	1.0283	**	0.5958	***
Nonparticipation Spell Start year 2010	0.4210		0.4892	***
Nonparticipation Spell Start year 2011	0.2182		0.3215	***
Neighborhood Characteristics				
Individuals in housing units affected by foreclosure event	.		.	
Individuals living in high poverty neighborhood	0.0051		-0.0426	
Individuals living in high SNAP participation neighborhood	0.1801		0.2732	***
Individuals in low food access census tracts	-0.0323		-0.1005	**

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals Living in High Poverty Neighborhood		Individuals not Living in High Poverty Neighborhood	
	Estimate	Sig	Estimate	Sig
Intercept	-5.1196	***	-5.6809	***
Sex				
Male	-0.0919		-0.0666	
Race/Ethnicity				
White, Non-Hispanic	0.1818	*	0.0621	
Black, Non-Hispanic	0.3327	***	0.1852	
Other, Non-Hispanic	0.2920	*	0.0400	
Age				
30 to 49	-0.0888		-0.0914	
50 to 64	-0.2598	**	-0.0968	
65 and older	-0.5889	***	-0.2409	
Citizenship				
Citizen	-0.2450	**	0.2420	*
Education				
Highest Grade Completed				
9 to 11	-0.0272		0.1296	
12	0.0255		0.0038	
13 and above	-0.2383	*	-0.1249	
Family Composition				
Mean number of adults age 18-59	-0.0774	**	-0.1275	***
Mean number of adults age 60+	0.1016		0.0302	
Mean number of children less than age 6	0.2129	***	0.1558	***
Mean number of children between ages 6 to 17	0.0373		0.0276	
Marital Status				
Currently married	-0.0521		-0.1078	
Employment Status				
Currently employed	-0.0480		-0.1492	*
Have not worked 1 to 5 months	0.1254		-0.1035	
Have not worked 6 to 11 months	0.2273		0.0300	
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	-0.2849	***	-0.1035	
150 percent to less than 200 percent	-0.3310	***	-0.1853	*
200 percent and above	-0.3983	***	-0.3894	***

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals Living in High Poverty Neighborhood		Individuals not Living in High Poverty Neighborhood	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	-0.2133	***	0.0436	
Greater than \$25,000	-0.0384		-0.1060	
Other Income				
Receive TANF	0.0918		0.2920	*
Receive other means-tested cash benefits	-0.0955		0.0420	
Receive other means-tested noncash benefits	0.3051	***	0.6905	***
Receive alimony or child support	-0.0514		-0.0755	
Health Status and Medical Costs				
In fair or poor health	0.2897	***	0.0809	
Out-of-pocket medical costs greater than \$1000	-0.4430	***	-0.1718	
Entry Trigger Events				
Job loss within family	0.4587	***	0.3231	***
Decrease in income within family	0.1330	*	0.4282	***
Separation or divorce within family	0.1963		-0.3366	
Increase in family size within family	0.1686		0.4226	***
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	-0.0468	***	-0.0113	
20th percentile wage	0.0528		0.0493	
Region of Residence				
Northeast	0.1511		-0.6631	***
Mid-Atlantic	-0.3810	**	0.0359	
Midwest	0.2362	*	-0.0281	
Southeast	0.0966		0.1647	
Southwest	0.1301		0.2585	*
Mountain Plains	0.5071	***	-0.0137	
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.3434		0.0906	
State exclude all or most vehicles	0.3314		-0.1077	
Certification Period				
State average certification period	0.0165		0.0274	*
Program Outreach Expenditures				
Mean outreach expenditures per capita	0.3390		-0.0255	

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals Living in High Poverty Neighborhood		Individuals not Living in High Poverty Neighborhood	
	Estimate	Sig	Estimate	Sig
SNAP Nonparticipation Spell Characteristics				
Nonparticipation Spell is first ever	0.0356		-0.2695	***
Nonparticipation Spell duration 1-4 months	1.6826	***	1.4487	***
Nonparticipation Spell duration 5-8 months	1.3962	***	0.9471	***
Nonparticipation Spell duration 9-12 months	0.9149	***	0.5988	***
Nonparticipation Spell duration 13-16 months	0.7933	***	0.3050	**
Nonparticipation Spell Start year 2008	0.4849	**	0.3489	
Nonparticipation Spell Start year 2009	0.5470	***	0.6888	***
Nonparticipation Spell Start year 2010	0.4019	***	0.6035	***
Nonparticipation Spell Start year 2011	0.1434		0.4925	***
Neighborhood Characteristics				
Individuals in housing units affected by foreclosure event	0.1152		0.1764	
Individuals living in high poverty neighborhood				
Individuals living in high SNAP participation neighborhood	0.0949		0.4142	***
Individuals in low food access census tracts	0.0003		-0.1403	**

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics	Individuals Living in High SNAP Participation Neighborhood		Individuals not Living in High SNAP Participation Neighborhood	
	Estimate	Sig	Estimate	Sig
Variable				
Intercept	-5.6423	***	-4.9578	***
Sex				
Male	-0.1127	*	-0.0651	
Race/Ethnicity				
White, Non-Hispanic	0.1672	*	0.0599	
Black, Non-Hispanic	0.2796	***	0.2156	*
Other, Non-Hispanic	0.2626	*	0.0647	
Age				
30 to 49	-0.1054		-0.0716	
50 to 64	-0.1929	*	-0.1743	
65 and older	-0.5507	***	-0.1994	
Citizenship				
Citizen	-0.1921	*	0.0726	
Education				
Highest Grade Completed				
9 to 11	-0.0678		0.1676	
12	-0.0255		0.0613	
13 and above	-0.2179	*	-0.1288	
Family Composition				
Mean number of adults age 18-59	-0.0938	***	-0.1197	***
Mean number of adults age 60+	0.0964		0.0198	
Mean number of children less than age 6	0.1833	***	0.1775	***
Mean number of children between ages 6 to 17	0.0610	*	0.0153	
Marital Status				
Currently married	-0.1315		-0.0308	
Employment Status				
Currently employed	-0.0374		-0.1464	*
Have not worked 1 to 5 months	0.0988		-0.0807	
Have not worked 6 to 11 months	0.1619		0.0489	
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	-0.2063	**	-0.1817	**
150 percent to less than 200 percent	-0.2593	***	-0.2895	***
200 percent and above	-0.4531	***	-0.3393	***

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals Living in High SNAP Participation Neighborhood		Individuals not Living in High SNAP Participation Neighborhood	
	Estimate	Sig	Estimate	Sig
Net Worth				
Greater than \$0	-0.1812	**	0.0138	
Greater than \$25,000	0.0109		-0.0792	
Other Income				
Receive TANF	0.2057		0.1841	
Receive other means-tested cash benefits	-0.1798		0.1748	
Receive other means-tested noncash benefits	0.3811	***	0.6166	***
Receive alimony or child support	-0.0305		-0.0628	
Health Status and Medical Costs				
In fair or poor health	0.1603	**	0.2009	**
Out-of-pocket medical costs greater than \$1000	-0.4088	***	-0.2155	*
Entry Trigger Events				
Job loss within family	0.2607	**	0.4481	***
Decrease in income within family	0.2040	***	0.3937	***
Separation or divorce within family	0.2078		-0.6966	
Increase in family size within family	0.3411	***	0.2624	**
State and Regional Measures				
State Economic Measures				
Mean state unemployment rate	-0.0319	**	-0.0278	*
20th percentile wage	0.1471	**	-0.0431	
Region of Residence				
Northeast	0.0526		-0.5010	***
Mid-Atlantic	-0.1020		-0.0557	
Midwest	0.2004	*	0.0156	
Southeast	0.0810		0.2545	*
Southwest	0.1744		0.2059	
Mountain Plains	0.5363	***	0.1081	
SNAP Policy Variables				
Vehicle Rules				
State offers broad-based categorical eligibility	0.4103	*	0.1273	
State exclude all or most vehicles	0.2140		0.0716	
Certification Period				
State average certification period	0.0080		0.0393	**
Program Outreach Expenditures				
Mean outreach expenditures per capita	0.2460		0.0922	

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals Living in High SNAP Participation Neighborhood		Individuals not Living in High SNAP Participation Neighborhood	
	Estimate	Sig	Estimate	Sig
SNAP Nonparticipation Spell Characteristics				
Nonparticipation Spell is first ever	0.0127		-0.2840	***
Nonparticipation Spell duration 1-4 months	1.5095	***	1.6510	***
Nonparticipation Spell duration 5-8 months	1.2549	***	1.0961	***
Nonparticipation Spell duration 9-12 months	0.7889	***	0.7311	***
Nonparticipation Spell duration 13-16 months	0.4716	***	0.6073	***
Nonparticipation Spell Start year 2008	0.5405	***	0.1922	
Nonparticipation Spell Start year 2009	0.5819	***	0.6698	***
Nonparticipation Spell Start year 2010	0.4639	***	0.5378	***
Nonparticipation Spell Start year 2011	0.1536		0.4791	***
Neighborhood Characteristics				
Individuals in housing units affected by foreclosure event	0.0294		0.2216	*
Individuals living in high poverty neighborhood	-0.1500	*	0.1030	
Individuals living in high SNAP participation neighborhood				
Individuals in low food access census tracts	0.0414		-0.2125	***

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals in Low Food Access Census Tracts		Individuals not in Low Food Access Census Tracts	
	Estimate	Sig	Estimate	Sig
Intercept	-3.1767	***	-6.8572	***
Sex				
Male	-0.0187		-0.1326	**
Race/Ethnicity				
White, Non-Hispanic	0.0670		0.1694	*
Black, Non-Hispanic	0.0833		0.3783	***
Other, Non-Hispanic	0.0930		0.1451	
Age				
30 to 49	-0.0489		-0.0933	
50 to 64	0.0744		-0.2791	***
65 and older	0.0497		-0.5967	***
Citizenship				
Citizen	-0.3043	**	0.0172	
Education				
Highest Grade Completed				
9 to 11	0.0243		0.1341	
12	0.2355	*	-0.0392	
13 and above	0.0975		-0.2816	**
Family Composition				
Mean number of adults age 18-59	-0.0392		-0.1578	***
Mean number of adults age 60+	-0.0239		0.0488	
Mean number of children less than age 6	0.2061	***	0.2010	***
Mean number of children between ages 6 to 17	-0.0055		0.0585	**
Marital Status				
Currently married	-0.2229	**	0.0032	
Employment Status				
Currently employed	-0.0981		-0.1023	
Have not worked 1 to 5 months	-0.1687		0.0691	
Have not worked 6 to 11 months	-0.0441		0.0903	
Ratio of Family Income to Poverty Level				
100 percent to less than 150 percent	-0.2113	**	-0.1891	**
150 percent to less than 200 percent	-0.3246	***	-0.2328	**
200 percent and above	-0.5751	***	-0.3364	***

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals in Low Food Access Census Tracts	Individuals not in Low Food Access Census Tracts
	Estimate Sig	Estimate Sig
Net Worth		
Greater than \$0	-0.0862	-0.0483
Greater than \$25,000	-0.2174 **	0.0227
Other Income		
Receive TANF	0.2473	0.1271
Receive other means-tested cash benefits	0.2426 **	-0.1678
Receive other means-tested noncash benefits	0.4504 ***	0.5393 ***
Receive alimony or child support	-0.0815	-0.0447
Health Status and Medical Costs		
In fair or poor health	0.0373	0.2446 ***
Out-of-pocket medical costs greater than \$1000	-0.0942	-0.3954 ***
Entry Trigger Events		
Job loss within family	0.4768 ***	0.3104 ***
Decrease in income within family	0.4102 ***	0.2187 ***
Separation or divorce within family	0.1113	-0.2385
Increase in family size within family	0.2736 **	0.2775 ***
State and Regional Measures		
State Economic Measures		
Mean state unemployment rate	-0.0605 ***	-0.0077
20th percentile wage	-0.1423 *	0.1487 **
Region of Residence		
Northeast	-0.0344	-0.3001 **
Mid-Atlantic	-0.1285	-0.1320
Midwest	-0.2314	0.2373 **
Southeast	0.0911	0.0848
Southwest	-0.0945	0.3651 ***
Mountain Plains	0.2314	0.0752
SNAP Policy Variables		
Vehicle Rules		
State offers broad-based categorical eligibility	0.0159	0.5627 **
State exclude all or most vehicles	-0.2008	0.5339 *
Certification Period		
State average certification period	0.0158	0.0339 ***
Program Outreach Expenditures		
Mean outreach expenditures per capita	0.5960 *	-0.0534

Table H.3 Regression Coefficients for Re-entry to SNAP Participation Models, by Neighborhood and Participant Characteristic

Individual Characteristics Variable	Individuals in Low Food Access Census Tracts		Individuals not in Low Food Access Census Tracts	
	Estimate	Sig	Estimate	Sig
SNAP Nonparticipation Spell Characteristics				
Nonparticipation Spell is first ever	-0.0788		-0.2259 ***	
Nonparticipation Spell duration 1-4 months	1.5881 ***		1.5633 ***	
Nonparticipation Spell duration 5-8 months	1.1917 ***		1.1695 ***	
Nonparticipation Spell duration 9-12 months	0.5246 ***		0.8731 ***	
Nonparticipation Spell duration 13-16 months	0.3374 **		0.6864 ***	
Nonparticipation Spell Start year 2008	0.8582 ***		0.1097	
Nonparticipation Spell Start year 2009	0.6755 ***		0.6213 ***	
Nonparticipation Spell Start year 2010	0.4340 ***		0.5336 ***	
Nonparticipation Spell Start year 2011	0.2901 **		0.3723 ***	
Neighborhood Characteristics				
Individuals in housing units affected by foreclosure event	0.2401 *		0.1286	
Individuals living in high poverty neighborhood	-0.0852		-0.0213	
Individuals living in high SNAP participation neighborhood	0.4221 ***		0.1353 *	
Individuals in low food access census tracts	.		.	

*Significantly different from referent group at .10, two-tailed test.

**Significantly different from referent group at .05, two-tailed test.

***Significantly different from referent group at .01, two-tailed test.

Appendix I

Cross-Study Table Crosswalk

Revised Determinants Report		2011 Report: 2004 SIPP	
No.	Title	No.	Page
	Multivariate Analysis		
III.1	Regression-Adjusted Monthly Rates of Entry into SNAP, by Participant Characteristic, 2008 SIPP Panel	III.1	42
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IV.1	Regression-Adjusted Median SNAP Spell Length (Months) by Participant Characteristic, 2008 SIPP Panel	IV.1	62
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Source: Mabli et al. (2011b) for 2004 SIPP.