

## Measuring the Effect of Supplemental Nutrition Assistance Program (SNAP) Participation on Food Security

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Food and Nutrition Service, Office of Policy Support

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# Measuring the Effect of Supplemental Nutrition Assistance Program (SNAP) Participation on Food Security

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#### **EXECUTIVE SUMMARY**

#### A. What Are the Objectives?

The Supplemental Nutrition Assistance Program (SNAP) provides nutrition assistance benefits to low-income individuals and families in an effort to reduce hunger and improve the health and well-being of low-income people nationwide. Although SNAP has long been one of the largest and most important nutrition assistance programs for low-income households, its significance has grown even larger in recent years as it experienced record-high levels of participation. In Fiscal Year 2012, the program provided benefits to more than 46 million Americans on average per month. <sup>1</sup>

The Food and Nutrition Service (FNS) of the United States Department of Agriculture (USDA), which administers SNAP, targets benefits to the neediest households; poorer households receive greater SNAP benefits than households with more income. To counter rising food prices and provide SNAP participants with enough resources to purchase food, the American Recovery and Reinvestment Act (ARRA), enacted in February 2009, raised the maximum SNAP benefit by 13.6 percent, effective April 2009. Because the benefit amount for all households is determined by reducing the maximum benefit according to each household's income net of certain housing, medical, work, and child care expenses, the benefit allotment for households not receiving the maximum increased by the same dollar amount as that for households of the same size that received the maximum benefit. On average, household benefits increased by approximately \$41 under ARRA (Leftin et al. 2010). In fiscal year 2011, the average household benefit was \$281.

Policymakers, advocates, and those administering SNAP have long hypothesized that SNAP reduces food insecurity, which is a measure of whether a household experiences food access limitations due to lack of money or other resources. Estimating the effect of SNAP on food insecurity using household survey data has been challenging, however, because households that participate in SNAP can differ in systematic ways from households that do not (commonly referred to as selection bias). For example, households that are more food-needy and have lower levels of food security are more likely to participate in SNAP. Therefore, initial differences in food insecurity between participants and nonparticipants may be greater than the ameliorative effects of the program (Nord and Golla 2009). Most research studies, using a variety of data and empirical methods, have attempted to isolate SNAP's effect on food insecurity from the compositional differences between participants and nonparticipants, but the evidence supporting the hypothesis has been mixed.<sup>2</sup>

Mathematica Policy Research conducted the SNAP Food Security (SNAPFS) survey for FNS between October 2011 and September 2012, to assess the effect of SNAP participation on food security and food spending in the post-ARRA environment of higher SNAP allotments. SNAPFS was the largest survey of food security and food spending among SNAP participants to date, with 9,811 households interviewed in 30 States. This report presents the evaluation findings, which are based on a quasi-experimental design intended to minimize selection bias by comparing information

<sup>&</sup>lt;sup>1</sup> Data were obtained from http://www.fns.usda.gov/pd/SNAPsummary.htm.

<sup>&</sup>lt;sup>2</sup> Recent reviews of the literature of the effects of SNAP on food security can be found in Nord and Golla (2009); Ratcliffe and McKernan (2011); Wilde (2007); and Fox et al. (2004).

collected from SNAP households within days of entering the program to information obtained after about six months of participation to control for factors unrelated to SNAP.

The main objectives of the study were to:

- Assess how household food security and food expenditures vary with SNAP participation
- Examine how the relationships between SNAP and food security and between SNAP and food expenditures vary by key household characteristics and circumstances
- Examine in more depth what factors may distinguish between food secure and food insecure SNAP households with children

This report contains the research findings for the first and second objectives. The third objective was based on a qualitative component of the study and was addressed in a separate report.<sup>3</sup>

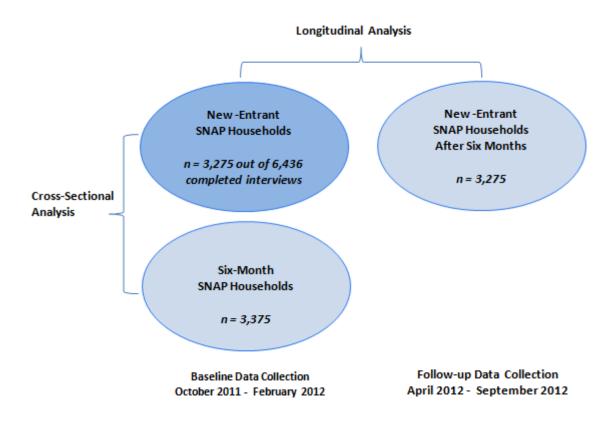
#### B. How Was the Study Conducted?

#### 1. Study Design

SNAPFS survey data were collected from October 2011 through September 2012 using computer-assisted telephone interviewing (CATI). As presented in Figure 1, data for the cross-sectional analysis come from 9,811 SNAP households interviewed in a nationally representative sample of 30 States from October 2011 through February 2012: 6,436 new-entrant households and 3,375 households that had participated for about six months ("six-month" households). Data for the longitudinal analysis come from the 3,275 households that were interviewed as new-entrant households from October 2011 through February 2012 that were still participating in the program about six months later. These households were interviewed between April and September 2012. The analysis samples differed from the initial survey samples. The findings presented in this report are based on analyses in which the sample of new-entrant households was restricted to those that continued to participate six months later, at the time of the follow-up interview. This restriction increased the comparability of new-entrant and six-month households and helped decrease bias in comparing the food security (or food expenditures) of six-month and new-entrant households.

<sup>&</sup>lt;sup>3</sup> Edin, Kathryn, Melody Boyd, James Mabli, Jim Ohls, Julie Worthington, Sara Greene, Nicholas Redel, and Swetha Sridharan. "SNAP Food Security: In-Depth Interview Study Final Report." Washington DC: Mathematica Policy Research, March 2013.

Figure 1. Study Design



Source: SNAP Food Security Survey 2012.

Note:

Sample sizes denote numbers of households that completed the survey. In the analysis, the sample of new-entrant households was restricted to those households that also completed a follow-up interview six months later in order to improve the comparability between the new-entrant and six-month households.

#### 2. Analysis Methods

All analyses are based on two sets of comparisons. Using a cross-sectional sample, we compare information collected from SNAP households within days of entering the program to information collected from a contemporaneous sample of households that have participated for about six months. Next, using a longitudinal sample, we compare the baseline information collected from the new-entrant SNAP households to information from those same households six months later.

The SNAPFS survey included an 18-item food security module with a 30-day reference period. Household food security status was measured using the 10 adult-referenced items of the module. Children's food security status was measured using the 8-item child scale of the module. The survey also included a food expenditure module that requested information about expenditures on food in the week before the survey, as well as what households *usually* spend on food in a typical week. In much of the analysis, usual weekly food spending was normalized by the cost of the Thrifty Food Plan (TFP) to adjust for differences in household size and composition, as well as for inflation in food prices.

Descriptive tabulations of household food security and food expenditures are presented to characterize the groups of new-entrant and six-month SNAP households. The difference in

prevalence of food insecurity among new-entrant and six-month households can be attributable to differences in SNAP participation as well as differences in characteristics and circumstances of new-entrant and six-month households. For this reason, descriptively comparing the prevalence of food insecurity across the two groups does not measure the association between SNAP and food security. To estimate this association, multivariate regression analysis was used that accounted for observed differences in demographic and household characteristics and economic circumstances.<sup>4</sup> All analyses used weights to account for the survey's multistage sampling design and for nonresponse.

#### C. What Did the Study Find?

#### 1. Food Security

## a. The Prevalence of Food Insecurity and Very Low Food Security in Households and in Households with Children

Simple, descriptive tabulations of the data on key outcome variables, with no adjustment for other household characteristics, show that six-month households were less likely than new-entrant households to be food insecure or experience very low food security. The percentages of new-entrant and six-month households that were food insecure in the cross-sectional sample were 65.5 and 58.7 percent, respectively—a -6.7 percentage point difference (Figure 2). Similarly, in the longitudinal sample, the percentages of new-entrant households and those same households six months later that were food insecure were 65.5 and 52.8 percent, respectively—a -12.7 percentage point difference.

The percentage of households with very low food security was also smaller for six-month households than for new-entrant households. The percentages of new-entrant and six-month households that had very low food security in the cross-sectional sample were 39.4 and 32.0 percent, respectively—a -7.4 percentage point difference. The analogous percentages in the longitudinal sample were 39.4 and 30.4 percent, respectively—a -9.0 percentage point difference.

<sup>&</sup>lt;sup>4</sup> Although this might help to identify the portion of the difference in the prevalence of food insecurity between new-entrant and six-month households attributable to SNAP, it does not eliminate the possibility of bias. Because unobservable differences between new-entrant and six-month households may remain, the regression analysis findings should not be considered indicative of the causal effects of SNAP.

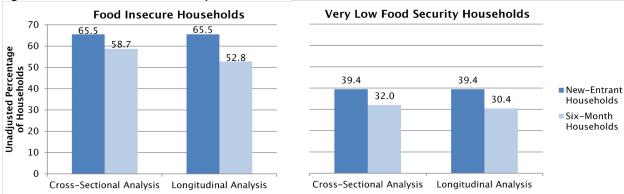


Figure 2. Household Food Security Status in New- Entrant and Six- Month SNAP Householdsa

Source: SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later

When only households with children are considered, a smaller percentage of six-month households than new-entrant households were food insecure in both the cross-sectional and longitudinal samples. In the cross-sectional sample, the percentage of households with children in which children were food insecure was 37.0 percent for new-entrant households and 27.1 percent for six-month households—a difference of -9.9 percentage points (Figure 3). Similarly, in the longitudinal sample, the percentages were 37.0 and 24.1 percent, respectively—a -12.9 percentage point difference.

In the cross-sectional sample, the percentage of households with children in which children had very low food security was 6.8 percent for new-entrant households and 4.0 percent for six-month households—a difference of -2.8 percentage points. In the longitudinal sample, the percentages were 6.8 and 4.7 percent, respectively—a -2.1 percentage-point difference.

<sup>&</sup>lt;sup>a</sup> Percentages of food insecurity and very low food security have not been adjusted for differences in characteristics across households.

Food Insecure Households **Very Low Food Security Households** 50 45 **Unadjusted Percentage** 40 37.0 37.0 35 30 25 20 15 27.1 24.1 ■ New-Entrant Households Six-Month Households 10 6.8 6.8 4.7 4.0 5 0 Cross-Sectional Analysis Longitudinal Analysis Cross-Sectional Analysis Longitudinal Analysis

Figure 3. Children's Food Security Status in New-Entrant and Six-Month SNAP Households with Children<sup>a</sup>

Source:

SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 2,796 households with children (1,274 new-entrant households and 1,522 six-month households). Longitudinal estimates are based on a data set with 1,274 new-entrant households with children observed at baseline and 1,295 households with children observed at follow-up six months later.

#### b. Associations Between SNAP and Household Food Security

While the descriptive tabulations of the prevalence of food insecurity in the previous section show the total change in food security status due to SNAP participation as well as non-SNAP changes in household characteristics and circumstances, regression analysis that accounts for observed differences between new-entrant and six-month households was used to estimate the change in food security status associated with SNAP participation only. We refer to these findings as "regression-adjusted" in the figures. Although the same set of new-entrant households are used in the cross-sectional and longitudinal analyses, the regression-adjusted percentages of food insecure new-entrant households differ across the two analyses because they are generated using model parameters specific to the samples being examined.

Participating in SNAP for about six months was associated with a decrease in the percentage of households that were food insecure by 4.6 percentage points in the cross-sectional sample. The reduction was from 65.4 percent of new-entrant households to 60.8 percent of six-month households (Figure 4). In the longitudinal sample, SNAP was associated with a decrease in the percentage of households that were food insecure by 10.6 percentage points, from 65.1 percent of new-entrant households to 54.5 percent of those same households six months later.

<sup>&</sup>lt;sup>a</sup> Percentages of food insecurity and very low food security have not been adjusted for differences in characteristics across households.

80 70 Percentage of Households 65.1 65.4 60.8 \*\*\* 60 New-Entrant Food Insecure Households 50 40 Six-Month Households 30 20 10 0 Cross-Sectional Analysis Longitudinal Analysis

Figure 4. Participating in SNAP for Six Months was Associated with a Decrease in the Percentage of Households That Were Food Insecure

Source: SNAP Food Security Survey 2012.

Note:

Percentages were regression-adjusted for differences between new-entrant and six-month households in demographic and economic characteristics, current and prior participation in Federal and State programs, and State economies and SNAP policies. Chapter II lists the full set of variables.

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Participating in SNAP for about six months was also associated with a decrease in the percentage of households that experienced particularly severe levels of food insecurity—designated "very low food security." Participating in SNAP was associated with a decrease in the percentage of households that experienced very low food security of 5.0 percentage points in the cross-sectional sample, from 36.4 percent of new-entrant households to 31.4 percent of six-month households, and of 6.3 percentage points in the longitudinal sample, from 35.9 to 29.6 percent (Figure 5).

80 Percentage of Households with 70 Very Low Food Security 60 50 40 36.4 35.9 ■ New-Entrant 31.4 \*\*\* Households 29.6 \*\*\* 30 Six-Month Households 20 10 0 Cross-Sectional Analysis Longitudinal Analysis

Figure 5. Participating in SNAP for Six Months was Associated with a Decrease in the Percentage of Households That had Very Low Food Security

Source:

SNAP Food Security Survey 2012.

Note:

Percentages were regression-adjusted for differences between new-entrant and six-month households in demographic and economic characteristics, current and prior participation in Federal and State programs, and State economies and SNAP policies. Chapter II lists the full set of variables.

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

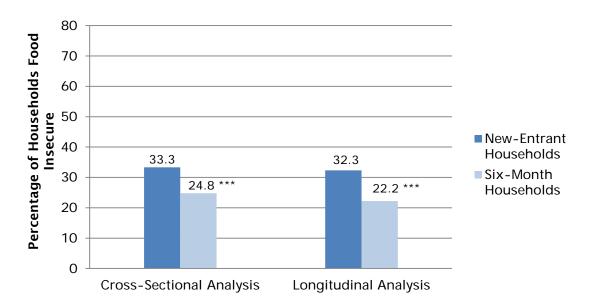
Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

#### c. Associations Between SNAP and Children's Food Security

Participating in SNAP for about six months was associated with a decrease in the percentage of households with children in which children were food insecure by 8.6 percentage points in the cross-sectional sample, from 33.3 percent of new-entrant households to 24.8 percent of six-month households (Figure 6). In the longitudinal sample, SNAP was associated with a decrease in the percentage of households with children in which children were food insecure by 10.1 percentage points, from 32.3 percent of new-entrant households to 22.2 percent of those same households six months later.

Figure 6. Participating in SNAP for Six Months was Associated with a Decrease in the Percentage of Households with Children with Food Insecurity Among Children



Source: SNAP Food Security Survey 2012.

Note:

Percentages were regression-adjusted for differences between new-entrant and six-month households in demographic and economic characteristics, current and prior participation in Federal and State programs, and State economies and SNAP policies. Chapter II lists the full set of variables.

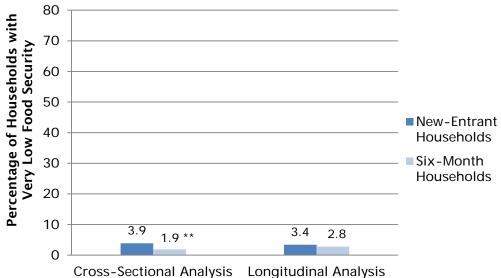
The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 2,796 households with children (1,274 new-entrant households and 1,522 six-month households). Longitudinal estimates are based on a data set with 1,274 new-entrant households with children observed at baseline and 1,295 households with children at follow-up six months later.

\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Participating in SNAP was associated with a decrease in the percentage of households with children in which children experienced very low food security by 2.0 percentage points in the cross-sectional sample, from 3.9 percent of new-entrant households to 1.9 percent of six-month households (Figure 7). There was no statistically significant association in the longitudinal sample.

Figure 7. The Evidence was Mixed as to Whether Participating in SNAP for Six Months was Associated with a Decrease in the Percentage of Households with Children with Very Low Food Security Among Children



Source:

SNAP Food Security Survey 2012.

Note:

Percentages were regression-adjusted for differences between new-entrant and six-month households in demographic and economic characteristics, current and prior participation in Federal and State programs, and State economies and SNAP policies. Chapter II lists the full set of variables.

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 2,796 households with children (1,274 new-entrant households and 1,522 six-month households). Longitudinal estimates are based on a data set with 1,274 new-entrant households with children observed at baseline and 1,295 households with children at follow-up six months later.

\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

#### Associations Between SNAP and Household Food Security, by Subgroup

Estimates of the association between SNAP and household food security for the full survey sample might conceal important differences in associations across subgroups. If an association exists overall, it might be heavily concentrated in, or much larger for, some subgroups. Conversely, if an association does not exist for the entire survey sample of households, it might still exist for some subgroups. Estimates of associations for subgroups can help policymakers identify the households for which the program might be most effective and better target the program or tailor its services. In this report, we focus on subgroups defined by household composition, household income, and SNAP benefit amount.<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> Due to statistical considerations the subgroup analyses should be regarded as exploratory, and the results should be interpreted as suggestive of potential associations between SNAP participation and food security.

We assessed whether SNAP was associated with improved food security for each subgroup. The following summarize these findings:

- Household composition. SNAP was associated with an improvement in food security
  for most household composition subgroups, including households with and without
  children, households without an elderly member, and households with and without a
  disabled member. There were generally no associations for households with an elderly
  member.
- Household income. SNAP was associated with an improvement in food security for most household income subgroups in the longitudinal sample, but only for some households with income below 100 percent of poverty in the cross-sectional sample.
- **SNAP** benefit amount. SNAP was associated with an improvement in food security for most subgroups defined by SNAP benefit amount (as a percentage of the maximum benefit). There were no associations for the lowest benefit amount subgroup in the cross-sectional sample.

The above discussion summarized which associations were statistically significant for each household subgroup. Next, we examine whether the differences across subgroups in the sizes of the estimated associations are statistically significant. We summarize these findings here:

- Household composition. Although the association between SNAP and food security were generally similar for households with and without children as well as for households with and without a disabled member, there were significant differences between households with and without an elderly member.
- **Household income.** The association between SNAP and food security was similar for households with different levels of income as a percentage of the Federal poverty line.
- **SNAP** benefit amount. The association between SNAP and food security differed in general according to the amount of SNAP benefits households received. In both the cross-sectional and longitudinal samples, SNAP was associated with a larger decrease in very low food security for households with large SNAP benefits (exceeding about 80 percent of the maximum benefit for household size). In the cross-sectional sample, SNAP was associated with a larger decrease in food insecurity for households with larger SNAP benefits.

#### e. Summary of the Analysis of Food Security

The study found that participating in SNAP for about six months was associated with an improvement in food security. SNAP was associated with a decrease in both the percentage of households that were food insecure and the percentage of households that experienced very low food security. This generally holds for child food security as well.

We also assessed whether SNAP was associated with improved food security for household demographic and economic subgroups. For the most part, the results are consistent with the findings for the full sample. SNAP was associated with an improvement in food security for most household composition subgroups, including households with and without children, households without an elderly member, and households with and without a disabled member. When subgroups defined by income relative to poverty are examined, the estimated associations between SNAP and

food security vary. Although most reflect improvements in food security, many of the estimated associations are not statistically significant. For SNAP benefit amount subgroups, the estimated associations show significant improvements in food security in the longitudinal sample, but few significant improvements in the cross-sectional sample.

#### 2. Food Spending

The SNAPFS survey asked respondents what they spent on food in the prior week and then asked what they *usually* spent on food in a typical week. Past data on usual expenditures collected using this module have been shown to be consistent with estimates from the Consumer Expenditure Survey, the principal source of data on U.S. household expenditures for goods and services (Nord 2009). Therefore, we focused on usual weekly food expenditures, rather than expenditures the previous week, as our main outcome measure.

#### a. Descriptive Tabulations of Household Food Spending

Simple, descriptive tabulations of the data on household spending variables, with no adjustment for other household characteristics, show that median usual food spending in a typical week was the same for new-entrant and six-month households and equal to \$75 in the cross-sectional and longitudinal samples (Table 1). Usual food expenditures were, on average, 1 percent smaller than the cost of the TFP for new-entrant households and were equal to the cost of the TFP for six-month households in both samples.

Table 1. Median Household Food Spending in Six- Month and New- Entrant SNAP Households, in Absolute Terms and Relative to the Cost of the Thrifty Food Plan

	Cross-Sectional Estimates			Longitudinal Estimates		
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New- Entrant Households (Six-Month Follow-Up)	Difference
Usual Weekly Food Expenditures (in dollars)	75	75	0	75	75	0
Usual Weekly Food Expenditures Relative to the Cost of the Thrifty Food Plan	0.99	1.00	0.01	0.99	1.00	0.01

Source: SNAP Food Security Survey 2012.

Note: The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

compare new SNAP participants to the same participants about six months later.

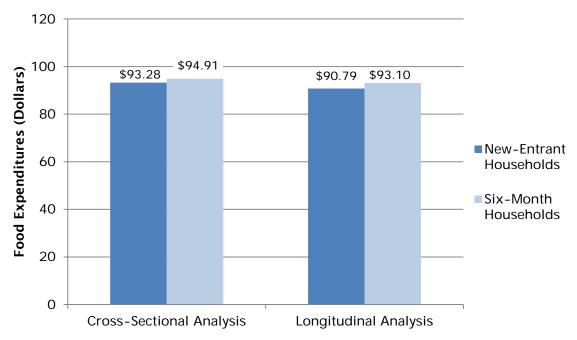
Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

#### b. Associations Between SNAP and Food Spending

Usual food spending was not statistically different for new-entrant and six-month households (Figure 8). Looking at the regression-adjusted spending, in the cross-sectional sample, new-entrant households usually spent \$93.28 per week, and six-month households spent \$94.91. In the

longitudinal sample, new-entrant households spent \$90.79 per week, and six-month households spent \$93.10.

Figure 8. Participating in SNAP for Six Months was Not Associated with a Change in Mean Usual Weekly Household Food Spending



Source:

SNAP Food Security Survey 2012.

Note:

Food expenditures were regression-adjusted for differences between new-entrant and six-month households in demographic and economic characteristics, current and prior participation in Federal and State programs, and State economies and SNAP policies. Chapter II lists the full set of variables.

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later

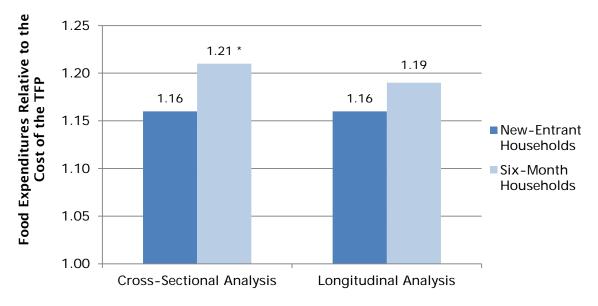
\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Because household food expenditures are highly dependent on household size and composition, we also used an outcome measure that adjusted expenditures for household size and composition: usual weekly household food expenditures relative to the TFP spending amount. SNAP participation was associated with a 5 percentage point increase in usual expenditures relative

<sup>&</sup>lt;sup>6</sup> The TFP was developed by the USDA and serves as a national standard for a nutritious, minimal-cost diet. It represents a set of "market baskets" of food that people in specific age and gender categories could consume at home to maintain a healthful diet that meets current dietary standards, taking into account the food consumption patterns of U.S. households (U.S. Department of Agriculture, Center for Nutrition Policy and Promotion 2007). Thus, the cost of the TFP for a household takes into account the household's size and composition.

to the cost of the TFP in the cross-sectional sample, an increase that was statistically significant at the 0.10 level (Figure 9). In the longitudinal sample, usual weekly spending relative to the TFP was not statistically different for new-entrant households and six-month households.

Figure 9. The Evidence was Mixed as to Whether Participating in SNAP for Six Months was Associated with a Change in Usual Weekly Household Food Spending Relative to the Cost of the TFP



Source: SN.

SNAP Food Security Survey 2012.

Note:

Food expenditures relative to the cost of the TFP were regression-adjusted for differences between new-entrant and six-month households in demographic and economic characteristics, current and prior participation in Federal and State programs, and State economies and SNAP policies. Chapter II lists the full set of variables.

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

At the subgroup level, we found few significant associations between SNAP participation and food expenditures. One notable exception that was consistent across both samples and both outcome measures (usual food expenditures and usual food expenditures relative to the cost of the TFP) was that SNAP was associated with increased food spending and increased food spending relative to the cost of the TFP for households that received large SNAP benefits (exceeding about 85 percent of the maximum benefit for household size). Participating in SNAP was associated with an increase of 18 and 16 percentage points in food spending relative to the cost of the TFP in the cross-sectional and longitudinal samples, respectively, for households with large benefits.

### c. Diagnostic Statistical Tests and Potential Limitations of the Baseline Expenditures Data

The limited evidence of a statistically significant association between SNAP and food expenditures was surprising, as economic theory suggests that, if a household is provided a benefit to be spent on food, then total expenditures on food will increase. To assess the robustness of our findings to alternative estimation methods, we conducted several auxiliary analyses. The results from these analyses were generally consistent with those presented above, providing limited evidence of a significant association between SNAP participation and food expenditures (see Appendix G for details).

A potential explanation for the lack of a strong association between SNAP participation and food expenditures may be the timing of the data collection. For logistical reasons, the baseline interviews for most survey respondents (84 percent) were conducted several days after households received their initial SNAP benefits. While this does not appear to have had a substantial effect on the food security data, which were collected for the 30 days prior to the interview, the timing may have influenced reported expenditures for new-entrant households, which were to report expenditures from the seven days prior to the interview, as well as expenditures in a "typical" week. Because of the strong evidence in the literature that most recipients spend the bulk of their benefits shortly after receiving them, it seems likely that many new-entrant households included food bought with benefits when reporting their expenditures in the previous week. The implication is that food expenditures would not change substantially between the two reporting periods because both reports included food bought with benefits. It is important to note that even for households that spent a substantial fraction of the first month's SNAP benefit, we do not have direct evidence that they have revised their notion of usual monthly food expenditures.

## d. An Alternative Approach to Measuring Associations Between Benefits and Food Expenditures With the Survey Data

Because of the concerns about the data for new-entrant households, we drew on a different approach to analyze food expenditures. Specifically, we used the six-month household survey data from both the cross-sectional and longitudinal samples to examine associations between the amount of SNAP benefits and reported usual expenditures. While this does not allow us to exploit the quasi-experimental design of the study, it does allow us to assess the association between SNAP benefit amounts and reported usual food expenditures for ongoing SNAP cases. This approach reveals whether higher SNAP benefits are associated with higher food expenditures.

Drawing on techniques used extensively in the literature (Fraker 1990; Fox et al. 2004; Boonsaeng et al. 2012), we found that a one-dollar increase in SNAP benefits was associated with a 34- to 48-cent increase in usual food expenditures among six-month households—estimates that are in or around the range in Fraker (1990) of 17 to 47 cents and the range in Fox et al. (2004) of 26 to 40 cents. The findings are statistically significant both in absolute dollars and after normalizing the outcome measure by household size and composition using the cost of the TFP.

#### e. Summary of the Analysis of Food Spending

Under most statistical specifications in the original research design, there was no significant association between participating in SNAP and the amount of money spent on food in a typical week when examining the full sample of households. Although we obtained some statistically

significant findings (for example, in our main model specification in the cross-sectional sample), these findings were not robust to changes in model specification and sample definitions.

There were few significant associations between SNAP participation and food expenditures at the subgroup level. An exception was that participating in SNAP was associated with an increase in food spending and food spending relative to the cost of the TFP for households with large benefits (exceeding about 85 percent of the maximum benefit for household size) in both the cross-sectional and longitudinal samples.

Further analysis of the timing of the baseline data collection suggested that having an unavoidably high fraction of the interviews take place after new-entrant households had already been receiving benefits might have affected the main findings in the food expenditure analysis if households very quickly adjust their notion of "usual" spending after receiving their initial SNAP benefit. Excluding new-entrant households from the analysis in both the cross-sectional and longitudinal samples, we found a positive association between the SNAP benefit amount and food spending among households that had been on SNAP for six months.

#### I. INTRODUCTION

The Supplemental Nutrition Assistance Program (SNAP) provides nutrition assistance benefits to low-income individuals and families in an effort to reduce hunger and improve the health and well-being of low-income people nationwide. Although SNAP has long been one of the largest and most important nutrition assistance programs for low-income households, its significance has grown even larger in recent years as it experienced record-high levels of participation. In Fiscal Year 2012, the program provided benefits to more than 46 million Americans on average per month.<sup>7</sup>

The Food and Nutrition Service (FNS) of the United States Department of Agriculture (USDA), which administers SNAP, targets benefits to the neediest households; poorer households receive greater SNAP benefits than households with more income. To counter rising food prices and provide SNAP participants with enough resources to purchase food, the American Recovery and Reinvestment Act (ARRA), enacted in February 2009, raised the maximum SNAP benefit by 13.6 percent, effective April 2009. Because the benefit amount for all households is determined by reducing the maximum benefit according to each household's income net of certain housing, medical, work, and child care expenses, the benefit allotment for households not receiving the maximum also increased under ARRA. On average, household benefits increased by approximately \$41 under ARRA (Leftin et al 2010). In fiscal year 2011, the average household benefit was \$281.

Policymakers, advocates, and those administering SNAP have long hypothesized that SNAP reduces food insecurity, which is a measure of whether a household experiences food access limitations due to lack of money or other resources. Estimating the effect of SNAP on food insecurity using household survey data has been challenging, however, because of differences between households that participate in SNAP and households that do not—often referred to as selection bias. For example, if more food-needy households are more likely to enroll in SNAP and food insecurity is more prevalent among food-needy households, then initial food insecurity differences between participants and nonparticipants may countervail the ameliorative effects of the program (Nord and Golla 2009). Most research studies, using a variety of data and empirical methods, have attempted to isolate SNAP's effect on food insecurity from the differences between participants and nonparticipants, but the evidence supporting the hypothesis has been mixed.<sup>8</sup>

Mathematica Policy Research conducted the SNAP Food Security (SNAPFS) survey for FNS between October 2011 and September 2012, to assess the effect of SNAP participation on food security and food spending in the post-ARRA environment of higher SNAP allotments. The SNAPFS survey was the largest survey of food security and food spending among SNAP participants to date, with 9,811 households interviewed in 30 States. This report presents the evaluation findings, which are based on a quasi-experimental design intended to minimize selection bias by comparing information collected from SNAP households within days of entering the program and after about six months of participating to implicitly control for factors unrelated to SNAP.

<sup>&</sup>lt;sup>7</sup> Data were obtained from <a href="http://www.fns.usda.gov/pd/SNAPsummary.htm">http://www.fns.usda.gov/pd/SNAPsummary.htm</a>.

<sup>&</sup>lt;sup>8</sup> Recent reviews of the literature of the effects of SNAP on food security can be found in Nord and Golla (2009); Ratcliffe and McKernan (2011); Wilde (2007); and Fox et al. (2004).

## A. Research Objectives and Analytic Approach

The main objectives of this study were to:

- Assess how household food security and food expenditures vary with SNAP participation
- Examine how the relationships between SNAP and food security and between SNAP and food expenditures vary by key household characteristics and circumstances
- Examine in more depth what factors distinguish between food secure and food insecure SNAP households with children

To address the first and second research objectives, we use SNAPFS survey data and two basic comparisons to infer how household food security status and food expenditures vary with SNAP participation. First, using data from October 2011 to February 2012, we compare the food security status (and food spending) of a sample of new SNAP participant households to that of a contemporaneous sample of participant households that have received SNAP for about six months. We refer to this as a cross-sectional analysis. Next, we compare the food security status (and food spending) of the sample of new SNAP participant households selected from October 2011 to February 2012 to that of the same households after they have received benefits for about six months, from April to September 2012. We refer to this as a longitudinal analysis. We estimated the associations between SNAP and food security and between SNAP and food expenditures using multivariate regression models and other econometric models. The details of the analysis are described in more detail in Chapter II and Appendix A.

We addressed the third research objective in a separate component of this study, in which we conducted in-depth qualitative interviews with 90 SNAP households containing children who participated in the SNAPFS survey. The interviews probed more deeply into households' experiences managing their finances, as well as into how SNAP benefits fit into their overall resource and food management. The purpose of this formative, qualitative study was to provide insights into the challenges low-income families face and their coping strategies to purchase all the food they need with limited resources, and to inform the direction of future research on food security, including hypothesis generation and instrument design. The findings from the in-depth interview component of the study are covered in a separate report.<sup>10</sup>

## B. Layout of the Report

In the rest of this report, we discuss the methodology used in the analysis and present findings. Chapter II provides an overview of the study design and the data and methodology used in the

<sup>&</sup>lt;sup>9</sup> The sample of new-entrant households used in both analyses was considerably smaller than the initial survey samples. As discussed in Chapter II, the findings presented in this report are based on analyses in which the sample of new-entrant households was restricted to those that continued to participate six months later, at the time of the follow-up interview. This restriction increased the comparability of new-entrant and six-month households and helped decrease bias in comparing the food security (or food expenditures) of six-month and new-entrant households.

<sup>&</sup>lt;sup>10</sup> See Edin, Kathryn, Melody Boyd, James Mabli, Jim Ohls, Julie Worthington, Sara Greene, Nicholas Redel, and Swetha Sridharan. "SNAP Food Security: In-Depth Interview Study Final Report." Washington DC: Mathematica Policy Research, March 2013.

analysis. In Chapter III, we describe the food security status and food spending, as well as the characteristics and circumstances, of samples of new-entrant and six-month households. Chapters IV and V present the estimates of the associations between SNAP and food security and between SNAP and food expenditures, respectively. Finally, we conclude in Chapter VI by discussing implications for future research.

The appendices of the report provide supporting and additional tables. Appendix A supplements Chapter II with a more detailed discussion of the study design and analysis methodology. Appendix B presents an expanded set of characteristics and circumstances of newentrant and six-month SNAP households from Chapter III. Appendices C, D, and E contain detailed regression findings and sensitivity and subgroup analyses related to food security, and Appendices F and G contain detailed regression findings and sensitivity analyses related to food spending. Appendix H contains sample sizes for subgroups. Appendix I compares the characteristics of new-entrant households that had a follow-up interview with households that did not have a follow-up interview. Finally, Appendix J contains the SNAPFS survey instruments.



## II. DATA AND METHODOLOGY

This chapter describes the study design and data collection methodology underlying the SNAPFS survey. It also describes the outcome measures, analysis methods used to estimate the effect of SNAP on food security and food expenditures, and construction of survey weights.

## A. Study Design

This study compares the food security levels of households that have applied for and been accepted into SNAP, but that are not yet receiving SNAP benefits, to the food security levels of households that have been receiving benefits for several (six to seven) months. This raises the issue of "self-selection": the possibility that members of the two groups being compared may differ in characteristics (such as underlying need) other than the defining characteristic—in this case, SNAP benefit receipt. For example, if households that have been receiving benefits for six months are different from a comparison group that has just entered the program in some unobserved aspect that caused them to remain on the program for six months, the six-month group could possibly have lower food security, making it appear that SNAP decreased food security. This is not just a theoretical possibility. Nord and Golla (2009), in their recent Economic Research Service (ERS) study using nationally representative Current Population Survey (CPS) data, present persuasive evidence that this actually occurs.

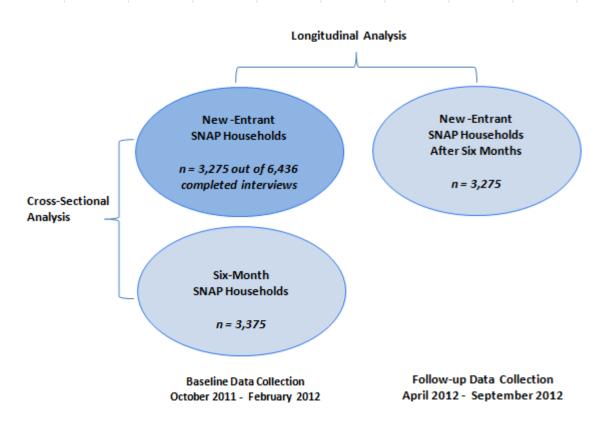
The ideal solution to dealing with the possibility of selection bias is to conduct a "true" experiment, in which a set of households are randomly assigned to SNAP versus non-SNAP status. However, such experimentation is usually impossible in SNAP, which is an entitlement program. Both legal and ethical issues constrain the amount of experimentation that can be done, as discussed at length in Burstein et al. (2005) and Fox et al. (2004).

The study's two research designs seek to solve this problem by replacing a randomized control group with a set of carefully constructed comparison groups and using econometric techniques and analytic controls to account for differences between households that have participated for six to seven months and households that have just entered the program (Figure II.1).<sup>11</sup> The first is a cross-sectional comparison group design that compares an outcome measure at a single point in time across a group of participants who have just entered SNAP (group 1) and a group of participants

<sup>11</sup> Randomized designs that assign households to treatment versus control status represent the gold standard in research methods, because they best enable researchers to make causal inferences about policy effects. However, extensive studies by FNS and private researchers have concluded that the possibilities for randomized experimentation of the impact of SNAP are highly limited because of the size of the program and its role in providing entitlement assistance (Fox et al. 2004). The current study was designed using a carefully developed nonrandom design that seeks to control for observable differences between SNAP new entrants and ongoing participants in order to minimize selection bias. However, there remain some risks that observed associations of variables could be due to differences across households that are not observable. For this reason, we refer to the relationships between SNAP and food security as associations, rather than causal effects. The discussions in Appendices D and G describe the extensive steps taken to address selection bias. While multivariate modeling helps to minimize bias, it does not eliminate it altogether, due to the inability to account for unobservable factors that affect both SNAP participation and food security. These steps include examining multiple dependent variables, using an extensive data set to control for variables associated with both SNAP participation and food security or food expenditures, and using multiple statistical specifications to test the robustness of our findings. While multivariate modeling helps to minimize bias, it does not eliminate it altogether, due to the inability to account for unobservable factors that affect both SNAP participation and food security.

who have participated in SNAP for the previous six to seven months (group 2). The second is a longitudinal comparison group design that compares an outcome measure over time for a set of participants who have just entered SNAP (group 1) and the same set of participants six to seven months later (group 3).

Figure II.1. Study Design



Source: SNAP Food Security Survey 2012.

Note: Sample sizes denote numbers of households that completed the survey. In the analysis, the

sample of new-entrant households was restricted to those households that also completed a follow-up interview six months later in order to improve the comparability between the new-

entrant and six-month households.

By following the same group of households over time, the longitudinal design minimizes the bias associated with self-selection that exists when comparing different households at a point in time (as in the cross-sectional design). However, by evaluating the outcome measure at different points in time, the impact estimate produced in the longitudinal design may be measuring the combined effect of the true program impact and any external factors that changed over time, such as changes in household characteristics or circumstances unrelated to SNAP, or shifts in the economy or the food purchase environment. This confounding is largely avoided in the cross-sectional design, because the outcome measures are evaluated at a single point in time. However, the cross-sectional design is unable to control for unobserved differences between new-entrant and six-month households that might be correlated with the outcomes of interest. Thus, each design has both a distinct strength and a distinct weakness relative to the other. By using a set of econometric models to adjust for observable and (to the extent possible) unobservable differences between groups and changes in external factors over the longitudinal survey period, we seek to address the weaknesses inherent in

each design to obtain the most definitive estimates of the impact of SNAP participation on household food security, although biases may remain.

## B. Data Collection and Response Rates

We drew the sample of SNAP participants in a two-stage process. First, we drew a sample of 30 States, using probability-proportional-to-size (PPS) sampling. We selected States from the 48 contiguous States and the District of Columbia and used the number of SNAP households in each State as the measure of size. Second, we drew samples of participant households from caseload files provided by participating States. Appendix A contains additional details about the sampling methodology.

SNAPFS survey data were collected from October 2011 through September 2012 using computer-assisted telephone interviewing (CATI). Data available for the cross-sectional analysis come from 9,811 SNAP households interviewed from October 2011 through February 2012: 6,436 new-entrant households and 3,375 households that had participated for about six months ("sixmonth" households). Data available for the longitudinal analysis come from the 3,275 households that were interviewed as new-entrant households from October 2011 through February 2012 that were still participating in the program and were interviewed about six months later. These households were interviewed between April and September 2012. As discussed later in this chapter, we restricted the samples of new-entrant households in the analysis to those that were still on the program six months later in order to increase comparability between new-entrant and six-month households. That is, households that continue to participate in SNAP through six months have different characteristics and circumstances than households that leave the program before this time. For example, households without any children, elderly, or disabled members generally stay on SNAP for the shortest time (many of these individuals are subject to time limits on their SNAP participation), whereas elderly-only households and households without earnings generally have longer participation spells (Mabli et al. 2011). The greater degree of similarity between the newentrant and six-month samples obtained by restricting the new-entrant sample in the analysis to those still on SNAP six months later helps to reduce the chance that the association between SNAP and food security reflects some other factor related to both staying on SNAP and a household's food security status. As presented in Appendices D and G, the report's main findings were robust to using the unrestricted sample.

Both surveys were organized and directed by Mathematica. All interviews were completed by CATI using trained interview staff. Households were given a \$2 upfront cash incentive (included in the advance letter) and were offered the incentive of a \$20 gift card to a local store for completing the telephone interview.

To best measure the prevalence and characteristics of food insecure households as they first entered the program, new SNAP households had to be interviewed as soon as possible after SNAP certification but before the household had adjusted its food purchasing and consumption behavior based on its SNAP allotments. Appendix A describes the steps we took to minimize the time between first receipt of benefits and completed interview for new-entrant households. The length of

7

<sup>&</sup>lt;sup>12</sup> We also selected 5 replacement states for a back-up sample to use if some of the originally selected states ultimately chose not to participate. In the end, the sample included 4 replacement states.

the baseline field period for each household was approximately two weeks for new-entrant households and four weeks for six-month households. The start date for each State's field period was staggered, making the interview period for the full set of baseline interviews last from October 2011 to February 2012 and the follow-up interviews with new-entrant households six months later last from April to September 2012. The length of the field period for follow-up interviews with new-entrant households six months later was about six weeks.

Appendix A also summarizes the response rates obtained in the various parts of the data collection. The response rates were 55.7 for the new-entrant households' baseline interview and 55.0 for the six-month sample interviewed at baseline. The response rate for the follow-up interview with the new-entrant sample six months later was 66.6 percent. All response rates were calculated using the American Association for Public Opinion Research (AAPOR) response rate 3 (RR3) formula (American Association for Public Opinion Research 2009). The response rate was lower than anticipated because the State files obtained as sample frames had a much lower incidence of valid, working telephone numbers than expected. Another factor that contributed to the low response rate was the 14-day field period. This is much shorter than most field periods for standard surveys, but was critical in achieving quick turnaround in the survey so that interview responses reflect clients' true baseline situations before entering SNAP or after six months of receiving SNAP benefits. As described in the weighting section of this chapter and in Appendix A, we adjusted survey weights using information obtained through our comprehensive nonresponse analysis to ensure that household nonresponse did not bias the study findings.

## C. Outcome Measures and Explanatory Variables

## 1. Outcome Measures for the Food Security Analyses

The SNAPFS survey included the 18-item food security module used in the Current Population Survey Food Security Supplement (CPS-FSS). As in the CPS-FSS, we administered the 18 core items of the food security module for assessing the food security of households with children and 10 items for households without children. The questionnaire was based on a 30-day recall period.

We defined four outcome measures for the food security analyses:

- 1. Household food insecurity. This is a binary variable indicating whether a household was food insecure. Household food security status can be measured using the 10 adult-referenced items for households without children and the full 18 items (the 10 adult-referenced items plus the 8 child-referenced items) for households with children. In this study, we measured food security using the 10 adult-referenced items for all households to minimize any measurement effects associated with the presence and ages of children (Nord and Golla 2009; Nord and Bickel 2002). Households that affirmed three or more items were classified as food insecure.
- 2. **Household very low food security.** This is a binary variable indicating whether a household experienced very low food security. This variable was measured using the 10-item adult scale of the food security module. Households that affirmed six or more items were classified as having very low food security.
- 3. **Children's food insecurity.** For households with children, this is a binary variable indicating whether children in the household were food insecure. This variable was measured using the 8-item child scale of the food security module (Nord and Bickel

- 2002). Households that affirmed two or more items were classified as having food insecurity among children.
- 4. **Children's very low food security.** For households with children, this is a binary variable indicating whether children in the household experienced very low food security. This variable was measured using the 8-item child scale of the food security module (Nord and Bickel 2002). Households that affirmed five or more items were classified as having very low food security among children.

#### 2. Outcome Measures for the Food Expenditure Analyses

The SNAPFS survey included the food expenditure module used in the CPS-FSS.<sup>13</sup> The module first asked the respondent about the places where he or she bought food "last week." Possible locations included supermarket or grocery store; meat market, produce stand, bakery, warehouse club, or convenience store; restaurant, fast-food restaurant, cafeteria, or vending machine; and "any other place." Next, the respondent was asked how much the household spent last week for each set of store types from which the respondent reported purchasing food. As in the CPS-FSS, the respondent was asked to include purchases made with SNAP benefits. The computer interviewing system calculated the total amount spent on food, and the interviewer confirmed with the respondent last week's total food expenditures. Finally, the interviewer asked the respondent how much the household *usually* spends on food in a week.

We used usual weekly food expenditures, rather than expenditures last week, as our main outcome measure, because research has shown that usual food expenditures estimated from data collected using this module were consistent with estimates from the Consumer Expenditure Survey—the principal source of data on U.S. household expenditures for goods and services (Oliveira and Rose 1996; Nord 2009). This approach is also consistent with the ERS's annual Household Food Security report (Coleman-Jensen et al. 2011).

We used two outcome measures of food expenditures. The first was "unadjusted" usual weekly household food expenditures. Because household food expenditures are highly dependent on household size and composition, we included measures of household size and composition among the set of explanatory variables used in the regression. The second outcome measure adjusted expenditures for household size and composition: usual weekly household food expenditures relative to the Thrifty Food Plan (TFP) spending amount. We calculated this value by dividing each household's usual weekly food expenditures by the estimated cost of the TFP for that household in the interview month. The TFP was developed by the USDA and serves as a national standard for a nutritious, minimal-cost diet. It represents a set of "market baskets" of food that people in specific age and gender categories could consume at home to maintain a healthful diet that meets current dietary standards, taking into account the food consumption patterns of U.S. households (U.S. Department of Agriculture, Center for Nutrition Policy and Promotion 2007). The cost of the TFP

The CPS-FSS instrument can be found at (<a href="http://www.ers.usda.gov/datafiles/Food">http://www.ers.usda.gov/datafiles/Food</a> Security in the United States/Current Population Survey/2011/qn2011.pdf ).

<sup>&</sup>lt;sup>14</sup> For the first two categories of stores, respondents were also asked how much they spent on nonfood items (pet food, paper products, alcohol, detergents, or cleaning supplies). We excluded this amount from the total food spending amount.

for a household depends on the number of household members and the age and gender of each person. In addition to adjusting the usual weekly food spending amount by household size and composition, the TFP spending amount adjusts for inflation in food prices. This approach is important mostly in the longitudinal analysis, when comparing food expenditures from April to September 2012 to expenditures that took place from October 2011 to February 2012.<sup>15</sup>

#### 3. Explanatory Variables

The regression models for the food security and food expenditure analyses included the following set of explanatory variables measuring household characteristics and circumstances: 16 17

- Gender of household head
- Race and ethnicity of household head
- Highest grade completed by household head
- Employment status of household head
- Depression status of household head
- Household income-to-poverty ratio
- Household size
- Household composition
- Prior SNAP participation status
- Participation in Federal or State programs
- Changes in household size, housing status, employment, pay, or hours worked
- Region of residence
- State wage and unemployment rate
- State SNAP policies

<sup>15</sup> From October 2011 to July 2012 (the most currently available TFP data), the cost of the TFP for a family of four (two adults ages 19 to 50, one child age 2 to 3, and a second child age 4 to 5) increased by 0.6 percent, from \$125.40 to \$126.20.

<sup>&</sup>lt;sup>16</sup> The survey defined "household" as "the people who live with the respondent and share food with the respondent, including babies, small children, and people who are not related to the respondent." Some of the analysis variables measure a characteristic or circumstance for the "household head." This was the interview respondent who affirmed that (1) he or she was the person who did most of the planning or preparing of meals in his or her family, or (2) he or she was the adult in the household who did most of the shopping for food in his or her family.

<sup>&</sup>lt;sup>17</sup> There were two possible ways to define employment: (1) using employment of the household head, or (2) using employment of all household members. The data used for the first definition are likely more accurate than the data used for the second definition because the household head was sometimes the interview respondent, but the first definition does not portray the full story of employment status for each household, as the second definition does. We used the first definition in the regression analysis; we also conducted a sensitivity analysis in which we used the second definition, and the results were unchanged.

In Appendix A, we describe how these variables were constructed.

## D. Analysis Methods

We used descriptive, tabular analysis to examine the composition of the groups of new-entrant and six-month households, as well as to present summary statistics of the outcome measures of food security status and food expenditures used in the multivariate analysis. Next, we used multivariate regression analysis to estimate the association between SNAP and household food security and food expenditures while accounting for compositional and other differences between new-entrant and six-month households. All analyses were weighted.

## 1. Multivariate Analysis of Food Security

Although comparing food insecurity rates across groups using descriptive, tabular analysis provides valuable information about how the outcome measure differs across groups, multivariate regression analyses are needed to account for compositional differences across groups that might bias the associations between SNAP and food security. In particular, many household characteristics may be correlated with both continuing to participate in the SNAP program through six months and a household's food insecurity status. To help address this concern, we used logistic regression analysis to estimate the association between SNAP and food security. Participation in SNAP was denoted using a binary variable equal to 1 if the household had been participating in SNAP for about six months and equal to 0 if the household had just entered SNAP. We present estimates measuring the association on both the logistic and percentage. The latter enable us to calculate the difference between new-entrant and six-month households in the percentage that are food insecure. Appendix A discusses the step-by-step procedure used for obtaining regression-adjusted percentages of households that are food insecure.

The main sample for the longitudinal analysis consisted of the new-entrant households interviewed from October 2011 to February 2012 that responded to the follow-up interview approximately six months later, from April to September 2012. This is a balanced sample in that all households contributed the same number of observations (two) to the data file. The outcome measures were the same in the longitudinal and cross-sectional analysis, as were the set of explanatory variables.

#### 2. Multivariate Analysis of Food Expenditures

The methodology used to estimate the association between SNAP and household food expenditures closely resembled the methodology used to estimate the association between SNAP and household food security. Because both expenditure variables are continuous, we used ordinary least squares regression analysis to estimate the association between SNAP and each outcome measure. The main independent variable and the set of explanatory variables were identical to those used in the food security regressions.

<sup>&</sup>lt;sup>18</sup> Although multivariate modeling helps minimize bias, it does not eliminate it completely, due to the inability to account for unobservable factors that affect both SNAP participation and food security.

#### 3. Standard Errors

Standard errors were estimated using a variance estimator based on a first-order Taylor series approximation. We accounted for the complex survey design of the SNAPFS survey when estimating standard errors.<sup>19</sup> As an approximation, the standard errors in the regression estimates based on the longitudinal sample do not account for multiple observations per household.<sup>20</sup>

#### 4. Subgroup Analysis

In addition to estimating the association between SNAP and food security and spending using the full sample of households, we estimated the regressions described above for several subgroups, such as households with children; households in which the household head was employed full-time, part-time, or not employed; households that received benefits of various amounts; and households that participated in other food assistance and nutrition programs. Selected subgroup results are presented in Chapters IV and V, and a full list of subgroups examined is in Appendix A.<sup>21</sup>

## E. Weight Construction

We used sampling weights for all analyses to account for the complex survey design and for the possibility that some groups in the study population may have been over- or underrepresented. Sampling weights were constructed to correct for differences in households' selection probabilities and propensities to respond. These weights restored the distribution of the responding sample to the same proportions as the frame of SNAP participant households from which it was drawn.

Different sets of weights were constructed for the cross-sectional and longitudinal analyses described above. Weights were also constructed separately for the samples of new-entrant and sixmonth households.

As described in detail in Appendix A, the weights are the products of several weighting factors that fall into three groups:

- 1. State-level selection and replacement of noncooperating States
- 2. Adjustments for selection probabilities within sampled States
- 3. Nonresponse adjustments at the household level

Based on weighted data, the findings in this study are nationally representative of new-entrant and six-month SNAP households at the time of the baseline interviews. The findings are not representative of all SNAP households.

<sup>&</sup>lt;sup>19</sup> We used the Stata software's "svy" commands.

<sup>&</sup>lt;sup>20</sup> The findings presented in the main text of the report were robust to a sensitivity analysis that estimated a fixed effects model that controls for time-invariant factors when estimating the association between SNAP and food security.

<sup>&</sup>lt;sup>21</sup> There are statistical risks associated with extensive subgroup analysis due to the substantial likelihood—often a near certainty—that spurious results are obtained. As we discuss in greater detail in Chapter IV, we attempt to strike a compromise between the need for subgroup analysis and the attendant statistical risks by highlighting findings from three sets of important subgroups in the text of the report and reporting results for additional subgroups in appendix tables to allow additional exploratory analysis, as desired.

#### F. Limitations

Several limitations are important to consider when interpreting the report's findings:

- New-entrant household definitions. We identified new-entrant households using SNAP caseload files provided by State SNAP agencies. Among the sample of new-entrant households selected from these files, households that reported to interviewers that they had participated in SNAP within in the past three months were classified as being ineligible to participate in the survey. Thus, the new-entrant sample is not representative of all SNAP entrants. Households that were excluded consist of those who may have had short-term gaps in participation and were thus not necessarily "new" to SNAP.
- **Response rates.** The response rate was lower than expected. Although a nonresponse analysis was conducted and survey weights were adjusted for nonresponse at the household level, nonresponse bias may exist. That is, the samples may not be fully representative of the populations from which they were drawn.
- The date of the interview in relation to date of the receipt of SNAP benefits. Ideally, all new-entrants households would have been interviewed before receiving SNAP benefits. For logistical reasons, however, the baseline interviews for most survey respondents (84 percent) were conducted several days after households received their SNAP benefits, with most being interviewed within two weeks. Some new-entrant respondents may have reported food security and/or food spending information pertaining to the time period just after receipt of benefits, which may bias the association between SNAP and food security (or food spending). As presented in greater detail in Appendix D, we do not believe this to be the case for food security, as the food security index essentially identifies the worst conditions that a household has experienced in the previous 30 days. Nonetheless, report findings should be interpreted with this potential bias in mind.
- Interpretation of expenditure questions. As discussed in Chapter V and in greater detail in Appendix G, the unavoidably high fraction of the baseline interviews that took place after new-entrant households had already been receiving benefits might have affected the main findings in the food expenditure analysis if households very quickly adjust their notion of "usual" spending after receiving their initial SNAP benefit.



#### III. CHARACTERISTICS AND CIRCUMSTANCES OF SNAP HOUSEHOLDS

In this chapter, we use tabular methods to examine the characteristics of SNAP participants in the study, including both new-entrant and six-month households. This is important background information for the more formal multivariate analysis of how food security and food expenditures vary with SNAP participation presented in Chapters IV and V.

We have structured each table similarly throughout the chapter to focus on possible differences between analysis samples. The tables begin with a set of columns that present descriptive statistics for the data used for the cross-sectional estimates. We first present characteristics of new-entrant SNAP households, compared to a contemporaneous set of participants who have been receiving SNAP benefits for about six months. These households were interviewed from October 2011 to February 2012. The second set of columns presents longitudinal estimates that compare the characteristics of households that were new entrants in the baseline interview to the characteristics of those same households about six months later, from April through September 2012. All statistics in this chapter are descriptive and have not been regression-adjusted.

The tables restrict the sample of new-entrant households to those that continued to participate six months later, at the time of the follow-up interview. All estimates are weighted.

Because our purpose here is largely descriptive, we do not report significance tests for differences between the estimates for new-entrant and six-month households. However, in subsequent chapters where the focus is on hypothesis testing, information on statistical significance is fully reported.

## A. Food Security Status of Six- Month and New- Entrant Households

We begin with simple tabulations of the data on key outcome variables, with no adjustment for other household characteristics. These tabulations show that six-month households are less likely than new-entrant households to be food insecure or experience very low food security.

The percentages of new-entrant and six-month households that were food insecure in the cross-sectional sample were 65.5 and 58.7 percent, respectively—a -6.7 percentage point difference (Figure III.1). Similarly, in the longitudinal sample, the percentages of new-entrant households and those same households six months later that were food insecure were 65.5 and 52.8 percent, respectively—a 12.7 percentage point decrease.

The percentage of households with very low food security was also smaller for six-month households than for new-entrant households. The percentages of new-entrant and six-month households that had very low food security in the cross-sectional sample were 39.4 and 32.0 percent, respectively—a -7.4 percentage point difference. The analogous percentages in the longitudinal sample were 39.4 and 30.4 percent, respectively—a 9.0 percentage point decrease.

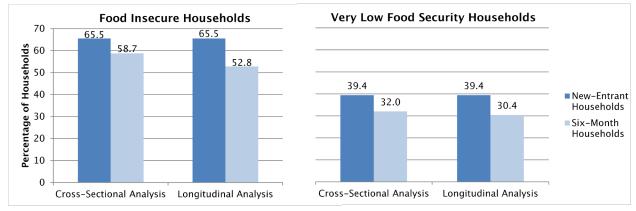


Figure III.1. Household Food Security Status in New- Entrant and Six- Month SNAP Households

Note: The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

compare new start participants to the same participants about six months fater.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

# B. Food Security Status of Children in Six-Month and New-Entrant Households with Children

When only households with children are considered, six-month households had a smaller percentage of households that were food insecure than new-entrant households in both the cross-sectional and longitudinal samples. In the cross-sectional sample, the percentage of households with children in which children were food insecure was 37.0 percent for new-entrant households and 27.1 percent for six-month households—a difference of -9.9 percentage points (Figure III.2). Similarly, in the longitudinal sample, the percentages were 37.0 and 24.1 percent, respectively—a 12.9 percentage point decrease.

In the cross-sectional sample, the percentage of households with children in which children had very low food security was 6.8 percent for new-entrant households and 4.0 percent for six-month households—a difference of -2.8 percentage points. In the longitudinal sample, the percentages were 6.8 and 4.7 percent, respectively—a 2.1 percentage-point decrease.

Food Insecure Households **Very Low Food Security Households** 50 37.0 37.0 27.1 24.1 ■ New-Entrant Households Six-Month Households 6.8 6.8 4.7 4.0 5 0 Cross-Sectional Analysis Longitudinal Analysis Cross-Sectional Analysis Longitudinal Analysis

Figure III.2. Children's Food Security Status in New-Entrant and Six-Month SNAP Households with Children

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 2,796 households with children (1,274 new-entrant households and 1,522 six-month households). Longitudinal estimates are based on a data set with 1,274 new-entrant households with children observed at baseline and 1,295 households with children observed at follow-up six months later.

## C. Food Spending of Six- Month and New- Entrant Households

As discussed in Chapter II, the SNAPFS survey asked respondents what they actually spent on food last week and then asked what they *usually* spent on food in a typical week. Past data on usual expenditures collected using this module have been shown to be consistent with estimates from the Consumer Expenditure Survey, the principal source of data on U.S. household expenditures for goods and services (Nord 2009). Therefore, we focus on usual weekly food expenditures, rather than expenditures the previous week, as our main outcome measure. As a starting point for our analysis, however, we descriptively examine both expenditures last week and usual weekly expenditures. We focus our descriptive analysis of the data largely on medians because the median is less sensitive than the mean to outliers in the distribution.

Median usual food spending in a typical week was the same for new-entrant and six-month households and equal to \$75 in the cross-sectional and longitudinal samples. The median actual expenditure in the week before the interview was \$80 for new-entrant households and \$75 for six-month households in both the cross-sectional and longitudinal samples (Table III.1).<sup>22</sup> These findings are somewhat counterintuitive, because economic theory suggests that if a household is provided a benefit to be spent on food, total expenditures on food will increase. We discuss this issue further in Chapter V.

<sup>&</sup>lt;sup>22</sup> The findings were similar when the mean was used in place of the median.

Table III.1. Median Household Food Spending in Six- Month and New- Entrant SNAP Households, in Absolute Terms and Normalized by the Cost of the TFP

	Cross-	Cross-Sectional Analysis			Longitudinal Analysis			
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New- Entrant Households (Six-Month Follow-Up)	Difference		
Usual Weekly Food Expenditures (in dollars)	75	75	0	75	75	0		
Last Week's Food Expenditures (in dollars)	80	75	-5	80	75	-5		
Usual Weekly Food Expenditures Relative to TFP	0.99	1.00	0.01	0.99	1.00	0.01		
Last Week's Food Expenditures Relative to TFP	1.05	0.96	-0.09	1.05	1.00	-0.05		

Source:

SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

## D. Explanatory Variables Used in Multivariate Analysis

Here, we describe the characteristics and circumstances of new-entrant and six-month households that were used as explanatory variables in the multivariate analysis, for both the cross-sectional and longitudinal samples.

We begin by examining characteristics of the survey respondents. Next, we present an overview of substantial differences between new-entrant and six-month households, where "substantial" differences are defined, arbitrarily, as differences of 5 percentage points or more.

#### 1. Characteristics of Survey Respondents

**Demographics.** Nearly two-thirds of SNAP households in our samples were female-headed (Table III.2). Nearly 50 percent of household heads were non-Hispanic white, about a quarter were non-Hispanic black, and another quarter were Hispanic. About 50 percent were between ages 25 and 49. About a quarter of household heads had less than a high school diploma, and roughly one-third had completed high school but not gone beyond high school.

Household size and composition. In all three samples, most sample members lived in oneor two-person households. Just over one-third of households were single-person households, 24 to 28 percent had two members, 17 to 20 percent had three members, and 20 to 23 percent had four or more members (Table III.2). About 41 to 46 percent of households had children, 11 to 12 percent had an elderly member, and 27 to 34 percent had a disabled member.

Table III.2. Demographic Characteristics, Household Size, and Composition of Six- Month and New-Entrant SNAP Households

	Cross-	Sectional Ana	ılysis	Longitudinal Analysis		
	Percentage of New-Entrant Households (Baseline)		Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New- Entrant Households (Six-Month Follow-Up)	Difference
Household Head Is Female	64	66	2	64	64	0
Race and Ethnicity of Household Head						
Non-Hispanic, white	47	50	3	47	46	-1
Non-Hispanic, black	26	25	-1	26	26	0
Non-Hispanic, other	7	8	1	7	7	0
Hispanic	23	22	-1	23	24	1
Age of Household Head						
18 to 24	20	20	0	20	20	0
25 to 49	52	54	2	52	54	2
50 to 64	21	20	-1	21	20	-1
65 or older	7	6	-1	7	6	-1
Highest Grade Completed of Household Head						
Less than high school	23	23	0	23	23	0
High school graduate (diploma or GED)	33	31	-2	33	33	0
Some college, but no degree	36	39	3	36	36	0
College and beyond	9	7	-2	9	8	-1
Household Size						
1 Person	38	33	-5	38	36	-2
2 Person	25	24	-1	25	28	3
3 Person	18	20	2	18	17	-1
4 Person	10	12	2	10	10	0
5 Person	6	7	1	6	6	0
6+ Person	4	4	0	4	4	0
Households with Children	41	46	5	41	42	1
Households with Elderly	12	12	0	12	11	-1
Households with a Disabled Member	32	34	2	32	27	-5

Source: SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Tabulations are based on the following overall sample sizes: 3,275 new-entrant households and 3,375 six-month households in the cross-sectional sample; and 3,275 new-entrant households observed at baseline and again at follow-up six months later in the longitudinal sample. Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions.

**Employment status and income.** A substantial majority of households in each sample had very limited income resources. About 73 to 79 percent of households had heads who were not employed (Table III.3). About 20 to 25 percent of households had no income, 24 to 27 percent had some income but were below 50 percent of the poverty line, and 12 to 15 percent had income above 130 percent of the poverty line. As Table III.3 shows, 20 to 24 percent of the households received Social Security income, 9 to 10 percent received unemployment insurance, and 9 to 10 percent received SSI.

Table III.3. Employment Status, Monthly Income as Percentage of the Poverty Line, and Income Sources of Six- Month and New- Entrant SNAP Households

	Cross-	Sectional Ana	alysis	Longitudinal Analysis			
	Percentage o New-Entrant Households (Baseline)		Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New- Entrant Households (Six-Month Follow-Up)	Difference	
Employment Status of Household Head							
Employed full-time	12	18	6	12	18	6	
Employed part-time	9	9	0	9	10	1	
Not employed	79	73	-6	79	73	-6	
Monthly Income as a Percentage of the Poverty Line							
No income	25	20	-5	25	20	-5	
1 to 50%	27	24	-3	27	25	-2	
51 to 100%	28	32	4	28	31	3	
101 to 130%	7	9	2	7	8	1	
More than 130%	12	15	3	12	15	3	
Percentage of Households with Income Type							
TANF	3	5	2	3	4	1	
Other welfare such as General Assistance	2	3	1	2	3	1	
Social Security	21	24	3	21	20	-1	
SSI or Supplemental Security Income	9	10	1	9	9	0	
Unemployment insurance or workers' compensation benefits	10	9	-1	10	9	-1	

Source: SNAP Food Security Survey 2012.

Note: The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Tabulations are based on the following overall sample sizes: 3,275 new-entrant households and 3,375 six-month households in the cross-sectional sample; and 3,275 new-entrant households observed at baseline and again at follow-up six months later in the longitudinal sample. Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions.

Changes in household size, housing status, and employment, pay, or hours worked. Past research has suggested that changes in household structure or economic circumstances (often called "trigger events") frequently precede entry into assistance programs. Consistent with this, 21 percent of new-entrant households had experienced a change in household size in the past six months, 5 percent were evicted from their house or apartment in the past six months, and 39 percent experienced a change in employment, pay, or hours worked (Table III.4).

**Prior SNAP participation.** Across all the samples, 48 to 49 percent of households participated in SNAP before their current enrollment (Table III.4).

Table III.4. Prior SNAP Participation and Changes in Household Size, Housing Status, or Employment, Pay, or Hours Worked in Past Six Months Experienced by Six-Month and New-Entrant SNAP Households

	Cross-	Cross-Sectional Analysis			Longitudinal Analysis			
	Percentage of New-Entrant Households (Baseline)	of Six-	Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New- Entrant Households (Six-Month Follow-Up)	Difference		
Prior SNAP Participation	49	48	-1	49	n.a.	n.a.		
In Past 6 Months, Experienced Change in Household Size	21	14	-7	21	16	-5		
Eviction from House or Apartment	5	3	-2	5	3	-2		
Change in Employment, Pay, or Hours Worked	39	26	-13	39	20	-19		

Source: SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Because respondents may experience more than one trigger event, percentages for aggregate categories such as "any trigger" may not equal the sum of the percentages for the component categories.

Tabulations are based on the following overall sample sizes: 3,275 new-entrant households and 3,375 six-month households in the cross-sectional sample; and 3,275 new-entrant households observed at baseline and again at follow-up six months later in the longitudinal sample. Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions.

**Well-Being.** Between 72 and 80 percent of households reported feeling depressed in the past 30 days (Table III.5).

Language of interview. Ninety percent of interviews were conducted in English (Table III.5).

Table III.5. Well-Being, Language of Interview, and Region of Residence of Six-Month and New-Entrant SNAP Households

	Cross-	Sectional Ana	alysis	Longitudinal Analysis			
	Percentage of New-Entrant Households (Baseline)		Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New-Entrant Households (Six-Month Follow-Up)	Difference	
Household Head Felt Depressed in Past 30 Days	80	77	-3	80	72	-6	
Interview Conducted in English Language	90	91	1	90	90	0	
Region of Residence Northeast	13	12	-1	13	13	0	
Mid-Atlantic	7	14	- I 7	7	7	0	
Midwest	13	18	5	13	13	0	
Southeast	25	17	-8	25	25	0	
Southwest	12	11	-1	12	12	0	
Mountain Plains	6	6	0	6	6	0	
West	24	23	-1	24	24	0	

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Tabulations are based on the following overall sample sizes: 3,275 new-entrant households and 3,375 six-month households in the cross-sectional sample; and 3,275 new-entrant households observed at baseline and again at follow-up six months later in the longitudinal sample. Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions.

**State characteristics.** Across all the samples, the State's 25th percentile hourly wage was 11 dollars, the State unemployment rate was 9 percent, and the average State SNAP certification period was 12 months. Across all samples, 89 percent of households lived in a State that offered broadbased categorical eligibility for SNAP (Table III.6).

Table III.6. Mean State Characteristics Associated with Six- Month and New- Entrant SNAP Households

	Cross-S	Cross-Sectional Analysis			Longitudinal Analysis			
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New- Entrant Households (Six-Month Follow-Up)	Difference		
State 25th Percentile Wage	\$11	\$11	0	\$11	\$11	0		
State Unemployment Rate	9%	9%	0	9%	9%	0		
Percentage of Households Residing in States that Offer Broad-Based Categorical Eligibility for SNAP	89%	89%	0	89%	89%	0		
Average State SNAP Certification Period	12 months	12 months	0	12 months	12 months	0		

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Tabulations are based on the following overall sample sizes: 3,275 new-entrant households and 3,375 six-month households in the cross-sectional sample; and 3,275 new-entrant households observed at baseline and again at follow-up six months later in the longitudinal sample. Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions.

## 2. Overview of Differences Between New Entrants and Each of the Two Samples of Six-Month Households

Much of the analysis in subsequent chapters involves comparisons (in a multivariate context) between new-entrant and six-month households in the cross-sectional and longitudinal samples. Because of this focus on comparisons, it is useful to highlight which variables in the tables we have reviewed show substantial differences in one or both of these comparisons. The following variables have differences of at least five percentage points:

- **Household composition.** In the cross-sectional sample, new-entrant households were more likely to have only one person and less likely to have children. In the longitudinal sample, new-entrant households were more likely to have a disabled member (Table III.2).
- Employment status and income. The percentage of new-entrant household heads who were not employed was 6 percentage points higher than the percentage of sixmonth households (79 versus 73 percent) in both samples (Table III.3). In addition, the percentage of new-entrant households with zero income was 5 percentage points higher than the percentage of six-month households (25 versus 20 percent) in both samples.
- Changes in household size and employment, pay, or hours worked. For both a change in household size and a change in employment, pay, or hours worked the incidence of these occurrences is higher among new-entrant households than among six-month households, and the sizes of differences are larger than for most of the other variables we have discussed (Table III.4)

- Reported depression. In the longitudinal sample, new-entrant households were more likely than six-month households to report being depressed in the past 30 days (Table III.5).
- **Region.** In the cross-sectional sample, a lower percentage of new-entrant households than six-month households reside in Mid-Atlantic and Midwestern States, and a higher percentage reside in Southeastern States (Table III.5).

#### IV. SNAP AND HOUSEHOLD FOOD SECURITY

While the descriptive tabulations of the prevalence of food insecurity in the previous chapter show the total change in food security status due to SNAP participation *as well as* non-SNAP changes in household characteristics and circumstances, regression analysis that accounts for observed differences between new-entrant and six-month households was used to estimate the change in food security status associated with SNAP participation only. We refer to these findings as "regression-adjusted" in the figures and tables below.<sup>23</sup>

This chapter describes the findings for the estimates of the associations between SNAP and household food security. In Section A, we present findings from multivariate analyses that assess how food insecurity and very low food security vary with SNAP participation. In Section B, we present the findings for children's food insecurity and very low food security. Finally, in Section C, we present the results of repeating the multivariate analysis on selected subgroups of the sample, based on household composition, household income, and SNAP benefit amount.

## A. Associations Between SNAP and Household Food Security

Participating in SNAP for about six months was associated with a decrease in the percentage of households that were food insecure by 4.6 percentage points in the cross-sectional sample.<sup>24</sup> The reduction was from 65.4 percent of new-entrant households to 60.8 percent of six-month households (Figure IV.1). In the longitudinal sample, SNAP was associated with a decrease in the percentage of households that were food insecure by 10.6 percentage points, from 65.1 percent of new-entrant households to 54.5 percent of those same households six months later.<sup>25</sup>

<sup>&</sup>lt;sup>23</sup> The set of explanatory variables included in the regression models is presented in Chapter II.

<sup>&</sup>lt;sup>24</sup> An important limitation in the analysis is that it was not feasible to use randomized assignment of SNAP participants. For this reason, we refer to the relationships between SNAP and food security as associations, rather than causal effects. These issues are discussed in detail in Chapter II.

<sup>&</sup>lt;sup>25</sup> Although the same set of new-entrant households are used in the cross-sectional and longitudinal analyses, the regression-adjusted percentages of food insecure new-entrant households differ across the two analyses, because they are generated using model parameters specific to the samples being examined.

80 65.4 65.1 70 Percentage of Households Food (1.0)(1.0)8.06 (1.0)54.5\*\* 60 (1.0)50 Insecure New-Entrant 40 Households Six-Month 30 Households 20 10 0 Longitudinal Analysis Cross-Sectional Analysis

Figure IV.1. Participating in SNAP for Six Months was Associated with a Decrease in the Percentage of Households That Were Food Insecure

Source: SNAP Food

SNAP Food Security Survey 2012.

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C. Standard errors in parentheses.

The cross-sectional estimates compare the sample of 3,275 new SNAP participants to the sample of 3,375 participants who had been receiving SNAP for about six months as of the baseline data collection. The longitudinal estimates compare the 3,275 new SNAP participants at baseline to the same 3,275 participants about six months later.

\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

SNAP participation was also associated with a reduction in the percentage of households that were food insecure with very low food security. Participating in SNAP for about six months was associated with a decrease in the percentage of households that experienced very low food security of 5.0 percentage points in the cross-sectional sample, from 36.4 percent of new-entrant households to 31.4 percent of six-month households, and of 6.3 percentage points in the longitudinal sample, from 35.9 to 29.6 percent (Figure IV.2).<sup>26</sup>

<sup>&</sup>lt;sup>26</sup> As presented in Appendix D, we found the food insecurity and very low food security results to be robust with respect to more restricted samples, different model specifications, and controlling for time since receipt of benefits. It was also robust to using the unrestricted sample of new-entrant households, which includes the new-entrant households that did not have a follow-up interview.

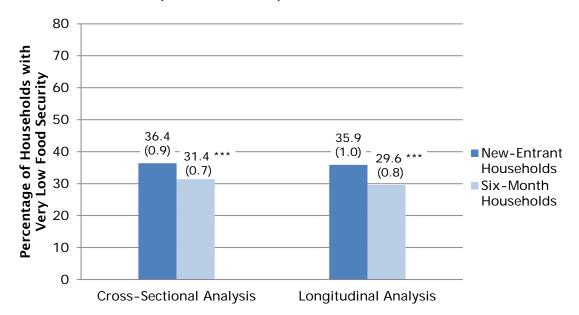


Figure IV.2. Participating in SNAP for Six Months was Associated with a Decrease in the Percentage of Households That had Very Low Food Security

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C. Standard errors in parentheses.

The cross-sectional estimates compare the sample of 3,275 new SNAP participants to the sample of 3,375 participants who had been receiving SNAP for about six months as of the baseline data collection. The longitudinal estimates compare the 3,275 new SNAP participants at baseline to the same 3,275 participants about six months later.

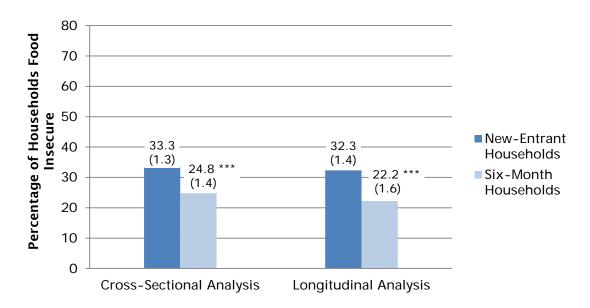
\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

# B. Associations Between SNAP and Children's Food Security

Participating in SNAP for about six months was associated with a decrease in the percentage of households with children in which children were food insecure by 8.5 percentage points in the cross-sectional sample, from 33.3 percent of new-entrant households to 24.8 percent of six-month households (Figure IV.3).<sup>27</sup> In the longitudinal sample, the decrease was 10.1 percentage points.

<sup>&</sup>lt;sup>27</sup> Children's food security is based on the 8-item child scale of the food security module (Nord and Bickel 2002). See Chapter II and Appendix A for details.

Figure IV.3. Participating in SNAP for Six Months was Associated with a Decrease in the Percentage of Households with Children with Food Insecurity Among Children



Note:

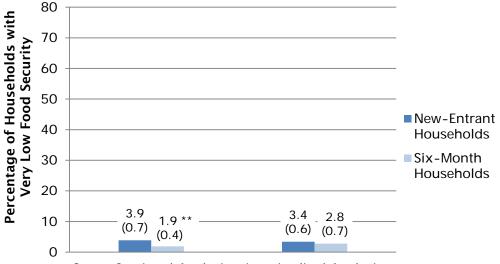
Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C. Standard errors in parentheses.

Cross-sectional estimates are based on a data set with 2,796 households with children (1,274 new-entrant households and 1,522 six-month households). Longitudinal estimates are based on a data set with 1,274 new-entrant households with children observed at baseline and 1,295 households with children observed at follow-up six months later.

\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Participating in SNAP was associated with a decrease in the percentage of households with children in which children experienced very low food security by 2.0 percentage points in the cross-sectional sample, from 3.9 percent of new-entrant households to 1.9 percent of six-month households (Figure IV.4). There was no statistically significant association in the longitudinal sample.

Figure IV.4. The Evidence was Mixed as to Whether Participating in SNAP for Six Months was Associated with a Decrease in the Percentage of Households with Children with Very Low Food Security Among Children



Cross-Sectional Analysis Longitudinal Analysis

Source: SNAP Food Security Survey 2012.

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C. Standard errors in parentheses.

Cross-sectional estimates are based on a data set with 2,796 households with children (1,274 new-entrant households and 1,522 six-month households). Longitudinal estimates are based on a data set with 1,274 new-entrant households with children observed at baseline and 1,295 households with children observed at follow-up six months later.

\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

## C. Associations Between SNAP and Household Food Security, by Subgroup

Estimates of the association between SNAP and household food security for the full study sample might conceal important differences in associations across subgroups. If an association exists overall, it might be heavily concentrated in, or could be much larger for, some subgroups. Conversely, if an association does not exist for the entire sample of households, it might still exist for some subgroups. Estimates of associations for subgroups can help policymakers identify the households for which the program might be most effective and better target the program or tailor its services.<sup>28</sup>

<sup>&</sup>lt;sup>28</sup> Despite its clear importance, there are statistical risks associated with extensive subgroup analysis. Deriving estimates for substantial numbers of subgroups entails a risk that "statistically significant" relationships will spuriously be found. This can happen because conducting many standard statistical tests on large numbers of subgroups implies that some significant results are likely to be found at random in the data, even if the relationships of interest are not actually present in the population. We attempt to strike a compromise between the need for subgroup analysis and the attendant statistical risks by highlighting findings from three sets of important subgroups: (1) household composition variables, (2) household income, and (3) household SNAP benefit levels. We report results for additional subgroups in Appendix E

## 1. Differences in Associations, by Household Composition

In this and the following sections, we present two types of analyses. First, we assess whether the individual subgroups follow patterns that are broadly consistent with the full-sample household food security findings reported in the previous section. This essentially determines whether SNAP was associated with improved food security for each subgroup. Second, we assess whether the magnitudes of the associations between SNAP and food security differ across subgroups.

**Presence of children in the household.** In general, SNAP participation was associated with improved food security for households with children and households without children, though for the most part there were no statistical differences in the size of the associations for households with and without children (Table IV.1).

SNAP was also associated with a decrease in the percentage of households that had very low food security for households with children. For households without children, an association was present only in the longitudinal sample. The difference in the reductions in very low food security for households with and without children was statistically significant only in the cross-sectional sample.

**Presence of elderly in the household.** SNAP improved food security generally only for households without an elderly member. (In the longitudinal sample, SNAP was associated with a reduction in food insecurity for households with an elderly member.) In the cross-sectional sample, SNAP was associated with a larger decrease in food insecurity for households without an elderly member than for households with an elderly member. We observed similar patterns for analysis of very low food security. In both the cross-sectional and longitudinal samples, SNAP was associated with a larger decrease in very low food security for households without an elderly member than for households with an elderly member.

**Presence of disabled in the household.** Overall, SNAP was associated with decreases in food insecurity and very low food security for households with a disabled member and households without a disabled member. There were no statistical differences in the sizes the associations for households with a disabled member and households without a disabled member.

tables to allow additional analysis, as desired. Still, the subgroup analysis should be regarded as exploratory and suggestive of possible differences in associations.

<sup>(</sup>continued)

Table IV.1. Percentage of Households That Are Food Insecure and Percentage of Households That Have Very Low Food Security, by Six-Month and New-Entrant SNAP Participation Status and by Household Composition

	Cross	-Sectional Est	imates	Long	Longitudinal Estimates			
	New-Entrant Households (Baseline)		Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference		
Food Insecurity								
Full Sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***		
	(1.0)	(1.0)	(1.4)	(1.0)	(1.0)	(1.3)		
Households with Children	61.1	56.0	-5.2***	59.6	49.3	-10.3***		
	(1.5)	(1.5)	(1.9)	(1.8)	(1.9)	(2.0)		
Households Without Children	68.6	64.9	-3.7**	68.8	58.5	-10.3***		
	(0.9)	(1.5)	(1.6)	(1.1)	(1.3)	(1.8)		
Households with Elderly	56.5	59.1	2.5	56	47.7	-8.3*		
	(2.6)	(1.3)	(4.5)	(2.9)	(3.1)	(4.4)		
Households Without Elderly <sup>a</sup>	66.6	61.1	-5.6***	66.3	55.5	-10.8***		
	(1.0)	(2.9)	(1.4)	(1.0)	(1.2)	(1.4)		
Households with a Disabled	73.4	67.1	-6.3**	74.2	62.9	-11.3***		
Member	(1.7)	(1.0)	(2.5)	(1.7)	(1.4)	(2.4)		
Households Without a Disabled	61.4	57.8	-3.7*	61.2	51.2	-10.0***		
Member	(1.2)	(1.5)	(1.9)	(1.1)	(1.2)	(1.5)		
Very Low Food Security								
Full Sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***		
	(0.9)	(0.7)	(1.1)	(1.0)	(0.8)	(1.1)		
Households with Children <sup>b</sup>	31.7	24.0	-7.8***	29.5	22.4	-7.0***		
	(1.3)	(1.0)	(1.6)	(1.4)	(1.2)	(1.6)		
Households Without Children	39.9	37.4	-2.5	40.1	35.2	-4.9***		
	(1.1)	(1.3)	(1.8)	(1.3)	(1.2)	(1.6)		
Households with Elderly	21.6	24.1	2.6	19.7	21.7	2.0		
	(2.3)	(2.9)	(4.1)	(2.3)	(2.6)	(3.2)		
Households Without Elderly <sup>c</sup>	38.5	32.2	-6.3***	37.9	30.6	-7.3***		
	(0.9)	(0.8)	(1.2)	(1.0)	(0.9)	(1.2)		
Households with a Disabled	43.9	41.5	-2.4	44.2	39.3	-4.8**		
Member	(1.3)	(1.3)	(2.0)	(1.3)	(1.6)	(2.2)		
Households Without a Disabled	32.8	26.6	-6.3***	32.4	25.9	-6.5***		
Member	(1.2)	(0.9)	(1.6)	(1.3)	(1.0)	(1.5)		

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

The cross-sectional estimates compare the sample of 3,275 new SNAP participants to the sample of 3,375 participants who had been receiving SNAP for about six months as of the baseline data collection. The longitudinal estimates compare the 3,275 new SNAP participants at baseline to the same 3,275 participants about six months later.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

<sup>&</sup>lt;sup>a</sup> In cross-sectional sample, association for households without elderly significantly different from association for households with elderly at the 0.10 level.

<sup>&</sup>lt;sup>b</sup> In cross-sectional sample, association for households with children significantly different from association for households without children at the 0.5 level.

<sup>&</sup>lt;sup>c</sup> In cross-sectional and longitudinal samples, associations for households without elderly significantly different from associations for households with elderly at the 0.05 level and 0.10 level, respectively.

#### 2. Differences in Associations, by Household Income

We examined associations between SNAP and food security for five income groups using monthly household income relative to the Federal poverty threshold. These groups were (1) zero monthly income; (2) income between 1 and 50 percent of poverty; (3) income between 51 and 100 percent of poverty; (4) income between 101 and 130 percent of poverty; and (5) income more than 130 percent of poverty.<sup>29</sup>

For the longitudinal sample, the results closely mirror those for the full sample, with all the estimated associations showing reductions in food insecurity and very low food security and most of them being statistically significant (Table IV.2). The findings for the cross-sectional sample were not consistent with those for the longitudinal sample. Although the signs on the associations between SNAP and food insecurity and very low food security were negative, they were not statistically significant for several income subgroups. SNAP was associated with a decrease in food insecurity only for households with income between 1 and 50 percent of poverty and between 51 and 100 percent of poverty. For very low food security, the set of households with income between 51 and 100 percent of poverty was the only subgroup for which SNAP was associated with a decrease in very low food security.

The size of the association between SNAP and food security generally differed by income group as evidenced by our rejection of the hypothesis that the associations for all the income groups were the same based on the appropriate test statistic for that joint hypothesis. There was, when groups were considered individually, one statistically significant difference between the association for a group and the association for all other households. Specifically, for very low food security, the association for households with income between 51 and 100 percent of poverty was significantly different from the association for all other households in the cross-sectional sample.

#### 3. Differences in Associations, by SNAP Benefit Amount

SNAP was associated with an improvement in food security for most benefit amount subgroups (Table IV.3). The differences across benefit groups in the associations between SNAP and food insecurity were not statistically significant at the 0.10 level. For both the cross-sectional and longitudinal samples, however, we rejected the hypothesis that the associations between SNAP and very low food security for all the benefit groups were the same. In both samples, when groups were considered individually, the reduction in very low food security was statistically larger for households that received large benefits (exceeding about 85 percent of the maximum benefit for household size) than for households that received small or medium benefits. The reduction for households that received large benefits was -9.7 percentage points in the cross-sectional sample and -12.5 percentage points in the longitudinal sample.

<sup>&</sup>lt;sup>29</sup> The amount of SNAP benefits received by each household was not included among the set of explanatory variables in the regressions.

Table IV.2. Percentage of Households That Are Food Insecure and Percentage of Households That Have Very Low Food Security, by Six-Month and New-Entrant SNAP Participation Status and by Household Income

	Cross-	Sectional Estir	mates	Longitudinal Estimates		
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference
Food Insecurity						
Full Sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***
	(1.0)	(1.0)	(1.4)	(1.0)	(1.0)	(1.3)
Monthly Income as a Percentage of the Poverty Line <sup>a</sup>						
No Income	58.7	62.2	3.5	59.5	53.9	-5.6
	(2.5)	(2.5)	(4.1)	(2.2)	(2.5)	(3.5)
1 to 50%	69.7	62.1	-7.6***	68.2	54.6	-13.6***
	(1.5)	(1.8)	(2.4)	(1.5)	(1.7)	(2.6)
51 to 100%	68.3	63.0	-5.3**	68.6	60.5	-8.1***
	(1.4)	(1.8)	(2.1)	(1.5)	(2.2)	(2.9)
101 to 130%	68.3	62.3	-6.0	68.5	51.7	-16.9***
	(3.1)	(2.5)	(4.6)	(2.8)	(3.0)	(4.5)
More than 130%	62.5	55.4	-7.1	61.4	48.4	-13.0***
	(3.3)	(2.2)	(4.5)	(3.0)	(2.5)	(4.1)
Very Low Food Security						
Full Sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***
	(0.9)	(0.7)	(1.1)	(1.0)	(0.8)	(1.1)
Monthly Income as a Percentage of the Poverty Line <sup>a</sup>						
No Income	31.7	29.0	-2.7	32.6	26.5	-6.1*
	(2.3)	(2.3)	(3.0)	(2.3)	(1.8)	(3.3)
1 to 50%	38.5	35.8	-2.8	37.6	30.3	-7.3***
	(1.6)	(2.1)	(2.8)	(1.4)	(1.6)	(2.2)
51 to 100% <sup>b</sup>	41.4	30.6	-10.9*** b	41.1	34.0	-7.1***
	(1.8)	(1.7)	(1.9)	(2.1)	(2.4)	(2.5)
101 to 130%	34.0	32.8	-1.1	33.1	24.9	-8.1**
	(2.4)	(2.6)	(3.9)	(2.7)	(2.0)	(3.2)
More than 130%	29.4	25.8	-3.5	26.5	22.9	-3.6
	(2.0)	(2.2)	(2.8)	(2.3)	(2.2)	(3.1)

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

The cross-sectional estimates compare the sample of 3,275 new SNAP participants to the sample of 3,375 participants who had been receiving SNAP for about six months as of the baseline data collection. The longitudinal estimates compare the 3,275 new SNAP participants at baseline to the same 3,275 participants about six months later.

SNAP benefit amount was not included as an explanatory variable in the regressions.

<sup>&</sup>lt;sup>a</sup> For each sample and food security measure, we conducted a test of the hypothesis that the associations were equal across all income groups. The hypothesis was rejected at the 0.01 level in each case.

<sup>&</sup>lt;sup>b</sup> In cross-sectional sample, association for households with income between 51 and 100 percent of poverty significantly different from association for households with income below 51 percent or above 100 percent of poverty at the 0.01 level.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Table IV.3. Percentage of Households That Are Food Insecure and Percentage of Households That Have Very Low Food Security, by Six- Month and New- Entrant SNAP Participation Status and by SNAP Benefit Amount

	Cross-Sectional Estimates			Longitudinal Estimates			
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference	
Food Insecurity							
Full Sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***	
	(1.0)	(1.0)	(1.4)	(1.0)	(1.0)	(1.3)	
SNAP Benefit Amount as Percentage of the Maximum SNAP Benefit <sup>ab</sup>							
Small	69.8	68.7	-1.1	70.1	61.6	-8.5**	
	(2.3)	(1.8)	(3.0)	(2.1)	(2.0)	(3.3)	
Medium	62.0	56.9	-5.1*	62.4	49.3	-13.1***	
	(1.9)	(1.8)	(3.1)	(1.6)	(2.0)	(2.4)	
Large	64.8	58.2	-6.7**	63.8	53.7	-10.0***	
	(1.5)	(1.7)	(2.6)	(1.4)	(1.6)	(2.1)	
Very Low Food Security							
Full Sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***	
	(0.9)	(0.7)	(1.1)	(1.0)	(0.8)	(1.1)	
SNAP Benefit Amount <sup>ab</sup>							
Small	36.0	36.8	-0.8	35.6	32.0	-3.6*	
	(1.9)	(1.3)	(2.5)	(1.8)	(1.7)	(2.2)	
Medium	29.0	25.0	-4.1*	29.9	27.0	-2.8	
	(1.9)	(1.4)	(2.4)	(1.9)	(1.3)	(2.1)	
Large°	42.7	33.0	-9.7***	41.9	29.4	-12.5***	
	(1.9)	(1.4)	(2.4)	(1.7)	(1.4)	(2.0)	

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

The cross-sectional estimates compare the sample of 3,275 new SNAP participants to the sample of 3,375 participants who had been receiving SNAP for about six months as of the baseline data collection. The longitudinal estimates compare the 3,275 new SNAP participants at baseline to the same 3,275 participants about six months later.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

<sup>&</sup>lt;sup>a</sup> We computed the SNAP benefit for each household as a percentage of the maximum benefit (by household size) and divided the households into three equally sized groups. Small, medium, and large benefit groups correspond to households with benefits of 1 to less than 42 percent of the maximum, 42 to less than 85 percent of the maximum, and at least 85 percent of the maximum in the cross-sectional sample, and benefits of 1 to less than 43 percent of the maximum, 43 to less than 88 percent of the maximum, and at least 88 percent of the maximum in the longitudinal sample.

<sup>&</sup>lt;sup>b</sup> For each sample and food security measure, we conducted a test of the hypothesis that the associations were equal across all benefits groups. For very low food security, the hypothesis was rejected at the 0.01 level for both samples.

<sup>&</sup>lt;sup>c</sup> In cross-sectional and longitudinal samples, associations for households with large benefits significantly different from associations for households with small or medium benefits at the 0.01 level.

#### 4. Summary of Subgroup Findings

For the most part, the results of the subgroup analysis discussed above are consistent with effects observed for the full sample. Most of the household composition subgroups examined had associations similar to the full-sample results. When subgroups defined by income relative to poverty are examined, there is wider variation in general in the estimated associations, but most are improvements in food security, and at least half are statistically significant. (Notably, however, about half of the associations for income subgroups are not statistically significant.) For most of the benefit amount subgroups, the estimated associations show improvements in food security.

Only a relatively small number of differences across subgroups are statistically significant. In the household composition subgroup analysis, the only finding that is fairly consistent across samples and measures of food security is that SNAP improved food security for households without an elderly member, but not for households with an elderly member. In the income subgroup analysis, the associations between SNAP and food security generally did not differ by household income relative to the poverty threshold. The associations do differ by SNAP benefit amount, however, such that the improvement in food security was larger for households that received large benefits (exceeding about 85 percent of the maximum benefit for household size) than for households that received small or medium benefits.



#### V. SNAP AND HOUSEHOLD FOOD EXPENDITURES

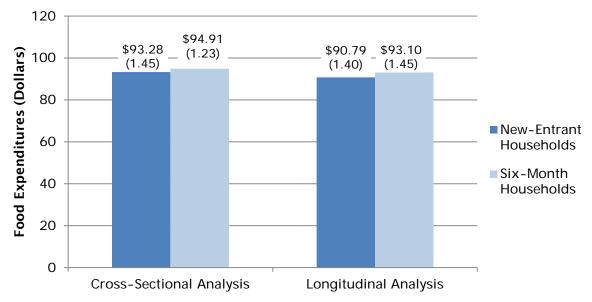
This chapter presents estimates of the association between SNAP participation and household food expenditures. Sections A through C discuss the findings for the full sample and subgroups using the same procedures as in Chapter IV. Then, we conducted a number of sensitivity tests on alternative specifications, summarized in Section D. Also in Section D, we discuss concerns about the food expenditure data for new-entrant households. Section E presents findings using alternative techniques (prevalent in the related literature) that rely only on the data for six-month households.

As discussed in Chapter II, the SNAPFS survey asked respondents what they actually spent on food during the previous week and then asked what they *usually* spent on food in a typical week. Past data on usual expenditures collected using this module have been shown to be consistent with estimates from the Consumer Expenditure Survey, the principal source of data on U.S. household expenditures for goods and services (Nord 2009). In light of this, we have focused on usual weekly food expenditures, rather than expenditures the previous week, as our main outcome measure.

# A. Associations Between SNAP and Usual Food Expenditures

Regression-adjusted usual food spending was not statistically different for new-entrant and six-month households (Figure V.1). In the cross-sectional sample, new-entrant households usually spent \$93.28 per week, and six-month households spent \$94.91. In the longitudinal sample, new-entrant households spent \$90.79 per week, and six-month households spent \$93.10.

Figure V.1. Participating in SNAP for Six Months was Not Associated with a Change in Usual Weekly Household Food Spending



Source:

SNAP Food Security Survey 2012.

Note:

Average expenditure levels shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C. Standard errors in parentheses.

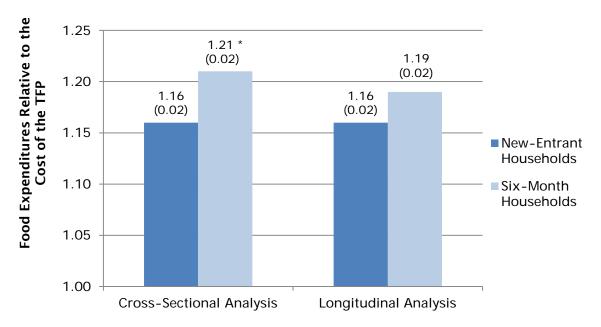
The cross-sectional estimates compare the sample of 3,275 new SNAP participants to the sample of 3,375 participants who had been receiving SNAP for about six months as of the baseline data collection. The longitudinal estimates compare the 3,275 new SNAP participants at baseline to the same 3,275 participants about six months later.

\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

# B. Associations Between SNAP and Usual Food Expenditures Relative to the Cost of the TFP

In the cross-sectional sample, SNAP participation was associated with a 5 percentage point increase in usual expenditures relative to the cost of the TFP (significant at the 0.10 level). Usual expenditures that were, on average, 21 percent larger than the cost of the TFP for six-month households were 16 percent larger than the cost of the TFP for new-entrant households. In the longitudinal sample, the usual weekly spending relative to the cost of the TFP was not statistically different between new-entrant households and six-month households.<sup>30</sup>

Figure V.2. The Evidence was Mixed as to Whether Participating in SNAP for Six Months was Associated with a Change in Usual Weekly Household Food Spending Relative to the Cost of the TFP



Source: SNAP Food Security Survey 2012.

Note:

Average expenditures levels shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

The cross-sectional estimates compare the sample of 3,275 new SNAP participants to the sample of 3,375 participants who had been receiving SNAP for about six months as of the baseline data collection. The longitudinal estimates compare the 3,275 new SNAP participants at baseline to the same 3,275 participants about six months later.

\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

<sup>&</sup>lt;sup>30</sup> The change in the average monthly cost of the TFP for a family of four (two adults ages 19 to 50, one child age 2 to 3, and a second child age 4 to 5) from the baseline to the follow-up period was 0.5 percent (less than one percentage point), with average monthly costs increasing from \$125.62 to \$126.20. The lack of a statistically significant association between SNAP and TFP-adjusted usual food expenditures in the longitudinal analysis was robust to using the average TFP cost in the baseline period in place of the actual monthly TFP cost in the follow up period (deflating the TFP cost for each household in the follow up period). This suggests that changes in food prices do not explain the lack of a significant association in the longitudinal analysis.

# C. Associations Between SNAP and Household Food Spending, by Subgroup

As with food security in the previous chapter, we examined the association between SNAP participation and food expenditures (both in dollars and relative to the cost of the TFP) for several subgroups of the sample. Although food security was found to be associated with SNAP participation for the full sample and several subgroups, we found few significant associations between SNAP participation and food expenditures that were consistent across both the cross-sectional and longitudinal samples. An exception was the set of subgroups defined by SNAP benefit amount. In this section, we present findings about whether SNAP was associated with food spending for each subgroup and whether the magnitudes of the associations between SNAP and food spending differed across subgroups.

#### 1. Differences in Associations, by Household Composition

There were few significant associations between SNAP participation and food spending, as well as between SNAP and food spending relative to the cost of the TFP, for household composition subgroups (Table V.1). In the cross-sectional sample, SNAP was associated with 0.05 to 0.09 unit increases in TFP-adjusted food spending for households without children, households without elderly, and households without a disabled member; there were no significant associations for these groups in the longitudinal sample.

Table V.1. Regression-Adjusted Average Usual Weekly Household Food Spending and Food Spending Relative to the Cost of the TFP, by Six-Month and New-Entrant SNAP Participation Status and by Household Composition

	Cross-Sectional Estimates			Longitudinal Estimates			
		s Six-Month Households	Difference		New- Entrant Households (Six-Month Follow-Up)	Difference	
Food Spending (Dollars)							
Full Sample	93.28	94.91	1.63	90.79	93.10	2.29	
	(1.45)	(1.23)	(2.23)	(1.40)	(1.45)	(1.64)	
Households with Children	120.59	118.46	-2.14	118.03	119.62	1.59	
	(2.75)	(2.35)	(4.21)	(2.66)	(2.14)	(2.94)	
Households Without Children	72.7	76.79	4.09*	71.61	73.9	2.29	
	(1.25)	(1.50)	(2.15)	(1.34)	(1.76)	(2.29)	
Households with Elderly	79.68	74.95	-4.74	74.89	72.87	-2.02	
	(3.20)	(3.22)	(4.71)	(2.93)	(3.45)	(4.68)	
Households Without Elderly <sup>a</sup>	95.24	97.38	2.15	92.83	95.70	2.87*	
	(1.62)	(1.39)	(2.60)	(1.55)	(1.58)	(1.68)	
Households with a Disabled	85.47	89.72	4.25	82.74	84.42	1.68	
Member	(3.14)	(2.29)	(4.05)	(2.81)	(2.65)	(2.75)	
Households Without a Disabled Member	97.20	97.39	0.20	94.4	96.54	2.14	
	(1.58)	(1.48)	(2.13)	(1.50)	(1.73)	(2.02)	
Food Spending Relative to the Cost of the TFP							
Full Sample	1.16	1.21	0.05*	1.16	1.19	0.03	
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)	
Households with Children	1.14	1.13	-0.01	1.14	1.19	0.05	
	(0.02)	(0.03)	(0.04)	(0.02)	(0.03)	(0.03)	
Households Without Children	1.18	1.27	0.09**	1.18	1.20	0.01	
	(0.02)	(0.03)	(0.04)	(0.02)	(0.03)	(0.04)	
Households with Elderly	0.96	0.94	-0.02	0.95	0.93	-0.02	
	(0.04)	(0.04)	(0.06)	(0.04)	(0.04)	(0.06)	
Households Without Elderly	1.19	1.24	0.05*	1.19	1.23	0.04	
	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)	
Households with a Disabled	1.15	1.19	0.04	1.15	1.17	0.02	
Member	(0.03)	(0.03)	(0.05)	(0.03)	(0.05)	(0.05)	
Households Without a Disabled Member	1.17	1.22	0.05*	1.17	1.20	0.03	
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	

Source: SNAP Food Security Survey 2012.

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

The cross-sectional estimates compare the sample of 3,275 new SNAP participants to the sample of 3,375 participants who had been receiving SNAP for about six months as of the baseline data collection. The longitudinal estimates compare the 3,275 new SNAP participants at baseline to the same 3,275 participants about six months later.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

<sup>&</sup>lt;sup>a</sup> In cross-sectional sample, association for households without children significantly different from association for households with children at the 0.10 level.

#### 2. Differences in Associations, by Household Income

We examined associations between SNAP and food spending for five income groups using monthly household income relative to the Federal poverty threshold. These groups were (1) zero monthly income; (2) income between 1 and 50 percent of poverty; (3) income between 51 and 100 percent of poverty; (4) income between 101 and 130 percent of poverty; and (5) income more than 130 percent of poverty.<sup>31</sup>

SNAP was associated with a 0.16 and 0.13 unit increase in food spending relative to the cost of the TFP for households with income between 1 and 50 percent of poverty in the cross-sectional and longitudinal samples, respectively. While SNAP was associated with an increase in TFP-adjusted food spending of 0.17 for households with income between 101 and 130 percent of poverty in the cross-sectional sample, it was associated with a decrease of 0.12 for households with income more than 130 percent of poverty.

#### 3. Differences in Associations, by SNAP Benefit Amount

SNAP was associated with an increase in food spending and food spending relative to the cost of the TFP for large benefit amount subgroups (whose benefits exceeded about 85 percent of the maximum benefit for household size) (Table V.3). The increase in food spending relative to the cost of the TFP for households that received large benefits was 0.18 in the cross-sectional sample and 0.16 in the longitudinal sample. While there were no associations between SNAP and TFP-adjusted food spending for households that received medium benefits, SNAP was associated with a decrease in food spending relative to the cost of the TFP for households that received small benefits.

<sup>&</sup>lt;sup>31</sup> The amount of SNAP benefits received by each household was not included among the set of explanatory variables in the regressions.

Table V.2. Regression-Adjusted Average Usual Weekly Household Food Spending and Food Spending Relative to the Cost of the TFP, by Six-Month and New-Entrant SNAP Participation Status and by Household Income

	Cross-Sectional Estimates			Longitudinal Estimates			
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference	
Food Spending (Dollars)							
Full Sample	93.28	94.91	1.63	90.79	93.10	2.29	
	(1.45)	(1.23)	(2.23)	(1.40)	(1.45)	(1.64)	
Monthly Income as a Percentage of the Poverty Line							
No Income	90.88	90.89	0.01	88.41	89.3	0.89	
	(2.67)	(2.85)	(4.21)	(2.59)	(3.92)	(4.41)	
1 to 50%	95.06	102.29	7.23	91.24	99.15	7.91*	
	(2.56)	(3.24)	(5.14)	(2.39)	(2.93)	(4.38)	
51 to 100%	95.00	94.78	-0.22	91.89	93.07	1.19	
	(2.88)	(2.54)	(4.19)	(2.55)	(2.49)	(3.72)	
101 to 130% <sup>a</sup>	83.56	96.47	12.91**	84.78	87.81	3.03	
	(3.00)	(4.90)	(6.31)	(2.65)	(3.37)	(3.90)	
More than 130%	98.21	88.39	-9.82**	94.85	94.85	0.00	
	(3.28)	(2.22)	(4.28)	(3.25)	(3.76)	(3.71)	
Food Spending Relative to the Cost of the TFP							
Full Sample	1.16	1.21	0.05*	1.16	1.19	0.03	
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)	
Monthly Income as a Percentage of the Poverty Line	, ,	,	, ,	, ,	, ,	, ,	
No Income	1.26	1.26	0.00	1.27	1.26	-0.01	
	(0.04)	(0.05)	(0.06)	(0.04)	(0.05)	(0.07)	
1 to 50% <sup>b</sup>	1.14 (0.03)	1.31 (0.04)	0.16*** (0.06)	1.13 (0.03)	1.26 (0.04)	0.13** (0.05)	
51 to 100%	1.14 (0.03)	1.17 (0.03)	0.02 (0.05)	1.14 (0.03)	1.14 (0.03)	0.00 (0.05)	
101 to 130% <sup>a</sup>	1.04	1.21	0.17**	1.06	1.08	0.02	
	(0.04)	(0.05)	(0.07)	(0.03)	(0.04)	(0.04)	
More than 130% °	1.18 (0.03)	1.07 (0.03)	-0.12** (0.05)	1.17 (0.03)	1.17 (0.07)	0.00 (0.07)	

Source: SNAP Food Security Survey 2012.

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

The cross-sectional estimates compare the sample of 3,275 new SNAP participants to the sample of 3,375 participants who had been receiving SNAP for about six months as of the baseline data collection. The longitudinal estimates compare the 3,275 new SNAP participants at baseline to the same 3,275 participants about six months later.

SNAP benefit amount was not included as an explanatory variable in the regressions.

<sup>&</sup>lt;sup>a</sup> In the cross-sectional sample association for households with income between 101 and 130 percent of poverty significantly different from association for households with income below 101 percent or above 130 percent of poverty at the 0.10 level.

<sup>&</sup>lt;sup>b</sup> Associations for households with income between 1 and 50 percent of poverty significantly different from association for households with no income or with income at or above 51 percent of poverty at the 0.05 level in both the cross-sectional and longitudinal samples.

<sup>&</sup>lt;sup>c</sup> Association for households with income above 130 percent of poverty significantly different from association for households with income below 130 percent of poverty at the 0.01 level in the cross-sectional sample.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Table V.3. Regression-Adjusted Average Usual Weekly Household Food Spending and Food Spending Relative to the Cost of the TFP, by Six-Month and New-Entrant SNAP Participation Status and by SNAP Benefit Amount

	Cross-Sectional Estimates			Longitudinal Estimates			
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference	
Food Spending (Dollars)							
Full Sample	93.28	94.91	1.63	90.79	93.10	2.29	
	(1.45)	(1.23)	(2.23)	(1.40)	(1.45)	(1.64)	
SNAP Benefit Amount as Percentage of the Maximum SNAP Benefit <sup>a</sup>							
Small	93.61	89.31	-4.31	91.70	89.20	-2.51	
	(2.21)	(2.34)	(3.78)	(2.12)	(1.82)	(2.69)	
Medium	101.80	101.83	-0.08	99.37	97.98	-1.38	
	(2.24)	(2.19)	(3.23)	(2.21)	(2.10)	(2.75)	
Large⁵	84.38	94.48	10.10***	80.87	92.10	11.22***	
	(2.16)	(2.06)	(3.47)	(1.98)	(3.18)	(3.32)	
Food Spending Relative to the Cost of the TFP							
Full Sample	1.16	1.21	0.05*	1.16	1.19	0.03	
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	
SNAP Benefit Amount <sup>a</sup>							
Small <sup>c</sup>	1.04	0.94	-0.10**	1.04	0.96	-0.08**	
	(0.03)	(0.02)	(0.04)	(0.03)	(0.02)	(0.03)	
Medium	1.12	1.17	0.05	1.13	1.13	-0.00	
	(0.02)	(0.03)	(0.04)	(0.02)	(0.02)	(0.03)	
Large <sup>b</sup>	1.34	1.52	0.18***	1.32	1.48	0.16***	
	(0.03)	(0.04)	(0.05)	(0.03)	(0.05)	(0.06)	

Source: SNAP Food Security Survey 2012.

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

The cross-sectional estimates compare the sample of 3,275 new SNAP participants to the sample of 3,375 participants who had been receiving SNAP for about six months as of the baseline data collection. The longitudinal estimates compare the 3,275 new SNAP participants at baseline to the same 3,275 participants about six months later.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

<sup>&</sup>lt;sup>a</sup> We computed the SNAP benefit for each household as a percentage of the maximum benefit (by household size) and divided the households into three equally sized groups. Small, medium, and large benefit groups correspond to households with benefits of 1 to less than 42 percent of the maximum, 42 to less than 85 percent of the maximum, and at least 85 percent of the maximum in the cross-sectional sample, and benefits of 1 to less than 43 percent of the maximum, 43 to less than 88 percent of the maximum, and at least 88 percent of the maximum in the longitudinal sample.

<sup>&</sup>lt;sup>b</sup> In cross-sectional and longitudinal samples, associations for households with large benefits significantly different from associations for households with small or medium benefits at the 0.01 level.

<sup>&</sup>lt;sup>c</sup> In cross-sectional and longitudinal samples, associations for households with small benefits significantly different from associations for households with medium or large benefits at the 0.01 level.

#### 4. Summary of Subgroup Findings

We found no evidence of an association between SNAP and food spending for most household subgroups. Several exceptions include households with income between 1 and 50 percent of poverty and households with large benefits (exceeding about 85 percent of the maximum benefit for household size). For these households, SNAP was associated with an increase in food spending relative to the cost of the TFP in both the cross-sectional and longitudinal samples. Notably, however, for households with small benefits SNAP was associated with a decrease in TFP-adjusted food spending.

#### D. Additional Results

Given the association between SNAP participation and food security, we were surprised to find so few associations between SNAP and food spending. Economic theory suggests that, if a household is provided a benefit to be spent on food, then total expenditures on food will increase. Because of the unexpected results, we performed a number of diagnostic checks; however, we found the results to be robust with respect to more restricted samples, different model specifications, and controlling for time since receipt of benefits. Our diagnostic tests found the following (see Appendix G for more details):

- Results were robust to the choice of measure of food spending (usual expenditures versus expenditures last week) and the distributions of the two measures were similar between new-entrant and six-month households
- Results were robust to sample restrictions and the choice of explanatory variables
  - Eliminating observations from the tails of the expenditure distribution (households with unlikely reported expenditures from the sample)
  - Restricting the set of explanatory variables
  - Conducting the analysis with subgroups based on number of days since receipt of benefits
  - Using alternative econometric models

While our sensitivity tests did not indicate any particular limitations of the estimation methods, we believe that it is likely that the timing of our interviews in relation to the date that households received SNAP benefits may have affected the findings reported in Table V.1 and V.2. In particular, an unavoidably high fraction of the interviews took place after households had already been receiving benefits.

As described in Chapter II and Appendix A, to the extent possible, we minimized the time between a household's entry into SNAP and our interview. However, the majority of respondents had already received benefits. Sixteen percent of new-entrant households were interviewed before they received their SNAP benefit, 13 percent 1 to 5 days after receipt, 23 percent 6 to 10 days after receipt, 24 percent 11 to 15 days after receipt, and 24 percent 16 or more days after receipt.<sup>32</sup> This,

<sup>&</sup>lt;sup>32</sup> See Appendix G for table of number of days between date of benefit receipt and date of interview.

paired with the fact that most SNAP participants spend a disproportionate amount of their SNAP benefits shortly after receiving them (Wilde and Ranney, 2000), makes it possible that many newentrant respondents were already factoring into their usual food expenditures the foods they were able to purchase because of their benefit. In fact, in support of this supposition, 84 percent of newentrant households that received their benefit before the interview reported having spent more than half of their benefit by the interview date. This is consistent with recent estimates from Castner and Henke (2011) that by the first week after receiving benefits for the month, the average SNAP household had redeemed over half of its benefit, by the second week, over three-quarters of its benefit, and by the end of the third week, 90 percent of its benefit. The SNAPFS survey data suggest that, even relatively early in their time on SNAP, respondents' benefits may have become an important component of their food purchase decision making. We acknowledge, however, that there were no statistical associations between SNAP and food spending for households that had not yet received their benefit at the time of the interview or for households that received their benefit from 1 to 11 days before the interview. It is also important to note that, even for households that spent a substantial fraction of their first month's SNAP benefit we do not have direct evidence that they have revised their notion of "usual" monthly food expenditures.

On the other hand, as presented in the next section, we also found a positive and statistically significant relationship in the SNAPFS survey data among new-entrant households between reported usual food spending and benefit amount, which may indicate that new-entrant households were factoring the benefits received from SNAP into their estimates of usual expenditures. It is possible, though, that this association is attributable to other factors correlated with both food spending and SNAP benefit amount.

# E. The Relationship between the SNAP Benefit Amount and Food Expenditures

Because of the concerns about the baseline expenditure data for new-entrant households, we drew on a different approach to analyze food expenditures. Specifically, we used the survey data from the six-month households in both the cross-sectional and longitudinal samples to examine associations between the amount of SNAP benefits and reported usual expenditures. While this does not allow us to exploit the full quasi-experimental design of the overall study, it does allow us to assess the association between SNAP benefit amounts and reported usual food expenditures for ongoing SNAP cases. This approach reveals whether higher SNAP benefits are associated with higher food expenditures.

Drawing on techniques used extensively in the literature (Fraker 1990; Fox et al. 2004; Boonsaeng et al. 2012), we estimated how food expenditures vary across SNAP participants with different monthly SNAP benefit amounts. This approach allowed us to rely only on six-month household data from the cross-sectional and longitudinal samples. We found that a one-dollar increase in SNAP benefits was associated with a 34 cent and a 48 cent increase in usual food expenditures among six-month households in the cross-sectional and longitudinal analyses, respectively. These estimates that are in or around the range of approximately 0.17 to 0.47 in Fraker (1990). More recently, since the Fraker literature review was completed, Fox et al. (2004) cite four studies which, after excluding one outlier, found propensities to spend on food between 0.26 and 0.40, while Boonsaeng (2012) estimated a value 0.31 for the propensity to spend benefits on food at home. The above findings from the six-month households in the current study are statistically significant both in absolute dollars and after normalizing the outcome measure by household size

and composition using the cost of the TFP. (Appendix G presents the analysis and its findings in more detail.)

# F. Summary

Under most statistical specifications in the original research design, there was no significant association between participating in SNAP and the amount of money spent on food in a typical week when examining the full sample of households. Although we obtained some statistically significant findings (for example, in our main model specification in the cross-sectional sample), these findings were not robust to changes in model specification and sample definitions.

There were few significant associations between SNAP participation and food expenditures at the subgroup level. An exception was that participating in SNAP was associated with an increase in food spending and food spending relative to the cost of the TFP for households with large benefits in both the cross-sectional and longitudinal samples.

Further analysis of the timing of the baseline data collection suggested that having an unavoidably high fraction of the interviews take place after new-entrant households had already been receiving benefits might have affected the main findings in the food expenditure analysis if households very quickly adjust their notion of "usual" spending after receiving their initial SNAP benefit. Excluding new-entrant households from the analysis in both the cross-sectional and longitudinal samples, we found a positive association between the SNAP benefit amount and food spending among households that had been on SNAP for six months.

#### VI. CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

The main research objectives of the study were to assess how household food security and food expenditures are associated with SNAP participation. The findings provide strong evidence that SNAP is associated with an improvement in food security. This evidence suggests SNAP is accomplishing one of its main goals, that of reducing food insecurity among low-income households.

Key findings on food security and food expenditures are summarized in the next section. We then compare the associations between SNAP and food security to those found in related studies. Finally, we present considerations for future research and lessons learned while conducting this study.

# A. Key Findings

Food security. The study found that participating in SNAP for about six months was associated with an improvement in food security. SNAP was associated with a decrease in the percentage of households that were food insecure by 4.6 percentage points in the cross-sectional sample and 10.6 percentage points in the longitudinal sample. Participating in SNAP was also associated with a decrease in the percentage of households that experienced very low food security of 5.0 percentage points in the cross-sectional sample and 6.3 percentage points in the longitudinal sample. In terms of percentage changes, these translate into reductions in food insecurity of 7 percent in the cross-sectional sample and 16 percent in the longitudinal sample.<sup>33</sup> The reductions in very low food security are 14 and 18 percent in the two samples, respectively. All associations are statistically significant at the 0.01 level.

The conclusion that SNAP is associated with an improvement in household food security generally holds for child food security as well. SNAP was associated with a decrease in the percentage of households with children in which children were food insecure in both samples. In addition, SNAP was associated with a decrease in the percentage of households in which children experienced very low food security in the cross-sectional sample, although there was no association in the longitudinal sample.

We also assessed whether SNAP was associated with improved food security for household demographic and economic subgroups. For the most part, the results are consistent with the findings for the full sample. SNAP was associated with an improvement in food security for most household composition subgroups, including households with and without children, households without an elderly member, and households with and without a disabled member. When subgroups defined by income relative to poverty are examined, the estimated associations between SNAP and food security vary. Although most reflect improvements in food security, many of the estimated associations are not statistically significant. For most of the SNAP benefit amount subgroups, the estimated associations show significant improvements in food security.

<sup>33</sup> For the cross-sectional analysis, percentage changes are computed as the decrease in the percentage of new-

entrant households that are food insecure (-4.6 percentage points) divided by the percentage of new-entrant households that are food insecure (65.4 percent). Percentage changes for the longitudinal analysis are computed analogously, using the association of -10.6 percentage points. Finally, percentage changes for very low food security are computed using the percentage of new-entrant households that have very low food security, 36.4 percent.

Only a relatively small number of differences *across* subgroups are statistically significant. In the household composition subgroup analysis, the only finding that is fairly consistent across samples and measures of food security is that SNAP is associated with improved food security for households without an elderly member, but not for households with an elderly member. In the income subgroup analysis, the associations between SNAP and food security generally did not differ by household income relative to the poverty threshold. The associations do differ by SNAP benefit amount, however, such that the improvement in food security was larger for households that received large benefits (exceeding about 85 percent of the maximum benefit for household size) than for households that received small or medium benefits.

**Food expenditures.** The main, quasi-experimental part of the study found few associations between SNAP participation and food spending when examining the full sample of households. Participating in SNAP for about six months was not associated with changes in usual weekly food expenditures. Although participating in SNAP was associated with an increase in usual weekly food expenditures relative to the cost of the Thrifty Food Plan, this association was present only in the cross-sectional sample and was not robust to using more restricted samples and different model specifications.

There were few significant associations between SNAP participation and food expenditures at the subgroup level. An exception was that participating in SNAP was associated with an increase in food spending and food spending relative to the cost of the TFP for households with large benefits (exceeding about 85 percent of the maximum benefit for household size) in both the cross-sectional and longitudinal samples. Notably, however, for households with small benefits SNAP was associated with a decrease in food spending relative to the cost of the TFP.

Because of concerns about the baseline expenditure data for new-entrant households, we used the survey data from the six-month households in the cross-sectional and longitudinal samples to examine associations between the amount of SNAP benefits and reported usual expenditures. We found that a one-dollar increase in SNAP benefits was significantly associated with 34 cent and 48 cent increases in usual food expenditures among six-month households in the cross-sectional and longitudinal analyses. Significant estimates were also obtained when expenditures were measured relative to the cost of the TFP to normalize for household size and composition.

# B. Comparison of Findings to Related Studies

As stated above, SNAP participation is associated with a reduction in food insecurity of 7 percent in the cross-sectional sample and 16 percent in the longitudinal sample. The reductions in very low food security are 14 and 18 percent in the two samples, respectively. How large should these associations be considered from the perspective of the past literature?

One answer to this question is to note that, as discussed earlier, parts of the past literature have failed to find any clear associations at all (Gibson-Davis and Foster 2006; Ribar and Hamrick 2003; Gundersen and Oliveira 2001; Huffman and Jensen 2008), or even positive associations between SNAP and food insecurity (Wilde and Nord 2005). Compared with these studies, the analysis reported here suggests that SNAP is associated with substantial improvements in food security.

At the other end of the spectrum, several studies have found that SNAP is associated with reductions in food insecurity in the range of about 20 to 30 percent. Using the 1996, 2001, and 2004 SIPP panels to estimate an instrumental variables model, Ratcliffe, McKernan, and Zhang (2011) found that receiving SNAP was associated with a reduction in the probability of food insecurity of

31 percent and a reduction in the probability of very low food security of 20 percent. Mykerezi and Mills (2010) found that SNAP was associated with a reduction in food insecurity of 39 percent. The Comparing food insecurity of individuals who continue to participate in SNAP with those who leave using matched CPS data, Nord (2012) found that SNAP was associated with a reduction in very low food security of 28 percent, though the estimate ranged up to 45 percent in auxiliary analyses. Nord and Golla (2009) found that very low food security falls by roughly one-third (34 percent) using matched CPS data. The security falls by roughly one-third (34 percent) using matched CPS data.

Compared with these studies, the analysis reported here suggests that SNAP is associated with smaller improvements in food security. Our estimates might be somewhat conservative, as suggested in one of the sensitivity tests summarized previously. We know that, unavoidably, there were sometimes delays of more than two weeks between the new-entrant interviews and when those households received benefits. Our estimated associations are larger when the analysis is limited to cases in which these delays either did not occur at all or were very short. Restricting the new-entrant sample to households that had not received benefits as of the interview date resulted in estimated associations of 18 to 26 percent reductions in food insecurity and 26 to 31 percent reductions in very low food security.36 Although this provides some evidence that our estimates might be conservative, differences in observable and unobservable characteristics between households that had and had not yet received benefits prevent us from being able to definitively conclude that our associations are underestimated. Furthermore, because the food security index essentially identifies the worst food security conditions that a household has experienced in the previous 30 days, any bias introduced by interviewing households following benefit receipt should be at least partially mitigated by the recall period of the food security index. Under plausible assumptions, for most households, the worst food security condition would occur just before entering SNAP, so the outcome measure in our study is likely to have captured the worst food security condition even for the small percentage of households interviewed more than two weeks after receiving benefits.

In comparing our work to the studies that found that SNAP is associated with reductions in food insecurity, it is also important to consider that the studies have different populations and were conducted in different time periods. Our study estimates the association between SNAP and food security for households that have just entered SNAP by comparing them with those that have participated for about six months. Other estimates in the literature include those derived by Mykerezi and Mills (2010), Ratcliffe, McKernan, and Zhang (2011), and Yen et al. (2008), who compare all SNAP participants (regardless of how long they have participated in the program) and nonparticipants; Nord (2012) who compares participants with program leavers; and Nord and Golla (2009) who compare individuals two to six months before SNAP entry with those one to six months after entry.

<sup>&</sup>lt;sup>34</sup> The percentage change is calculated by Mykerezi and Mills (2010) by dividing the marginal effect (the percentage point reduction in food insecurity) by the percentage of SNAP participants who are food insecure. To make the findings of that study comparable to the findings in our study and in Ratcliffe, McKernan, and Zhang (2011), we instead divided the marginal effect in Mykerezi and Mills (2010) by the percentage food insecure in absence of the program.

<sup>&</sup>lt;sup>35</sup> The findings in the current study are also qualitatively similar to those in Depolt, Moffit, and Ribar (2009); Bartfield and Dunifon (2006); Borjas (2005); and Yen et al. (2008).

<sup>&</sup>lt;sup>36</sup> Appendix D presents the findings from sensitivity analyses of the amount of time since the receipt of benefits.

Study periods also differ across studies. Some extend back to the 1990s (Yen et al. [2008] and Mykerezi and Mills [2010] used data from 1996 and 1999, respectively), whereas others extend through the early to the mid-2000s (Ratcliffe, McKernan, and Zhang [2011] used three SIPP panels, which cover from 1996 to 2007; Nord and Golla [2009] used CPS data from 2001 to 2006). Nord (2012) provided more recent evidence, extending to the period of the recent recession, by using CPS data from 2001 to 2009. Our study provides the most recent evidence, from late 2011 to mid-2012. It is also the only study examining SNAP participation and food security for which all data were collected in the period after the 2009 increase in SNAP benefits under the American Recovery and Reinvestment Act of 2009.<sup>37</sup>

# C. Implications for Future Research

Several, substantive research directions are suggested by the study findings. These include:

- More examination of reasons why SNAP households without elderly members experienced improvements in food security, while households with elderly members generally did not. This may reflect different benefit amounts (households with elderly members received an average SNAP benefit of \$144 in FY 2011 compared to \$307 for households without an elderly member). Alternatively, it may reflect different coping strategies related to food insecurity.
- More examination of reasons why the improvement in food security associated with SNAP was not larger for lower income households, relative to higher income households. Given that households with less income generally receive higher SNAP benefits, we expected to find the improvements in food security to be larger for households with less income. We found no association for zero income households and generally no pattern in relation to income for households with positive income.
- Examination of how the association between SNAP and food security differs according
  to households' physical access to food. By linking measures of food access to the
  SNAPFS survey data file, one could examine whether the association between SNAP
  participation and household food security differs by access to SNAP retailers, including
  different types of retailers like supermarkets or superstores, large grocery stores, or
  convenience stores.

## D. Implications for Research Methods

There are also several lessons learned from the project that pertain to performing similar research:

• Obtaining State cooperation. The process of obtaining our sample-frame files took extensive resources and in some cases required lengthy negotiations with the States to gain their active participation in the study and allay their concerns about data

<sup>&</sup>lt;sup>37</sup> Nord and Prell (2011) estimate the association between the increase in SNAP benefits provided by the American Recovery and Reinvestment Act of 2009 and household food security using the CPS-FSS, rather than SNAP participation per se. They found that the increase was associated with a 9 percent reduction in food insecurity and an 18 percent reduction in very low food security.

confidentiality and the costs of providing data. While day to day involvement in this process by FNS is not generally necessary, the active cooperation of FNS staff in providing support and making critical phone calls was important in assuring States that FNS was supportive of the study.

- Interviewing new-entrant households before they receive SNAP benefits. Short of implementing methods that would substantially increase data collection costs, we believe that there is no feasible way to interview new-entrant households prior to their start of benefits. Most States distribute EBT benefits to new cases relatively quickly after approval. In most States, the only way to reach clients before they begin receiving benefits would be to station field staff at the program offices. This would be very expensive, however, and would require adapting to the very different intake procedures used by States. And, even then, ways would have to be found to reach clients who apply and are certified without an office interview, as occurs now in an increasing number of States. Alternatively, interview protocols for new-entrant households could include more comprehensive sets of questions that attempt to trace out the change in food expenditures in the weeks before SNAP began and the days or weeks after SNAP began.
- Obtaining accurate data on food expenditures for SNAP households. It would be useful to develop ways of doing extensive probing during interviews about whether benefits are included in food expenditures. In our survey module on expenditures, we included Current Population Survey questionnaire language asking respondents to include purchases made with SNAP benefits. But there was evidence that significant numbers did not include purchases made with their benefits. Future survey projects should include more probes in this area. Specifically, more probes should be included that, during the interview, compare the usual weekly food expenditures to the SNAP benefit amount and ask in different ways whether respondents are including benefits in their reported food expenditure. Approaches based on cognitive interviews with SNAP households would be valuable in learning more about how food expenditures change just before entering SNAP, in the early weeks of SNAP participation, and after several months of receiving benefits.



#### **REFERENCES**

- The American Association for Public Opinion Research. 2011. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 7th edition. AAPOR.
- Bartfeld, J., and R. Dunifon. "State-Level Predictors of Food Insecurity Among Households with Children." *Journal of Policy Analysis and Management*, vol. 25, 2006, pp. 921–942.
- Biggs, D., B. De Ville, and E. Suen. "A Method of Choosing Multi-Way Partitions for Classification and Decision Trees." *Journal of Applied Statistics*. 18 (1), 49-62, 1991.
- Boonsaeng, Tullaya, Carlos E. Carpio, Chen Zhen, Abigail M. Okrent. "The Effect of Supplemental Nutrition Assistance Program on Food Spending Among Low-Income Households" Selected Paper prepared for presentation at the Agricultural & Applied Economics Association's 2012 AAEA Annual Meeting, Seattle, Washington, August 12-14, 2012. Available at http://ageconsearch.umn.edu/bitstream/124839/2/AAEApaper\_seattle2012\_final.pdf
- Borjas, G.J. "Food Insecurity and Public Assistance." *Journal of Public Economics*, vol. 88, 2004, pp. 1421–1443.
- Burstein, N., W. Hamilton, M.K. Fox, C. Price, and M. Battaglia. —Assessing the Food Security and Diet Quality Impacts of FNS Program Participation: Final Menu of Survey Options. Cambridge, MA: Abt Associates, Inc., 2005.
- Castner, Laura and Juliette Henke. "Benefit Redemption Patterns in the Supplemental Nutrition Assistance Program". Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Research and Analysis, 2011.
- Coleman-Jensen, Alisha, Mark Nord, Margaret Andrews, and Steven Carlson. Household Food Security in the United States in 2010. ERR-125, U.S. Dept. of Agriculture, Econ. Res. Serv. September 2011. available at http://www.ers.usda.gov/Publications/ERR125/ERR125.pdf
- DePolt, R.A., R.A. Moffitt, and D.C. Ribar. "Food Stamps, Temporary Assistance for Needy Families and Food Hardships in Three American Cities." *Pacific Economic Review*, vol. 14, 2009, pp. 445–473.
- Edin, Kathryn, Melody Boyd, James Mabli, Jim Ohls, Julie Worthington, Sara Greene, Nicholas Redel, Swetha Sridharan. "SNAP Food Security In-Depth Interview Study.". Final report submitted to the Food and Nutrition Service, United States Department of Agriculture. Alexandria, VA: USDA, FNS, March 2013.
- Fox, M.K., W. Hamilton, and B. Lin. 2004. Effects of Food Assistance and Nutrition Programs on Nutrition and Health: Volume 3 Literature Review. Food Assistance and Nutrition Research Report No. 19-3. Economic Research Service, U.S. Department of Agriculture. www.ers.usda.gov/publications/fanrr19-3/
- Fraker, Thomas M. "The Effects of Food Stamps on Food Consumption: A Review of the Literature." Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, 1990.
- Gibson-Davis, C., and E.M. Foster. "A Cautionary Tale: Using Propensity Scores to Estimate the Effect of Food Stamps on Food Insecurity." *Social Service Review*, vol. 80, 2006, pp. 93–126.

- Gundersen, C., and V. Oliveira. "The Food Stamp Program and Food Insufficiency." *American Journal of Agricultural Economics*, vol. 83, 2001, pp. 875–887.
- Huffman, S.K., and H.H. Jensen. "Food Assistance Programs and Outcomes in the Context of Welfare Reform." *Social Science Quarterly*, vol. 89, 2008, pp. 95–115.
- Kalton, Graham and Ismael Flores-Cervantes. "Weighting Methods", Journal of Official Statistics, Vol.19, No.2, 2003. pp. 81–97, 2003.
- Kass, G. V. An Exploratory Technique for Investigating Large Quantities of Categorical Data." *Applied Statistics* 29 (2), 119-127, 1980.
- Leftin, Joshua, Andrew Gothro, and Esa Eslami. "Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2009." Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, October 2010.
- Magidson, Jay. "The Use of the New Ordinal Algorithm in CHAID to Target Profitable Segments", The Journal of Database Marketing, 1, 29–48, 1993.
- Nord, Mark. Food Spending Declined and Food Insecurity Increased for Middle-Income and Low-Income Households From 2000 to 2007, EIB-61, U.S. Dept. of Agri., Econ. Res. Serv., October 2009.
- Nord, Mark. 2011. "How Much Does the Supplemental Nutrition Assistance Program Alleviate Food Insecurity? Evidence from Recent Programme Leavers," *Public Health Nutrition* 15(5): 811-817.
- Nord, Mark, and Gary Bickel. "Measuring Children's Food Security in U.S. Households, 1995-99". FANRR-25, USDA, Economic Research Service. 2002.
- Nord, Mark, and Anne Marie Golla. "Does SNAP Decrease Food Insecurity? Untangling the Self-Selection Effect. Washington, DC: USDA, Economic Research Service, Economic Research Report Number 85, October, 2009.
- Nord, Mark, and Mark Prell. Food Security Improved Following the 2009 ARRA Increase in SNAP Benefits, ERR-116, U.S. Department of Agriculture, Economic Research Service, April 2011.
- Oliveira, Victor, and Donald Rose. 1996. Food Expenditure Estimates From the 1995 CPS Food Security Supplement: How Do They Compare With the Consumer Expenditure Survey? Staff Report No. AGES9617, U.S. Department of Agriculture, Economic Research Service.
- Ratcliffe, C., S. McKernan, and S. Zhang. "How Much Does the Supplemental Nutrition Assistance Program Reduce Food Insecurity?" *American Journal of Agricultural Economics*, vol. 93, no. 4, 2011, pp. 1082–1098.
- Ribar, D.C., and K.S. Hamrick. "Dynamics of Poverty and Food Sufficiency." Research report no. 36. Washington, DC: U.S. Department of Agriculture, Food and Nutrition Service, 2003.
- Schochet, Peter Z. (2008). Technical Methods Report: Guidelines for Multiple Testing in Impact Evaluations (NCEE 2008-4018). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

- Siegel, P.H., Chromy, J.R., & Copello, E.A.. Propensity Models Versus Weighting Cell Approaches to Nonresponse Adjustment: A Methodological Comparison. Presented at American Association for Public Opinion Research 60th Annual Conference, Miami Beach, FL, May 2005.
- Strayer, Mark, Esa Eslami, and Joshua Leftin. "Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2011", U.S. Department of Agriculture, Food and Nutrition Service, Office of Research and Analysis. Project Officer, Jenny Genser. Alexandria, VA: 2012.
- Trippe, Carole, and Jessica Gillooly. "Noncash Categorical Eligibility for SNAP: State Policies and the Number and Characteristics of SNAP Households Categorically Eligible Through Those Policies." Final report submitted to the U.S. Department of Agriculture, Food and Nutrition Service. Washington, DC: Mathematica Policy Research, July 2010.
- Wilde, P. "Measuring the Effect of Food Stamps on Food Insecurity and Hunger: Research and Policy Considerations." *Journal of Nutrition*, vol. 137, 2007, pp. 307–310.
- Wilde, Parke, and Mark Nord. "The Effect of Food Stamps on Food Security: A Panel Data Approach." Review of Agricultural Economics, vol. 27, 2005, pp. 425–432.
- Wilde, Parke E. and Christine K. Ranney. "The Monthly Food Stamp Cycle: Shopping Frequency and Food Intake Decisions in an Endogenous Switching Regression Framework," American Journal of Agricultural Economics, Agricultural and Applied Economics Association, vol. 82(1), pages 200-213, 2000.
- Wun, L.-M., Ezzati-Rice, Digaetano, R., Goksel, H., and Hao, H., "Using Data from the National Health Interview Survey (NHIS) to Assess the Effectiveness of Nonresponse Adjustment in the Medical Expenditure Panel Survey (MEPS)," 2005 ASA Proceedings of the Section on Survey Research Methods, (CD-ROM).
- Yen, Stephen T., Margaret Andrews, Zhuo Chen, and David B. Eastwood. "Food Stamp Program Participation and Food Insecurity: An Instrumental Variables Approach." *American Journal of Agricultural Economics*, vol. 90, 2008, pp. 117–132.



# APPENDIX A DATA AND METHODOLOGY



Chapter II presented an overview of the study design and data collection methodology underlying the study, as well as the outcome measures and analysis methods. This Appendix presents more detailed information about the data collection methodology, the analysis methods used to estimate the association between SNAP and food security and food expenditures, and the construction of sampling weights used in the analysis.

# A. Sampling Methodology

The data consist of two samples. The sample used in the cross-sectional analysis includes 9,811 SNAP households interviewed in 30 States from October 2011 through February 2012. It comprises 6,436 new-entrant households and 3,375 households that have participated for about six months (we refer to these households as "six-month" households, for convenience). The sample used in the longitudinal analysis comprises the 6,436 new-entrant households interviewed from October 2011 through February 2012 plus a portion of those households—3,275 households in total—who were still participating in the program about six months later.<sup>38</sup> These households were interviewed between April and September 2012.

A key consideration in our approach to sampling was that the only practical way to obtain sample frames for a national sample of SNAP participants was through the State agencies that operate the program. Because the USDA does not have a national file with the information that is needed, we ensured efficiency in sampling by drawing the sample of SNAP participants in a two-stage process. First, we drew a sample of States, using probability-proportional-to-size (PPS) sampling. Second, we drew samples of participant households from caseload files provided by participating States.

We selected States from the 48 contiguous States and the District of Columbia and used the number of SNAP households in each State as the measure of size. At the first stage, we selected 30 States. All States with at least one-thirtieth of the national caseload (14 States) were sampled with certainty. The rest were sampled with probabilities proportional to size and were referred to as noncertainty States. We also selected 5 replacement States from the noncertainty group for a backup sample to use if some of the originally selected States ultimately chose not to participate. In the end, the sample included 4 replacement States.<sup>39</sup>

In sampling individual households within States from State-supplied caseload files, we calculated the sample sizes according to the following principles:

• For each certainty State, the sample size was set proportional to the size of the State's caseload. For instance, if State A and State B were both certainty States, and if the

<sup>&</sup>lt;sup>38</sup> As we discuss later in the Appendix, in both the cross-sectional and longitudinal analyses, we restricted the sample of new-entrant households to those that were still participating in SNAP six months later in order to increase the comparability between the new-entrant and six-month samples. Thus, the sample sizes above are the initial sample sizes, rather than the analytic sample sizes.

<sup>&</sup>lt;sup>39</sup> The states that participated in the survey were Arizona, Arkansas, California, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, Texas, Virginia, Washington, and Wisconsin.

caseload in State A was 50 percent larger than in State B, then State A had 1.5 times the sample of State B.

• For the States not chosen with certainty, equal-sized samples were taken, reflecting the fact that the States had already been selected with probabilities proportional to size.

Given the total sample size that we targeted across all States<sup>40</sup>, determined using a power analysis, these sampling rules defined a unique number of cases to be selected from each State. The sample of new-entrant households was to be used in both the cross-sectional and longitudinal analyses and was re-interviewed approximately six months after the initial interview, whereas the sample of six-month households was interviewed only once. Thus, to allow for attrition in the longitudinal sample over time, we selected a much larger sample of new-entrant households than six-month households during the baseline survey period.

#### **B.** Data Collection

The household survey used to obtain data for the cross-sectional analysis was conducted between October 2011 and February 2012. The follow-up survey for new-entrant households that was used in the longitudinal analysis was conducted between April and early September 2012. All interviews were completed by telephone with computer-assisted telephone interviewing (CATI) using trained interview staff.

An analytic objective in conducting the telephone survey was to minimize the time between program entry and the baseline interview so that respondents' information pertained to the time period prior to entry into SNAP. In light of this need, Mathematica adopted a "rolling sample" procedure. We divided the States into seven cohorts of about four States each. Within cohorts, States loaded their raw SNAP certification files on a secure FTP site at the same time, and the sampled SNAP households were released for data collection at the same time several days later. Across cohorts, sampling and data collection was conducted sequentially, although the interviewing periods slightly overlapped one another. That is, the interviewing of the first cohort was still underway at the time sampling activities for the second cohort began, and so on. The length of the baseline field period was approximately two weeks for new-entrant households and four weeks for six-month households, while the length of the field period for follow-up interviews with new-entrant households six months later was about six weeks. Given the staggered start dates across states for the baseline field periods, the baseline data collection period lasted from October 2011 to February 2012. The follow-up period lasted from April to September 2012.

#### **Sequence of Data Collection Procedures**

Upon receipt of the new-entrant and six-month caseload files from the States, Mathematica reviewed the data files, obtained additional information for incomplete data files (for example, missing telephone numbers), and sampled households. (This is discussed in more detail in the next section.) Mathematica mailed to sampled households an advance letter signed by a USDA official that included a \$2 prepaid incentive and promised \$20 additional incentive upon completion of the telephone survey. Approximately three days after advance letters were mailed to the sampled

<sup>&</sup>lt;sup>40</sup> The target analysis sample size was 7,618 new-entrant households at baseline; 4,000 six-month households at baseline; and 4,000 new-entrant household six months later at follow-up.

households, telephone interviewers began contacting the households and conducting interviews using the programmed CATI instrument. An automated call scheduler was used to manage the sample by controlling the delivery of cases to the interviewers.

Generally speaking, the goals of "call scheduling" were to (1) find a time when someone would answer the telephone for an initial contact to screen the number as an eligible household and identify the most appropriate household-level respondent, (2) schedule and keep appointments to interview the respondent, and (3) deliver calls to interviewers with special skills (such as refusal conversion or language specialists), as appropriate. To achieve these goals, we defined time slots, created queues, and set rules for the initial call. We also rotated cases in and out of appropriate queues and through the time slots. Minimum and maximum call rules were also established as well as times when messages were left on answering machines and times when supervisors reviewed cases.

To ensure high-quality data collection, all interviewers assigned to the project, both experienced and new, received two-day, in-person, project-specific training. Interviewers received a description of the study and instructions on how to respond to questions about it. In addition, a "walk-through" of the instrument explained the intent of each item and offered appropriate probes that were specific to the questions.

To ensure telephone interviewers performed as trained, they were regularly monitored via a system that enables verbal and visual monitoring without either the interviewer's or the respondent's knowledge. Interviewers were informed that they were to be monitored but did not know when observations would take place. Respondents were also informed at the start of the interview that their conversation may be recorded for quality-control purposes.

## Minimizing the Time Between First Receipt of Benefits and Completed Interview for New-Entrant Households

To best measure the prevalence and characteristics of food-insecure households as they first entered the program, it was essential that new SNAP households be interviewed as soon as possible after SNAP certification but before the household had adjusted its food purchasing and consumption behavior based on its SNAP allotments. Two phases of the survey work were critical in this regard: (1) minimizing the "front-end" setup time during which the raw State data files were received, processed, sampled and loaded into the Survey Management System (SMS) for use by the CATI center, and (2) minimizing the data collection period in the CATI center.

Minimizing front-end setup time. As part of its work in developing operational plans for the survey, Mathematica used multiple avenues toward minimizing the time from when the State uploaded its SNAP certification data file onto Mathematica's secure FTP site to when Mathematica could commence telephone interviews with the sampled cases. We undertook the following steps with each State data file before conducting CATI interviews:

- Retrieved State data files, read them into SAS, ran edit checks, and removed duplicate case records.
- Reviewed the data file; followed up with State SNAP agencies with files that were incomplete (for example, some states submitted "six-month" sample files that contained only cases that had been on the program for four months. States were notified to resubmit files for six-month households).

- Verified that data files were loaded into the sample management system, assigned case identifiers, and checked for missing or incomplete respondent contact information.
- For many states, sent the entire file to a private locating company for address and telephone updates. For some states, only specific cases for which there was insufficient contact information were sent to the locating company. Files were not sent to a private locating company for states with data sharing restrictions.
- Used sampling programs to select SNAP households, conducted an additional duplicate check, and flagged the sampled cases on the file.
- Checked for complete mailing addresses. If address was complete, sent advanced letter. If address was incomplete, located address.
- Released sample to survey operations center for CATI interviewing.

In most cases, interviews in a given State began three days after receiving the final State file, to allow sufficient time for sample members to receive the advance letters. Given that the State SNAP data files included cases that had been certified one to five days prior to data file delivery, the total elapsed time from SNAP certification to the sample case being released for telephone interviewing was about four to eight days, with the range being a function of the SNAP certification date relative to data file delivery date.

Minimizing the data collection period. We considered a 7-day field period for new-entrant households, but chose instead to use a 14-day field period. Both scenarios require working cases in the sample much more intensively in terms of calls per day than is the case with standard CATI surveys, which extend over a much longer time period. However, concerned that a 7-day period might lead to unacceptably low response rates, we used a 14-day CATI period in which for the first 7 days, cases were worked nearly as intensely as they would have been worked under the 7-day CATI period design. The additional 7 days that followed helped us ensure that response rates were not adversely affected.

## C. Response Rates

Table A.1 summarizes the response rates that were obtained in the various parts of the data collection. The response rates were 55.7 for the new-entrant households' baseline interview and 55.0 for the six-month sample interviewed at baseline. The response rate for the follow-up interview with the new-entrant sample six months later was 66.6 percent. All response rates were calculated using the American Association for Public Opinion Research response rate 3 (RR3) formula (AAPOR 2009).

The response rates in the baseline interview reflect two challenges of the survey effort. First, the goal of achieving quick turnaround in the survey raises an important trade-off among competing SNAPFS survey objectives. In particular, longer data collection periods allow survey staff and researchers time to successfully locate, contact, and interview the sample population, thereby obtaining higher overall response and minimizing potential nonresponse bias. But allowing several weeks for data collection leads to the analytical risk that because new SNAP entrants may have adjusted their food purchasing and consumption behavior based on their SNAP allotments before they were interviewed for this survey, the interview may not be a true "baseline" that reflects clients' situations prior to entering the program. This study used a 14-day field period, which is much shorter than most field periods for standard surveys.

**Table A.1. SNAPFS Survey Outcome Rates** 

	New-Entrant Households	Six-Month Households	
Baseline Survey (October 2011 to February 2012)			
Total Starting Sample	11,706	6,509	
Eligibility Rate	98.8	94.3	
Cooperation Rate	88.0	85.1	
Refusal Rate	7.6	9.6	
Contact Rate	67.5	68.9	
Response Rate	55.7	55.0	
<b>Total Completes</b>	6,436	3,375	
Follow- Up Survey (April 2012 to September 2012)			
Total Starting Sample <sup>a</sup>	6,370		
Eligibility Rate	77.9		
Cooperation Rate	90.2		
Refusal Rate	7.2		
Contact Rate	74.4		
Response Rate	66.6		
Total Completes	3,275		

Source: SNAP Food Security Survey 2012.

Note: Calculations based on AAPOR (2009).

The contact rate measures the proportion of all cases in which some responsible member of the housing unit was reached by the survey. They are based on contact with households, including respondents, rather than contacts with respondents only. It includes in the base the estimated eligible cases among the undetermined cases.

The cooperation rate is the proportion of all cases interviewed of all eligible units ever contacted. It defines those unable to do an interview as also incapable of cooperating and they are excluded from the base.

The response rate measures the number of complete interviews with reporting units divided by the number of eligible reporting units in the sample. It estimates what proportion of cases of unknown eligibility is actually eligible.

The refusal rate is the proportion of all cases in which a housing unit or the respondent refuses to be interviewed or breaks-off an interview, of all potentially eligible cases. It includes estimated eligible cases among the unknown cases.

The eligibility rate is the estimated proportion of cases of unknown eligibility that are eligible. This estimate is based on the proportion of eligible units among all units in the sample for which a definitive determination of status was obtained (a conservative estimate).

Second, we attribute the lower-than-targeted response rate (the target was 65 percent) to a much lower incidence than expected of valid, working telephone numbers on the State frame files. In some States, the majority of clients did not have telephone numbers in the program files. Even in States for which the caseload files had telephone numbers for most clients, many numbers were not current. Locating households with no numbers or nonworking telephone numbers on the frame files, in the short period that cases were being worked, proved difficult.

<sup>&</sup>lt;sup>a</sup> Difference between follow up starting sample size and baseline number of completes for new-entrant households due to in-depth interviews conducted with selected households with children.

As described in the methodology section below, we conducted a comprehensive nonresponse analysis to ensure that household nonresponse did not bias the study findings.

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# D. Analysis Methods

We used descriptive, tabular analysis to examine the composition of the groups of new-entrant and six-month households, as well as to present summary statistics of the outcome measures of food security status and food expenditures used in the multivariate analysis. Next, we used multivariate regression analysis to estimate the association between SNAP and household food security and food expenditures while accounting for compositional differences between new-entrant and six-month households. All analyses were weighted.

The tables in the body of this report restrict the sample of new-entrant households to those that continued to participate six months later at the time of the follow-up interview. This restriction decreases the size of the sample used in the analysis, and thus potentially decreases statistical power in the analyses of food security in Chapter IV and food expenditures in Chapter V. However, it increases the comparability of new-entrant and six-month households and helps to decrease bias in comparing the food security (or food expenditures) of six-month and new-entrant households.

#### 1. Descriptive Analysis

We used descriptive analysis to examine the characteristics and circumstances of the samples of new-entrant and six-month households, and to assess the food-insecurity rates and usual weekly food expenditures for each group. Unless otherwise noted, statistics represent weighted means and percentages of the group of new-entrant households or the group of six-month households.

Note that to simplify the presentation, and because the purpose of this initial analysis is descriptive, we did not include standard errors in these tables. However, Chapters IV and V, which focus more on hypothesis testing, provide full documentation of statistical significance.

#### 2. Multivariate Analysis of Food Security

We examined two outcomes: (1) food security and (2) food expenditures. In this section, we discuss the multivariate methodology used in the food security analyses. In the next section we discuss the analogous methodology for the food expenditures analyses.

Although comparing food insecurity rates across groups using descriptive, tabular analysis provides valuable information about how the outcome measure differs across groups, multivariate regression analyses are needed to account for compositional differences across groups that might bias the associations between SNAP and food security. In particular, many household characteristics may be correlated with both continuing to participate in the SNAP program through six months and a household's food insecurity status. To help to address this concern, we used logistic regression analysis to estimate the effect of SNAP on food security. 41

<sup>&</sup>lt;sup>41</sup> While multivariate modeling helps to minimize bias, it does not eliminate it altogether, due to the inability to account for unobservable factors that affect both SNAP participation and food security.

#### **Outcome Measures**

The SNAPFS survey included the 18-item food security module used in the Current Population Survey Food Security Supplement (CPS-FSS). The questionnaire was based on a 30-day recall period.

We defined four outcome measures for the food security analyses:

- 1. **Household food insecurity.** A binary variable indicating whether a household was food insecure. Household food security status can be measured using the 10 adult-referenced items for households without children and the full 18 items (the 10 adult-referenced items plus the 8 child-referenced items) for households with children. In this study, we measured food security using the 10 adult-referenced items for all households to minimize any measurement effects associated with the presence and ages of children (Nord and Golla 2009; Nord and Bickel 2002). Households that affirmed 3 or more items were classified as food insecure.
- 2. **Household very low food security.** A binary variable indicating whether a household experienced very low food security. This variable was measured using the 10-item adult scale of the food security module. Households that affirmed 6 or more items were classified as having very low food security.
- 3. Children's food insecurity. For households with children, a binary variable indicating whether children in the household were food insecure. This variable was measured using the 8-item child scale of the food security module (Nord and Bickel 2002). Households that affirmed 2 or more items were classified as having food insecurity among children.
- 4. Children's very low food security. For households with children, a binary variable indicating whether children in the household experienced very low food security. This variable was measured using the 8-item child scale of the food security module (Nord and Bickel 2002). Households that affirmed five or more items were classified as having very low food security among children.

#### **Empirical Model for Cross-Sectional Analysis**

We estimated logistic regression models that relate the probability of food insecurity or very low food security to SNAP participation status and a set of household and State characteristics. Participation in SNAP was denoted using a binary variable equal to 1 if the household had been participating in SNAP for about six months and equal to 0 if the household had just entered SNAP. The set of variables measuring household characteristics and circumstances consisted of:<sup>42 43</sup>

<sup>&</sup>lt;sup>42</sup> All of the variables were defined using information from the SNAPFS survey, except for the state economic and SNAP policy variables. Analysis variables were not defined using variables from the administrative data files provided by states for the sample frame construction.

<sup>&</sup>lt;sup>43</sup> The survey defined "household" as "the people who live with the respondent and share food with the respondent, including babies, small children, and people who are not related to the respondent." Some of the analysis variables measure a characteristic or circumstance for the "household head." This was the interview respondent who

- Gender of household head. A binary variable indicating whether the household head is female.
- Race and ethnicity of household head. Binary variables indicating whether the household head is Hispanic; non-Hispanic black; or non-Hispanic non-black and nonwhite (referred to as non-Hispanic "other"). The referent group was non-Hispanic white.
- Highest grade completed of household head. Binary variables indicating whether the household head has completed high school, some college, or at least college. The referent group completed less than high school.
- Employment status of household head. Binary variables indicating whether the household head was employed full-time or employed part time. The referent group was "not employed."
- Depression status of household head. A binary variable indicating whether the head of household felt depressed in the past 30 days. It is based on whether the respondent stated that he or she felt one of the following conditions either a little of the time, most of the time, or all of the time in the past 30 days: "felt so sad nothing could cheer you up"; "felt nervous"; "felt restless or fidgety"; "felt hopeless"; "felt that everything was an effort"; or "felt worthless."
- Household income-to-poverty ratio. A variable measuring a household's gross monthly income relative to the SNAP income eligibility standards for Fiscal Year 2012 (http://www.fns.usda.gov/snap/government/FY12\_Income\_Standards.htm). standards represent 100 percent of the poverty level for each household size and closely resemble the Department of Health and Human Services poverty guidelines.
- **Household size**. A discrete variable equal to the number of people in the household.
- Household composition. Binary variables indicating whether the household includes children; whether the household includes an elderly member (age 65 and over); and whether the household includes a disabled individual (self-reported in the survey).
- Prior SNAP participation status. A binary variable indicating whether the household had participated in SNAP prior to its current enrollment.
- Participation in federal or State programs. Binary variables indicating whether the household was participating in federal or State programs such as TANF, other welfare programs such as General Assistance, Supplemental Security Income (SSI), or unemployment compensation.
- Changes in household size, housing status, employment, pay, or hours worked. Binary variables indicating whether the household had experienced a change in the past six months in household size, housing status (as measured by eviction), or employment, pay, or hours worked.

<sup>(</sup>continued)

affirmed that (1) he or she was the person who did most of the planning or preparing of meals in his or her family, or (2) he or she was the adult in the household who did most of the shopping for food in his or her family.

- **Region of residence**. Binary variables indicating the FNS region in which the household lives. The Western region is the referent group.
- State wage and unemployment rate. We used the 25<sup>th</sup> percentile of the State wage distribution to represent the typical wage rate of a low-income worker in the State and the State unemployment rate to measure the general economic environment in the State. Wage information was obtained from the May 2011 Bureau of Labor Statistics State Occupation and Wage Estimates data [http://www.bls.gov/oes/current/oessrcst.htm]. We calculated the State unemployment rate as the average of the nonseasonally adjusted unemployment rate from October 2011 through February 2012 for the baseline period and from April 2012 through August 2012 for the follow-up period. We obtained this information from Bureau of Labor Statistics Local Area Unemployment Statistics data.
- State SNAP policies. A binary variable indicating whether the State offers broad-based categorical eligibility to SNAP participants. This variable is measured using State-level data from Trippe and Gallooly (2010) compiled for FNS. We also included the average certification period in the State in fiscal year 2011 obtained from SNAP Quality Control data used in Strayer et al. (2012).

We transform the raw logistic regression coefficient of the SNAP participation variable into a "marginal effect" to measure the association of SNAP participation with the probability of being food insecure (or, in alternate specifications, the probability of experiencing very low food security). We present the raw regression coefficients and standard errors for the main specification of each regression to familiarize the reader with the model specification. We follow with tables that summarize the association between SNAP and food insecurity (or very low food security) for the full sample and subgroup samples. These summary tables compare the rates of food insecurity across groups after accounting or adjusting for compositional differences across groups. Appendices C and F contain regression coefficients and standard errors for all models.

The summary tables have the regression-adjusted percentage of new-entrant households that are food insecure; the regression-adjusted percentage of six-month households that are food insecure; the difference in these percentages, which is the marginal effect; and the standard error of the marginal effect. Regression-adjusted percentages of households that are food insecure were obtained by performing the following steps:

- Obtain the percentage for six-month households. We evaluated the logistic regression equation using the regression coefficient estimates, setting the SNAP participation variable equal to 1 for all households, and using the means of all other explanatory variables calculated over six-month and new-entrant households. This process generated a single predicted probability of a six-month household being food insecure.
- Obtain the percentage for new-entrant households. We evaluated the logistic regression equation using the regression coefficient estimates, setting the SNAP participation variable to 0 for all households, and using the means of all other explanatory variables calculated over six-month and new-entrant households. This process generated a single predicted probability of a new-entrant household being food insecure.

• Obtain the marginal effect of SNAP on food insecurity. We calculated the difference in the two predicted probabilities to obtain the estimate of the marginal effect of SNAP on food insecurity.

We followed an analogous set of steps to obtain the regression-adjusted percentages of households that experienced very low food security.

#### Empirical Model for the Longitudinal Analysis

The main sample for the longitudinal analysis consisted of the new-entrant households interviewed from October 2011 to February 2012 that responded to the follow-up interview approximately six months later, from April 2012 to September 2012. This is a "balanced" sample in that all household contributed the same number of observations (two) to the data file.

The outcome measures were the same in both the longitudinal and cross-sectional analysis, as were the set of explanatory variables. We defined the values of the explanatory variables for the sixmonth households and the new-entrant households in the longitudinal analysis using data from the follow-up interview and baseline interview, respectively. Although we could use this approach for the State-level unemployment rate, the variables measuring State SNAP policies in the baseline period were not updated in the follow-up period, because they are fiscal year measures and the baseline and follow-up periods were both in fiscal year 2012.

#### Subgroup Analysis

In addition to estimating the association between SNAP and food security using the full (restricted) sample of 6,650 households, we estimated the regressions described above for the following subgroups<sup>44</sup>:

- Household composition. Whether a household includes children; among households with children, whether a household is a single-parent or multiple-parent household; whether a household includes an elderly member; and whether a household includes a disabled individual.
- **Age of household head.** Households in which the head of household was age 18 to 24; age 25 to 49; age 50 to 64; or age 65 or older.
- Highest grade completed of household head. Households in which the household head's highest grade of schooling completed was less than high school; high school; or more than high school.
- Race and ethnicity of household head. Households in which the household head was white, non-Hispanic; black, non-Hispanic; Hispanic; or non-white, non-black, and non-Hispanic.

<sup>&</sup>lt;sup>44</sup> There are statistical risks associated with extensive subgroup analysis due to the substantial likelihood—often a near certainty—that spurious results are obtained (Schochet 2008). As we discuss in greater detail in Chapter IV, we attempt to strike a compromise between the need for subgroup analysis and the attendant statistical risks by highlighting findings from three sets of important subgroups in the text of the report and reporting results for additional subgroups in appendix in tables in Appendix E to allow additional exploratory analysis, as desired.

- **Employment status of household head.** Households in which the household head was employed full time; employed part time; or not employed.
- Region of residence. Households that lived in the Northeast region; Mid-Atlantic region; South region; Southeast region; Midwest region; Mountain region; or West region.
- **Household income.** Households with zero income; households with an income-to-poverty ratio greater than zero, but less than or equal to 50 percent; households with an income-to-poverty ratio greater than 50 percent but less than or equal to 130 percent; households with an income-to-poverty ratio greater than 130 percent.
- Sources of income. Whether households received income from the following sources: TANF; SSI; Social Security benefits; other retirement benefits such as a government or private pension or annuity; unemployment insurance or worker's compensation benefits; veteran's benefits; child-support payments; or financial support from families and friends.
- SNAP benefit amount. Households that small, medium, or large benefit amounts as a percentage of the maximum benefit. Small, medium, and large benefit groups correspond to households with benefits of 1 to less than 42 percent of the maximum, 42 to less than 85 percent of the maximum, and at least 85 percent of the maximum in the cross-sectional sample, and benefits of 1 to less than 43 percent of the maximum, 43 to less than 88 percent of the maximum, and at least 88 percent of the maximum in the longitudinal sample.
- **Expedited service.** Whether households were certified for SNAP by receiving expedited service. 45
- **Prior SNAP participation status.** Whether households participated in SNAP prior to their current enrollment.
- **Health status.** Households in which the head of household reported health as excellent, very good, good, fair, or poor.
- Body mass index. Households in which the head of household's body mass index (BMI), based on self-reported height and weight, fell into the following categories: underweight (BMI less than 18.5); normal (BMI from 18.5 to 24.9); overweight (BMI from 25.0 to 29.9); and obese (BMI greater than or equal to 30.0).
- Household transportation resources. Households that owned a car, truck, or other vehicle; households that did not own but had access to a car, truck, or other vehicle; households that did not own and did not have access to a car, truck, or other vehicle.
- Household residential status and type. Household that lived in a house, townhouse, condo, mobile home or trailer, or apartment; household that lived in a room or in a motel or hotel; household that lived in another type of place (includes homeless living in

 $<sup>^{45}</sup>$  This information is from the State SNAP caseload administrative files used to construct the SNAPFS sample frame.

- a shelter or mission and homeless living on the street; in a car, van, or recreational vehicle; in an abandoned building; or in another place).
- Home-ownership status. Among households that lived in a house, townhouse, condo, mobile home or trailer, apartment or room, whether the household owned the place in which it lived; rented its own place or contributed to rent at a friend's or family member's place; or lived rent-free.
- Food preparation and storage capabilities. Whether household had access to a place where it could prepare a meal; access to a refrigerator; access to a standalone freezer; access to a gas or electric stove; and access to a microwave.
- Participation in food assistance and nutrition programs. For households with school-age children, whether children received free or reduced-price lunches at school; for households with school-age children, whether children received free or reduced-price breakfasts at school; for households with children less than five years of age, whether children in the household received free or reduced-price food at a daycare or Head Start program; for households with children less than five years of age or with women ages 15 to 45, whether women or children in the household received Special Supplemental Nutrition Program for Women, Infants and Children (WIC) benefits.
- Participation in community food programs. Whether households received emergency food from a church, food pantry, or food bank in the last 30 days; whether household members went to a community program or senior center to eat prepared meals in the last 30 days; whether adults ever ate any meals at a soup kitchen or shelter; whether in the past 30 days anyone in the household received any meal from "Meals on Wheels" or any other program providing home-delivered meals.
- Mental health and well-being. Whether household experienced depression in the past 30 days; whether the amount of help a household would expect to get from family living nearby, if needed, was all, most, very little, or none of the help needed; whether the amount of help a household would expect to get from friends living nearby, if needed, was all, most, very little, or none of the help needed; and whether the amount of help a household would expect to get from the community besides family and friends living nearby, if needed, was all, most, very little, or none of the help needed.

#### **Standard Errors**

Standard errors were estimated using a variance estimator based on a first-order Taylor series approximation. We accounted for the complex survey design of the SNAPFS survey when estimating standard errors by using the Stata software's "svy" commands and identifying both the primary sampling unit (PSU) identifier and the strata identifier. As an approximation, the standard errors in the regression estimates based on the longitudinal sample do not account for multiple observations per household.

#### 3. Multivariate Analysis of Food Expenditures

The methodology used to estimate the association between SNAP and household food expenditures closely resembled the methodology used to estimate the association between SNAP and household food security. Below, we discuss the differences between the two approaches.

#### **Outcome Measures**

The SNAPFS survey included the food-expenditure module used in the CPS-FSS.<sup>46</sup> The module first asked the respondent about the places where he or she bought food "last week." Possible locations included supermarket or grocery store; meat market, produce stand, bakery, warehouse club, and convenience store; restaurant, fast fast-food restaurant, cafeteria, or vending machine; and "any other place." Next, the respondent was asked how much the household spent last week for each set of store types from which the respondent reported purchasing food. As in the CPS-FSS, the respondent was asked to include purchases made with SNAP benefits. The computer interviewing system calculated the total amount spent on food, and the interviewer confirmed with the respondent last week's total food expenditures.<sup>47</sup> Finally, the interviewer asked the respondent how much the household *usually* spends on food in a week.

We used usual weekly food expenditures, rather than expenditures last week, as our main outcome measure, because research has shown that usual food expenditures estimated from data collected using this module were consistent with estimates from the Consumer Expenditure Survey—the principal source of data on U.S. household expenditures for goods and services (Oliveira and Rose 1996; Nord 2009). This approach is also consistent with the Economic Research Service's annual Household Food Security report (Coleman-Jensen et al. 2011).

We used two measures of food expenditure as outcome variables. First, "Unadjusted" usual weekly household food expenditures was used as one outcome measure, and household size and composition were included among the set of explanatory variables used in the regression. We also used a second outcome measure that adjusted for household size and composition: usual weekly household food expenditures relative to the Thrifty Food Plan (TFP) spending amount. We calculated this value by dividing each household's usual weekly food expenditures by the estimated cost of the TFP for that household in the interview month. The TFP was developed by the USDA and serves as a national standard for a nutritious, minimal-cost diet. It represents a set of "market baskets" of food that people in specific age and gender categories could consume at home to maintain a healthful diet that meets current dietary standards, taking into account the food consumption patterns of U.S. households (U.S. Department of Agriculture, Center for Nutrition Policy and Promotion 2007). In addition to adjusting the usual weekly food spending amount by household size and composition, the TFP spending amount also adjusts for inflation in food prices. This approach is important mostly in the longitudinal analysis, when comparing food expenditures from April to September 2012 with expenditures that took place from October 2011 to February 2012.48

The CPS-FSS instrument can be found here (http://www.ers.usda.gov/datafiles/Food Security in the United States/Current Population Survey/2011/qn2011.pdf)

<sup>&</sup>lt;sup>47</sup> For the first two categories of stores, respondents were also asked how much they spent on nonfood items (pet food, paper products, alcohol, detergents, or cleaning supplies). We excluded this amount from the total food spending amount.

<sup>&</sup>lt;sup>48</sup> From October 2011 to July 2012 (the most currently available TFP data), the cost of the TFP for a family of four (two adults ages 19 to 50, one child age 2 to 3 and a second child age 4 to 5) increased by 0.6 percent, from \$125.40 to \$126.20.

#### **Empirical Model**

Because both expenditure variables are continuous, we used ordinary least squares regression analysis to estimate the association between SNAP and each outcome measure. As in the food security regressions, the main independent variable was the binary SNAP participation variable. The set of other explanatory variables was identical to the set used in those regressions, as well.

Because the regressions are specified to be linear, the raw coefficient on the SNAP participation variable measures the difference in usual weekly food expenditures (or usual expenditure relative to the cost of the TFP) between six-month and new-entrant households, after accounting for compositional differences between the two groups. In these models, there is no need to compute marginal effects separately. Regression-adjusted means were obtained in a way analogous to that used for the regression-adjusted percentages of food insecure households. However, in place of a mean predicted probability, the regression predictions yielded a mean predicted amount of expenditures (or expenditures per person per TFP) for each household in the sample.

As in the food security regressions, standard errors were estimated using a variance estimator based on a first-order Taylor series approximation.

#### 4. Weight Construction

We used sampling weights for all analyses to account for the complex sample design and for the possibility that some groups in the study population may have been overrepresented or underrepresented. Sampling weights were constructed to correct for differences in households' selection probabilities and propensities to respond. These weights restored the distribution of the responding sample to the same proportions as the frame of SNAP participant households from which it was drawn.

Different sets of weights were constructed for the cross-sectional and longitudinal analyses described above. Weights were also constructed separately for the samples of new-entrant and sixmonth households. All weights were intended only for use in making national estimates.

The weights are the products of several weighting factors that fall into three groups:

- 1. State-level selection and replacement of noncooperating States
- 2. Adjustments for selection probabilities within sampled States
- 3. Nonresponse adjustments at the household level

The sample design was a two-stage design, except in California, where three stages were used:

- 1. States were selected in the first stage.
- 2. In California, the second stage comprised groups of counties.
- 3. Households were selected at the final stage.

The Primary Sampling Units (PSUs) were states. Thirty-five states were selected using PPS methods. A subsample of 5 States was selected as a reserve sample, and the main sample consisted of the remaining States. Because 5 of the 30 States in the main sample chose not to participate, all the reserve States were used in the study.

In California, 15 secondary selection units (SSUs)—in general, counties—were sampled with PPS. Five were randomly assigned to backup status, and the main sample of SSUs consisted of 10 units. All the main SSUs participated in the study, so no backup SSUs were used.

Within each PSU (or SSU in California), samples of new-entrant and six-month households were sampled separately using equal probability selection methods within each group.

### State-Level Weights

The first step in creating the weights was to construct a response-adjusted PSU weight.

(1) 
$$W_{1_2} = W_1 \times W_2 = \frac{1}{P_a} \times \frac{1}{RR_{ar}}$$
,

where P<sub>a</sub> is the PSU's probability of selection into the sample of 35 States, and RR<sub>ar</sub> is the unweighted participation rate for States in FNS Region R.

Fourteen states were selected with certainty for the sample of 35 and 11 with probability proportional to size. Thus,

(2) 
$$P_a = \frac{11*MOS_a}{\sum_{\in NONCERT} MOS}$$
 if not selected with certainty.

P<sub>a</sub>=1.0 otherwise, where MOS<sub>a</sub> is the measure of size for PSU "a."

### Other Weighting Adjustments for Selection Probabilities

The next steps accounted for probabilities of selection within PSUs.

$$(3) W_3 = 1/P_b$$

$$(4) W_4 = 1/P_{fab}$$

 $P_b$ =the probability of selection of SSU "b" in California. In other States,  $P_b$ =1.0.

(5) 
$$P_b = \frac{15*MOS_b}{\sum_{k=1}^{B} MOS_k} \times \frac{10}{15} ,$$

where  $MOS_b$  is the measure of size for SSU "b" and B is the total number of SSUs in California (equal to 10).<sup>49</sup>

$$(6) P_{fab} = \frac{n_{fab}}{N_{fab}}$$

<sup>&</sup>lt;sup>49</sup> In the formula, "10" represents the number of SSUs in the main sample and "15" represents the number in the sample prior to randomly assigning 5 to backup status.

where  $n_{\text{fab}}$  is the number of households sampled from frame "F" (new-entrant or six-month) in PSU "A," and in California, in SSU "B", and  $N_{\text{fab}}$  is the number of cases on frame f in State a, and in California in SSU "b."

#### Nonresponse Adjustments and Final Weight

The next set of weighting factors was obtained by conducting a nonresponse analysis and making adjustments for nonresponse. The nonresponse analysis was based on the SNAP administrative data included in the state sampling frame and data from the American Community Survey (ACS) 2005-2009 summary file, which was the most recent summary file at the time of the construction of baseline sampling weights. The administrative data from the sampling frame contained several variables including age and gender of the SNAP unit head, language spoken in the home, and the household's residential ZIP code and address information. One of the most useful pieces of information on the sample frame was the street address and zip code of households' residential location for all responders and nonresponders. We used Geographic Information System (GIS) software (ARC GIS), to geocode these addresses and assigned Census tract level area population characteristics to each household using ACS data.

To perform the GIS-based nonresponse analysis, we first assigned the appropriate Census tract indicator to each household and then merged a file of tract-level population characteristics from the ACS to the household-level sample frame file. We then merged on a set of variables measuring population characteristics at the tract level that included:

- The percentage of individuals in the population with income less than 100 percent of the federal poverty threshold
- The percentage of individuals in the population with income less than 200 percent of the federal poverty threshold
- The percentage of Hispanic individuals in the population
- The percentage of non-white individuals in the population
- The percentage of households with female head with at least one child under 18
- The percentage of individuals in the population with less than a high school education
- The percentage of housing units without a vehicle

Once tract-level population characteristics were merged onto the household sample frame records, these characteristics were treated in ways similar to the sample frame variables in analyzing nonresponse patterns and creating nonresponse adjustment factors.

In conducting the nonresponse analysis, we drew heavily on a recent technique called Chisquare Automatic Interaction Detection (CHAID) (Kass (1980); Biggs et al. (1991); Magidson (1993)). CHAID is a type of classification tree analysis that has been used for several years as a way of choosing variables to use in making weighting adjustments to survey data. Kalton and Flores-Cervantes (2003) discuss CHAID as one method of forming adjustment cells and mention its use in weighting the Continuing Survey of Food Intakes by Individuals and the Survey of Income and Program Participation. In recent work, Siegel, Chromy and Copello (2005) used CHAID in a comparison of methods for making nonresponse weighting adjustments and Wun, et.al. (2005) discuss using CHAID to select auxiliary variables in a study of alternative weighting adjustment methods for the Medical Expenditure Panel Survey (MEPS).

Based on a CHAID analysis, we determined that the variables in Tables A.2 to A.10 used in the nonresponse adjustment were an appropriate basis for the weighting work, given the twin objectives of keeping the analysis relatively tractable while at the same time representing the complex determinants of nonresponse. These variables include both information from the ACS area file and also data from the sample frames.

CHAID was used in order to create weighting classes for three separate sets of weights: new-entrant households at baseline; six-month households at baseline; and new-entrant households six months later at follow-up. Within those three overall sets of weights, weighting adjustments were computed separately for three sources of nonresponse: (1) unable to determine eligibility for the survey; (2) unable to contact, conditional upon determining eligibility; and (3) unable to complete the interview, conditional upon contacting. Tables A.2 through A.10 present the weighted classes and associated weighting adjustment factor for each of the nine sets of weights. Each column in the table represents a weighting class. All households in the same weighting class receive the same value of the weighting adjustment factor.

Table A.2. Definitions of Weighting Classes for New- Entrant Baseline (Completing)

	Weighting Class						
	1	2	3				
Area Characteristic Defining Weight Group Age (years) Percentage of Female Headed Households with Children	> 39	< 39 ≥ 14.18	< 39 < 14.18				
Number of Observations in Each Column	3064	1878	1914				
Weighting Adjustment Factor W7 for Cases in the Weighting Class	1.08	1.04	1.07				

Source: SNAP Food Security Survey 2012.

Note:

"--" as an entry means that the cell is not used to define the weighting class shown in the column. For instance, percentage of Female headed households with Children is not part of the definition of Weighting Class #1.

Table A.3. Definitions of Weighting Classes for New- Entrant Baseline (Eligibility Determination)

			Weighting (	Class Numb	er	
	1	2	3	4	5	6
Area Characteristic Defining Weighting Class						
Percentage of non-white individuals in the population	> 10	<u>&lt;</u> 10	<u>&lt;</u> 10	<u>&lt;</u> 10	<u>&lt;</u> 10	<u>&lt;</u> 10
Percentage of Hispanic individuals in the population		< 7.23	< 7.23	< 7.23	< 7.23	<u>&gt;</u> 7.23
Age (years)		<u>&gt;</u> 30	<u>&gt;</u> 30	<u>&gt;</u> 30	<u>&gt;</u> 30	
Language		Not Eng	Not Eng	Eng		
Gender (male=1)		1 or missing	0			
Number of Observations in Each Column	5284	499	750	94	692	401
Weighting Adjustment Factor for Cases in the Weighting Class	1.12	1.08	1.05	1.13	1.11	1.14

SNAP Food Security Survey 2012. Source:

"--" as an entry means that the cell is not used to define the weighting class shown in the column. For instance, percentage of Hispanic individuals in the population is not part of the Note:

definition of Weighting Class #1.

Table A.4. Definitions of Weighting Classes for New- Entrant Baseline (Contacting)

		Weighting Class Number														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Area Characteristic Defining Weighting Class																
The percentage of non-white individuals in the population		> 55	<u>&lt;</u> 55	<u>&lt;</u> 55	> 10	<u>&lt;</u> 10					> 55	<u>&lt;</u> 55	<u>&lt;</u> 55			
Age (years)	> 39	> 39	> 39	> 39	> 30 < 39	> 30 < 39	> 30 < 39	> 30 < 39	<u>&gt;</u> 30 <u>&lt;</u> 39	<u>&gt;</u> 30 <u>&lt;</u> 39	< 30	< 30	< 30	< 30	< 30	< 30
Language			Eng	Not Eng	Eng	Eng	Eng	Not Eng	Eng	Not Eng	Eng	Eng	Eng	Not Eng	Eng	Not Eng
Percentage under 200 percent of the Federal Poverty Threshold												<u>&gt;</u> 40.43	< 40.43			
Percentage with at least a High School Education					<u>&gt;</u> 25.73	<u>&gt;</u> 25.73	< 25.73									
Gender (male=1)	0	1 or miss.	1 or miss.	1 or miss.	0 or miss.	0 or miss.	0 or miss.	0 or miss.	1	1	0 or miss.	0 or miss.	0 or miss.	0 or miss.	1	1
Number of Observations in each Column	2524	523	1372	308	354	187	573	288	964	136	471	729	1028	460	1600	189
Weighting Adjustment Factor W5 for Cases in the Weighting Class	1.33	1.61	1.42	1.29	1.68	1.42	1.45	1.35	1.76	1.51	1.78	1.49	1.63	1.44	1.83	1.48

"--" as an entry means that the cell is not used to define the weighting class shown in the column. For instance, percentage of non-white individuals in the population is not part of the definition of Weighting Class #1. Note:

Table A.5. Definitions of Weighting Classes for Six- Month Baseline (Completing)

	Weighting Class Number									
	1	2	3	4	5	6				
Area Characteristic Defining Weighting Class										
Age (years)	> 39	> 39	<u>&lt;</u> 39							
Percentage of female headed households with children	<u>&gt;</u> 14.18	<u>&gt;</u> 14.18	<u>&gt;</u> 14.18	<u>&gt;</u> 14.18	< 14.18					
Language	Eng	Eng	Eng	Eng	Eng	Not Eng				
Percentage of non-white individuals in the population	<u>&lt;</u> 10	> 10								
Percentage with at least a high School Education	< 25.73	< 25.73	< 25.73	<u>&gt;</u> 25.73						
Number of Observations in Each Column	261	230	475	613	1380	732				
Weighting Adjustment Factor W7 for Cases in the Weighting Class	1.23	1.11	1.05	1.09	1.08	1.06				

Note:

"--" as an entry means that the cell is not used to define the weighting class shown in the column. For instance, percentage of non-white individuals in the population is not part of the definition of Weighting Class #3.

Table A.6. Definitions of Weighting Classes for Six- Month Baseline (Eligibility Determination)

	Weighting Class Number						
	1	2	3				
Area Characteristic Defining Weighting Class							
Percentage of Hispanic individuals in the population	<u>&gt;</u> 7.23	< 7.23					
Gender (male=1)	1	1	0 or missing				
Number of Observations in Each Column	716	847	2737				
Weighting Factor W6 for Cases in the Weighting Class	1.13	1.08	1.07				

Source: SNAP Food Security Survey 2012.

Note: "--" as an entry means that the cell is not used to define the weighting class shown in the

column. For instance, percentage of Hispanic individuals in the population is not part of the

definition of Weighting Class #3.

Table A.7. Definitions of Weighting Classes for Six- Month Baseline (Contacting)

	Weighting Class Number													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Area Characteristic Defining Weighting Class														
Percentage of female headed households with children					< 14.18	<u>&gt;</u> 14.18			< 14.18	< 14.18	<u>&gt;</u> 14.18		<u>&gt;</u> 14.18	< 14.18
Age (years)	> 39	> 39	> 39	> 30 < 39	> 30 < 39	> 30 < 39	> 30 < 39	> 30 < 39	< 30	< 30	< 30	< 30	< 30	< 30
Language				Eng	Eng	Eng	Not Eng		Not Eng	Not Eng	Not Eng	Eng		
Percentage under 200 percent of the Federal Poverty Threshold				< 40.43	<u>≥</u> 40.43	≥ 40.43			< 40.43	<u>&gt;</u> 40.43				
Percentage with at least a high school education	< 25.73	<u>&gt;</u> 25.73	<u>&gt;</u> 25.73											
Gender (male=1)		1	0 or miss.	1 or miss.	1 or miss.	1 or miss.	1 or miss.	0	1 or miss.	1 or miss.	1 or miss.	1 or miss.	0	0
Number of Observations in Each Column	1526	657	819	228	57	154	64	876	190	94	368	73	668	736
Weighting Adjustment Factor W5 for Cases in the Weighting Class	1.44	1.39	1.28	1.73	1.68	2.26	1.39	1.49	1.92	1.54	2.18	1.43	1.53	1.67

Note: "--" as an entry means that the cell is not used to define the weighting class shown in the column. For instance, percentage of Female headed households with Children is not part of the definition of Weighting Class #1.

Table A.8. Definitions of Weighting Classes for New- Entrant Follow- Up (Completing)

	Weighting Class Number				
	1	2			
Area Characteristic Defining Weighting Class					
Percentage with at least a high school education	< 25.73	<u>&gt;</u> 25.73			
Number of Observations in Each Column	3187	3249			
Weighting Adjustment Factor W13 for Cases in the Weighting Class	1.42	1.36			

Table A.9. Definitions of Weighting Classes for New- Entrant Follow- Up (Eligibility Determination)

		Weig	ghting Class Num	ber	
•	1	2	3	4	5
Area Characteristic Defining Weighting Class					
Age (years)	> 39	> 39	> 39	<u>&lt;</u> 39	<u>&lt;</u> 39
Region	West, SW, SE, East, Mtn.	Midwest, NE, Mid. Atl.	Midwest, NE, Mid. Atl.		
Percentage of non-white individuals in the population		>10	<u>&lt;</u> 10		
Language				Eng	Not Eng
Number of Observations in Each Column	1595	499	747	637	2958
Weighting Factor W12 for Cases in the Weighting Class	1.03	1.02	1.08	1.12	1.08

Source: SNAP Food Security Survey 2012.

Note: "--" as an entry means that the cell is not used to define the weighting class shown in the column. For instance, percentage of non-white individuals in the population is not part of the

definition of Weighting Class #1.

Table A.10. Definitions of Weighting Classes for New- Entrant Follow- Up (Contacting)

_			Weigh	ting Class N	umber		
	1	2	3	4	5	6	7
Area Characteristic Defining Weighting Class							
Percentage with at least a high school education		<u>&gt;</u> 25.73	< 25.73				
Percentage of Hispanic individuals in the population				<u>&gt;</u> 7.23	< 7.23	< 7.23	< 7.23
Age (years)	> 39	<u>&lt;</u> 39	<u>&lt;</u> 39	<u>&lt;</u> 39	<u>&gt;</u> 30 <u>&lt;</u> 39	< 30	< 30
Region						West, SE, NE	Midwest, Mid. Atl., SW, East, Mtn.
Gender (male=1)		1	1	0 or miss.	0 or miss.	0 or miss.	0 or miss.
Number of Observations in Each Column	2841	651	688	1072	428	268	488
Weighting Factor W11 for Cases in the Weighting Class	1.21	1.61	1.47	1.47	1.28	1.23	1.51

Note:

"--" as an entry means that the cell is not used to define the weighting class shown in the column. For instance, percentage non-white is not part of the definition of Weighting Class #1.

Characteristics of households and the areas in which households lived that were identified by the nonresponse analysis as being associated with nonresponse were used to define weighting classes to compute nonresponse adjustments. Based on the output of the CHAID analysis we decided to create weighting classes and perform adjustments separately for the contact rate (equal to the number of households successfully contacted divided by the number of households released for interviewing), the eligibility determination rate (equal to the number of households that were eligible for the survey divided by the number of households that completed the survey divided by the number of households that were contacted and were eligible for the survey). Adjustments were done separately for the baseline newcomers, the newcomers at follow up at six months, and the six-month sample at baseline.

Returning to the mathematical discussion of the weights,

$$(7) W_{5f} = \frac{1}{CTR_{Cf}} ,$$

(8) 
$$W_{6f} = \frac{1}{DR_{Df}}$$
,

$$(9) W_{7f} = \frac{1}{CR_{Ef}} ,$$

Where,

(10) 
$$CTR_{Cf} = \frac{n(contacted)_{Cf}}{n(released)_{Cf}}$$
 (the contact rate),

(11) 
$$DR_{Df} = \frac{n(eligible)_{Df}}{n(contacted)_{Df}}$$
 (the eligibility rate),

(12) 
$$CR_{Ef} = \frac{n(completed)_{Ef}}{n(eligible)_{Ef}}$$
 (the completion rate).

Cf refers to the cells formed for the contact rate adjustments for frame "f" (new-entrant or six-month); Df refers to the cells formed for the eligibility rate adjustments; Ef refers to the cells formed for the completion rate adjustments.

The final weight for each case in the cross-sectional sample was the product of the seven weighting factors.

$$(13) W_{final,if} = W_1 * W_2 * W_3 * W_4 * W_{5f} * W_{6f} * W_{7f}.$$

The sample frames received from the States generally included five days' worth of intakes, while the six-month sample frame included households who entered the program over a one-month period. As a result, sampling rates were typically higher for the new-entrant sample and relatively lower for the six-month sample. This finding affects the "W4" factor and means that, overall, weights tend to be higher for the six-month sample than the new-entrant sample, because for the six-month sample, we are weighting up to a larger frame. In all analyses presented in this report, therefore, we have multiplied the weights of the six-month households so that the sum of the weights for new-entrant households and the sum of the weights for the six-month households are equal. We did this separately in the cross-sectional and longitudinal samples. <sup>50</sup>

The weights used for the six-month households in the longitudinal sample were constructed by adjusting the baseline weights for these households for nonresponse at the follow up survey. We used CHAID analysis to define the adjustment cells, as we did in constructing the weights for the cross-sectional sample. This analysis indicated that weighting classes once again be constructed separately based on the contact rate, determination rate, and completion rate (referred to as  $W_{11f}$ ,  $W_{12f}$ ,  $W_{13f}$  in Tables A.8 to A.10 above). The results of the CHAID analysis also suggested cells for making the adjustments.

<sup>&</sup>lt;sup>50</sup> Diagnostic analyses in Appendices D and G include analyses that are based on the unrestricted sample.

# APPENDIX B EXPANDED SET OF CHARACTERISTICS OF NEW- ENTRANT AND SIX- MONTH SNAP HOUSEHOLDS



In this appendix, we use tabular methods to examine the characteristics of SNAP participants in the study, including both new-entrant and six-month households. The tables are structured the same as the Chapter III tables. All the control variables shown in the Chapter III tables are included in this appendix.

Table B.1 highlights the categorical variables which vary "substantially" between new-entrant and six-month households, where "substantially" is defined as a difference of at least 5 percentage points. Several continuous variables (presented in tables B.5 and B.6) also show considerable variation between the analysis samples.

Table B.1. Variables for Which There is at Least a 5 Percentage Point Difference between New-Entrant and Six-Month Household Percentages For at Least One of the Cross-Sectional or Longitudinal Samples

		Cross Section Sample	Longitudinal Sample
Variable	Table Number	Which Group Has Higher Value of Variable?	Which Group Has Higher Value of Variable?
Region of Residence: Mid-Atlantic	B.2	Six-month	NSD
Region of Residence: Midwestern	B.2	Six-month	NSD
Region of Residence: Southeastern	B.2	New-entrant	NSD
Household has only One Person	B.3	New-entrant	NSD
Household Has Children	B.3	Six-month	NSD
Household Has Disabled Member	B.3	NSD	New-entrant
Household Head is Not Employed	B.3	New-entrant	New-entrant
Household Has No Income	B.4	New-entrant	New-entrant
Receives Financial Support from Family or Friends	B.5	NSD	New-entrant
Lives in House, Townhouse, or Condo	B.7	Six-month	NSD
Change in Household Size in Previous Six Months	B.8	New-entrant	New-entrant
Change in Employment, Pay, or Hours Worked in Previous 6 Months	B.8	New-entrant	New-entrant
Received SNAP Benefits 12 Months Ago	B.9	New-entrant	n.a.
SNAP Benefits Between 101 and 200 per Month	B.9	Six-month	Six-month
SNAP Benefits between 201 and 301	B.9	New-entrant	New-entrant
Children in NSLP in Previous 30 Days	B.10	NSD	New-entrant
Children in SBP in Previous 30 Days	B.10	NSD	New-entrant
Received Emergency Food from Church, Food Bank, etc. in Previous 30 Days	B.10	NSD	New-entrant
Interviewed closer to date of receiving SNAP benefits	B.12	New-entrant	New-entrant
Use Discount Coupons when Buying Food	B.12	NSD	Six-month
Sometimes Buy Large Quantities for Cheap Prices	B.12	NSD	Six-month
Percentage of respondents that in the last 30 days felt sad, nervous, restless, hopeless, worthless	B.14	New-entrant	New-entrant

Source:

SNAP Food Security Survey 2012.

Notes:

"NSD" stands for "no substantial difference" between groups, where "substantial differences" are defined to be 5 percentage points or more. n.a. = not applicable.

The cross-sectional sample refers to a sample of new SNAP participant households and a contemporaneous sample of households that have received SNAP for about six months, interviewed from October 2011 to February 2012. The longitudinal sample refers to sample of new-entrant households interviewed from October 2011 to February 2012 and those same households interviewed again after they received benefits for about six months, from April 2012 to September 2012.

Table B.2. Demographic Characteristics, Language of Interview, and Region of Residence of Six- Month and New- Entrant SNAP Households

	Cross	-Sectional Estir	mates	Long	itudinal Estimat	es
	Percentage of New-Entrant Households (Baseline)	f Percentage of Six-Month Households	Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New-Entrant Households (Six-Month Follow Up)	Difference
Interview Conducted in English Language	90.2 (0.8)	91.5 (0.8)	1.3 (1.1)	90.0 (0.8)	90.2 (0.8)	0.2 (1.1)
Gender of Household Head						
Male Female	36.3 (0.7) 63.7 (0.7)	34.2 (1.0) 65.8 (1.0)	-2.1 (1.2) 2.1 (1.2)	36.3 (0.7) 63.7 (0.7)	36.4 (0.8) 63.6 (0.8)	0.1 (1.1) -0.1 (1.1)
Race and Ethnicity Of Household Head						
Non-Hispanic, white	46.9 (2.5)	50.2 (2.5)	3.3 (3.5)	46.9 (2.5)	46.0 (2.6)	-0.8 (3.6)
Non-Hispanic, black	26.1 (2.1)	24.6 (2.5)	-1.5 (3.3)	26.1 (2.1)	26.1 (2.1)	0.0 (3.0)
Non-Hispanic, other	7.2 (0.6)	7.9 (0.6)	0.7 (0.8)	7.2 (0.6)	7.4 (0.7)	0.2 (0.9)
Hispanic	23.2 (2.3)	21.6 (2.1)	-1.6 (3.1)	23.2 (2.3)	24.0 (2.4)	0.8 (3.3)
Age of Household Head						
18 to 24	19.7 (0.9)	19.8 (0.7)	0.1 (1.1)	19.7 (0.9)	20.4 (0.8)	0.7 (1.2)
25 to 49	52.2 (1.2)	53.8 (1.1)	1.6 (1.6)	52.2 (1.2)	53.7 (1.1)	1.5 (1.6)
50 to 64	21.2 (0.9)	20.2 (0.8)	-1.0 (1.2)	21.2 (0.9)	19.5 (0.9)	-1.7 (1.3)
65 and older	6.9 (0.8)	6.2 (0.5)	-0.7 (0.9)	6.9 (0.8)	6.4 (0.7)	-0.6 (1.1)
Highest Grade Completed of Household Head						
Less than high school	23.0 (0.9)	22.5 (0.9)	-0.5 (1.3)	23.0 (0.9)	22.9 (0.9)	-0.1 (1.3)
High school graduate (diploma or GED)	32.6 (1.1)	31.1 (0.8)	-1.5 (1.4)	32.6 (1.1)	32.7 (1.1)	0.1 (1.6)
Some college, but no degree	35.7 (1.1)	39.0 (0.9)	3.2 (1.4)	35.7 (1.1)	36.0 (1.1)	0.3 (1.6)
Technical, trade, or vocational degree	5.9 (0.4)	6.4 (0.5)	0.5 (0.6)	5.9 (0.4)	5.9 (0.4)	0.0 (0.6)
Associate's degree	6.8 (0.7)	6.6 (0.3)	-0.2 (0.8)	6.8 (0.7)	6.6 (0.7)	-0.2 (1.0)
Bachelor's degree or beyond	8.7 (0.6)	7.4 (0.5)	-1.2 (0.8)	8.7 (0.6)	8.4 (0.6)	-0.2 (0.8)
Region of Residence						
Northeast	12.9 (4.4)	11.8 (4.5)	-1.2 (6.3)	12.9 (4.4)	12.7 (4.3)	-0.2 (6.2)
Mid-Atlantic	7.4 (4.9)	13.5 (6.0)	6.1 (7.7)	7.4 (4.9)	7.5 (4.9)	0.1 (6.9)
Midwest	12.9 (4.4)	18.0 (4.9)	5.4 (6.6)	12.9 (4.4)	12.8 (3.8)	-0.1 (5.8)
Southeast	25.5 (5.6)	17.0 (3.8)	-8.5 (6.8)	25.5 (5.6)	24.7 (5.4)	-0.8 (7.8)
Southwest	12.3 (3.5)	11.0 (3.5)	-1.4 (4.9)	12.3 (3.5)	12.3 (3.5)	0.0 (4.9)
Mountain Plains	5.7 (2.5)	5.6 (3.3)	0.0 (4.1)	5.7 (2.5)	5.8 (2.5)	0.1 (3.5)
West	23.5 (4.3)	23.1 (4.1)	-0.5 (5.9)	23.5 (4.3)	24.2 (4.5)	0.7 (6.2)

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Table B.3. Household Size and Composition of Six- Month and New- Entrant SNAP Households

	Cross-	Sectional Esti	mates	Long	itudinal Estim	ates
	Percentage of New- Entrant Households (Baseline)	Percentage of Six- Month Households	Difference	Percentage of New-Entrant Households (Baseline)		Difference
Household Size						
1 Person	38.4 (1.1)	33.0 (1.1)	-5.5 (1.6)	38.4 (1.1)	36.3 (1.2)	-2.2 (1.6)
2 Person	24.6 (1.1)	24.3 (0.9)	-0.3 (1.4)	24.6 (1.1)	27.8 (1.1)	3.2 (1.6)
3 Person	17.6 (0.6)	19.5 (0.9)	1.9 (1.1)	17.6 (0.6)	16.9 (0.6)	-0.7 (0.8)
4 Person	10.0 (0.5)	12.4 (0.7)	2.4 (0.9)	10.0 (0.5)	9.8 (0.6)	-0.2 (0.8)
5 Person	5.7 (0.5)	7.1 (0.5)	1.5 (0.7)	5.7 (0.5)	5.8 (0.5)	0.1 (0.7)
6+ Person	3.7 (0.4)	3.7 (0.3)	0.0 (0.5)	3.7 (0.4)	3.5 (0.4)	-0.2 (0.6)
Households with Children	40.7 (1.1)	46.1 (1.0)	5.4 (1.5)	40.7 (1.1)	42.5 (1.3)	1.7 (1.7)
Single adult	17.9 (0.7)	21.4 (0.8)	3.5 (1.1)	17.9 (0.7)	20.5 (0.8)	2.6 (1.1)
Multiple adults	22.8 (0.9)	24.7 (0.7)	1.9 (1.1)	22.8 (0.9)	21.9 (1.0)	-0.9 (1.3)
Households without Children	59.3 (1.1)	53.9 (1.0)	-5.4 (1.5)	59.3 (1.1)	57.6 (1.3)	-1.7 (1.7)
Households with Elderly	12.2 (0.8)	11.5 (0.6)	-0.6 (1.0)	12.2 (0.8)	11.3 (0.7)	-0.8 (1.1)
Elderly living alone	4.3 (0.4)	3.9 (0.4)	-0.4 (0.6)	4.3 (0.4)	3.9 (0.4)	-0.3 (0.6)
Elderly living with others	7.9 (2.8)	7.6 (2.5)	-0.3 (3.8)	7.9(2.8)	7.4 (0.5)	-0.5 (2.8)
Households without Elderly	87.9 (0.8)	88.5 (0.6)	0.6 (1.0)	87.9 (0.8)	88.7 (0.7)	0.8 (1.1)
Households with a Disabled Member	32.4 (1.2)	33.9 (0.9)	1.4 (1.5)	32.4 (1.2)	27.4 (1.1)	-5.0 (1.6)
Households without a Disabled Member	67.6 (1.2)	66.1	-1.4 (1.2)	67.6 (1.2)	72.6 (1.1)	5.0 (1.6)

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Table B.4. Employment Status, Monthly Income as Percentage of the Poverty Line, and Earned and Unearned Income of Six- Month and New- Entrant SNAP Households

	Cross-S	ectional Estin	nates	Longitudinal Estimates			
	Percentage of New-Entrant Households (Baseline)	Percentage of Six- Month Households	Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New-Entrant Households (Six-Month Follow Up)	Difference	
Employment Status of Household Head							
Employed full time	12.1 (0.6)	18.0 (0.8)	5.9 (1.0)	12.1 (0.6)	17.7 (0.9)	5.6 (1.1)	
Employed part time	9.4 (1.1)	9.4 (0.6)	0.0 (1.3)	9.4 (1.1)	9.6 (0.7)	0.2 (1.3)	
Not employed	78.5 (1.3)	72.6 (1.1)	-5.9 (1.7)	78.5 (1.3)	72.6 (1.4)	-5.9 (1.9)	
Monthly Income as a Percentage of the Poverty Line							
No income	24.7 (0.9)	19.8 (0.8)	-4.9 (1.2)	24.7 (0.9)	20.4 (0.8)	-4.3 (1.2)	
1% to 50%	27.4 (0.8)	24.3 (1.0)	-3.1 (1.3)	27.4 (0.8)	24.9 (1.0)	-2.5 (1.3)	
51% to 100%	28.3 (0.9)	32.0 (1.0)	3.6 (1.3)	28.3 (0.9)	31.2 (0.7)	2.9 (1.1)	
101% to 130%	7.2 (0.4)	8.6 (0.6)	1.4 (0.7)	7.2 (0.4)	8.5 (0.6)	1.3 (0.7)	
More than 130%	12.4 (0.9)	15.4 (1.1)	3.0 (1.4)	12.4 (0.9)	15.0 (0.9)	2.6 (1.3)	
Percentage of Households with No Earned Income	70.6 (1.2)	63.6 (1.2)	-7.0 (1.7)	70.6 (1.2)	63.6 (1.2)	-7.0 (1.7)	
Percentage of Households with No Unearned Income	40.4 (1.1)	38.7 (1.1)	-1.7 (1.6)	40.4 (1.1)	41.5 (1.1)	1.1 (1.6)	

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Table B.5. Income Sources and Average Monthly Income Amounts of Six- Month and New-Entrant SNAP Households

	Cross-	Sectional Esti	mates	Longitudinal Estimates		
	New-Entrant Households (Baseline)		Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow Up)	Difference
Percentage of Households with Income Type						
TANF	2.6 (0.4)	5.0 (0.4)	2.4 (0.6)	2.6 (0.4)	4.3 (0.3)	1.7 (0.5)
Social Security	21.1 (1.4)	23.7 (1.0)	2.6 (1.7)	21.1 (1.4)	20.5 (1.1)	-0.6 (1.8)
SSI or Supplemental Security Income	9.1 (0.7)	10.5 (0.9)	1.4 (1.1)	9.1 (0.7)	8.7 (0.7)	-0.4 (1.0)
Unemployment insurance or worker's compensation benefits	9.6 (0.7)	9.3 (0.6)	-0.3 (0.9)	9.6 (0.7)	9.0 (0.9)	-0.6 (1.1)
Child support payments	5.2 (0.5)	7.0 (0.5)	1.7 (0.7)	5.2 (0.5)	6.6 (0.6)	1.4 (0.8)
Financial support from friends or family	28.6 (0.7)	24.9 (1.0)	-3.6 (1.2)	28.6 (0.7)	23.5 (0.9)	-5.1 (1.1)
Other income	8.4 (0.6)	10.6 (0.7)	2.2 (0.9)	8.4 (0.6)	9.7 (0.8)	1.3 (1.0)
Median Monthly Income Amount among Households with Positive Income from the Specified Source (in dollars)						
TANF	254.0	347.0	93.0	254.0	300.0	46.0
Social Security	821.0	823.0	2.0	821.0	854.0	33.0
Supplemental Security Income (SSI)	674.0	647.0	-27.0	674.0	687.0	13.0
Unemployment insurance or worker's compensation benefits	600.0	708.0	108.0	600.0	616.0	16.0
Child support payments	281.0	274.0	-7.0	281.0	257.0	-24.0
Financial support from friends or family	130.0	120.0	-10.0	130.0	135.0	5.0
Other income	316.0	300.0	-16.0	316.0	272.0	-44.0

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Table B.6. Household Income, Earnings, and Unearned Income of Six-Month and New-Entrant SNAP Households, Among Households with Income

	Cross-	Sectional Estir	mates	Long	itudinal Estim	ates
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow Up)	Difference
Monthly Household Income among Households with Positive Income (in dollars)						
10th Percentile	100.0	200.0	100.0	100.0	200.0	100.0
25th Percentile	430.0	596.0	166.0	430.0	537.0	107.0
50th Percentile	862.4	1,000.0	137.6	862.4	963.2	100.8
75th Percentile	1,479.4	1,655.5	176.1	1,479.4	1,549.6	70.2
90th Percentile	2,199.0	2,446.2	247.2	2,199.0	2,408.0	209.0
Mean	1,101.2 (22.8)	1,267.5 (31.1)	166.3 (38.6)	1,101.2 (22.8)	1,216.7 (26.0)	115.5 (34.6)
Standard Deviation	1,037.6	1,126.8	89.2	1,037.6	1,133.7	96.1
Monthly Household Earnings among Households with Positive Earnings (in dollars)						
10th Percentile	344.0	412.8	68.8	344.0	430.0	86.0
25th Percentile	688.0	752.5	64.5	688.0	774.0	86.0
50th Percentile	1,161.0	1,290.0	129.0	1,161.0	1,277.1	116.1
75th Percentile	1,720.0	1,892.0	172.0	1,720.0	1,811.4	91.4
90th Percentile	2,580.0	2,752.0	172.0	2,580.0	2,731.4	151.4
Mean	1,355.6 (46.6)	1,501.6 (40.7)	146.0 (61.9)	1,355.6 (46.6)	1,461.5 (34.6)	105.9 (58.0)
Standard Deviation	1,028.6	1,171.7	143.1	1,028.6	1,049.2	20.6
Monthly Household Unearned Income among Households with Positive Unearned Income (in dollars)						
10th Percentile	72.0	84.0	12.0	72.0	100.0	28.0
25th Percentile	200.0	236.0	36.0	200.0	226.0	26.0
50th Percentile	600.0	674.0	74.0	600.0	643.0	43.0
75th Percentile	1,000.0	1,036.0	36.0	1,000.0	1,000.0	0.0
90th Percentile	1,500.0	1,564.0	64.0	1,500.0	1,477.0	-23.0
Mean	723.0 (19.1)	766.9 (25.5)	43.9 (31.9)	723.0 (19.1)	748.0 (20.0)	25.0 (27.7)
Standard Deviation	752.5	699.6	-52.9	752.5	836.4	83.9

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Table B.7. Household Resources Other than Income of Six-Month and New-Entrant SNAP Households

	Cross-	Sectional Estin	nates	Longitudinal Estimates			
	Percentage of New-Entrant Households (Baseline)	Percentage of Six-Month Households	Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New-Entrant Households (Six-Month Follow Up)	Difference	
Currently Own a Vehicle	55.8 (1.0)	57.2 (1.3)	1.4 (1.6)	55.8 (1.0)	56.1 (1.0)	0.3 (1.4)	
Currently Do Not Own, but Have Access to, a Vehicle	19.4 (0.8)	19.8 (0.8)	0.4 (1.1)	19.4 (0.8)	19.5 (0.8)	0.1 (1.1)	
Currently Have a Credit Card	21.7 (1.1)	22.4 (1.0)	0.7 (1.5)	21.7 (1.1)	23.7 (1.1)	2.1 (1.6)	
Residence House, townhouse, condo Mobile home or trailer Apartment Homeless or other <sup>a</sup> Home Ownership Status	48.2 (1.2) 11.2 (1.5) 32.2 (1.7) 8.4 (0.5)	53.0 (1.2) 9.5 (1.1) 31.2 (1.3) 6.3 (0.4)	4.8 (1.7) -1.7 (1.9) -0.9 (2.1) -2.2 (0.6)	48.2 (1.2) 11.2 (1.5) 32.2 (1.7) 8.4 (0.5)	47.4 (1.3) 11.1 (1.4) 35.3 (1.7) 6.2 (0.4)	-0.8 (1.8) -0.2 (2.1) 3.1 (2.4) -2.2 (0.6)	
Owns Rents Lives rent free Does not own but receives Section 8 or Public Housing assistance	14.7 (1.0) 64.7 (1.7) 20.6 (1.0) 9.3 (0.7)	15.8 (0.9) 66.2 (0.9) 18.0 (0.9) 10.6 (0.8)	1.1 (1.3) 1.5 (1.9) -2.6 (1.3) 1.3 (1.1)	14.7 (1.0) 64.7 (1.7) 20.6 (1.0) 9.3 (0.7)	14.8 (1.1) 67.0 (1.6) 18.2 (1.0) 10.4 (0.7)	0.1 (1.5) 2.3 (2.3) -2.4 (1.4) 1.1 (1.0)	
Food Preparation and Storage Capabilities Access to a refrigerator Access to a stand- alone food freezer	98.3 (0.3) 47.9 (1.5)	98.9 (0.2) 48.4 (1.3)	0.6 (0.4) 0.4 (2.0)	98.3 (0.3) 47.9 (1.5)	98.7 (0.3) 51.0 (1.2)	0.3 (0.4) 3.0 (1.9)	
Access to a gas or electric stove Access to a microwave oven	96.8 (0.4) 90.8 (0.5)	97.6 (0.3) 92.6 (0.7)	0.8 (0.5) 1.8 (0.9)	96.8 (0.4) 90.8 (0.5)	97.8 (0.3) 92.5 (0.5)	1.0 (0.5) 1.7 (0.7)	

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Tabulations are based on the following overall sample sizes: 3,275 new-entrant households and 3,375 six-month households in the cross-sectional sample; and 3,275 new-entrant households observed at baseline and again at follow up six months later in the longitudinal sample. Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions. Standard errors in parentheses.

<sup>a</sup>Consists of "homeless, living in shelter or mission", "homeless, living on street", "car, van, or recreational vehicle", "room", "motel or hotel", "abandoned building", or "other".

Table B.8. Changes in Household Size, Housing Status, or Employment, Pay, or Hours Worked in Past Six Months Experienced by Six- Month and New- Entrant SNAP Households

	Cross-S	Sectional Estin	nates	Longitudinal Estimates			
	Percentage of New-Entrant Households (Baseline)	Percentage of Six- Month Households	Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New-Entrant Households (Six-Month Follow Up)	Difference	
Experienced Change in Household Size, Housing Status, or Employment, Pay, or Hours Worked in Past 6 Months	52.1 (1.4)	36.1 (1.6)	-16.0 (2.1)	52.1 (1.4)	34.0 (1.0)	-18.1 (1.7)	
Change in Household Size Birth of child New step, foster, or adopted child	21.1 (1.2) 2.3 (0.3) 0.1 (0.0)	13.8 (0.6) 3.2 (0.3) 0.2 (0.1)	-7.3 (1.3) 0.9 (0.4) 0.2 (0.1)	21.1 (1.2) 2.3 (0.3) 0.1 (0.0)	16.5 (0.8) 3.7 (0.3) 0.0 (0.0)	-4.7 (1.4) 1.4 (0.4) -0.1 (0.0)	
Marriage or new partner Separation or divorce Death of household member Family/boarder moving in Family/boarder moving out	0.2 (0.1) 3.7 (0.4) 1.2 (0.2) 3.9 (0.4) 5.5 (0.4)	0.4 (0.1) 0.9 (0.2) 0.7 (0.1) 3.7 (0.4) 4.3 (0.4)	0.2 (0.1) -2.8 (0.4) -0.6 (0.2) -0.2 (0.6) -1.2 (0.6)	0.2 (0.1) 3.7 (0.4) 1.2 (0.2) 3.9 (0.4) 5.5 (0.4)	0.8 (0.2) 0.6 (0.2) 0.3 (0.1) 4.4 (0.5) 2.9 (0.3)	0.6 (0.2) -3.1 (0.4) -0.9 (0.2) 0.5 (0.6) -2.7 (0.5)	
Evicted from House or Apartment	4.7 (0.5)	2.5 (0.3)	-2.2 (0.6)	4.7 (0.5)	3.3 (0.4)	-1.4 (0.6)	
Change in Employment, Pay, or Hours Worked	39.0 (1.2)	26.3 (1.5)	-12.7 (1.9)	39.0 (1.2)	20.3 (0.9)	-18.7 (1.5)	
Obtained a job (self) Obtained a job (other household member)	2.6 (0.4) 2.8 (0.4)	5.4 (0.6) 3.7 (0.6)	2.9 (0.7) 0.8 (0.7)	2.6 (0.4) 2.8 (0.4)	4.8 (0.5) 4.1 (0.5)	2.2 (0.6) 1.3 (0.6)	
Lost a job (self) Lost a job (other household member)	14.9 (0.9) 18.4 (1.0)	6.8 (0.7) 6.9 (0.8)	-8.0 (1.1) -11.5 (1.3)	14.9 (0.9) 18.4 (1.0)	3.4 (0.4) 3.9 (0.5)	-11.5 (1.0) -14.5 (1.1)	
Increase in pay or hours worked (self)	0.8 (0.2)	1.3 (0.3)	0.5 (0.4)	0.8 (0.2)	1.6 (0.3)	0.8 (0.4)	
Increase in pay or hours worked (other household member)	1.0 (0.2)	1.9 (0.4)	0.9 (0.4)	1.0 (0.2)	1.5 (0.3)	0.5 (0.4)	
Decrease in pay or hours worked (self)	5.9 (0.6)	5.0 (0.6)	-0.9 (0.8)	5.9 (0.6)	2.3 (0.3)	-3.6 (0.7)	
Decrease in pay or hours worked (other household member)	6.4 (0.6)	3.6 (0.4)	-2.9 (0.7)	6.4 (0.6)	2.1 (0.3)	-4.3 (0.7)	

Source:

SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Because respondents may experience multiple trigger events, percentages for aggregate categories such as "any trigger" may not equal the sum of the percentages for the component categories.

Table B.9. SNAP Participation Characteristics of Six- Month and New- Entrant SNAP Households

	Cross-	-Sectional Estim	ates	Longitudinal Estimates			
	Percentage of New-Entrant Households (Baseline)	Percentage of Six-Month Households	Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New-Entrant Households (Six-Month Follow Up)	Difference	
Prior SNAP Participation	49.1 (1.7)	47.9 (0.9)	-1.2 (1.9)	49.1 (1.7)	n.a.	n.a.	
Received Benefits 3 Months Ago	26.7 (2.4)	n.a.	n.a.	26.7 (2.4)	n.a.	n.a.	
Received Benefits 6 Months Ago	36.0 (1.9)	n.a.	n.a.	36.0 (1.9)	n.a.	n.a.	
Received Benefits 12 Months Ago	46.7 (1.4)	40.8 (1.5)	-5.9 (2.1)	46.7 (1.4)	n.a.	n.a.	
Benefit Amount							
\$0 to \$100	16.4 (1.3)	15.7 (0.7)	-0.8 (1.5)	16.4 (1.3)	16.7 (1.0)	0.2 (1.6)	
\$101 to \$200	41.7 (1.8)	48.5 (1.2)	6.8 (2.2)	41.7 (1.8)	48.3 (1.0)	6.6 (2.1)	
\$201 to \$300	18.1 (1.0)	8.8 (0.7)	-9.3 (1.2)	18.1 (1.0)	10.0 (0.6)	-8.1 (1.2)	
\$301 or more	23.8 (1.4)	27.1 (1.0)	3.3 (1.7)	23.8 (1.4)	25.1 (1.1)	1.3 (1.8)	
Mean Benefit Amount	236.1 (7.0)	241.1 (3.6)	5.0 (7.9)	236.1 (7.0)	235.2 (4.2)	-0.9 (8.2)	
Length of Time Benefits Typically Last							
1 week or less	n.a.	14.7 (0.8)	n.a.	n.a.	15.9 (0.8)	n.a.	
2 weeks	n.a.	25.0 (0.8)	n.a.	n.a.	23.0 (0.8)	n.a.	
3 weeks	n.a.	40.7 (1.0)	n.a.	n.a.	39.2 (1.0)	n.a.	
4 weeks	n.a.	17.5 (0.9)	n.a.	n.a.	19.0 (0.7)	n.a.	
More than 4 weeks	n.a.	2.2 (0.2)	n.a.	n.a.	2.9 (0.3)	n.a.	

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Tabulations are based on the following overall sample sizes: 3,275 new-entrant households and 3,375 six-month households in the cross-sectional sample; and 3,275 new-entrant households observed at baseline and again at follow up six months later in the longitudinal sample. Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions. Standard errors in parentheses.

n.a. = not applicable

Table B.10. Participation in Non-SNAP Food Assistance Programs in Past 30 Days of Six-Month and New-Entrant SNAP Households

	Cross-	Sectional Esti	mates	Lon	Longitudinal Estimates			
	Percentage of New- Entrant Households (Baseline)	Percentage of Six- Month Households	Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New-Entrant Households (Six-Month Follow Up)	Difference		
NSLP (children ages 5 to 18) <sup>a</sup>	72.9 (1.9)	74.8 (1.7)	1.8 (2.5)	72.9 (1.9)	48.1 (2.6)	-24.8 (3.2)		
SBP (children ages 5 to 18)	57.5 (2.0)	58.1 (2.0)	0.7 (2.8)	57.5 (2.0)	42.6 (2.0)	-14.9 (2.8)		
NSLP & SBP (children ages 5 to 18)	55.4 (2.0)	56.4 (2.1)	1.1 (2.9)	55.4 (2.0)	39.6 (2.2)	-15.8 (3.0)		
NSLP or SBP (children under age 5)	12.5 (1.5)	13.9 (1.5)	1.4 (2.1)	12.5 (1.5)	12.4 (1.2)	-0.1 (1.9)		
WIC	27.9 (1.3)	29.4 (1.1)	1.4 (1.7)	27.9 (1.3)	31.4 (1.2)	3.5 (1.8)		
Community Programs Received emergency food from a church, food pantry, or food bank	23.0 (0.9)	19.0 (0.6)	-4.0 (1.1)	23.0 (0.9)	17.1 (0.7)	-5.9 (1.1)		
Went to community program or senior center to eat prepared meals	4.4 (0.5)	4.4 (0.4)	0.0 (0.6)	4.4 (0.5)	3.9 (0.4)	-0.5 (0.6)		
Ate meals at a soup kitchen or shelter	4.3 (0.4)	3.2 (0.3)	-1.1 (0.5)	4.3 (0.4)	3.0 (0.3)	-1.3 (0.5)		
Received meals from "Meals on Wheels" or any other home- delivery meal programs	1.5 (0.3)	1.8 (0.2)	0.3 (0.4)	1.5 (0.3)	1.1 (0.2)	-0.4 (0.4)		

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Tabulations are based on the following overall sample sizes: 3,275 new-entrant households and 3,375 six-month households in the cross-sectional sample; and 3,275 new-entrant households observed at baseline and again at follow up six months later in the longitudinal sample. Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions. Standard errors in parentheses.

<sup>a</sup>Differences in NSLP participation percentages for six-month households in the cross-sectional sample and six-month households in the longitudinal sample may be due to seasonal differences. The six-month households in the cross-sectional sample were interviewed in fall and winter of 2011 (that is, during the school year) whereas the six-month households in the longitudinal sample were interviewed six to seven months later (in spring/summer 2012).

Table B.11. Food Purchase Behavior of Six- Month and New- Entrant SNAP Households

	Cross-S	Sectional Estim	ates	Longitudinal Estimates			
	Percentage of New-Entrant Households (Baseline)	Percentage of Six-Month Households		Percentage of New-Entrant Households (Baseline)	Percentage of New-Entrant Households (Six-Month Follow Up)	Difference	
Purchase Most of Groceries at							
Supermarkets / grocery stores	77.3 (1.1)	75.8 (1.2)	-1.5 (1.6)	77.3 (1.1)	79.6 (1.0)	2.3 (1.5)	
Discount stores	14.2 (1.0)	14.7 (1.1)	0.5 (1.5)	14.2 (1.0)	11.2 (0.8)	-3.0 (1.3)	
Warehouse clubs	1.7 (0.3)	2.2 (0.3)	0.5 (0.4)	1.7 (0.3)	2.0 (0.3)	0.3 (0.4)	
Convenience stores	0.4 (0.1)	0.3 (0.1)	0.0 (0.1)	0.4 (0.1)	0.3 (0.1)	-0.1 (0.1)	
Ethnic food stores	1.0 (0.2)	1.2 (0.4)	0.1 (0.4)	1.0 (0.2)	1.2 (0.2)	0.1 (0.3)	
Farmer's markets	0.3 (0.1)	0.3 (0.1)	-0.1 (0.1)	0.3 (0.1)	0.2 (0.1)	-0.1 (0.1)	
Dollar stores	0.3 (0.1)	0.3 (0.1)	0.0 (0.1)	0.3 (0.1)	0.3 (0.1)	0.0 (0.1)	
Other stores	4.8 (0.3)	5.3 (0.7)	0.5 (0.8)	4.8 (0.3)	5.2 (0.5)	0.4 (0.6)	
Reason for Store							
Low prices or sales	50.6 (1.4)	52.7 (1.5)	2.1 (2.1)	50.6 (1.4)	55.2 (1.2)	4.5 (1.8)	
Quality or variety of food	11.0 (0.8)	9.8 (0.7)	-1.2 (1.1)	11.0 (0.8)	8.4 (0.5)	-2.6 (0.9)	
Close to home / Convenient /							
Easy to get to	26.6 (0.8)	26.7 (1.0)	0.2 (1.3)	26.6 (0.8)	24.9 (1.0)	-1.7 (1.3)	
Other	11.3 (0.6)	10.6 (0.6)	-0.8 (0.8)	11.3 (0.6)	11.3 (0.7)	-0.1 (0.9)	
Mode of Transportation							
Drive own car	45.7 (1.0)	47.3 (1.3)	1.7 (1.6)	45.7 (1.0)	47.0 (1.4)	1.3 (1.7)	
Drive someone else's car	9.5 (0.7)	9.1 (0.6)	-0.4 (0.9)	9.5 (0.7)	9.0 (0.6)	-0.5 (0.9)	
Someone else drives	35.0 (0.9)	36.8 (1.3)	1.8 (1.6)	35.0 (0.9)	36.3 (1.3)	1.3 (1.6)	
Walk	16.0 (0.9)	14.3 (0.7)	-1.7 (1.1)	16.0 (0.9)	15.8 (0.9)	-0.2 (1.3)	
Bus	10.1 (1.0)	10.2 (1.0)	0.1 (1.4)	10.1 (1.0)	9.8 (0.6)	-0.4 (1.2)	
Taxi	1.8 (0.3)	2.1 (0.3)	0.3 (0.4)	1.8 (0.3)	2.1 (0.3)	0.3 (0.4)	
Ride bicycle	1.8 (0.5)	1.3 (0.3)	-0.5 (0.6)	1.8 (0.5)	2.0 (0.5)	0.2 (0.7)	
Other	1.6 (0.3)	2.0 (0.4)	0.4 (0.5)	1.6 (0.3)	1.5 (0.2)	-0.1 (0.4)	
Usually go directly from home	93.4 (0.7)	93.9 (0.5)	0.5 (0.9)	93.4 (0.7)	94.7 (0.6)	1.3 (0.9)	
How Many Minutes One Way from Home (among those that usually go directly from home)							
0 to 5	25.8 (1.0)	24.6 (0.9)	-1.3 (1.3)	25.8 (1.0)	26.0 (0.9)	0.1 (1.3)	
6 to 10	30.2 (1.0)	29.8 (1.2)	-0.4 (1.6)	30.2 (1.0)	29.9 (1.0)	-0.3 (1.4)	
11 to 20	29.5 (1.1)	31.0 (0.9)	1.5 (1.4)	29.5 (1.1)	29.9 (1.1)	0.3 (1.6)	
21 to 30	9.3 (0.5)	9.5 (0.6)	0.3 (0.8)	9.3 (0.6)	8.9 (0.5)	-0.4 (0.8)	
31 to 60	4.7 (0.6)	4.5 (0.4)	-0.3 (0.7)	4.7 (0.6)	4.8 (0.5)	0.1 (0.8)	
More than 60	0.5 (0.2)	0.6 (0.1)	0.2 (0.2)	0.5 (0.2)	0.6 (0.1)	0.2 (0.2)	
Median minutes	10.0	10.0	0.0	10.0	10.0	0.0	
How Many Miles One Way from Home (among those that usually go directly from home)							
Less than one mile	12.1 (0.8)	11.9 (0.6)	-0.2 (1.0)	12.1 (0.8)	11.0 (0.9)	-1.1(1.2)	
0-5 miles	55.7 (1.5)	53.9 (1.6)	-1.8 (2.2)	55.7 (1.5)	56.5 (1.8)	0.9 (2.3)	
5-10 miles	16.3 (0.8)	17.5 (1.0)	1.2 (1.3)	16.3 (0.8)	18.1 (1.3)	1.8 (1.5)	
10-20 miles	11.3 (1.1)	11.8 (1.9)	0.5 (2.2)	11.3 (1.1)	10.1 (1.0)	-1.3 (1.5)	
Over 20 miles	4.7 (0.5)	5.0 (0.5)	0.3 (0.7)	4.7 (0.5)	4.3 (0.5)	-0.3 (0.7)	

Source: S

SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Table B.12. EBT Usage, Timing of Receipt of SNAP Benefit Relative to Interview Date, and Money Saving Techniques for Food Spending of Six- Month and New- Entrant SNAP Households

	Cross	-Sectional Estir	mates	Longitudinal Estimates			
	Percentage of New- Entrant Households (Baseline)	Percentage of Six-Month Households	Difference	Percentage of New- Entrant Households (Baseline)	Percentage of New- Entrant Households (Six-Month Follow Up)	Difference	
Percentage of Actual Food Spending Last Week Bought Using EBT Card							
Less than half	11.0 (0.8)	12.9 (0.7)	2.0 (1.1)	11.0 (0.8)	12.6 (0.6)	1.6 (1.0)	
About half	5.2 (0.5)	6.7 (0.6)	1.5 (0.8)	5.2 (0.5)	6.9 (0.6)	1.8 (0.8)	
More than half	83.9 (1.0)	80.4 (0.8)	-3.5 (1.3)	83.9 (1.0)	80.5 (1.0)	-3.4 (1.4)	
Length of Time Between Interview Date and Reported SNAP Benefit Receipt			10.0			10.0	
0 to 5 days	27.3 (1.6)	15.3 (1.6)	-12.0 (2.3)	27.3 (1.6)	16.5 (1.3)	-10.8 (2.1)	
6 to 10 days	25.8 (1.3)	17.8 (1.8)	-8.0 (2.2)	25.8 (1.3)	18.0 (1.8)	-7.8 (2.2)	
11 to 15 days	23.3 (0.8)	20.6 (1.4)	-2.7 (1.6)	23.3 (0.8)	18.3 (1.0)	-5.0 (1.3)	
16 to 20 days	12.9 (0.8)	17.2 (1.2)	4.3 (1.4)	12.9 (0.8)	17.5 (1.0)	4.6 (1.3)	
21 to 25 days	6.4 (0.7)	14.7 (1.6)	8.3 (1.7)	6.4 (0.7)	13.0 (0.8)	6.6 (1.1)	
26+ days	4.3 (0.4)	14.4 (1.0)	10.1 (1.1)	4.3 (0.4)	16.7 (1.0)	12.4 (1.1)	
Money Saving Techniques for Food Spending							
Used coupons when buying food	45.2 (1.0)	47.5 (1.2)	2.3 (1.6)	45.2 (1.0)	50.4 (1.0)	5.2 (1.4)	
Bought food in large quantities to receive bulk discounts	37.9 (0.9)	40.1 (1.1)	2.2 (1.4)	37.9 (0.9)	42.7 (1.2)	4.8 (1.5)	
Bought food items because they were on sale	85.3 (0.8)	86.2 (0.8)	1.0 (1.1)	85.3 (0.8)	86.7 (0.7)	1.4 (1.1)	
Bought food that was near or past its expiration date at a discount	25.9 (0.9)	24.4 (1.0)	-1.5 (1.3)	25.9 (0.9)	29.3 (1.0)	3.5 (1.3)	

Source:

SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Table B.13. Self- Reported Health Status and Body Mass Index of Six- Month and New- Entrant SNAP Households

	Cross-	Sectional Esti	mates	Longitudinal Estimates			
	Percentage of New- Entrant Households (Baseline)	Percentage of Six- Month Households	Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New-Entrant Households (Six-Month Follow Up)	Difference	
Self-Reported Health Status							
Excellent	10.3 (0.6)	10.8 (0.9)	0.5 (1.1)	10.3 (0.6)	11.7 (0.6)	1.4 (0.8)	
Very good	19.9 (0.8)	20.6 (0.8)	0.7 (1.1)	19.9 (0.8)	24.0 (0.8)	4.1 (1.1)	
Good	32.1 (1.1)	30.7 (1.0)	-1.4 (1.5)	32.1 (1.1)	31.0 (0.9)	-1.1 (1.4)	
Fair	26.4 (1.1)	26.0 (0.8)	-0.4 (1.4)	26.4 (1.1)	24.8 (1.0)	-1.6 (1.5)	
Poor	11.3 (0.8)	11.9 (0.7)	0.6 (1.1)	11.3 (0.8)	8.5 (0.7)	-2.8 (1.1)	
Body Mass Index of Respondent (based on self-reported height and weight)							
Less than 18.5	1.8 (0.3)	2.0 (0.3)	0.2 (0.4)	1.8 (0.3)	1.8 (0.3)	0.0 (0.4)	
18.5 to less than 25	33.4 (1.1)	30.6 (1.1)	-2.8 (1.6)	33.4 (1.1)	30.9 (1.2)	-2.5 (1.6)	
25 to less than 30	31.0 (1.2)	31.9 (1.1)	0.8 (1.6)	31.0 (1.2)	32.0 (1.0)	1.0 (1.6)	
30 or more	33.9 (1.3)	35.6 (0.8)	1.8 (1.5)	33.9 (1.3)	35.3 (1.2)	1.5 (1.8)	

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Table B.14. Self- Reported Mental Health and Well- Being of Six- Month and New- Entrant SNAP Households

	Cross-	Sectional Estir	nates	Longitudinal Estimates			
	Percentage of New-Entrant Households (Baseline)	Percentage of Six- Month Households	Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New-Entrant Households (Six-Month Follow Up)	Difference	
Percentage of Respondents that in the Last 30 Days Felt <sup>a</sup>							
So sad nothing could cheer them up	48.0 (0.8)	41.9 (1.3)	-6.1 (1.5)	48.0 (0.8)	38.5 (1.0)	-9.5 (1.3)	
Nervous	50.4 (1.0)	45.6 (1.0)	-4.8 (1.4)	50.4 (1.0)	41.3 (1.3)	-9.1 (1.6)	
Restless or Fidgety	49.5 (1.0)	46.8 (1.1)	-2.7 (1.5)	49.5 (1.0)	40.5 (1.7)	-9.0 (2.0)	
Hopeless	35.4 (0.8)	29.6 (1.1)	-5.8 (1.4)	35.4 (0.8)	25.8 (0.9)	-9.6 (1.2)	
That everything was an effort	62.7 (0.8)	60.2 (1.0)	-2.5 (1.3)	62.7 (0.8)	54.0 (1.3)	-8.7 (1.5)	
Worthless	28.5 (0.9)	24.8 (0.8)	-3.7 (1.2)	28.5 (0.9)	21.6 (0.9)	-6.9 (1.3)	
Percentage of Households that, if Needed Help, Would Get this Amount of Help from Family Living Nearby							
All of the help needed	18.7 (0.7)	21.6 (0.9)	2.9 (1.1)	18.7 (0.7)	19.8 (0.8)	1.1 (1.1)	
Most of the help needed	30.7 (0.9)	31.0 (1.4)	0.2 (1.7)	30.7 (0.9)	31.8 (1.1)	1.1 (1.4)	
Very little of the help needed	30.6 (0.7)	28.9 (1.0)	-1.8 (1.2)	30.6 (0.7)	28.7 (0.9)	-2.0 (1.1)	
No help	20.0 (1.0)	18.6 (0.7)	-1.3 (1.2)	20.0 (1.0)	19.7 (0.8)	-0.2 (1.3)	
Percentage of Households that, if Needed Help, Would Get this Amount of Help from Friends							
All of the help needed	8.3 (0.6)	9.9 (0.8)	1.7 (1.0)	8.3 (0.6)	9.4 (0.5)	1.1 (0.8)	
Most of the help needed	28.0 (0.8)	30.6 (0.9)	2.6 (1.2)	28.0 (0.8)	30.3 (0.9)	2.3 (1.2)	
Very little of the help needed	43.6 (0.9)	40.4 (1.0)	-3.3 (1.3)	43.6 (0.9)	41.7 (1.0)	-1.9 (1.3)	
No help	20.1 (0.8)	19.1 (0.7)	-1.0 (1.1)	20.1 (0.8)	18.6 (1.0)	-1.5 (1.3)	
Percentage of Households that, if Needed Help, Would Get this Amount of Help from Other People in the Community Besides Family and Friends							
All of the help needed	6.0 (0.4)	5.3 (0.4)	-0.7 (0.6)	6.0 (0.4)	4.8 (0.5)	-1.2 (0.6)	
Most of the help needed	18.6 (0.7)	19.8 (1.0)	1.2 (1.2)	18.6 (0.7)	19.5 (0.8)	0.9 (1.1)	
Very little of the help needed	44.9 (0.8)	42.5 (1.2)	-2.4 (1.4)	44.9 (0.8)	43.1 (1.2)	-1.9 (1.4)	
No help	30.5 (0.9)	32.4 (1.3)	1.9 (1.6)	30.5 (0.9)	32.6 (1.3)	2.2 (1.6)	
Percentage of Households that Consider Neighborhood							
Very safe	42.4 (1.5)	43.3 (1.5)	0.9 (2.1)	42.4 (1.5)	43.3 (1.5)	0.9 (2.1)	
Somewhat safe	48.1 (1.2)	46.9 (1.2)	-1.2 (1.7)	48.1 (1.2)	46.8 (1.1)	-1.3 (1.6)	
Very unsafe	9.6 (0.6)	9.8 (0.8)	0.2 (1.0)	9.6 (0.6)	10.0 (0.6)	0.4 (0.8)	

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Tabulations are based on the following overall sample sizes: 3,275 new-entrant households and 3,375 six-month households in the cross-sectional sample; and 3,275 new-entrant households observed at baseline and again at follow up six months later in the longitudinal sample. Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions.

<sup>a</sup>Responses of "all of the time", "most of the time", "a little of the time" were counted as affirmative; "none of the time" were not counted as affirmative.

Table B.15. State Characteristics Associated with Six- Month and New- Entrant SNAP Households

	Cross-	Sectional Estir	nates	Longitudinal Estimates			
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New- Entrant Households (Six-Month Follow Up)	Difference	
State 25 <sup>th</sup> Percentile Wage (Dollars)	10.8 (0.1)	10.8 (0.1)	0.1 (0.1)	10.8 (0.1)	10.8 (0.1)	-0.1 (0.1)	
State Unemployment Rate (Percentage)	8.8 (0.2)	8.5 (0.2)	0.3 (0.3)	8.8 (0.2)	8.8 (0.2)	0.0 (0.3)	
State Offers Broad-Based Categorical Eligibility for SNAP (Percentage)	89.1 (5.6)	89.0 (6.1)	-0.1 (8.3)	89.1 (5.6)	89.0 (5.6)	-0.1 (7.9)	
Average State SNAP Certification Period (Months)	12.2 (0.3)	12.2 (0.3)	0.0 (0.4)	12.2 (0.3)	12.2 (0.3)	0.0 (0.4)	

Note: The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates

compare new SNAP participants to the same participants about six months later.



## APPENDIX C DETAILS FOR FOOD SECURITY REGRESSIONS



### A. Regression Analysis of the Associations between SNAP and Household Food Insecurity and between SNAP and Very Low Food Security

### **Raw Regression Coefficients**

Our main estimates of the association between SNAP and food security are derived from regression analysis of the data, based on logistic regression techniques. As described in the Data and Methodology discussion in Chapter II, we performed a cross-sectional analysis of the baseline data, comparing new-entrant and six-month households, and a longitudinal analysis of the new-entrant household sample at two points in time approximately six months apart. The main independent variable of interest in these analyses was the binary variable that measures whether a household had participated in SNAP for six months or was a new-entrant household. Although we focus on summary measures of the association between SNAP and food security in Chapter IV, in this section we describe the full set of regression coefficients and standard errors to provide background information for regression results behind the summary measures.

Table C.1 presents the regression coefficients and standard errors from the logistic regression of household food insecurity. In the cross-sectional sample, participating in SNAP for six months was negatively associated with the likelihood that a household was food insecure. Households were also less likely to be food insecure if they completed high school or beyond, relative to less than high school; conducted their interview in English rather than Spanish; had children; had an elderly member in the household; lived in the Northeast or Mid-Atlantic compared with the West; or lived in a State that offered broad-based categorical eligibility. In contrast, households were more likely to be food insecure if they had a household head age 25 to 64, compared with having a household head age 18 to 24; had a household head experiencing depression in the past 30 days; had a disabled person living in the household; participated in SNAP prior to their current enrollment; received SSI or unemployment compensation; or experienced a change in household size, had been evicted from their house or apartment, or experienced a change in employment, pay, or hours worked in the past six months. The coefficients of the remaining variables were not statistically significant at the 10 percent level.

Table C.1. Coefficients and Standard Errors for Food Insecurity Logistic Regressions

	Cross-Sectional Estimates		Longitudinal Estimates	
	Coefficient	Standard Error	Coefficient	Standard Error
Six-Month SNAP Participant (new entrant participant is referent group)	-0.197***	0.059	-0.444***	0.055
Household Head is Female (male is referent group)	0.005	0.078	0.014	0.091
Race and Ethnicity of Household Head (non-Hispanic white is referent				
group)				
Non-Hispanic black	0.003	0.097	-0.034	0.089
Non-Hispanic other	0.088 -0.054	0.109	-0.082	0.126
Hispanic	-0.054	0.127	0.049	0.137
Age of Household Head (18 to 24 is referent group) 25-49	0.415***	0.004	0.391***	0.105
50-64	0.415	0.086 0.110	0.391	0.105
65 and older	0.218	0.110	0.487**	0.110
Highest Grade Completed (referent group is less than high school)	0.001	0.207	0.107	0.200
High school	-0.221**	0.094	-0.158	0.118
Some college	-0.220**	0.096	-0.213**	0.097
College and beyond	-0.455***	0.153	-0.563***	0.132
Employment Status of Household Head (nonemployed is referent				
group)				
Employed full time	-0.016	0.110	-0.085	0.117
Employed part time	0.108	0.106	0.043	0.093
Household Head Felt Depressed in Past 30 Days (not depressed is referent group)	1.040***	0.085	1.006***	0.085
Interview Conducted in English Language (Spanish is referrent group)	-0.361**	0.170	-0.311	0.202
Monthly Income as a Percentage of the Poverty Line	-0.035	0.059	-0.052	0.063
Household Size	0.008	0.026	-0.017	0.029
Household Contains Children (referent group is no children)	-0.395***	0.116	-0.387***	0.110
Household Contains Elderly (referent group is no elderly)	-0.373**	0.146	-0.587***	0.153
Household Contains Disabled Individual (referent group is no disabled)	0.247***	0.076	0.302***	0.074
Participated in SNAP Prior to Current Spell (referent group is never participated prior)	0.181**	0.081	0.136*	0.078
Participation in Federal or State Programs				
TANF	-0.101	0.158	0.222	0.223
Welfare	-0.231	0.185	-0.43	0.280
SSI	0.207*	0.110	0.188	0.118
Unemployment compensation	0.235**	0.099	0.279***	0.089
Experienced Trigger Events in Past Six Months				
Change in household size	0.228***	0.077	0.175***	0.065
Eviction	0.942***	0.268	0.943***	0.246
Change in employment, pay, or hours worked	0.155***	0.055	0.119*	0.068
Region of Residence (Western Region is referent group)				
Northeast	-0.355***	0.129	-0.318**	0.154
Mid-Atlantic	-0.313**	0.146	-0.286	0.190
Midwest	-0.170	0.121	-0.094	0.141
Southeast	-0.111	0.160	-0.137	0.165
Southwest	0.028	0.192	-0.006	0.207
Mountain Plains	-0.184	0.191	-0.116	0.230
State 25 <sup>th</sup> Percentile Wage	-0.020	0.081	0.04	0.075
State Unemployment Rate	-0.003	0.028	-0.013	0.034
State Offers Broad-Based Categorical Eligibility for SNAP (referent group is not having BBCE)	-0.215**	0.085	-0.052	0.091
Average State SNAP Certification Period	0.020*	0.012	0.011	0.014
Sample Size	6,432		6,331	

 $<sup>^{\</sup>star},\,^{\star\star},\,^{\star\star\star}$  Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

In the longitudinal sample, participating in SNAP for six months was negatively associated with the likelihood that a household was food insecure (Table C.1). Households were also less likely to be food insecure if they completed some college or beyond, relative to less than high school; had children; had an elderly member in the household; or lived in the Northeast compared with the West. In contrast, households were more likely to be food insecure if they had a household head age 25 and older, compared with having a household head age 18 to 24; had a household head experiencing depression in the past 30 days; had a disabled person living in the household; participated in SNAP prior to their current enrollment; received unemployment compensation; or had a change in household size, had been evicted from their house or apartment, or experienced a change in employment, pay, or hours worked in the past six months. The coefficients of the remaining variables were not statistically significant at the 10 percent level.

Table C.2 presents the analogous set of regression coefficients and standard errors from the logistic regression of whether a household had very low food security. The sets of variables that were statistically associated with very low food security in both samples generally were similar to the sets from the food insecurity regressions. Two notable exceptions include highest grade completed and household size. More education was associated with a lower likelihood that a household was food insecure, but was generally not associated with the likelihood that a household had very low food security. Having more people in the household was not associated with the likelihood that a household was food insecure, but was associated with a lower likelihood that the household had very low food security.

Table C.2. Regression Coefficients of the Effects of SNAP Participation and Household Characteristics on a Household's Likelihood of Having Very Low Food Security

	Cross-Section	nal Estimates	Longitudinal Estimates	
	Coefficient	Standard Error	Coefficient	Standard Error
Six-Month SNAP Participant (new entrant participant is referent group)	-0.224***	0.049	-0.286***	0.050
Household Head is Female (male is referent group)	-0.157**	0.079	-0.141	0.100
Race and Ethnicity of Household Head (non-Hispanic white is referent group)				
Non-hispanic black	0.058	0.075	-0.024	0.093
Non-hispanic other	0.073	0.125	-0.025	0.195
Hispanic	-0.112	0.108	-0.159	0.145
Age of Household Head (18 to 24 is referent group) 25-49	0.252***	0.078	0.343***	0.117
50-64	0.252	0.078	0.343	0.117
65 and older	-0.101	0.227	-0.015	0.279
Highest Grade Completed (referent group is less than high school)				
High school	0.004	0.102	0.035	0.140
Some college	0.069	0.078	-0.018	0.109
College and beyond	-0.143	0.127	-0.261**	0.126
Employment Status of Household Head (nonemployed is referent group)				
Employed full time	0.018	0.124	-0.112	0.110
Employed part time	0.040	0.112	-0.089	0.088
Household Head Felt Depressed in Past 30 Days (not depressed is referent group)	1.099***	0.117	1.093***	0.077
Interview Conducted in English Language (Spanish is referrent group)	0.210	0.211	0.339**	0.133
Monthly Income as a Percentage of the Poverty Line	-0.085	0.053	-0.046	0.054
Household Size	-0.078***	0.024	-0.069**	0.029
Household Contains Children (referent group is no children)	-0.280***	0.096	-0.291***	0.082
Household Contains Elderly (referent group is no elderly)	-0.416**	0.172	-0.481**	0.214
Household Contains Disabled Individual (referent group is no disabled)	0.389***	0.066	0.302***	0.081
Participated in SNAP Prior to Current Spell (referent group is never participated prior)	0.273***	0.089	0.228***	0.080
Participation in Federal or State Programs	0.1/0	0.450	0 5 40***	0.470
TANF Welfare	0.162 -0.130	0.150 0.190	0.548*** -0.211	0.170 0.173
SSI	-0.130 0.178	0.109	0.165	0.173
Unemployment compensation	0.379***	0.117	0.323***	0.075
Experienced Trigger Events in Past Six Months				
Change in household size	0.291***	0.087	0.253***	0.086
Eviction	0.726***	0.186	0.660***	0.213
Change in employment, pay, or hours worked	0.176**	0.069	0.212***	0.075
Region of Residence (western region is referent group)				
Northeast	-0.174	0.118	-0.266*	0.149
Mid-Atlantic	-0.037	0.169	0.078	0.195
Midwest Southeast	-0.035 -0.011	0.127 0.149	-0.047 -0.156	0.136 0.159
Southwest	0.131	0.196	0.053	0.139
Mountain Plains	0.092	0.196	-0.07	0.225
State 25 <sup>th</sup> Percentile Wage	-0.037	0.078	-0.007	0.079
State Unemployment Rate	0.029	0.025	0.019	0.030
State Offers Broad-Based Categorical Eligibility for SNAP (referent group is not having BBCE)	-0.074	0.083	-0.039	0.088
Average State SNAP Certification Period	0.010	0.014	0.008	0.014
Sample Size	6,432		6,331	

 $<sup>^{\</sup>star},\,^{\star\star},\,^{\star\star\star}$  Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Table C.3 presents the regression coefficients and standard errors from the logistic regression of food insecurity for households with children. In the cross-sectional sample, participating in SNAP for six months was negatively associated with the likelihood that a household was food insecure. Households were also less likely to be food insecure if they completed high school or some college, relative to less than high school, or conducted their interview in English rather than Spanish. In contrast, households were more likely to be food insecure if they had a household head age 25 to 49, compared with having a household head age 18 to 24; had a household head experiencing depression in the past 30 days; or experienced a change in household size, or had been evicted from their house or apartment in the past six months. Households also were more likely to be food insecure the greater the age of the oldest child in the household.

In the longitudinal sample, participating in SNAP for six months was negatively associated with the likelihood that a household was food insecure (Table C.3). Households were also less likely to be food insecure if the household head had completed high school or beyond, relative to less than high school; or conducted the interview in English rather than in Spanish. In contrast, households were more likely to be food insecure if they had a household head age 25 to 64, compared with having a household head age 18 to 24; had a household head experiencing depression in the past 30 days; had a disabled person living in the household; had received TANF; or experienced a change in household size or had been evicted from their house or apartment in the past six months. Like the cross-sectional sample, households also were more likely to be food insecure the greater the age of the oldest child in the household.

Table C.3. Regression Coefficients of the Effects of SNAP Participation and Household Characteristics on a Household with Children's Likelihood being Food Insecure

	Cross-Sectional Estimates		Longitudinal Estimates	
	Coefficient	Standard Error	Coefficient	Standard Error
Six-Month SNAP Participant (new entrant participant is referent group)	-0.418***	0.105	-0.511***	0.082
Household Head is Female (male is referent group)	0.023	0.159	0.145	0.170
Race and Ethnicity of Household Head (non-Hispanic white is referent group)				
Non-hispanic black	0.138	0.109	0.154	0.152
Non-hispanic other	0.062	0.203	-0.067	0.189
Hispanic	-0.022	0.121	-0.139	0.108
Age of Household Head (18 to 24 is referent group)	0.007**	0.104	0.007**	0.450
25-49 50-64	0.387** 0.368	0.184 0.250	0.337** 0.327**	0.158 0.166
65 and older	0.308	0.470	0.327	0.188
Highest Grade Completed (referent group is less than high school)	0.072	0.170	0.201	0.001
High school	-0.240*	0.127	-0.332***	0.122
Some college	-0.224*	0.131	-0.308**	0.154
College and beyond	-0.285	0.206	-0.415*	0.228
Employment Status of Household Head (nonemployed is				
referent group)	0.010	0.454	0.010	0.407
Employed full time Employed part time	-0.013 0.143	0.154 0.155	0.012 -0.034	0.197 0.153
Household Head Felt Depressed in Past 30 Days (not depressed	1.264***	0.102	1.218***	0.133
is referent group)				
Interview Conducted in English Language (Spanish is referrent group)	-0.961***	0.164	-0.913***	0.166
Monthly Income as a Percentage of the Poverty Line	-0.044	0.076	-0.143	0.099
Household Size	-0.008	0.036	-0.003	0.039
Household Contains Elderly (referent group is no elderly)	-0.407	0.390	-0.276	0.554
Household Contains Disabled Individual (referent group is no disabled)	0.175	0.170	0.283**	0.110
Participated in SNAP Prior to Current Spell (referent group is never participated prior)	0.008	0.113	0.049	0.097
Participation in Federal or State Programs				
TANF	0.150	0.141	0.373**	0.150
Welfare SSI	-0.061 -0.162	0.439 0.257	-0.023 -0.264	0.566 0.208
Unemployment compensation	0.070	0.237	0.239	0.208
Experienced Trigger Events in Past Six Months	0.070	027	0.207	0
Change in household size	0.279***	0.096	0.230**	0.102
Eviction	0.476**	0.200	0.599**	0.278
Change in employment, pay, or hours worked	0.094	0.095	0.019	0.089
Region of Residence (western region is referent group)				
Northeast	-0.224	0.190	-0.374	0.304
Mid-Atlantic	0.069	0.252	-0.402	0.306
Midwest Southeast	-0.082 -0.196	0.189 0.221	-0.354 -0.068	0.228 0.292
Southwest	-0.198 -0.058	0.221	-0.086 -0.182	0.292
Mountain Plains	0.054	0.300	-0.102	0.350
State 25 <sup>th</sup> Percentile Wage	0.034	0.098	0.075	0.109
State Unemployment Rate	-0.02	0.039	0.001	0.060
State Offers Broad-Based Categorical Eligibility for SNAP	0.197	0.132	-0.068	0.128
(referent group is not having BBCE)				
Average State SNAP Certification Period	0.012	0.017	0.012	0.020
Age of Oldest Child in Household	0.082***	0.009	0.081***	0.009
Sample Size	2,707		2,486	

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Table C.4 presents the regression coefficients and standard errors from the logistic regression of whether a household with children had very low food security. In the cross-sectional sample, participating in SNAP for six months was negatively associated with the likelihood that children had very low food security. Children were also less likely to have very low food security if they lived in a household in which the household head completed high school, relative to less than high school; conducted their interview in English rather than Spanish; participated in SNAP prior to their current enrollment; or had a change in pay, employment, or hours worked over the past six months. In addition, the state unemployment rate was negatively associated with food insecurity. In contrast, children were more likely to have very low food security if the household head was black, compared with non-Hispanic white; had a household head experiencing depression in the past 30 days; had a disabled member; the household head was receiving TANF or unemployment compensation; or if the household had an older child.

In the longitudinal sample, participating in SNAP for six months was not associated with the likelihood that children had very low food security at the 0.10 level (Table C.4). Children were less likely to have very low food security if the respondent conducted their interview in English rather than Spanish; the household residence was in the Midwest or Mountain Plan states; if the state of residence offered broad-based categorical eligibility for SNAP, compared with not having BBCE. In addition, the state unemployment rate was negatively associated with very low food security. Children were more likely to have very low food security if the head of household was black, compared to non-Hispanic white; had experienced depression within the last 30 days; was receiving unemployment compensation; if the household had undergone a change in size over the past six months; had a disabled member, or an older child.

Table C.4. Regression Coefficients of the Effects of SNAP Participation and Household Characteristics on a Household with Children's Likelihood of Having Very Low Food Security

	Cross-Se Estim		Longitudina	l Estimates
	Coefficient	Standard Error	Coefficient	Standard Error
Six-Month SNAP Participant (new entrant participant is referent group)	-0.722***	0.280	-0.199	0.214
Household Head is Female (male is referent group)	-0.229	0.251	-0.04	0.249
Race and Ethnicity of Household Head (non-Hispanic white is				
referent group) Non-hispanic black	0.941***	0.272	1.055***	0.273
Non-hispanic other	0.196	0.388	-0.107	0.526
Hispanic	0.454	0.315	0.335	0.324
Age of Household Head (18 to 24 is referent group)				
25-49	0.149	0.337	-0.042	0.282
50-64	0.670	0.417	0.367	0.405
65 and older	0.572	0.764	-1.393	1.302
Highest Grade Completed (referent group is less than high				
school) High school	-0.537*	0.326	-0.34	0.274
Some college	-0.182	0.254	-0.225	0.276
College and beyond	-0.279	0.405	-0.594	0.471
Employment Status of Household Head (nonemployed is				
referent group) Employed full time	0.237	0.355	0.101	0.276
Employed part time	0.340	0.367	-0.332	0.472
Household Head Felt Depressed in Past 30 Days (not depressed is referent group)	1.439***	0.320	1.703***	0.422
Interview Conducted in English Language (Spanish is referrent group)	-0.869***	0.354	-0.761*	0.417
Monthly Income as a Percentage of the Poverty Line	0.039	0.194	-0.145	0.128
Household Size	-0.005	0.067	-0.025	0.087
Household Contains Elderly (referent group is no elderly)	-0.751	0.794	-0.101	0.447
Household Contains Disabled Individual (referent group is no disabled)	0.446*	0.268	0.602**	0.259
Participated in SNAP Prior to Current Spell (referent group is never participated prior)	-0.363*	0.209	-0.157	0.290
Participation in Federal or State Programs				
TANF	0.669*	0.361	0.334	0.467
Welfare	-0.269	0.569	-0.516	0.779
SSI Unemployment compensation	-0.558 0.695***	0.416 0.238	-0.753 0.396*	0.473 0.224
·	0.095	0.236	0.390	0.224
Experienced Trigger Events in Past Six Months Change in household size	0.392	0.264	0.522***	0.174
Eviction	0.055	0.542	0.431	0.504
Change in employment, pay, or hours worked	-0.376**	0.188	-0.198	0.171
Region of Residence (western region is referent group)				
Northeast	-0.226	0.493	-0.281	0.498
Mid-Atlantic	0.247	0.549	-0.52	0.543
Midwest Southeast	-0.018 -0.18	0.462 0.57	-0.976**	0.480 0.523
Southwest	-0.18 -0.187	0.57	-0.382 -0.774	0.523
Mountain Plains	-1.01	0.072	-1.585**	0.037
State 25 <sup>th</sup> Percentile Wage	0.035	0.266	0.091	0.192
State Unemployment Rate	-0.273***	0.107	-0.219*	0.121
State Offers Broad-Based Categorical Eligibility for SNAP	-0.038	0.227	-0.770***	0.223
(referent group is not having BBCE)	0.010	0.015	0.00	0.00=
Average State SNAP Certification Period	-0.048	0.043	-0.02	0.037
Age of Oldest Child in Household	0.120***	0.023	0.107***	0.023
Sample Size	2,707		2,486	

 $<sup>^{\</sup>star},\,^{\star\star},\,^{\star\star\star}$  Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

# APPENDIX D SENSITIVITY ANALYSES FOR FOOD SECURITY REGRESSIONS



The finding in Chapter IV that SNAP was associated with improved food security was generally consistent across the cross-sectional and longitudinal samples, across the two outcome measures of food insecurity and very low food security, and across household food security and child food security. Nevertheless, we conducted auxiliary analyses to determine whether the associations between SNAP and food insecurity (or very low food security) were sensitive to the empirical modeling decisions or decisions related to which households were included in the analysis sample. The findings reported in Chapter IV were found to be robust to these alternative specifications. In this appendix, we present the results of these auxiliary analyses.

## Diagnostic Checks Associated with Model Specification

We conducted several auxiliary analyses to determine whether the associations between SNAP and food insecurity (or very low food security) were sensitive to the statistical model or the set of explanatory variables included in the model. The findings reported in Chapter IV were found to be robust to these alternative specifications.

Ordinary least squares (OLS). In place of estimating a logistic regression model, we estimated an OLS regression of food insecurity (or very low food security) on SNAP and the same set of explanatory variables used above. This allowed us to test the sensitivity of our findings to the functional form of the model. Relative to our main findings presented above, the associations between SNAP and food insecurity and between SNAP and very low food security decreased by less than half a percentage point in the cross-sectional sample and by less than one percentage point in the longitudinal sample (Table D.1). For example, in the cross-sectional sample, the estimated association between SNAP and the percentage of food insecure households was a decrease of -4.3 percentage points, compared to a decrease of -4.6 percentage points in the original model.

Table D.1. Regression-Adjusted Percentage of Households That Are Food Insecure or That Have Very Low Food Security, by Six-Month and New-Entrant SNAP Participation Status and by Model Specification

	Cross-S	Sectional Estir	nates	Longitudinal Estimates			
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference	
Food Insecure							
Main Model Specification (Logistic Regression Model)	65.4	60.8	-4.6***	65.1	54.5	-10.6***	
Alternative Model Specification (OLS Regression Model)	64.2	60.0	-4.3***	63.9	54.2	-9.7***	
Food Insecure with Very Low Food Security							
Main Model Specification (Logistic Regression Model)	36.4	31.4	-5.0***	35.9	29.6	-6.3***	
Alternative Model Specification (OLS Regression Model)	38.0	33.4	-4.6***	37.7	31.9	-5.8***	

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later

**Explanatory variables.** Maintaining the logistic regression model, we also assessed the specification of the model in terms of the set of explanatory variables used. Our basic analysis used a relatively large number of explanatory variables, reflecting both the richness of the data set and the many variables that may affect food security and explain differences between SNAP six-month and new-entrant households. We tested the sensitivity of our findings using a more parsimonious set of explanatory variables limited to household size, household composition (whether the household had children, whether the household had an elderly individual living in the household, whether the household had a disabled individual living in the household), household income, region of residence, interview conducted in English, and prior SNAP participation. As Table D.2 shows, relative to our main findings, SNAP was associated with larger decreases in food insecurity and very low food security (-6.5 percentage points for food insecurity in the cross-sectional sample, compared to -4.6 percentage points in the original model, for example). A statistical comparison of the model fit from these "restricted" models to the original specification (the "unrestricted" models) rejected using the parsimonious specification in favor of using the original model for both the cross-sectional and longitudinal samples and for food insecurity and very low food security.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Table D.2. Regression-Adjusted Percentage of Households That Are Food Insecure or That Have Very Low Food Security, by Six-Month and New-Entrant SNAP Participation Status and by Whether Smaller Set of Explanatory Variables Is Used

	Cross-S	Sectional Estir	mates	Long	itudinal Estima	ates
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference
Food Insecure						
Main Model Specification (Original Set of Explanatory Variables)	65.4	60.8	-4.6***	65.1	54.5	-10.6***
Alternative Model Specification (Smaller Set of Explanatory Variables)	65.7	59.2	-6.5***	65.7	53.2	-12.5***
Food Insecure with Very Low Food Security						
Main Model Specification (Logistic Regression Model)	36.4	31.4	-5.0***	35.9	29.6	-6.3***
Alternative Model Specification (OLS Regression Model)	38.6	31.5	-7.0***	38.5	29.7	-8.8***

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

**Fixed-effects model.** Continuing to use a balanced data file that restricts the sample of newentrant households to only those households that also completed a follow-up interview about six months later, we estimated a fixed-effects model, which makes it possible to account for time-invariant differences across households. This can reduce the chances of having "omitted variable bias" caused by a correlation between an unobserved time-invariant household factor and both SNAP participation and food security. (This, of course, can be done only with the longitudinal sample.) As an approximation, we estimated the standard errors of the model without accounting for the complex survey design.

In this auxiliary analysis, SNAP was associated with a decrease in the percentage of households that were food insecure of 11.3 percentage points (Table D.3). The comparable association in our main model specification was -10.6 percentage points. In the very low food security regressions, SNAP was associated with a decrease in the percentage of households that had very low food security of 7.4 percentage points, compared to a reduction of 6.3 percentage points without fixed effects. The high degree of correspondence between the two sets of findings suggests that our results are robust to using a fixed-effects model to control for time-invariant factors when estimating the association between SNAP and food security.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Table D.3. Regression-Adjusted Percentage of Households That Are Food Insecure or That Have Very Low Food Security, by Six-Month and New-Entrant SNAP Participation Status and by Whether Fixed-Effects Model Is Used in the Longitudinal Analysis

	Cross-S	Sectional Estir	mates	Longi	tudinal Estim	ates
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New- Entrant Households (Six-Month Follow-Up)	Difference
Food Insecure						
Main Model Specification (Logistic Regression; No Fixed Effects)	65.4	60.8	-4.6***	65.1	54.5	-10.6***
Alternative Model Specification (OLS Regression with Fixed Effects)	N.A.	N.A.	N.A.	65.0	53.7	-11.3***
Food Insecure with Very Low Food Security						
Main Model Specification (Logistic Regression; No Fixed Effects)	36.4	31.4	-5.0***	35.9	29.6	-6.3***
Alternative Model Specification (OLS Regression with Fixed Effects)	N.A.	N.A.	N.A.	38.7	31.3	-7.4***

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

#### N.A. = Not Available

## Diagnostic Checks Associated with the Amount of Time Between the Interview Date and the Date of Receipt of SNAP Benefits

We conducted several auxiliary analyses to determine whether the associations between SNAP and food insecurity (or very low food security) were sensitive to the timing of the interviews relative to when respondents received their SNAP benefits. The food security findings reported in Chapter IV were found to be robust to these alternative specifications.

The survey asked new-entrant households whether they had received their SNAP benefits yet. For those new-entrant households that reported receiving their benefit, the survey requested the date of benefit receipt. Six-month households were asked only to provide the date of the most recent receipt of SNAP benefits.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

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Almost 30 percent of new-entrant households were interviewed within 5 days of receiving their SNAP benefit<sup>51</sup> (Table D.4). Another 26 percent were interviewed within 6 to 10 days and 23 percent within 11 to 15 days of their reported date of benefit receipt. For six-month households, there was generally a longer time between the interview date and the reported receipt of benefits, by design of the study. (An analytic objective in conducting the telephone survey was to minimize the time between program entry and the baseline interview for new-entrant households so that respondents' information pertained to the time period prior to entry into SNAP; this was not applicable to six-month households.)

Table D.4. Length of Time Between Interview Date and Reported SNAP Benefit Receipt

	Cross-	Sectional Estim	nates	Longitudinal Estimates			
	Percentage of New-Entrant Households (Baseline)	Percentage	Difference	Percentage of New- Entrant Households (Baseline)	Percentage of New-Entrant Households (Six-Month Follow Up)	Difference	
0 to 5 Days	27	15	-12	27	17	-11	
6 to 10 Days	26	18	-8	26	18	-8	
11 to 15 Days	23	21	-3	23	18	-5	
16 to 20 Days	13	17	4	13	18	5	
21 to 25 Days	6	15	8	6	13	7	
26+ Days	4	14	10	4	17	13	

Source:

SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Tabulations are based on the following overall sample sizes: 3,275 new-entrant households and 3,375 six-month households in the cross-sectional sample; and 3,275 new-entrant households observed at baseline and again at follow up six months later in the longitudinal sample. Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions.

We re-estimated our original specification including "days since benefit receipt" as one of the explanatory variables. In this specification, participating in SNAP for about six months was associated with decreases in the percentages of households that were food insecure by 4.2 percentage points in the cross-sectional sample and 10.4 percentage points in the longitudinal sample (Table D.5). These are similar to the estimates in our main specification of 4.6 and 10.6, respectively. Repeating this sensitivity analysis using very low food security as the outcome measure, we find that SNAP was associated with decreases in the percentage of households that experienced very low food security by 3.9 percentage points in the cross-sectional sample and 5.9 percentage points in the longitudinal sample—similar to the estimates in our main specification of 5.0 and 6.3, respectively.

<sup>&</sup>lt;sup>51</sup> Sixteen percent of new-entrants were interviewed before receiving benefits and are characterized as having "0" days since benefit receipt.

Table D.5. Regression-Adjusted Percentage of Households That Are Food Insecure or That Have Very Low Food Security, by Six- Month and New- Entrant SNAP Participation Status and by Whether Model Includes "Days Since SNAP Benefit Receipt" Variable

	Cross-S	Sectional Estir	mates	Longitudinal Estimates		
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)		Difference
Food Insecure						
Main Model Specification	65.4	60.8	-4.6***	65.1	54.5	-10.6***
Alternative Model That Includes "Days Since Benefit Receipt" as Explanatory Variable	65.4	61.2	-4.2***	64.4	54.0	-10.4***
Food Insecure with Very Low Food Security						
Main Model Specification	36.4	31.4	-5.0***	35.9	29.6	-6.3***
Alternative Model That Includes "Days Since Benefit Receipt" as Explanatory Variable	35.9	31.9	-3.9***	35.0	29.1	-5.9***

Source:

SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

As an additional set of sensitivity analyses, we categorized new-entrant households into four groups based on the days since benefit receipt: 0 days, greater than 0 days, 1 to 11 days, or 12 days or more. <sup>52</sup> We estimated the food insecurity and very low food security regressions for each of these sets of new-entrant households and the full set of six-month households.

The findings from the main specification reported earlier were robust to these alternative specifications. As anticipated, there was a tendency for the groups interviewed before receiving benefits or within a short time of receiving benefits to have stronger associations between SNAP and food security. For instance, for households that had not received benefits as of the interview date, SNAP participation was associated with greater reductions in food insecurity than for the entire samples in the main analysis. The reduction in food insecurity in the sensitivity analysis was 12.7 percentage points in the cross-sectional sample and 18.9 percentage points in the longitudinal sample (Table D.6). Among households that had already received benefits by the time of the

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

<sup>&</sup>lt;sup>52</sup> Eleven days was the median number of days in the new-entrant sample among new-entrant households that had received their benefit at the time of the interview.

interview, the associations between SNAP and food insecurity (or very low food security) were, for the most part, statistically indistinguishable for households that had received their benefit at least 12 days before the interview from the associations for households that had received benefits more recently (Table 5). The exception was for the cross-sectional analysis of very low food security, in which the reduction was larger among households that had received their benefits more recently.

Table D.6. Regression- Adjusted Percentage of Households That Are Food Insecure or That Have Very Low Food Security, by Six- Month and New- Entrant SNAP Participation Status and by Whether SNAP Benefits Had Been Received Before the Interview and by Number of Days Since SNAP Benefit Receipt for New- Entrant Households

	Cross-	Sectional Estin	nates	Longitudinal Estimates		
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference
Food Insecure <sup>a</sup>						
Main analysis sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***
New-entrant households that had not received benefits before interview	72.5	59.8	-12.7*** <sup>b</sup>	72.2	53.3	-18.9*** <sup>b</sup>
New-entrant households that had received benefits before interview	63.8	60.3	-3.5**	63.5	54.1	-9.4***
New-entrant households had received benefits 1 to 11 days before interview	65.1	60.0	-5.1***	64.5	53.7	-10.8***
New-entrant households that had received benefits at least 12 days before interview	61.6	59.9	-1.6	61.6	53.4	-8.2***
Food Insecure with Very Low Food Security <sup>a</sup>						
Main analysis sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***
New-entrant households that had not received benefits before interview	40.8	30.2	-10.6*** <sup>c</sup>	40.3	28.1	-12.3*** <sup>c</sup>
New-entrant households that had received benefits before interview	35.2	31.2	-4.0***	34.7	29.5	-5.2***
New-entrant households had received benefits 1 to 11 days before interview	36.6	30.8	-5.8*** <sup>c</sup>	35.7	28.9	-6.9***
New-entrant households that had received benefits at least 12 days before interview	32.9	30.8	-2.1	32.6	28.8	-3.8**

Source: SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

<sup>&</sup>lt;sup>a</sup> All samples use the original set of six-month households. Only the sample of new-entrant households is restricted by days since benefit receipt.

<sup>&</sup>lt;sup>b</sup> Association between SNAP and food insecurity for households that had not received benefits before the interview is statistically different from the association for households that had received benefits at the 0.01 level in the cross-sectional and longitudinal samples.

<sup>&</sup>lt;sup>c</sup> Association between SNAP and very low food security for households that had not received benefits before the interview is statistically different from the association for households that had received benefits at the 0.05 level and 0.01 level in the cross-sectional and longitudinal samples, respectively. Association for 1- to 11-day households is statistically different from association for 12+ day households at the 0.10 level in the cross-sectional sample.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Because the food security index essentially identifies the worst food security conditions that a household has experienced in the previous 30 days, any bias introduced by interviewing households post benefit receipt should be at least partially mitigated by the recall period of the food security index. Under plausible assumptions, for most households, the worst food security condition would occur just before entering SNAP, so the measure is likely to have captured the worst food security condition even for the small percentage of households interviewed three or four weeks after receiving benefits.

Overall, this sensitivity analysis suggests that the study's findings remained consistent—SNAP benefits were generally associated with improved food security across different sets of households grouped by time since receipt of benefits at baseline. These results provide further evidence of the robustness of our basic results. In addition, the findings for households that had not received their benefits as of the interview date suggest that the association between SNAP and food security found in the main analysis might be somewhat conservative. However, because households that had not yet received benefits may differ in observable and unobservable characteristics from households that had received benefits, differences in the sizes of the associations may not be due only to the amount of time since benefit receipt.

### Comparison of Findings to Unrestricted New-Entrant Household Sample

In Chapter IV, we restricted the sample of new-entrant households to those that continued to participate six months later, at the time of the follow-up interview, to improve the comparability of the groups of new-entrant and six-month households. In this section, we present the findings from the analysis that uses the unrestricted sample of new-entrant households.

Using the unrestricted sample of new-entrant households, SNAP was associated with a decrease in the percentage of households that were food insecure by 4.7 percentage points in the cross-sectional sample and 10.9 percentage points in the longitudinal sample (Table D.7). This compares to 4.6 and 10.8 using the restricted sample.

Using the unrestricted sample of new-entrant households, participating in SNAP for about six months was associated with a decrease in the percentage of households that experienced very low food security by 5.8 percentage points in the cross-sectional sample and 7.0 percentage points in the longitudinal sample (Table D.7). This compares to 5.0 and 6.3 using the restricted sample. We conclude that the restricted sample findings do not appear to be sensitive to this restriction.

Table D.7. Regression-Adjusted Percentage of Households That Are Food Insecure and Regression-Adjusted Percentage of Households That Have Very Low Food Security, by Six-Month and New-Entrant SNAP Participation Status and by Whether New-Entrant Sample Is Restricted to Those Households Still on SNAP Six Months Later

	Cross-S	Sectional Estir	mates	Longitudinal Estimates		
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference
Food Insecure						
Restricted sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***
Unrestricted sample	65.4	60.7	-4.7***	65.3	54.4	-10.9***
Food Insecure with Very Low Food Security						
Restricted sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***
Unrestricted sample	37.1	31.3	-5.8***	36.7	29.6	-7.1***

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.



# APPENDIX E ASSOCIATIONS BETWEEN SNAP AND FOOD INSECURITY, BY SUBGROUP



Table E.1. Regression- Adjusted Percentage of Households That Are Food Insecure, by Six Month and New Entrant SNAP Participation Status and by Age, Education, Race and Ethnicity, and Employment Status of Household Head

	Cross-	Sectional Estin	nates	Longi	tudinal Estim	ates
	New Entrant Households	Six Month Households	Difference	New Entrant Households		Difference
Full Sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***
Age of Household Head						
18 to 24	54.5	51.5	-3.0	54.8	44.3	-10.5**
25 to 49	68.6	63.7	-4.9**	68.1	56.8	-11.3***
50 to 64	70	63.6	-6.4**	69.5	61.6	-7.9***
65 and older	55.6	58.6	3.1	61.1	47	-14.0**
Highest Grade Completed of Household Head						
Less than high school	72.3	63.9	-8.4***	71.4	59	-12.4***
High school graduate (diploma or GED)	64.9	58	-6.9***	65.3	54.4	-10.8***
Greater than high school	62.9	61.2	-1.7	62.3	52.3	-10.0***
Race and Ethnicity of Household Head						
White, non-hispanic	66.4	60.3	-6.1***	66.2	54.3	-11.8***
Black, non-hispanic	64	61.3	-2.7	63.9	51.8	-12.1***
Other, non-hispanic	67.7	70.6	2.9	69.9	60.1	-9.8
Hispanic	67.5	58.5	-9.0***	65.1	58	-7.1***
Employment Status of Household Head						
Employed full-time	58.5	57.2	-1.2	59	48.3	-10.7**
Employed part-time	65.8	62.5	-3.3	66.8	51.2	-15.6**
Nonemployed	66.7	61.6	-5.1***	66.3	56.3	-10.0***

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Table E.2. Regression- Adjusted Percentage of Households That Are Food Insecure, by Six Month and New Entrant SNAP Participation Status and by Household Composition and Region of Residence

	Cross-Sectional Estimates			Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households	Six Month Households	Difference
Full Sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***
Households with Children	61.1	56	-5.2***	59.6	49.3	-10.3***
Single-adult households with children	60.3	54.5	-5.9	59.5	48.3	-11.2***
Multiple-adult households with children	62.5	57.7	-4.8	60.3	50.1	-10.1***
Households without Children	68.6	64.9	-3.7**	68.8	58.5	-10.3***
Households with Elderly	56.5	59.1	2.5	56	47.7	-8.3*
Households without Elderly	66.6	61.1	-5.6***	66.3	55.5	-10.8***
Households with a Disabled Member	73.4	67.1	-6.3**	74.2	62.9	-11.3***
Households without a Disabled Member	61.4	57.8	-3.7*	61.2	51.2	-10.0***
Region of Residence						
Northeast	62.4	54.1	-8.3**	64.6	49.2	-15.4***
Midatlantic	62.2	60.7	-1.5	62.1	56.7	-5.3***
Southeast	62.7	62.8	0.1	62.6	51.5	-11.1***
South	71.2	66.4	-4.8	70.8	57.7	-13.1***
Mountain	70.5	60.8	-9.7*	73.1	56.4	-16.7***
Midwest	65.9	61.7	-4.2**	66.5	57.7	-8.7***
West	67.8	62	-5.7**	66.4	57	-9.5***

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.3. Regression- Adjusted Percentage of Households That are Food Insecure, by Six Month and New Entrant SNAP Participation Status and by Household Income and Sources of Household Income

	Cross-	Sectional Estir	mates	Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households	Six Month Households	Difference
Full Sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***
Monthly Income as a Percentage of Poverty						
No Income	58.7	62.2	3.5	59.5	53.9	-5.6
1% to 50%	69.7	62.1	-7.6***	68.2	54.6	-13.6***
51% to 100%	68.3	63	-5.3**	68.6	60.5	-8.1***
101% to 130%	68.3	62.3	-6	68.5	51.7	-16.9***
More than 130%	62.5	55.4	-7.1	61.4	48.4	-13.0***
Household Receives TANF Income						
Yes	77.3	45.5	-31.8***	75.8	53	-22.8***
No	65.2	61.4	-3.9***	64.9	54.7	-10.2***
Household Receives SSI or Supplemental Security Income						
Yes	74.7	68.3	-6.4	73.9	61.2	-12.7**
No	64.6	60	-4.7***	64.3	53.8	-10.5***
Household Receives Social Security income						
Yes	64.6	61.3	-3.3	65.2	56.4	-8.7***
No	65.7	60.8	-4.9***	65.3	54.2	-11.1***
Household Receives Retirement Benefits Such as a Government or Private Pension or Annuity						
Yes	42.4	57.3	14.9*	38.6	54	15.5
No	65.7	60.9	-4.7***	65.6	54.3	-11.3***
Household Receives Unemployment Insurance or Worker's Compensation Benefits						
Yes	70.8	66.4	-4.4	72.9	60.5	-12.4**
No	64.7	60.4	-4.3***	64.5	53.9	-10.6***
Household Receives Veteran's Benefits						
Yes	78.2	87.7	9.5	82.5	80.3	-2.2
No	65.4	60.6	-4.8***	65.1	54.5	-10.6***
Household Receives Child Support Payments						
Yes	68.3	51.2	-17.1***	67.5	49.7	-17.8***
No	65.4	61.4	-4.0***	65.2	54.8	-10.3***
Household Receives Financial Support from Friends or Family						
Yes	74.3	69	-5.3**	73.6	66.8	-6.8***
No	62.2	58.1	-4.1**	62.1	50.9	-11.2***

Note: Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.4. Regression- Adjusted Percentage of Households That Are Food Insecure, by Six Month and New Entrant SNAP Participation Status and by SNAP Benefit Amount, Expedited Service Receipt, and Prior SNAP Participation Status

	Cross-	Sectional Esti	mates	Longitudinal Estimates			
	New Entrant Households	Six Month Households	Difference	New Entrant Households		Difference	
Full Sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***	
SNAP Benefit Amount							
Less than \$100	73.9	74.6	0.7	74.4	66.8	-7.5**	
\$101 to \$200	66.4	63.2	-3.3	66.5	56.8	-9.7***	
\$201 to \$300	64.6	62.7	-1.8	64.7	50.4	-14.3***	
\$301 and above	61.5	51.3	-10.2***	52.4	43.7	-8.7**	
Expedited Service Receipt							
Yes	66	60.2	-5.9**	64.4	53.8	-10.6***	
No	65.5	60.6	-4.9***	65.8	55.5	-10.4***	
Participated in SNAP Prior to Current Spell							
Yes	69.5	63.8	-5.7***	68.9	56.8	-12.1***	
No	61.8	57.7	-4.1**	61.7	52.6	-9.1***	

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.5. Regression- Adjusted Percentage of Households That Are Food Insecure, by Six Month and New Entrant SNAP Participation Status and by Health Status and Body Mass Index of Household Head

	Cross-	Sectional Esti	mates	Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households		Difference
Full Sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***
Self-Reported Health Status						
Excellent	45.5	42.7	-2.7	46.5	34.3	-12.2***
Very good	51.7	49.3	-2.4	51.1	44	-7.2**
Good	65.6	60.8	-4.8*	65.7	54.2	-11.4***
Fair	76.4	69	-7.3***	76.5	65.6	-10.9***
Poor	82.8	78.6	-4.2	84.5	78.5	-6.0**
Body Mass Index						
Underweight (less than 18.5)	97.5	97.1	-0.4	87	33.6	-53.4***
Normal (18.5 to 24.9)	60.2	60.6	0.3	60.2	53.4	-6.9***
Overweight (25.0 to 29.9)	68.2	60.5	-7.7***	68.2	51.1	-17.1***
Obese (30.0 and above)	67.2	61.3	-5.9***	67.2	57.5	-9.7***

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.6. Regression- Adjusted Percentage of Households That Are Food Insecure, by Six Month and New Entrant SNAP Participation Status and by Household Residential and Ownership Status

	Cross-	Sectional Esti	mates	Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households		Difference
Full Sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***
Household Residential Status and Type						
Lives in house, townhouse, condo, mobile home, or apartment	64.2	59.8	-4.3***	64	53.3	-10.7***
Lives in room or motel or hotel	88.6	75.8	-12.8	91.3	70.9	-20.5**
Other	91	97.5	6.5	73.3	97.7	24.4*
Home Ownership Status						
Own the place in which household lives	58.9	56.2	-2.7	59.8	45.8	-13.9***
Rents own place or contributes to rent at a friend or family's place	68.6	61.6	-7.0***	68	56.1	-11.9***
Live rent free	57.9	59.9	2	58.4	51.5	-6.9**

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.7. Regression- Adjusted Percentage of Households That Are Food Insecure, by Six Month and New Entrant SNAP Participation Status and by Household Resources and Food Preparation and **Storage Capabilities** 

	Cross-	Sectional Esti	mates	Long	Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households		Difference	
Full Sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***	
Household Resources							
Owns car, truck, or other type of vehicle	62.9	57.8	-5.1*	62.4	50.4	-12.0***	
Does not own, but has access to a car, truck, or other type of vehicle	62.3	60.5	-1.8	62.9	51.7	-11.2***	
Does not own or have access to a car, truck, or other type of vehicle	73.5	69.6	-3.8	73.5	65.9	-7.6**	
Does not have credit card that can be used to make purchases	68.8	63.3	-5.5***	68.4	58.5	-9.9***	
Has credit card that can be used to make purchases	53.9	51	-2.9	53.5	41	-12.5***	
Food Preparation and Storage Capabilities Household has access to a place where it can prepare a meal							
Yes	66.4	61.2	-5.1***	65.9	55.4	-10.4***	
No Household has access to a refrigerator	96.6	100	3.4	98.6	79.8	-18.8	
Yes	64.3	59.9	-4.4***	64	53.5	-10.5***	
No	n/a	n/a	n/a	n/a	n/a	n/a	
Household has access to a standalone freezer							
Yes	60.6	57.5	-3.1	61	48.7	-12.3***	
No	68.2	62.6	-5.5**	67.4	59.5	-7.8***	
Household has access to a gas or electric stove							
Yes	64.1	59.7	-4.4***	63.9	53.3	-10.6***	
No Household has access to a microwave	86.5	92.5	6.1	80.1	91.9	11.8**	
Yes	63.6	59.6	-4.0***	63.5	53.3	-10.1***	
No	76.2	75.5	-0.7	75.7	65.6	-10.1*	

Note: Percentages shown are regression-adjusted for differences between new-entrant and sixmonth households in demographic, economic, and household characteristics. See Chapter II,

Section C.

Table E.8. Regression- Adjusted Percentage of Households That are Food Insecure, by Six Month and New Entrant SNAP Participation Status and by Participation in Nutrition and Community Food Programs

	Cross	-Sectional Esti	mates	Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households	Six Month Households	Difference
Full Sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***
Children in Household Receive Free or Reduced-Cost Lunches at School						
Yes	67.3	61.1	-6.3**	67.5	53.6	-13.9***
No	63.1	59.1	-4	60.9	48.5	-12.4**
Children in Household Receive Free or Reduced-Cost Breakfasts at School						
Yes	68.4	61.2	-7.2**	68.6	54.2	-14.4***
No	63.3	60.2	-3.1	61.1	49.4	-11.7***
Children in Household Receive Free or Reduced-Cost Food at a Day-Care or Head Start Program						
Yes	61.6	36.4	-25.2**	67.2	43.5	-23.7**
No	56.2	51.5	-4.7	53.1	42.8	-10.3***
Women or Children in the Household Receive Food Through the WIC Program						
Yes	60.6	49.4	-11.3***	58.6	45.8	-12.8***
No	64.3	63.7	-0.6	64.2	54.5	-9.7***
Household Received Emergency Food from a Church, Food Pantry, Or Food Bank						
Yes	83.4	77.7	-5.7**	83.3	0.08	-3.2
No	59.9	56.7	-3.2*	59.8	49.0	-10.8***
Household Attended Community Program or Senior Center to Eat Prepared Meals						
Yes	92.6	82.9	-9.7**	95.5	93.6	-1.8
No	64.3	60	-4.3***	64.1	53.2	-10.8***
Household at Meals at a Soup Kitchen or Shelter						
Yes	91.8	87.1	-4.6	90.2	97.8	7.6*
No	64.3	59.9	-4.4***	64.1	53.2	-10.9***
Household Received Meals from "Meals on Wheels" or Any Other Home-Delivered Meal Program						
Yes	66.3	82.4	16.1	n/a	n/a	n/a
No	65.2	60.5	-4.7***	65.0	54.3	-10.6***

Note: Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.9. Regression- Adjusted Percentage of Households That Are Food Insecure, by Six Month and New Entrant SNAP Participation Status and by Mental Health and Well- Being of Household Head

	Cross-	Sectional Estir	mates	Longitudinal Estimates			
	New Entrant Households	Six Month Households	Difference	New Entrant Households	Six Month Households	Difference	
Full Sample	65.4	60.8	-4.6***	65.1	54.5	-10.6***	
Household Experienced Depression in Past 30 Days							
Yes	70.9	66.4	-4.5***	71.3	60.9	-10.4***	
No	41.1	38	-3.1	42.3	33.3	-9.0***	
Amount of Help Household Would Expect to Get from Family Living Nearby if Needed							
All of the help needed	47.6	43.8	-3.8	46.1	34.4	-11.6***	
Most of the help needed	58.6	52.3	-6.3***	58.5	48.4	-10.1***	
Very little of the help needed	76.7	73.5	-3.2	76.1	65.6	-10.5***	
No help	77.6	74.8	-2.8	77.8	66.5	-11.3***	
Amount of Help Household Would Expect to Get from Friends Living Nearby if Needed							
All of the help needed	40.6	46.9	6.3	38.8	34.4	-4.5	
Most of the help needed	55.7	51.5	-4.3*	56.3	44.8	-11.5***	
Very little of the help needed	71.7	66.5	-5.1**	71.5	60.8	-10.7***	
No help	76	70.5	-5.5*	75.8	64.3	-11.5***	
Amount of Help Household Would Expect to Get from Community Besides Family and Friends Living Nearby if Needed						-	
All of the help needed	54.6	55.6	1.1	55.5	44.9	-10.6	
Most of the help needed	58.5	54	-4.4	57.8	45.6	-12.2***	
Very little of the help needed	69.1	61.2	-7.9***	69.1	57.8	-11.3***	
No help	66.3	65.5	-0.7	66.3	56.5	-9.8***	

Note: Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II,

Section C.

Table E.10. Regression- Adjusted Percentage of Households That Have Very Low Food Security, by Six Month and New Entrant SNAP Participation Status and by Age, Education, Race and Ethnicity, and Employment Status of Household Head

	Cross-	Sectional Esti	mates	Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households	Six Month Households	Difference
Full Sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***
Age of Household Head						
18 to 24	28.4	24.8	-3.6	28.6	20.5	-8.1***
25 to 49	39.3	33.3	-6.0***	38.1	31.8	-6.4***
50 to 64	42.2	34.3	-7.9***	42	36.6	-5.4*
65 and older	18.6	20	1.4	18.7	15.9	-2.8
Highest Grade Completed of Household Head						
Less than high school	34.4	28.6	-5.8**	33.5	27.9	-5.6**
High school graduate (diploma or GED)	36	29.2	-6.8***	35.9	30.2	-5.7***
Greater than high school	37	33.4	-3.5	36.2	28.8	-7.3***
Race and Ethnicity of Household Head						
White, non-hispanic	38.1	33.2	-4.9***	37.7	32.6	-5.1***
Black, non-hispanic	39.1	33.8	-5.3*	39	28.7	-10.3***
Other, non-hispanic	38.4	39.8	1.4	39.6	34	-5.6
Hispanic	29.8	22.3	-7.5**	27.4	22.1	-5.3**
Employment Status of Household Head						
Employed full-time	31.8	26.9	-4.9	31.3	22.3	-9.0**
Employed part-time	30.9	30.5	-0.4	31	24.6	-6.4
Nonemployed	37.7	32	-5.7***	37.1	31.4	-5.7***

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.11. Regression- Adjusted Percentage of Households That Have Very Low Food Security, by Six Month and New Entrant SNAP Participation Status and by Household Composition and Region of Residence

	Cross-	Sectional Esti	mates	Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households	Six Month Households	Difference
Full Sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***
Households with Children	31.7	24	-7.8***	29.5	22.4	-7.0***
Single-adult households with children	35.5	26.2	-9.3**	33.3	24.2	-9.1***
Multiple-adult households with children	28.2	21.3	-7.0***	25.7	20.5	-5.3**
Households without Children	39.9	37.4	-2.5	40.1	35.2	-4.9***
Households with Elderly	21.6	24.1	2.6	19.7	21.7	2
Households without Elderly	38.5	32.2	-6.3***	37.9	30.6	-7.3***
Households with a Disabled Member	43.9	41.5	-2.4	44.2	39.3	-4.8**
Households without a Disabled Member	32.8	26.6	-6.3***	32.4	25.9	-6.5***
Region of Residence						
Northeast	30.1	25	-5	30.8	22	-8.8***
Midatlantic	38.7	29.7	-9.0*	39.4	37.6	-1.8
Southeast	33.8	34.7	0.9	34.6	26	-8.6***
South	36.6	33.1	-3.5	36.9	30.8	-6.2*
Mountain	37.4	32.1	-5.3	38.5	27.4	-11.1**
Midwest	38	32.3	-5.8***	38.3	33.8	-4.6*
West	36.4	29.2	-7.2**	33.8	29.4	-4.4***

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.12. Regression-Adjusted Percentage of Households That Have Very Low Food Security, by Six Month and New Entrant SNAP Participation Status and by Household Income and Sources of Household Income

	Cross-	Sectional Estir	nates	Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households	Six Month Households	Difference
Full Sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***
Monthly Income as a Percentage of Poverty						
No Income	31.7	29	-2.7	32.6	26.5	-6.1*
1% to 50%	38.5	35.8	-2.8	37.6	30.3	-7.3***
51% to 100%	41.4	30.6	-10.9***	41.1	34	-7.1***
101% to 130%	34	32.8	-1.1	33.1	24.9	-8.1**
More than 130%	29.4	25.8	-3.5	26.5	22.9	-3.6
Household Receives TANF Income						
Yes	44.7	23.4	-21.4**	42.5	36.3	-6.1
No	36	31.6	-4.4***	35.5	29.4	-6.1***
Household Receives SSI or Supplemental Security Income						
Yes	43.2	37.5	-5.7	42.3	36.9	-5.4
No	35.8	30.8	-5.0***	35.3	29	-6.3***
Household Receives Social Security Income						
Yes	32.8	30.7	-2.1	33	32.5	-0.5
No	37.2	31.5	-5.7***	36.5	28.7	-7.8***
Household Receives Retirement Benefits Such as a Government or Private Pension or Annuity						
Yes	14	14.7	0.7	5.4	16.9	11.5**
No	36.8	31.6	-5.1***	36.5	29.4	-7.0***
Household Receives Unemployment Insurance or Worker's Compensation Benefits						
Yes	47.4	35.2	-12.2**	47.4	33.5	-13.9***
No	35.2	30.9	-4.3***	34.8	29	-5.8***
Household Receives Veteran's Benefits						
Yes	28.6	29.9	1.3	30	59.3	29.3*
No	36.3	31.4	-4.9***	35.8	29.4	-6.4***
Household Receives Child Support Payments				-	-	
Yes	32.9	15.5	-17.4***	32	25.4	-6.6
No	36.6	32.1	-4.4***	36	29.8	-6.2***
Household Receives Financial Support from Friends or Family						
Yes	45.7	43.3	-2.4	44.6	40.8	-3.8
No	32.8	27.1	-5.7***	32.5	26	-6.5***

Note: Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.13. Regression- Adjusted Percentage of Households That Have Very Low Food Security, by Six Month and New Entrant SNAP Participation Status and by SNAP Benefit Amount, Expedited Service Receipt, and Prior SNAP Participation Status

	Cross-	Sectional Esti	mates	Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households		Difference
Full Sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***
SNAP Benefit Amount						
Less than \$100	44.6	41.3	-3.3	44.7	39.9	-4.8
\$101 to \$200	36.2	35.3	-0.9	36.1	30.8	-5.4***
\$201 to \$300	36	33	-3	34.6	24.3	-10.3***
\$301 and above	32	19.6	-12.3***	25.8	20.7	-5.1
Expedited Service Receipt						
Yes	38	34.5	-3.5*	36.7	30.5	-6.2***
No	35.7	30	-5.7***	35	28.7	-6.3***
Participated in SNAP Prior to Current Spell						
Yes	41.6	36.4	-5.2**	40.4	33.9	-6.5***
No	31.5	26.3	-5.2***	31.1	25.1	-6.0***

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.14. Regression- Adjusted Percentage of Households That Have Very Low Food Security, by Six Month and New Entrant SNAP Participation Status and by Health Status and Body Mass Index of Household Head

	Cross-	Sectional Esti	mates	Longitudinal Estimates		
	New Entrant Households		Difference	New Entrant Households		Difference
Full Sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***
Self-Reported Health Status						
Excellent	19.2	17.6	-1.6	18.5	12.3	-6.2**
Very good	26.2	19.7	-6.5**	25.7	19.5	-6.2**
Good	34.4	28.3	-6.1***	34.3	29.6	-4.7*
Fair	45	38.6	-6.4**	45	39.1	-5.9***
Poor	53.4	53.2	-0.1	52.1	48.1	-3.9
Body Mass Index						
Underweight (less than 18.5)	45.2	51.4	6.3	51.4	9.2	-42.2***
Normal (18.5 to 24.9)	31.9	28.1	-3.8	31.6	28.6	-2.9
Overweight (25.0 to 29.9)	37.9	28.7	-9.2***	37.1	27.4	-9.7***
Obese (30.0 and above)	37.8	34.5	-3.2	37.5	29.7	-7.7***

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.15. Regression- Adjusted Percentage of Households That Have Very Low Food Security, by Six Month and New Entrant SNAP Participation Status and by Household Residential and Ownership Status

	Cross-	Sectional Esti	mates	Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households	Six Month Households	Difference
Full Sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***
Household Residential Status and Type						
Lives in house, townhouse, condo, mobile home, or apartment	35	29.9	-5.0***	34.6	28.5	-6.1***
Lives in room or motel or hotel	69.4	19.6	-49.8**	69.0	7.5	-61.6***
Other	56.7	73.3	16.6	43.6	74.8	31.2***
Home Ownership Status						
Own the place in which household lives	26.2	24.4	-1.8	28.0	21.5	-6.5**
Rents own place or contributes to rent at a friend or family's place	38.6	30.3	-8.3***	37.0	30.8	-6.2***
Live rent free	32.2	35	2.8	34.0	25.9	-8.1***

Note:

Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.16. Regression- Adjusted Percentage of Households That Have Very Low Food Security, by Six Month and New Entrant SNAP Participation Status and by Household Resources and Food **Preparation and Storage Capabilities** 

	Cross-	Sectional Esti	mates	Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households	Six Month Households	Difference
Full Sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***
Household Resources						
Owns car, truck, or other type of vehicle	32.5	28.5	-4.0*	31.7	26.6	-5.2***
Does not own, but has access to a car, truck, or other type of vehicle	36.2	29.6	-6.6	35.1	28.3	-6.9**
Does not own or have access to a car, truck, or other type of vehicle	45.2	39.4	-5.7	45.3	36.9	-8.4***
Does not have credit card that can be used to make purchases	39	34.4	-4.7***	38.6	33.9	-4.8***
Has credit card that can be used to make purchases	26.9	20.5	-6.4**	25.8	15.8	-10.0***
Food Preparation and Storage Capabilities Household has access to a place where it can prepare a meal						
Yes	37.9	32.2	-5.7***	37.0	30.5	-6.5***
No Household has access to a refrigerator	44	15.4	-28.6	41.4	33.9	-7.5
Yes	35.2	30.4	-4.9***	34.6	28.5	-6.1***
No	51	27.8	-23.2	48.6	24.7	-23.9
Household has access to a standalone freezer						
Yes	30.7	26.1	-4.5***	30.9	23.1	-7.8***
No Household has access to a gas or electric stove	39.4	34.2	-5.2***	38.3	34.6	-3.7*
Yes	34.9	29.7	-5.1***	34.3	28.3	-6.0***
No Household has access to a	46.2	60.4	14.3	39.0	36.3	-2.7
microwave						
Yes	34.5	30	-4.6***	34.0	27.9	-6.1***
No	42.7	36.7	-6	40.7	40.5	-0.2

Note: Percentages shown are regression-adjusted for differences between new-entrant and sixmonth households in demographic, economic, and household characteristics. See Chapter II,

Section C.

Table E.17. Regression-Adjusted Percentage of Households That Have Very Low Food Security, by Six Month and New Entrant SNAP Participation Status and by Participation in Nutrition and Community Food Programs

	Cross-Sectional Estimates			Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households	Six Month Households	Difference
Full Sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***
Children in Household Receive Free or Reduced-Cost Lunches at School		0.4.5	7 5 4 4	20.5	05.4	7 4 4 4
Yes	34	26.5	-7.5**	32.5	25.4	-7.1**
No Children in Household Receive Free or Reduced-Cost Breakfasts at School	31.6	18.9	-12.7***	30.3	21.8	-8.5**
Yes	34.7	26.4	-8.2***	33.8	24.6	-9.2***
No	32.2	22.5	-9.7***	28.5	23.5	-5.0*
Children in Household Receive Free or Reduced-Cost Food at a Day-Care or Head Start Program						
Yes	18.4	7.8	-10.5	6.3	3	-3.2
No	28.8	20.5	-8.3***	26.5	17.5	-9.0***
Women or Children in the Household Receive Food through the WIC Program						
Yes	25	17.3	-7.6*	21	18.5	-2.5
No	36.8	32.1	-4.6**	36.7	28.1	-8.6***
Household Received Emergency Food from a Church, Food Pantry, or Food Bank						
Yes	53.5	49.6	-4	54.4	56	1.6
No	31.4	27.2	-4.2***	31	24.4	-6.6***
Household Attended Community Program or Senior Center to Eat Prepared Meals						
Yes	64.8	55.7	-9	61.6	61.4	-0.2
No	35.2	30.4	-4.7***	34.8	28.6	-6.2***
Household at Meals at a soup Kitchen or Shelter						
Yes	64.8	72.1	7.3	60.7	74.1	13.4
No	35.3	30.2	-5.1***	35	28.6	-6.4***
Household Received Meals from "Meals on Wheels" or any other Home-Delivered Meal Program						
Yes	36.9	66.2	29.3*	3.8	92.6	88.8**
No	36.2	31	-5.2***	35.7	29.4	-6.3***

Note: Percentages shown are regression-adjusted for differences between new-entrant and six-month households in demographic, economic, and household characteristics. See Chapter II, Section C.

Table E.18. Regression- Adjusted Percentage of Households That Have Very Low Food Security, by Six Month and New Entrant SNAP Participation Status and by Mental Health and Well-Being of **Household Head** 

	Cross-Sectional Estimates			Longitudinal Estimates		
	New Entrant Households	Six Month Households	Difference	New Entrant Households	Six Month Households	Difference
Full Sample	36.4	31.4	-5.0***	35.9	29.6	-6.3***
Household Experienced Depression in Past 30 Days						
Yes	43.1	37.5	-5.6***	43.2	36.2	-6.9***
No	14.5	12.4	-2.1	15.9	12.9	-2.9*
Amount of Help Household Would Expect to Get from Family Living Nearby if Needed						
All of the help needed	20.3	16.2	-4.1*	18.5	14.6	-3.8
Most of the help needed	30.8	24.8	-6.0***	30.2	22.2	-7.9***
Very little of the help needed	42.9	39.5	-3.4	42.4	37.8	-4.6*
No help	51.9	47.5	-4.4	52.6	42.5	-10.1***
Amount of Help Household Would Expect to Get from Friends Living Nearby if Needed						
All of the help needed	20.5	19.1	-1.4	18.7	13.3	-5.5
Most of the help needed	28.3	23.2	-5.0**	26.3	19.6	-6.7***
Very little of the help	39.2	34.9	-4.3*			
needed				39	35.2	-3.8**
No help	48.9	41.7	-7.2**	49.9	39	-10.8***
Amount of Help Household Would Expect to Get from Community Besides Family and Friends Living Nearby if Needed						
All of the help needed	28.5	19.3	-9.2*	27.3	20.4	-6.9
Most of the help needed	28.6	24.3	-4.3*	26.7	21.5	-5.2*
Very little of the help needed	37.2	32.1	-5.0**	37.7	31	-6.7***
No help	40.6	35.4	-5.2**	39.3	31.9	-7.3***

Note:

Percentages shown are regression-adjusted for differences between new-entrant and sixmonth households in demographic, economic, and household characteristics. See Chapter II, Section C.

## APPENDIX F DETAILS FOR FOOD EXPENDITURES REGRESSIONS



## A. Regression Analysis of the Associations between SNAP and Usual Food Expenditures

Our main estimates of the association between SNAP and food expenditures are based on regression analysis of the data. As described in the data and methodology discussion in Chapter II, we performed a cross-sectional analysis of the baseline data, comparing new-entrant and six-month households, and a longitudinal analysis of the new-entrant household sample at two points in time approximately six months apart. The main independent variable of interest in these analyses was the binary variable that measures whether a household had participated in SNAP for six months or was a new-entrant household. Although we focus on the association between SNAP and food expenditures in Chapter V, in this section we describe the full set of regression coefficients and standard errors from these models.

**Usual Weekly Expenditures**. Table F.1 presents the regression coefficients and standard errors from the ordinary least squares regression of usual weekly food expenditures. A key finding here is that in the cross-sectional analysis, compared to just entering the program, participating in SNAP for six months was not statistically associated with household food expenditures. The coefficient was 1.629 and the standard error was 2.226. The coefficient can be interpreted as meaning that participating in SNAP was associated with a 1 to 2 dollar increase in usual weekly food spending, though the estimate was not statistically significant.

A number of the other explanatory variables in the regression were found to have effects on spending in the cross-sectional analysis (Table F.1). Usual weekly food spending was positively associated with having a black, non-Hispanic household head, relative to a white, non-Hispanic head; having a larger household; having children in the household; living in the Northeast, compared to in the West; and living in a state that offers broad-based categorical eligibility. Food spending was negatively associated with having a household head age 50 or older, compared with having a head age 18 to 24; and with having a household had that completed high school, some college, or college, compared with less than high school.

The findings in the longitudinal analysis were generally similar. There was no association between SNAP participation and usual weekly food spending. The coefficient in Table V.3 was 2.701 and the standard error was 1.697. The increase in food spending was also not statistically significant at conventional levels. Usual weekly food spending was positively associated with having a black, non-Hispanic household head, relative to a white, non-Hispanic head; having a larger household; having children in the household; experiencing a change in household size or a change in employment, pay, or hours worked in the past 6 months; and living in the Northeast relative to the West. Food spending was negatively associated with having a household head age 25 or older relative to age 18 to 24; completing high school, some college, or college relative to less than high school; being employed part time relative to not employed; receiving TANF or welfare benefits; living in the Southeast compared to the West; and living in a state with a higher average wage.

Table F.1. Regression Coefficients of the Effects of SNAP Participation and Household Characteristics on Household Usual Weekly Food Spending

	Cross-S Estim		Longitudina	l Estimates
	Coefficient	Standard Error	Coefficient	Standard Error
Six-Month SNAP Household (new-entrant household is referent group)	1.629	2.226	2.289	1.636
Household Head is Female (male is referent group)	2.754	1.914	3.671	2.263
Race and Ethnicity of Household Head (non-Hispanic white is				
referent group)	+ + + + + + + + + + + + + + +			
Non-hispanic black	5.507**	2.181	4.825**	2.053
Non-hispanic other	-1.974	4.126	0.094	4.524
Hispanic	0.214	3.751	1.363	2.828
Age of Household Head (18 to 24 is referent group) 25-49	2.542	2.977	-7.610*	4.078
50-64	-7.118**	3.131	-7.610 -13.56***	3.682
65 and older	-15.32**	6.345	-24.17***	6.370
Highest Grade Completed (referent group is less than high school)	10.02	0.010	21.17	0.070
High school	-7.611**	3.210	-10.15***	2.770
Some college	-8.908**	3.535	-7.885***	2.656
College and beyond	-9.205**	4.091	-11.38***	3.951
Employment Status of Household Head (nonemployed is referent group)				
Employed full time	-4.042	3.344	-2.164	3.348
Employed part time	2.009	2.700	-7.931**	3.766
Household Head Felt Depressed in Past 30 Days (not depressed	3.412	2.267	2.364	2.318
is referent group)	0.000	1 505	0.157	1 440
Monthly income as A Percentage of the Poverty Line	0.809	1.525	0.157	1.662
Household Size	16.309***	1.384	16.966***	1.124
Household Contains Children (referent group is no children)	6.487**	3.137	7.215**	2.975
Household Contains Elderly (referent group is no elderly)	-5.633	4.441	-3.814	5.014
Household Contains Disabled Individual (referent group is no disabled)	0.849	2.665	1.021	3.196
Participated in SNAP Prior to Current Spell (referent group is never participated prior)	-1.551	1.935	-0.069	2.152
Participation in Federal or State Programs TANF	5.681	5.915	-11.22*	5.929
Welfare	-7.705	5.915	-11.22 -14.97*	3.929 8.609
SSI	0.916	4.890	-1.586	3.560
Unemployment compensation	-0.438	3.171	1.635	3.832
Experienced Trigger Events in Past Six Months				
Change in household size	2.646	2.915	7.663***	2.699
Eviction	1.009	4.573	5.325	6.907
Change in employment, pay, or hours worked	0.351	2.161	4.301*	2.240
Region of Residence (western region is referent group)				
Northeast	7.608**	3.039	13.012***	4.115
Mid-Atlantic	0.901	4.674	-0.398	5.902
Midwest	-0.540	4.237	-3.165	5.589
Southeast	-7.094	5.069	-12.57*	6.764
Southwest Mountain Plains	-2.050 6.201	5.849	-4.576 5.205	7.402
Mountain Plains State 25th Percentile Wage	-6.381 -3.883*	6.234 2.099	-5.295 -5.481**	7.892 2.218
State 25th Percentile Wage	-3.883° -0.499	2.099 0.740		2.218 1.201
State Unemployment Rate State Offers Broad-Based Categorical Eligibility for SNAP	-0.499 4.175*	0.740 2.147	-0.074 2.164	2.720
(referent group is not having BBCE)  Average State SNAP Certification Period	0.155	0.374	-0.629	0.400
		0.374		0.400
Sample Size	6,434		6,332	

Note: The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

Usual Weekly Expenditures Relative to Cost of the Thrifty Food Plan. Table F.2 presents the regression coefficients and standard errors from the ordinary least squares regression of usual weekly food expenditures relative to the cost of the TFP. SNAP was associated with a 0.047 unit increase in usual expenditures relative to the cost of the TFP in the cross-sectional sample; there was no statistical association in the longitudinal sample.

A number of the other explanatory variables in the regression were found to have effects on spending in the cross-sectional analysis (Table F.2). Usual weekly food spending relative to the cost of the TFP was positively associated with having a female household head; having black, non-Hispanic household head, relative to a white, non-Hispanic head; having a larger household; having a household head that reported experiencing depression in the past 30 days; having children in the household; having children in the household; living in the Northeast, compared to in the West; and living in a state that offers broad-based categorical eligibility. Food spending was negatively associated with having a household head age 50 or older, compared with having a head age 18 to 24; having a household had that completed high school, some college, or college, compared with less than high school; having a larger household; having an elderly member in the household; and living in a state with a higher 25th percentile wage.

The findings in the longitudinal analysis were generally similar. Exceptions include that TFP-adjusted expenditures are negatively associated with having a household head that is employed part time; receiving TANF or welfare benefits; and living in the Southeast, relative to the West. TFP-adjusted expenditures were positively associated with changes in household size and changes in employment, pay, or hours worked.

Table F.2. Regression Coefficients of the Effects of SNAP Participation and Household Characteristics on Usual Weekly Food Spending Relative to the Cost of the Thrifty Food Plan

	Cross-Section	al Estimates	Longitudinal Estimates	
	Coefficient	Standard Error	Coefficient	Standard Error
Six-Month SNAP Household (new-entrant household is referent group)	0.047*	0.025	0.027	0.025
Household Head is Female (male is referent group)	0.100***	0.027	0.093***	0.031
Race and Ethnicity of Household Head (non-Hispanic white is	000	0.027	0.070	0.00.
referent group)				
Non-hispanic black	0.104***	0.028	0.083***	0.028
Non-hispanic other	-0.004	0.058	0.041	0.081
Hispanic	-0.007	0.044	-0.012	0.036
Age of Household Head (18 to 24 is referent group)	0.047	0.047	0.070	0.050
25-49	0.046	0.046	-0.070	0.059
50-64	-0.091**	0.043	-0.144***	0.053
65 and older	-0.135*	0.074	-0.257***	0.084
Highest Grade Completed (referent group is less than high school)				
High school	-0.079*	0.043	-0.113***	0.032
Some college	-0.106**	0.045	-0.092***	0.031
College and beyond	-0.099*	0.053	-0.136***	0.052
Employment Status of Household Head (nonemployed is referent group)				
Employed full time	-0.029	0.038	-0.041	0.041
Employed part time	0.045	0.037	-0.082*	0.044
Household Head Felt Depressed in Past 30 Days (not depressed is referent group)	0.051*	0.028	0.004	0.034
Monthly Income as a Percentage of the Poverty Line	-0.023	0.018	-0.011	0.026
Household Size	-0.149***	0.013	-0.139***	0.010
Household Contains Children (referent group is no children)	0.120***	0.037	0.172***	0.037
Household Contains Elderly (referent group is no elderly)	-0.176***	0.044	-0.143***	0.054
Household Contains Disabled Individual (referent group is no	-0.001	0.031	0.032	0.044
disabled) Participated in SNAP Prior to Current Spell (referent group is never participated prior)	0.005	0.024	0.006	0.028
			0.122	0.005
Participation in Federal or State Programs TANF	0.068	0.052	-0.123	0.085
Welfare	-0.053	0.032	-0.182**	0.079
SSI	0.017	0.054	-0.034	0.050
Unemployment compensation	0.002	0.038	0.020	0.048
Experienced Trigger Events in Past Six Months			0.098***	0.036
Change in household size	0.046	0.037	0.070	0.000
Eviction	0.008	0.072	0.049	0.074
Change in employment, pay, or hours worked	-0.004	0.023	0.053*	0.029
Region of Residence (western region is referent group)			0.147***	0.052
Northeast	0.131***	0.036		
Mid-Atlantic	-0.002	0.060	0.025	0.076
Midwest	-0.019	0.049	-0.024	0.072
Southeast	-0.094	0.059	-0.157*	0.087
Southwest	-0.044	0.068	-0.014	0.093
Mountain Plains	-0.102	0.077	-0.038	0.096
State 25 <sup>th</sup> Percentile Wage	-0.052**	0.024	-0.056*	0.030
State Unemployment Rate	-0.007	0.008	0.011	0.017
State Offers Broad-Based Categorical Eligibility for SNAP (referent group is not having BBCE)	0.070**	0.028	0.016	0.033
Average State SNAP Certification Period	-0.001	0.005	-0.007	0.005
Sample Size	6,434		6,332	

Note: The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

## APPENDIX G SENSITIVITY ANALYSES OF FOOD EXPENDITURES



Chapter V presents estimates of the association between SNAP participation and household food expenditures. The lack of evidence of a statistically significant association between SNAP and food expenditures was surprising. Economic theory suggests that, if a household is provided a benefit to be spent on food, then total expenditures on food will increase. Our prior hypothesis had been that the results for food security and expenditures would be similar, but they are not. As noted in Chapter IV, SNAP was associated with a decrease in the probability that a household was food insecure and the probability that a household had very low food security, but the findings on food expenditures provide little evidence of an association with SNAP participation. In this appendix we describe several auxiliary analyses we conducted to check model specifications and the expenditure data provided by respondents. We also discuss other issues related to potential reporting error.

#### A. Descriptive Analysis of Food Spending

As a starting point for our diagnostic assessment, we descriptively examine both expenditures last week and usual weekly expenditures. We focus our descriptive analysis of the data on medians because the median is less sensitive than the mean to outliers in the distribution.

#### 1. Usual Expenditures and Expenditures Last Week

Median usual food spending in a typical week was the same for new-entrant and six-month households and equal to \$75 in the cross-sectional and longitudinal samples. The median expenditure in the week before the interview was \$80 for new-entrant households and \$75 for six-month households in both the cross-sectional and longitudinal samples (Table G.1). 53

<sup>&</sup>lt;sup>53</sup> The findings were similar when the mean was used in place of the median.

Table G.1. Median Household Food Spending in Six- Month and New- Entrant SNAP Households

	Cross-	Sectional Esti	mates	Longitudinal Estimates			
	New- Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference	
Usual Weekly Food Expenditures (in dollars)	75	75	0	75	75	0	
Last Week's Food Expenditures (in dollars)	80	75	-5	80	75	-5	
Usual Weekly Food Expenditures Relative to TFP	0.99	1.00	0.01	0.99	1.00	0.01	
Last Week's Food Expenditures Relative to TFP	1.05	0.96	-0.09	1.05	1.00	-0.05	

Note: The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates

compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

#### 2. Usual Expenditures Relative to the Cost of the TFP

In a typical week, median food spending was 0.99 times the cost of the TFP for new-entrant households and 1.00 times the cost of the TFP for six-month households in the cross-sectional and longitudinal samples (Table G.1). Median food spending based on spending in the week before the interview was 1.05 times the cost of the TFP for new-entrant households and 0.96 times the cost of the TFP for six-month households in the cross-sectional sample. In the longitudinal sample, these numbers were 1.05 and 1.00, respectively.

The above patterns are consistent with most of the multivariate findings, showing no positive association between SNAP and food expenditures. To examine these patterns more fully, Table G.2 presents characteristics of the distributions of usual weekly food expenditures and usual weekly food expenditures relative to the cost of the TFP. Not only did new-entrant and six-month households have similar median food spending amounts, but the distributions of usual weekly food expenditures and expenditures relative to the TFP were similar at nearly all points in the distribution (10th, 25th, 75th and 90th percentiles).

Table G.2. Distribution of Usual Weekly Food Expenditures and Usual Weekly Food Expenditures Relative to the Cost of the TFP in Six- Month and New- Entrant SNAP Households

	Cross-S	ectional Estir	nates	Longitudinal Estimates			
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference	
Usual Weekly Food Expenditures							
10th percentile	20	25	5	20	25	5	
25th percentile	50	50	0	50	50	0	
50th percentile	75	75	0	75	75	0	
75th percentile	120	125	5	120	120	0	
90th percentile	200	200	0	200	200	0	
Usual Weekly Food Expenditures Relative to TFP							
10th percentile	0.30	0.33	0.03	0.30	0.36	0.06	
25th percentile	0.60	0.61	0.01	0.60	0.60	0.00	
50th percentile	0.99	1.00	0.01	0.99	1.00	0.00	
75th percentile	1.49	1.45	-0.04	1.49	1.46	-0.03	
90th percentile	2.26	2.29	0.03	2.26	2.18	-0.07	

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

The percentages of households that reported they usually spend zero dollars on food in a typical week were 5.3 and 5.0 percent for new-entrant and six-month households in the cross-sectional sample, and 5.3 and 3.4 percent in the longitudinal sample (not shown in table). As we discuss later in this Appendix, we were surprised by the number of households that reported zero dollars, particularly among six-month households, because all respondents were instructed to include food purchased with SNAP benefits in the spending amounts.

## B. Descriptive Analysis of Food Spending by Household Size and Composition

Table G.3 presents descriptive tabulations of median food spending for new-entrant and six-month households by household size and composition. We used the following measures of food expenditures: usual food spending, usual food spending relative to the cost of the TFP, and food spending last week. We examined one-person households, two-person households without children, three-person households with children, and four- or more person households with children. With several exceptions, the findings generally supported the full-sample results reported at the beginning of Chapter V, with minimal to no differences in food spending across new-entrant and six-month households (Table G.3).

Table G.3. Median Household Food Spending in Six-Month and New-Entrant SNAP Households, by Household Size and Presence of Children in the Household

	Cross-	-Sectional Estin	nates	Long	gitudinal Estima	tes
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference
Usual Weekly Food Expenditures (in dollars)						
All households	75	75	0	75	75	0
1-person household without children	50	50	0	50	50	0
2-person household without children	70	75	5	70	75	5
<ul><li>3- or more person household without children</li></ul>	100	100	0	100	80	-20
2-person household with children	80	90	10	80	80	0
3-person household with children	100	100	0	100	100	0
4- or more person household with children	125	120	-5	125	130	5
Last Week's Food Expenditures (in dollars)						
All households	80	75	-5	80	75	-5
1-person household without children	53	50	3	53	51	-2
2-person household without children	73	65	-8	73	60	-13
<ul><li>3- or more person household without children</li></ul>	100	100	0	100	90	-10
2-person household with children	100	80	-20	100	89	-11
3-person household with children	100	100	0	100	95	-5
4- or more person household with children	150	120	-30	150	140	-10
Usual Weekly Food Expenditures Relative to TFP						
All households	0.99	1.00	0.01	0.99	1.00	0.01
1-person household without children	1.10	1.13	0.03	1.10	1.12	0.02
2-person household without children	0.86	0.87	0.01	0.86	0.86	0.00
<ul><li>3- or more person household without children</li></ul>	0.66	0.73	0.06	0.66	0.66	0.00
2-person household with children	1.20	1.21	0.01	1.20	1.23	0.03
3-person household with children	0.95	0.96	0.01	0.95	0.95	0.00
4- or more person household with children	0.85	0.83	-0.02	0.85	0.94	0.06

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

## C. Auxiliary Multivariate Analyses of the Association Between SNAP and Food Expenditures

After performing diagnostic assessments based on descriptive tabulations of food spending, we conducted extensive diagnostic assessments based on multivariate analyses.

#### 1. Sample Restrictions

The analysis samples in our main specification included all respondents with a nonmissing value for usual food expenditures. We were concerned that values in the tails of the expenditure distributions could be unduly influencing the regression results. For example, the distributions of usual weekly food expenditures had relatively large concentrations of households reporting spending nothing on food in a typical week and a nontrivial number of households reporting very large weekly expenditures. This was true both for new-entrant households and for six-month households.

To examine the effects of these values in the tails of the distributions, we restricted the sample in the following four ways and re-estimated the OLS regression model of usual weekly spending relative to the cost of the TFP for each restricted sample:

- Excluded all households that reported usually spending zero dollars on food
- Excluded all households with usual spending relative to the cost of the TFP less than the 5th percentile (0.00 for new-entrant households) or greater than the 99th percentile (4.52 for new-entrant households)
- Excluded all households with usual spending relative to the cost of the TFP less than the 10th percentile (0.30 for new-entrant households) or greater than the 95th percentile (2.90 for new-entrant households)
- Excluded all households with usual spending relative to the cost of the TFP less than the 10th percentile (0.30 for new-entrant households) or greater than the 90th percentile (2.26 for new-entrant households)

The statistically significant association of 0.05 between SNAP and usual spending relative to the cost of the TFP in the cross-sectional sample was robust to excluding households reporting zero expenditures, but was not robust to trimming the values in both tails of the expenditure distribution (Table G.4). In the longitudinal analysis, there were no statistically significant associations of SNAP and usual food spending relative to the cost of the TFP for any specification. We conclude that the cross-sectional sample finding is sensitive to the effects of the values in the tails in the distribution.

Table G.4. Associations Between SNAP Participation and Household Food Spending Relative to the Cost of the TFP, by Alternative Sample Definitions

	Cross-S	ectional Esti	mates	Longitu	udinal Estim	ates
	Coefficient on SNAP Participation	Standard Error	<i>p</i> -Value	Coefficient on SNAP Participation	Standard Error	<i>p</i> -Value
Full Sample	0.047	0.025	0.065	0.027	0.025	0.279
Sample Restrictions Exclude households reporting zero usual expenditure	0.055	0.024	0.022	0.014	0.026	0.593
Exclude households with usual expenditures below the 5th percentile or above the 99th percentile	0.029	0.025	0.247	0.017	0.020	0.414
Exclude households with usual expenditures below the 10th percentile or above the 95th percentile	0.006	0.018	0.796	-0.001	0.018	0.938
Exclude households with usual expenditures below the 10th percentile or above the 90th percentile	0.003	0.015	0.846	0.015	0.015	0.314

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later

#### 2. Using a Minimal Set of Explanatory Variables in the Regressions

We also assessed the specification of the multivariate regression models used to estimate the associations. As described above, our basic regression analysis used a relatively large number of explanatory variables, reflecting both the richness of the data set and the many variables that may affect food expenditures and explain differences between SNAP six-month and new-entrant households. Given the numbers of independent variables involved in the basic equation, we decided it could yield additional insight if we estimated a model with a more parsimonious set of explanatory variables limited to household size, household composition, and household income. In particular, we estimated a regression model in which the explanatory variables consisted of only the SNAP participation variable, household size, whether the household had children, whether the household had an elderly member, whether the household had a disabled member, household income to poverty ratio, and region of residence. We then compared the model fit from this "restricted" model to the original specification (the "unrestricted" model).

Based on the full cross-sectional sample, including households with zero expenditures on food, under this parsimonious specification, the association between SNAP and usual expenditures relative to the TFP was 0.046 and was statistically significant (*p*-value was equal to 0.042) (Table G.5). In the longitudinal sample, there were no statistically significant associations. In both cases, based on

statistical tests, we rejected the "restricted" model in favor of the original, "unrestricted" specification that included more explanatory variables.

Table G.5. Associations Between SNAP Participation and Household Food Spending Relative to the Cost of the TFP, by Alternative Model Specifications

	Cross-Se	ectional Esti	mates	Longitudinal Estimates		
	Coefficient on SNAP Participation	Standard Error	<i>p</i> -Value	Coefficient on SNAP Participation	Standard Error	<i>p</i> -Value
Full Sample	0.047	0.025	0.065	0.027	0.025	0.279
Use a Minimal Set of Explanatory Variables Based on Household Income, Size, and Composition	0.046	0.023	0.042	0.011	0.023	0.628

Source: SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

#### 3. Using Alternative Dependent Variables and Alternative Econometric Estimators

As another way to assess the possible influence of values in the tails of the expenditure distributions, we estimated quantile regression models (estimated at the 50th percentile) to assess changes in the median amount of usual weekly food expenditures relative to the TFP, as done in Nord and Prell (2011) to examine usual weekly food spending reported in the CPS. This model is sometimes an attractive alternative to OLS regression models because quantile regressions fit the median (or other quantiles) of the outcome measure, whereas OLS regression models fit the mean of the outcome measure. This focus on the median makes the approach less sensitive to outliers and more focused on the center of the distribution. <sup>54</sup> In the cross-sectional analysis, we found no statistical association between SNAP and usual expenditures relative to the TFP (Table G.6). This was true both when using the full sample, including zero food expenditure households, and when excluding these households from the sample. In the longitudinal analysis, SNAP was associated with a 0.03 unit increase in usual expenditure relative to the cost of the TFP. This finding was not robust to excluding the zero-expenditure households from the sample.

<sup>&</sup>lt;sup>54</sup> In estimating quantile regression models, standard statistical software packages cannot estimate standard errors that account for the complex survey design in the SNAPFS survey. As an approximation, we have estimated these auxiliary specifications without accounting for the complex survey design.

Table G.6. Associations Between SNAP Participation and Household Food Spending Relative to the Cost of the TFP, by Alternative Model Specifications

	Cross-Sectional Estimates			Longitudinal Estimates		
	Coefficient on SNAP Participation	Standard Error	<i>p</i> -Value	Coefficient on SNAP Participation	Standard Error	<i>p</i> -Value
Full Sample	0.047	0.025	0.065	0.027	0.025	0.279
Alternative Model Specifications						
Quantile regression (median)	0.017	0.300	0.561	0.032	0.017	0.071
OLS regression with log- transformed usual weekly expenditures as dependent variables	0.029	0.19	0.133	0.017	0.019	0.395

Source:

SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later

As a separate specification, we estimated an OLS regression model in which we log-transformed the TFP-adjusted expenditure variable to obtain a distribution that was more normally distributed. Zero-expenditure households had to be excluded from this analysis because of the logarithmic transformation. Although the distribution of observations appears somewhat more normal after the log transformation, we found no association between SNAP and expenditures relative to the TFP (Table G.6).

#### 4. Using a Fixed-Effects Estimator in the Longitudinal Analysis

Continuing to use a balanced data file that restricts the sample of new-entrant households to only those households that also completed a follow-up interview about six months later, we estimated a fixed-effects model, which makes it possible to account for time-invariant differences across households. (This, of course, can only be done with the longitudinal sample.) As an approximation, we estimated the standard errors of the model without accounting for the complex survey design.

In the fixed-effects analysis, SNAP was not associated with usual expenditures or usual expenditures relative to the cost of the TFP. In the model with usual expenditures relative to the cost of the TFP, the coefficient and standard error of the coefficient on the SNAP variable were 0.022 and 0.022 (Table G.7). This compares to 0.027 and 0.025 in our main longitudinal analysis (without fixed effects). The high degree of correspondence between the two sets of findings suggests that our results are robust to using a fixed-effects model to control for time-invariant factors when estimating the association between SNAP and food expenditures.

Table G.7. Associations Between SNAP Participation and Household Food Spending Relative to the Cost of the TFP, by Whether Fixed- Effects Estimator Is Used

	Cross-S	ectional Esti	mates	Longitudinal Estimates			
	Coefficient on SNAP Participation	Standard Error	<i>p</i> -Value	Coefficient on SNAP Participation	Standard Error	<i>p</i> -Value	
Full Sample	0.047	0.025	0.065	0.027	0.025	0.279	
Alternative Model Specification Fixed-effects regression				0.022	0.022	0.317	

Note: The cross-sectional estimates

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

### D. Diagnostic Checks Associated with the Amount of Time Between the Interview Date and the Date of Receipt of SNAP Benefits

We conducted several auxiliary analyses to determine whether the associations between SNAP and expenditures relative to the cost of the TFP were sensitive to the timing of the interviews relative to when new-entrant households received their first SNAP benefits. The positive association between SNAP and food expenditures relative to the cost of the TFP reported in Chapter V for the cross-sectional sample was generally not robust to these alternative specifications.

The survey asked new-entrant households whether they had received their SNAP benefits yet. For those that reported receiving their benefit, the survey requested the date of benefit receipt. Sixmonth households were asked only to provide the date of the most recent receipt of SNAP benefits.

Almost 30 percent of new-entrant households were interviewed within 5 days of receiving their SNAP benefit<sup>55</sup> (Table G.8). Another 26 percent were interviewed within 6 to 10 days and 23 percent within 11 to 15 days of their reported date of benefit receipt. For six-month households, there was generally a longer time between the interview date and the reported receipt of benefits, by design of the study. (An analytic objective in conducting the telephone survey was to minimize the time between program entry and the baseline interview for new-entrant households so that respondents' information pertained to the time period prior to entry into SNAP; this was not applicable to six-month households.)

<sup>&</sup>lt;sup>55</sup> Sixteen percent of new-entrants were interviewed before receiving benefits and are characterized as having "0" days since benefit receipt.

Table G.8. Length of Time Between Interview Date and Reported SNAP Benefit Receipt

	Cross-S	ectional Estin	nates	Longitudinal Estimates			
	Percentage of New-Entrant Households (Baseline)	Percentage of Six- Month Households	Difference	Percentage of New-Entrant Households (Baseline)	Percentage of New-Entrant Households (Six-Month Follow Up)	Difference	
0 to 5 days	27	15	-12	27	17	-11	
6 to 10 days	26	18	-8	26	18	-8	
11 to 15 days	23	21	-3	23	18	-5	
16 to 20 days	13	17	4	13	18	5	
21 to 25 days	6	15	8	6	13	7	
26+ days	4	14	10	4	17	13	

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Tabulations are based on the following overall sample sizes: 3,275 new-entrant households and 3,375 six-month households in the cross-sectional sample; and 3,275 new-entrant households observed at baseline and again at follow up six months later in the longitudinal sample. Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions.

We re-estimated our original specification including "days since benefit receipt" as one of the explanatory variables. In this specification, SNAP was associated with an increase in TFP-adjusted expenditures of 0.051 in the cross-sectional sample (Table G.9). This is similar to the estimate in our main specification of 0.047. In the longitudinal analysis, SNAP continued not to be statistically associated with TFP-adjusted expenditures.

Table G.9. Associations Between SNAP Participation and Household Food Spending Relative to the Cost of the TFP, by Six- Month and New- Entrant SNAP Participation Status and by Whether Model Includes "Days Since SNAP Benefit Receipt" Variable

	Cross-Sectional Estimates			Longitudinal Estimates		
	Coefficient on SNAP Participation	Standard Error	<i>p</i> -Value	Coefficient on SNAP Participation	Standard Error	<i>p</i> -Value
Main Model Specification	0.047*	0.025	0.065	0.027	0.025	0.279
Alternative Model that Includes "Days Since Benefit Receipt" as Explanatory Variable	0.051**	0.026	0.050	0.041	0.026	0.110

Source: SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

As an additional set of sensitivity analyses, we categorized new-entrant households into four groups based on the days since benefit receipt: 0 days, greater than 0 days, 1 to 11 days, or 12 days or more. <sup>56</sup> We estimated the TFP-adjusted expenditures regressions for each of these sets of new-entrant households and the full set of six-month households.

Participating in SNAP for six months was associated with about a 0.05 unit increase in expenditures relative to the cost of the TFP for households that had received benefits before the interview in the cross-sectional sample. For households that had received their benefit at least 12 days before the interview, SNAP was associated with a 0.08 unit increase in expenditures relative to the cost of the TFP in the cross-sectional sample and a 0.07 unit increase in the longitudinal sample. There were no statistical associations for households that had not yet received benefits or for households that received them less than 12 days before the interview (Table G.10).

Table G.10. Associations Between SNAP Participation and Usual Food Expenditures Relative to the Cost of the TFP, by Six- Month and New- Entrant SNAP Participation Status and by Number of Days Since SNAP Benefit Receipt for New- Entrant Households<sup>a</sup>

	Cross-S	Sectional Esti	mates	Longitudinal Estimates			
	Coefficient on SNAP Participation	Standard Error	<i>p</i> -Value	Coefficient on SNAP Participation	Standard Error	<i>p</i> -Value	
Main analysis sample	0.047*	0.025	0.065	0.027	0.025	0.279	
New-entrant households that had not received benefits before interview	-0.009	0.045	0.838	-0.051	0.047	0.281	
New-entrant households that had received benefits before interview	0.046*	0.026	0.072	0.033	0.026	0.210	
New-entrant households had received benefits 1 to 11 days before interview	0.015	0.032	0.632	0.013	0.039	0.739	
New-entrant households that had received benefits at least 12 days before interview	0.081**	0.037	0.027	0.068**	0.030	0.023	

Source: SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

Because many SNAP households begin to spend their SNAP benefit soon after receiving it, interviewing new-entrant households after they received their SNAP benefit would seem likely to

<sup>&</sup>lt;sup>a</sup> All samples use the original set of six-month households. Only the sample of new-entrant households is restricted by days since benefit receipt.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

<sup>&</sup>lt;sup>56</sup> Eleven days was the median number of days in the new-entrant sample among new-entrant households that had received their benefit at the time of the interview.

affect their reporting of "expenditures last week." Whether it affects the measure of "usual expenditures" is less clear. Unlike the 30-day food security measure and the measure of food expenditures "last week," the amount of expenditures households "usually" spend on food in a typical week does not have a specific calendar-based recall period associated with it. New-entrant households that have received their benefit in the past few days or weeks may report usual expenditures from the pre-SNAP period. Households that have been on SNAP for a few weeks may even report their usual expenditures that include their SNAP benefit. Because of the uncertainty in what the usual expenditures variable represents, it is difficult to make sense of the finding that SNAP was associated with TFP-adjusted expenditures only for the group of households that were not interviewed until at least 12 days after receiving benefits.

## E. Comparison of Findings to Unrestricted New-Entrant Household Sample

The findings in Chapter V restrict the sample of new-entrant households to those that continued to participate six months later, at the time of the follow-up interview. In this section, we present the findings from analyses that use the unrestricted sample of all new-entrant households.

In the unrestricted sample, SNAP was not associated with usual weekly food expenditures for either the cross-sectional or the longitudinal samples (Table G.11). SNAP was also not associated with expenditure relative to the cost of the TFP. Thus, the one significant association based on the restricted sample is not obtained with the unrestricted sample.

Table G.11. Regression- Adjusted Household Food Spending and Household Food Spending Relative to the Cost of the TFP, by Six- Month and New- Entrant SNAP Participation Status and by Whether New- Entrant Sample Is Restricted to Those Households Still on SNAP Six Months Later

	Cross-S	Cross-Sectional Estimates			Longitudinal estimates		
	New-Entrant Households (Baseline)	Six-Month Households	Difference	New-Entrant Households (Baseline)	New-Entrant Households (Six-Month Follow-Up)	Difference	
Usual Weekly Food Expenditures (in dollars)							
Restricted sample	93.28	94.91	1.63	90.26	92.96	2.70	
Unrestricted sample	95.44	95.78	0.34	92.83	94.09	1.26	
Usual Weekly Food Expenditures Relative to the Cost of the TFP							
Restricted sample	1.16	1.21	0.05*	1.16	1.19	0.03	
Unrestricted sample	1.19	1.21	0.02	1.19	1.19	0.00	

Source: SNAP Food Security Survey 2012.

Note: The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

<sup>\*, \*\*, \*\*\*</sup> Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

#### F. Potential Reporting Error for Expenditure Questions

As mentioned in Chapter V, another possible explanation for our unexpected findings regarding the association between SNAP and food expenditures is that, for some respondents, the question sequence may not have elicited the desired information about expenditures. We consider this possibility here.

In gathering the "expenditures last week" information, the module asked a set of questions disaggregated by type of food store. These were then aggregated across stores in conducting the analysis. A separate question that came after the "last week" questions asked about usual weekly food expenditures. Both types of questions explicitly asked respondents to include purchases made with SNAP benefits.

This question structure is included in the CPS-FSS, on which the annual volumes of the "Household Food Security in the United States" report, produced by ERS, are based. To the best of our knowledge, no major difficulties with the CPS data have been identified.

However, the fact that we obtained a nontrivial percentage of households that reported usually spending zero dollars on food in both our baseline and follow-up surveys raises issues regarding how respondents interpreted the questions. The percentages of households that reported they usually spend zero dollars on food in a typical week were 4.7 and 5.0 percent for new-entrant and six-month households in the cross-sectional sample, and 4.7 and 3.4 percent, respectively, in the longitudinal sample. If respondents who were receiving SNAP benefits at the time correctly understood the question, they would presumably report a positive usual weekly expenditure—that made with SNAP benefits. Therefore, correct responses of "zero usual expenditures" seem unlikely, particularly for the households that have been on SNAP for six months.

The existence of "zero expenditure" responses raises issues not only about the data for those respondents themselves, but also about whether other respondents may have failed to include SNAP benefits in reporting their expenditures. It is uncertain what effects any potential reporting error might have on the association between SNAP and food expenditures.

#### G. Relationship Between SNAP Benefit Amount and Food Expenditures

As another diagnostic assessment of the quality of the reported expenditure data, we estimated the association between SNAP benefit amount and reported usual food expenditures for six-month households to determine whether households that receive greater amounts in SNAP benefits spend more on food. The purpose of this assessment was to determine whether the association fell within the range of estimates presented in a previous study (Fraker 1990) in a literature review of the effects of SNAP on food consumption.

Fraker (1990) summarized the findings from 17 studies, spanning two decades, of the effects of SNAP on the money value of food used by households.<sup>57</sup> The underlying data sets, analytic

<sup>&</sup>lt;sup>57</sup> The study first reviewed the association between SNAP benefits and food expenditures. Next, it compared the association between SNAP benefits and food expenditures to the association between cash income and food expenditures to consider the implications of the differences for the effectiveness of food coupons versus cash assistance at increasing food expenditures. It also examined the effects of SNAP on the availability of nutrients in the household from the home food supply and the effects of SNAP on the intake of nutrient by individuals.

techniques, food expenditure outcome measures, and populations varied widely across studies. On the basis of this review, Fraker found that the provision of an additional dollar's worth of SNAP benefits to a recipient was estimated to stimulate the consumption of additional food from the home food supply with a money value of 17 to 47 cents (Fraker 1990, page 61).

The basic equation used in most of the 17 studies related expenditures to benefit amount, income, household size, and demographic and economic characteristics. The reviewed studies differed in whether they adjusted the outcome measure for household size and household composition. To estimate a model similar to these studies, we estimated a regression of usual weekly food expenditures on weekly benefit amount, household income relative to poverty, household size, and the full set of explanatory variables included in our original model specification listed in Chapter II. The main differences between our original model and the model estimated here are that (1) we included the benefit amount reported in the survey, scaled so that it is on a weekly basis, by dividing by 4.3 to correspond to the recall period of reported expenditures; and (2) we exclude the binary variable indicating whether households are six-month or new-entrant households. We estimated the model separately for six-month households and new-entrant households, as well as by cross-sectional and longitudinal samples.

We found that a one-dollar increase in SNAP benefits was associated with a 34 cent and 48 cent increase in usual food expenditures among six-month households in the cross-sectional and longitudinal analyses, respectively—estimates that are in or around the range in Fraker (1990) of 17 to 47 cents. The findings are statistically significant both in absolute dollars and after normalizing the outcome measure by household size and composition using the cost of the TFP, with increases in TFP-adjusted expenditures of 0.004 and 0.007, respectively.

Table G.12. Associations Between SNAP Benefit Amount and Household Food Spending, Conducted Separately for Six- Month and New- Entrant Households

	Cross-Sectional Estimates	Longitudinal Estimates
Usual Weekly Food Expenditures (in dollars)		
Six-Month Households	\$0.34***	\$0.48***
New-Entrant Households	\$0.29***	N.A.
Usual Weekly Food Expenditures Relative to the Cost of the TFP		
Six-Month Households	\$0.004***	\$0.007***
New-Entrant Households	\$0.003***	N.A.

Source: SNAP Food Security Survey 2012.

Note:

The cross-sectional estimates compare new SNAP participants to a contemporaneous set of participants who have been receiving SNAP for about six months. The longitudinal estimates compare new SNAP participants to the same participants about six months later.

Cross-sectional estimates are based on a data set with 6,650 households (3,275 new-entrant households and 3,375 six-month households). Longitudinal estimates are based on a data set with 3,275 new-entrant households observed at baseline and again at follow-up six months later.

#### N.A. Data not available.

\*, \*\*, \*\*\* Significantly different from zero at the 0.10, 0.05, and 0.01 level, respectively.

We repeated the analysis for new-entrant households as part of the data diagnostic check. A one-dollar increase in SNAP benefits was associated with a 29 cent increase in usual food

expenditures among new-entrant households (Table G.12) in both the cross-sectional and longitudinal samples. If reported expenditures reflected the period before receiving SNAP benefits, we would only expect a positive association between benefit amount and food expenditures if there was a third variable correlated with both benefits and expenditures. We believe we have accounted for most of those likely factors (household size, household composition, income, region of residence). Thus, we believe the new-entrant findings are consistent with the points made earlier that many of the baseline respondents had received their initial benefits before the survey and that some may have included food bought with these initial allotments in their reported "usual" expenditures.

Overall, this analysis suggests that limitations in our ability to collect accurate data on usual spending by new-entrant households may have affected our ability to estimate accurately the association between SNAP participation and food spending.



# APPENDIX H SUBGROUP SAMPLE SIZES



Table H.1. Sample Sizes for Subgroups Used in Multivariate Analysis of Food Insecurity and Very Low Food Security Regressions<sup>a</sup>

	Cross-Sectional Estimates	Longitudinal Estimates
Full Sample	6,432	6,332
Households with Children	2,709	2,488
Single-adult households with children	1,469	1,300
Multiple-adult households with children	1,240	1,188
Households without Children	3,723	3,844
Households with Elderly	839	791
Households without Elderly	5,593	5,541
Households with a Disabled Member	2,322	2,111
Households without a Disabled Member	4,110	4,221
Monthly Income as a Percentage of Poverty		
No Income	1,384	1,399
1% to 50%	1,748	1,673
51% to 100%	1,565	1,572
101% to 130%	804	761
More than 130%	931	927
SNAP Benefit Amount		
Less than \$100	1,057	1,081
\$101 to \$200	2,588	2,608
\$201 to \$300	742	740
\$301 and above	2,045	1,903

<sup>&</sup>lt;sup>a</sup> These are not the sizes of the subgroups in the raw data file. Instead, they are the sample sizes of the analytic files used in the regression analysis in Chapter IV once "don't know", "refusals", and "missings" are excluded from the file for all variables included in the regression.



# APPENDIX I BASELINE CHARACTERISTICS OF NEW- ENTRANT HOUSEHOLDS WITH AND WITHOUT A FOLLOW- UP INTERVIEW



In this appendix, we use tabular methods to examine the characteristics of new-entrant SNAP households by whether the household completed a follow-up interview approximately six months later. Because all characteristics are measured at the time of the baseline interview, we have removed the table headers indicating whether estimates are from the cross-sectional or longitudinal analysis. Estimates are presented for all new-entrant households (column 1); new-entrant households at baseline that completed a follow-up interview about six months later (column 2); and new-entrant households at baseline that did not complete a follow-up interview (column 3). The fourth column subtracts the estimate for households without a follow-up interview (column 3) from the estimate for households with a follow-up interview (column 2). All analyses are weighted using survey weights for new-entrant households. The tables are structured the same as the Appendix B tables.

<sup>&</sup>lt;sup>58</sup> The weights differ from those used in Chapters III through V and Appendices B through H in that they have not been normalized to sum to the sum of the weights of the six-month households.

Table I.1. Demographic Characteristics, Language of Interview, and Region of Residence of Six- Month and New- Entrant SNAP Households

	Percentage of New-Entrant Households	Percentage of New- Entrant Households with a Follow-up Interview	Percentage of New- Entrant Households without a Follow-up Interview	Difference
Interview Conducted in English Language	90.3 (0.9)	90.2 (0.8)	90.4 (1.0)	-0.2 (1.3)
Gender of Household Head				
Male	38.7 (0.7)	36.3 (0.7)	41.0 (1.1)	-4.7 (1.3)
Female	61.3 (0.7)	63.7 (0.7)	59.0 (1.1)	4.7 (1.3)
Race and Ethnicity Of Household Head				
Non-Hispanic, white	47.4 (2.5)	46.9 (2.5)	47.9 (2.7)	-1.1 (3.7)
Non-Hispanic, black	24.7 (1.9)	26.1 (2.1)	23.3 (2.0)	2.8 (2.9)
Non-Hispanic, other	7.7 (0.4)	7.2 (0.6)	8.3 (0.6)	-1.1 (0.8)
Hispanic	24.3 (2.3)	23.2 (2.3)	25.5 (2.5)	-2.3 (3.4)
Age of Household Head				
18 to 24	23.3 (0.6)	19.7 (0.9)	26.9 (0.8)	-7.1 (1.2)
25 to 49	53.7 (0.6)	52.1 (1.2)	55.3 (0.8)	-3.1 (1.4)
50 to 64	18.3 (0.6)	21.2 (0.9)	15.4 (0.7)	5.8 (1.1)
65 and older	4.6 (0.5)	6.9 (0.8)	2.3 (0.3)	4.6 (0.9)
Highest Grade Completed of Household Head				
Less than high school	23.0 (0.8)	23.0 (0.9)	23.0 (1.1)	0.1 (1.4)
High school graduate (diploma or GED)	33.0 (0.9)	32.6 (1.1)	33.3 (1.2)	-0.8 (1.6)
Some college, but no degree	36.7 (1.0)	35.7 (1.1)	37.7 (1.2)	-2.0 (1.6)
Technical, trade, or vocational degree	5.7 (0.3)	5.9 (0.4)	5.5 (0.5)	0.4 (0.6)
Associate's degree	6.6 (0.5)	6.8 (0.7)	6.3 (0.5)	0.4 (0.9)
Bachelor's degree or beyond	7.3 (0.5)	8.7 (0.6)	5.9 (0.5)	2.7 (0.8)
Region of Residence				
Northeast	12.7 (4.4)	12.9 (4.4)	12.5 (4.5)	0.4 (6.3)
Mid-Atlantic	7.3 (4.7)	7.4 (4.9)	7.2 (4.5)	0.3 (6.7)
Midwest	12.6 (4.0)	12.6 (3.7)	12.6 (4.3)	0.1 (5.7)
Southeast	24.6 (5.0)	25.5 (5.6)	23.8 (4.5)	1.7 (7.2)
Southwest	13.7 (3.4)	12.3 (3.5)	15.1 (3.3)	-2.7 (4.8)
Mountain Plains	5.8 (2.7)	5.7 (2.5)	5.8 (3.0)	-0.2 (3.9)
West	23.3 (3.8)	23.5 (4.3)	23.1 (3.4)	0.5 (5.5)

Note:

The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Table I.2. Household Size and Composition of Six- Month and New- Entrant SNAP Households

	Percentage of New-Entrant Households		Percentage of New- Entrant Households without a Follow-up Interview	Difference
Household Size				
1 Person	36.8 (0.8)	38.4 (1.1)	35.1 (1.0)	3.3 (1.5)
2 Person	24.0 (0.7)	24.6 (1.1)	23.4 (1.0)	1.2 (1.5)
3 Person	18.3 (0.4)	17.6 (0.6)	19.0 (0.7)	-1.4 (0.9)
4 Person	11.1 (0.5)	10.0 (0.5)	12.2 (0.8)	-2.2 (0.9)
5 Person	5.7 (0.4)	5.6 (0.5)	5.8 (0.5)	-0.1 (0.7)
6+ Person	4.1 (0.2)	3.7 (0.4)	4.5 (0.3)	-0.7 (0.5)
Households with Children	42.5 (0.8)	40.7 (1.1)	44.3 (1.1)	-3.5 (1.6)
Single adult	17.8 (0.5)	17.9 (0.7)	17.6 (0.8)	0.3 (1.1)
Multiple adults	24.7 (0.7)	22.8 (0.9)	26.6 (1)	-3.8 (1.3)
Households without Children	57.5 (0.8)	59.3 (1.1)	55.7 (1.1)	3.6 (1.6)
Households with Elderly	8.9 (0.5)	12.2 (0.8)	5.7 (0.5)	6.5 (0.9)
Elderly living alone	2.8 (0.3)	4.3 (0.4)	1.3 (0.2)	3.0 (0.4)
Elderly living with others	6.1 (0.4)	7.9 (0.6)	4.4 (0.4)	3.5 (0.7)
Households without Elderly	91.1 (0.5)	87.8 (0.8)	94.3 (0.5)	-6.5 (0.9)
Households with a Disabled Member	28.2 (0.9)	32.4 (1.2)	23.9 (0.9)	8.5 (1.5)
Households without a Disabled Member	71.8 (0.9)	67.6 (1.2)	76.1 (0.9)	-8.5 (1.5)

Note:

The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Table I.3. Employment Status, Monthly Income as Percentage of the Poverty Line, and Earned and Unearned Income of Six- Month and New- Entrant SNAP Households

	Percentage of New-Entrant Households	Percentage of New- Entrant Households with a Follow-up Interview	Percentage of New- Entrant Households without a Follow-up Interview	Difference
Employment Status of Household Head				
Employed full time	14.3 (0.5)	12.1 (0.6)	16.6 (0.8)	-4.5 (1.0)
Employed part time	9.1 (0.6)	9.4 (1.1)	8.8 (0.6)	0.6 (1.3)
Not employed	76.6 (0.8)	78.5 (1.3)	74.6 (0.9)	3.9 (1.6)
Monthly Income as a Percentage of the Poverty Line				
No income	25.9 (0.7)	24.7 (0.9)	27.1 (0.9)	-2.5 (1.3)
1% to 50%	27.2 (0.6)	27.4 (0.8)	27.1 (1.0)	0.4 (1.3)
51% to 100%	27.4 (0.9)	28.3 (0.9)	26.5 (1.0)	1.8 (1.3)
101% to 130%	7.1 (0.4)	7.2 (0.4)	7.0 (0.5)	0.1 (0.6)
More than 130%	12.4 (0.7)	12.4 (0.9)	12.3 (0.7)	0.1 (1.1)
Percentage of Households with No Earned Income	68.6 (0.8)	70.6(1.2)	66.6(1.0)	4.0 (1.6)
Percentage of Households with No Unearned Income	42.7 (0.7)	40.4(1.1)	45.1(0.8)	-4.7 (1.4)

Note:

The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Table I.4. Income Sources and Average Monthly Income Amounts of Six- Month and New-Entrant SNAP Households

	Percentage of New-Entrant Households	Percentage of New- Entrant Households with a Follow-up Interview	Percentage of New- Entrant Households without a Follow-up Interview	Difference
Percentage of Households				
with Income Type				
TANF	2.2 (0.2)	2.5 (0.4)	1.8 (0.3)	0.8 (0.5)
Social Security	17.9 (1.2)	21.1 (1.3)	14.7 (1.2)	6.4 (1.8)
SSI or Supplemental Security Income	7.7 (0.6)	9.1 (0.7)	6.3 (0.6)	2.8 (0.9)
Unemployment insurance or worker's compensation benefits	9.4 (0.5)	9.6 (0.7)	9.1 (0.6)	0.5 (0.9)
Child support payments	6.0 (0.3)	5.2 (0.5)	6.8 (0.5)	-1.5 (0.7)
Financial support from friends or family	29.8 (0.6)	28.6 (0.7)	31.0 (0.8)	-2.4 (1.1)
Other income	7.8 (0.3)	8.4 (0.6)	7.2 (0.5)	-1.2 (0.8)
Median Monthly Income Amount among Households with Positive Income from the Specified Source (in dollars)				
TANF	300.0	254.0	361.0	-107.0
Social Security	801.0	821.0	776.0	45.0
Supplemental Security Income (SSI)	674.0	674.0	674.0	0.0
Unemployment insurance or worker's compensation benefits	624.0	600.0	696.0	-96.0
Child support payments	292.0	281.0	292.0	-11.0
Financial support from friends or family	150.0	130.0	150.0	-20.0
Other income	335.0	316.0	350.0	-34.0

Note:

The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Table I.5. Household Income, Earnings, and Unearned Income of Six- Month and New- Entrant SNAP Households, Among Households with Income

	Percentage of New- Entrant Households	Percentage of New- Entrant Households with a Follow-up Interview	Percentage of New- Entrant Households without a Follow-up Interview	Difference
Monthly Household Income among Households with Positive Income (in dollars)				
10th Percentile	120.0	100.0	140.0	-40.0
25th Percentile	425.0	430.0	401.0	29.0
50th Percentile	900.0	862.4	934.0	-71.6
75th Percentile	1513.6	1479.4	1548.0	-68.6
90th Percentile	2300.0	2199.0	2460.0	-261.0
Mean	1128.4 (18.8)	1101.2 (22.8)	1156.5 (24.6)	-55.3 (33.5)
Monthly Household Earnings among Households with Positive Earnings (in dollars)				
10th Percentile	399.9	344.0	438.6	-94.6
25th Percentile	742.4	688.0	774.9	-86.9
50th Percentile	1199.7	1161.0	1238.4	-77.4
75th Percentile	1800.0	1720.0	1857.6	-137.6
90th Percentile	2580.0	2580.0	2631.6	-51.6
Mean	1394.0 (30.3)	1355.6 (46.6)	1427.9 (33.5)	-72.2 (57.4)
Monthly Household Unearned Income among Households with Positive Unearned Income (in dollars)				
10th Percentile	60.0	72.0	60.0	12.0
25th Percentile	200.0	200.0	190.0	10.0
50th Percentile	538.0	600.0	500.0	100.0
75th Percentile	982.0	1000.0	940.0	60.0
90th Percentile	1491.0	1500.0	1448.0	52.0
Mean	695.8 (15.9)	723.0 (19.1)	666.2 (20.9)	56.9 (28.3)

Note:

The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Table I.6. Household Resources Other than Income of Six- Month and New- Entrant SNAP Households

	Percentage of New-Entrant Households	Percentage of New- Entrant Households with a Follow-up Interview	Percentage of New- Entrant Households without a Follow-up Interview	Difference
Currently Own a Vehicle	55.0 (0.8)	55.8 (1.0)	54.3 (1.2)	1.5 (1.6)
Currently Do Not Own, but Have Access to, a Vehicle	19.7 (0.6)	19.4 (0.8)	20.1 (0.8)	-0.7 (1.1)
Currently Have a Credit Card	20.4 (0.7)	21.7 (1.1)	19.2 (0.7)	2.5 (1.3)
Residence House, townhouse, condo Mobile home or trailer Apartment Homeless or othera Home Ownership Status Owns Rents Lives rent free Does not own but receives Section 8 or Public Housing assistance	48.5 (1.1) 10.6 (1.3) 32.1 (1.5) 8.7 (0.4) 13.5 (0.7) 65.3 (1.2) 20.3 (0.7) 7.7 (0.5)	48.1 (1.2) 11.2 (1.5) 32.1 (1.7) 8.4 (0.5) 14.6 (1.0) 64.3 (1.7) 20.4 (1.0) 9.3 (0.7)	49.0 (1.5) 10.0 (1.2) 32.1 (1.6) 8.9 (0.6) 12.4 (0.8) 66.3 (1.2) 20.2 (0.7) 6.2 (0.5)	-0.9 (1.9) 1.2 (19) 0.0 (2.3) -0.5 (0.8 2.2 (1.3) -1.9 (2.1) 0.3 (1.2) 3.2 (0.9)
Food Preparation and Storage Capabilities				
Access to a refrigerator	98.4 (0.2)	98.3 (0.3)	98.5 (0.2)	-0.2 (0.4)
Access to a stand-alone food freezer	49.2 (0.9)	47.9 (1.5)	50.4 (1.1)	-2.4 (1.9)
Access to a gas or electric stove	96.8 (0.3)	96.8 (0.3)	96.8 (0.3)	0.1 (0.4)
Access to a microwave oven	91.1 (0.4)	90.8 (0.5)	91.4 (0.7)	-0.7 (0.9)

Note:

The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Tabulations are based on the following overall sample sizes: 6,436 new-entrant households (column 1), 3,275 new-entrant households with a follow-up interview (column 2), and 3,161 new-entrant households without a follow-up interview (column 3). Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions.

<sup>a</sup>Consists of "homeless, living in shelter or mission", "homeless, living on street", "car, van, or recreational vehicle", "room", "motel or hotel", "abandoned building", or "other".

Table I.7. Changes in Household Size, Housing Status, or Employment, Pay, or Hours Worked in Past Six Months Experienced by Six- Month and New- Entrant SNAP Households

	Percentage of New- Entrant Households	Entrant Households	Percentage of New- Entrant Households without a Follow-up Interview	Difference
Experienced Change in Household Size, Housing Status, or Employment, Pay, or Hours Worked in Past 6 Months				
Change in Household Size Birth of child New step, foster, or adopted child Marriage or new partner Separation or divorce Death of household member Family/boarder moving in	20.3 (0.8) 2.4 (0.2) 0.1 (0.0) 0.3 (0.1) 3.7 (0.3) 0.8 (0.1) 4.4 (0.3)	21.1 (1.2) 2.3 (0.3) 0.1 (0.0) 0.2 (0.1) 3.7 (0.4) 1.2 (0.2) 3.9 (0.4)	19.5(0.7) 2.5 (0.3) 0.1 (0.1) 0.5 (0.1) 3.6 (0.3) 0.4 (0.1) 5.0 (0.5)	1.7 (1.4) -0.2 (0.4) 0.0 (0.1) -0.3 (0.1) 0.0 (0.5) 0.8 (0.2) -1.1 (0.6)
Family/boarder moving out  Evicted from House or Apartment	4.6 (0.3) 4.6 (0.4)	5.5 (0.4) 4.7 (0.5)	3.7 (0.3) 4.5 (0.6)	1.9 (0.5) 0.1 (0.8)
Change in Employment, Pay, or Hours Worked	42.6 (1.0)	39.0 (1.2)	46.1(1.4)	-7.1 (1.8)
Obtained a job (self) Obtained a job (other household member)	3.2 (0.3) 3.8 (0.3)	2.6 (0.4) 2.8 (0.4)	3.9 (0.4) 5.0 (0.6)	-1.3 (0.6) -2.1 (0.7)
Lost a job (self)  Lost a job (other household member)	18.2 (0.7) 20.6 (0.8)	14.9 (0.9) 18.4 (1.0)	21.6(1.1) 23.0(1.4)	-6.7 (1.4) -4.6 (1.7)
Increase in pay or hours worked (self)	1.2 (0.2)	0.8 (0.2)	1.6 (0.3)	-0.8 (0.4)
Increase in pay or hours worked (other household member)	0.7 (0.1)	1.0 (0.2)	0.4 (0.1)	0.6 (0.2)
Decrease in pay or hours worked (self)	7.2 (0.5)	5.9 (0.6)	8.6 (0.8)	-2.7 (1.0)
Decrease in pay or hours worked (other household member)	6.9 (0.4)	6.4 (0.6)	7.3 (0.7)	-0.9 (0.9)

Source:

SNAP Food Security Survey 2012.

Note:

The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Tabulations are based on the following overall sample sizes: 6,436 new-entrant households (column 1), 3,275 new-entrant households with a follow-up interview (column 2), and 3,161 new-entrant households without a follow-up interview (column 3). Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions.

Because respondents may experience multiple trigger events, percentages for aggregate categories such as "any trigger" may not equal the sum of the percentages for the component categories.

Table I.8. SNAP Participation Characteristics of Six- Month and New- Entrant SNAP Households

	Percentage of New-Entrant Households	Percentage of New- Entrant Households with a Follow-up Interview	Percentage of New- Entrant Households without a Follow-up Interview	Difference
Prior SNAP Participation	48.5 (1.0)	49.1 (1.7)	47.8(1.0)	1.3 (2.0)
Received Benefits 3 Months Ago			23.4(1.4)	3.2 (2.8)
Received Benefits 6 Months Ago	34.9 (1.3)	36.0 (1.9)	33.9(1.4)	2.1 (2.4)
Received Benefits 12 Months Ago	46.1 (0.9)	46.7 (1.4)	45.5(1.5)	1.3 (2.1)
Benefit Amount				
\$0 to \$100	15.3 (1.0)	16.4 (1.3)	14.1(0.9)	2.4 (1.6)
\$101 to \$200	41.4 (1.7)	41.7 (1.8)	41.1(2.0)	0.6 (2.7)
\$201 to \$300	18.9 (1.)	18.1 (1.0)	19.8(1.2)	-1.6 (1.6)
\$301 or more	24.4 (1.1)	23.8 (1.4)	25.1(1.4)	-1.3 (2.0)
Mean Benefit Amount	241.8 (5.9)	236.1 (7.0)	247.7(6.4)	-11.6 (9.5)
Length of Time Benefits Typically Last				
1 week or less	n.a.	n.a.	n.a.	n.a.
2 weeks	n.a.	n.a.	n.a.	n.a.
3 weeks	n.a.	n.a.	n.a.	n.a.
4 weeks				
More than 4 weeks	n.a.	n.a.	n.a.	n.a.

Note:

The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Tabulations are based on the following overall sample sizes: 6,436 new-entrant households (column 1), 3,275 new-entrant households with a follow-up interview (column 2), and 3,161 new-entrant households without a follow-up interview (column 3). Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions.

n.a. = not applicable

Table I.9. Participation in Non-SNAP Food Assistance Programs in Past 30 Days of Six-Month and New-Entrant SNAP Households

	Percentage of New- Entrant Households	Percentage of New- Entrant Households with a Follow-up Interview	Percentage of New- Entrant Households without a Follow-up Interview	Difference
NSLP (children ages 5 to 18)	69.0 (1.4)	72.9 (1.9)	65.6(1.6)	7.3 (2.5)
SBP (children ages 5 to 18)	56.2 (1.6)	57.5 (2.0)	55.1(1.8)	2.4 (2.7)
NSLP & SBP (children ages 5 to 18)	53.6 (1.6)	55.4 (2.0)	51.9(2.0)	3.4 (2.8)
NSLP or SBP (children under age 5)	12.7 (1.1)	12.5 (1.5)	12.8(1.4)	-0.3 (2.1)
WIC	25.5 (1.1)	27.9 (1.3)	23.2(1.2)	4.7 (1.8)
Community Programs				
Received emergency food from a church, food pantry, or food bank	21.7 (0.8)	23.0 (0.9)	20.3(1.2)	2.7 (1.5)
Went to community program or senior center to eat prepared meals	4.4 (0.4)	4.4 (0.5)	4.4(0.5)	0.0 (0.7)
Ate meals at a soup kitchen or shelter	4.2 (0.3)	4.3 (0.4)	4.0(0.4)	0.3 (0.6)
Received meals from "Meals on Wheels" or any other home- delivery meal programs	1.5 (0.2)	1.5 (0.3)	1.5(0.2)	0.0 (0.4)

Note:

The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Table I.10. Food Purchase Behavior of Six- Month and New- Entrant SNAP Households

	Percentage of New-Entrant Households	Percentage of New- Entrant Households with a Follow-up Interview	Percentage of New- Entrant Households without a Follow-up Interview	Difference
Purchase Most of Groceries at				
Supermarkets / grocery stores	76.8 (1.0)	77.1 (1.1)	76.5(1.1)	0.6 (1.6)
Discount stores	14.5 (0.9)	14.1 (1.0)	14.9(1.0)	-0.8 (1.4)
Warehouse clubs	1.6 (0.2)	1.7 (0.3)	1.6 (0.3)	0.2 (0.4)
Convenience stores	0.3 (0.1)	0.4 (0.1)	0.2 (0.1)	0.1 (0.1)
Ethnic food stores	1.1 (0.1)	1.0 (0.2)	1.2 (0.2)	-0.2 (0.3)
Farmer's markets	0.3 (0.1)	0.3 (0.1)	0.2 (0.1)	0.1 (0.1)
Dollar stores	0.4 (0.1)	0.3 (0.1)	0.5 (0.2)	-0.2 (0.2)
Other stores	4.6 (0.3)	4.8 (0.3)	4.4 (0.4)	0.3 (0.5)
Reason for Store				
Low prices or sales	50.3 (1.1)	50.6 (1.4)	49.9(1.1)	0.7 (1.8)
Quality or variety of food	11.2 (0.5)	11.0 (0.8)	11.5(0.6)	-0.5 (1.0)
Close to home / Convenient / Easy to	26.7 (0.8)	26.6 (0.8)	26.9(1.1)	` '
get to				-0.3 (1.4)
Other	11.3 (0.5)	11.3 (0.6)	11.3(0.6)	0.1 (0.8)
Mode of Transportation				
Drive own car	45.6 (1.0)	45.7 (1.0)	45.5(1.5)	0.2 (1.8)
Drive someone else's car	9.0 (0.6)	9.5 (0.7)	8.5 (0.9)	0.9 (1.1)
Someone else drives	34.1 (0.8)	35.0 (0.9)	33.2(1.0)	1.8 (1.3)
Walk	17.4 (0.8)	16.0 (10.1)	18.9(0.8)	-2.8 (10.1)
Bus	10.2 (1.0)	10.1 (1.0)	10.3(1.3)	-0.2 (1.6)
Taxi	1.6 (0.2)	1.8 (0.3)	1.4 (0.3)	0.4 (0.4)
Ride bicycle	1.8 (0.2)	1.8 (0.5)	1.7 (0.4)	0.0 (0.6)
Other	1.3 (0.2)	1.6 (0.3)	1.1 (0.2)	0.5 (0.4)
Usually go directly from home	93.7 (0.4)	93.4 (0.7)	94.0(0.4)	-0.6 (0.8)
How Many Minutes One Way from Home (among those that usually go directly from home)				
0 to 5	26.9 (0.7)	25.8 (1.1)	27.9(1.1)	-2.1 (1.6)
6 to 10	29.6 (0.7)	30.2 (1.0)	29.0(0.9)	1.2 (1.3)
11 to 20	30.0 (0.9)	29.5 (1.1)	30.4(1.0)	-0.9 (1.5)
21 to 30	8.8 (0.5)	9.3 (0.5)	8.3 (0.6)	1.0 (0.8)
31 to 60	4.4 (0.4)	4.7 (0.6)	4.1 (0.5)	0.6 (0.8)
More than 60	0.4 (0.1)	0.4 (0.2)	0.3 (0.1)	0.2 (0.2)
Median minutes	10.0	10.0	10.0	0.0
How Many Miles One Way from Home (among those that usually go directly from home)				
Less than one mile	13.3 (0.5)	12.0 (0.8)	14.5(0.7)	-2.5 (1.1)
0-5 miles	54.5 (1.2)	55.7 (1.5)	53.4(1.3)	2.2 (2.0)
5-10 miles	16.9 (0.7)	16.3 (0.9)	17.6(1.0)	-1.3 (1.3)
10-20 miles	11.1 (0.9)	11.3 (1.1)	10.9(1.0)	0.5 (1.5)
Over 20 miles	4.2 (0.4)	4.7 (0.5)	3.6 (0.4)	1.0 (0.6)

Note: The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Table I.11. EBT Usage, Timing of Receipt of SNAP Benefit Relative to Interview Date, and Money Saving Techniques for Food Spending of Six- Month and New- Entrant SNAP Households

	Percentage of New- Entrant Households	Percentage of New- Entrant Households with a Follow-up Interview	Percentage of New- Entrant Households without a Follow-up Interview	Difference
Percentage of Actual Food Spending Last Week Bought Using EBT Card				
Less than half	11.0 (0.7)	11.0 (0.8)	11.0(0.9)	-0.1 (1.2)
About half	5.2 (0.4)	5.2 (0.5)	5.3 (0.6)	-0.1 (0.8)
More than half	83.8 (0.8)	83.9 (1.0)	83.7(0.9)	0.2 (1.3)
Length of Time Between Interview Date and Reported SNAP Benefit Receipt				
0 to 5 days	27.3 (1.6)	28.0 (1.5)	28.7 (1.7)	0.7 (2.3)
6 to 10 days	25.8 (1.3)	23.5 (0.9)	21.3 (1.0)	-2.2 (1.3)
11 to 15 days	23.3 (0.8)	22.8 (1.2)	22.3 (1.6)	-0.5 (2.0)
16 to 20 days	12.9 (0.8)	13.5 (0.5)	14.2 (0.6)	0.7 (0.8)
21 to 25 days	6.4 (0.7)	6.8 (0.5)	7.2 (0.5)	0.4 (0.7)
26+ days	4.3 (0.4)	5.3 (0.3)	6.3 (0.5)	1.0 (0.6)
Money Saving Techniques for Food Spending	10.0			
Used coupons when buying food	44.5 (0.9)	45.2 (1.0)	43.8 1.3)	1.4 (1.6)
Bought food in large quantities to receive bulk discounts	37.7 (0.8)	37.8 (0.9)	37.6(1.1)	0.2 (1.4)
Bought food items because they were on sale	84.8 (0.7)	85.3 (0.8)	84.3(1.0)	0.9 (1.3)
Bought food that was near or past its expiration date at a discount	23.9 (0.8)	25.8 (0.9)	21.9(1.1)	4.0 (1.4)

Note:

The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Table I.12. Self- Reported Health Status and Body Mass Index of Six- Month and New- Entrant SNAP Households

	Percentage of New- Entrant Households	Percentage of New- Entrant Households with a Follow-up Interview	Percentage of New- Entrant Households without a Follow-up Interview	Difference
Self-Reported Health Status				
Excellent	11.6 (0.5)	10.3 (0.6)	13.0(0.6)	-2.7 (0.8)
Very good	21.6 (0.6)	19.8 (0.8)	23.3(0.9)	-3.5 (1.2)
Good	31.4 (0.6)	32.0 (1.1)	30.9(0.7)	1.2 (1.3)
Fair	25.3 (0.7)	26.4 (1.1)	24.3(1.1)	2.1 (1.6)
Poor	9.9 (0.5)	11.3 (0.8)	8.5 (0.7)	2.7 (1.1)
Body Mass Index of Respondent (based on self-reported height and weight)				
Less than 18.5	2.0 (0.2)	1.8 (0.3)	2.3 (0.3)	-0.5 (0.4)
18.5 to less than 25	34.3 (0.8)	33.4 (1.1)	35.3(0.9)	-2.0 (1.4)
25 to less than 30	31.8 (0.6)	31.0 (1.2)	32.5(1.2)	-1.5 (1.7)
30 or more	31.9 (0.7)	33.9 (1.3)	29.9(0.9)	4.0 (1.6)

Note:

The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Table I.13. Self- Reported Mental Health and Well- Being of Six- Month and New- Entrant SNAP Households

	Percentage of New-Entrant Households	Percentage of New- Entrant Households with a Follow-up Interview	Percentage of New- Entrant Households without a Follow-up Interview	Difference
Percentage of Respondents that in the Last 30 Days Felt <sup>a</sup>				
So sad nothing could cheer them up	47.6 (0.6)	48.0 (0.8)	47.3(1.2)	0.7 (1.4)
Nervous	49.9 (0.7)	50.4 (1.0)	49.3(0.9)	1.1 (1.3)
Restless or Fidgety	49.6 (0.7)	49.5 (1.0)	49.6 1.2)	-0.2 (1.6)
Hopeless	34.7 (0.5)	35.4 (0.8)	33.9(0.9)	1.5 (1.2)
That everything was an effort	63.1 (0.6)	62.7 (0.8)	63.5(1.1)	-0.8 (1.4)
Worthless	27.6 (0.5)	28.4 (0.9)	26.8(0.9)	1.7 (1.3)
Percentage of Households that, if Needed Help, Would Get this Amount of Help from Family Living Nearby				
All of the help needed	19.1 (0.6)	18.5 (0.7)	19.7(0.8)	-1.1 (1.1)
Most of the help needed	30.9 (0.6)	30.5 (0.9)	31.3(0.8)	-0.8 (1.2)
Very little of the help needed	29.7 (0.5)	30.3 (0.7)	29.1(0.7)	1.3 (1.0)
No help	19.7 (0.7)	19.8 (1.0)	19.6(0.8)	0.2 (1.3)
Percentage of Households that, if Needed Help, Would Get this Amount of Help from Friends				
All of the help needed	9.0 (0.4)	8.2 (0.6)	9.7 (0.6)	-1.5 (0.8)
Most of the help needed	28.1 (0.6)	27.8 (0.8)	28.4(0.8)	-0.6 (1.1)
Very little of the help needed	42.2 (0.7)	43.4 (0.9)	40.9(0.8)	2.5 (1.2)
No help	20.3 (0.7)	20.0 (0.8)	20.6(0.9)	-0.6 (1.2)
Percentage of Households that, if Needed Help, Would Get this Amount of Help from Other People in the Community Besides Family and Friends				
All of the help needed	5.6 (0.4)	5.9 (0.4)	5.2 (0.5)	0.7 (0.6)
Most of the help needed	18.5 (0.5)	18.3 (0.7)	18.6(0.7)	-0.3 (1.0)
Very little of the help needed	43.3 (0.8)	44.2 (0.8)	42.4(1.1)	1.8 (1.4)
No help	31.3 (0.8)	30.0 (0.9)	32.5(1.1)	-2.5 (1.4)
Percentage of Households that Consider Neighborhood				
Very safe	41.2 (1.0)	42.0 (1.5)	40.4(1.1)	1.6 (1.9)
Somewhat safe	48.1 (0.7)	47.7 (1.2)	48.4(1.1)	-0.7 (1.6)
Very unsafe	10.1 (0.6)	9.5 (0.6)	10.6(1.0)	-1.1 (1.2)

Note:

The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not complete a follow-up interview.

Standard errors in parentheses.

Tabulations are based on the following overall sample sizes: 6,436 new-entrant households (column 1), 3,275 new-entrant households with a follow-up interview (column 2), and 3,161 new-entrant households without a follow-up interview (column 3). Individual panels within tables may have slightly fewer observations due to item nonresponse to individual questions.

<sup>a</sup>Responses of "all of the time", "most of the time", "a little of the time" were counted as affirmative; "none of the time" were not counted as affirmative.

Table I.14. State Characteristics Associated with Six- Month and New- Entrant SNAP Households

	Percentage of New-Entrant Households	Percentage of New- Entrant Households with a Follow-up Interview	Percentage of New- Entrant Households without a Follow-up Interview	Difference
State 25 <sup>th</sup> Percentile Wage (Dollars)	10.7 (0.1)	10.8 (0.1)	10.7 (0.1)	0.0 (0.1)
State Unemployment Rate (Percentage)	8.7 (0.2)	8.8 (0.2)	8.7 (0.2)	0.1 (0.3)
State Offers Broad-Based Categorical Eligibility for SNAP (Percentage)	89.3 (5.6)	89.1 (5.6)	89.4 (5.6)	-0.3 (7.9)
Average State SNAP Certification Period (Months)	12.1 (0.3)	12.2 (0.3)	12.1 (0.3)	0.1 (0.4)

Note: The table compares the characteristics of new SNAP participants that completed a follow up interview six months later to the characteristics of new SNAP participants that did not

complete a follow-up interview.

Standard errors in parentheses.



# APPENDIX J SURVEY INSTRUMENTS



MPR Reference No.: 06801.602



# **SNAP** Food Security Telephone Survey

CATI SPECIFICATIONS

May 24, 2011

#### A. INTRODUCTION

ALL	
SAMPLE MEMBER FROM SAMPMEM_NAME	
the parent or guardian of FULLNAME IF AGE LT 18	
Hello	
Hello, my name is [INTVNAME]. I am calling from Mathem Research on behalf of the US Department of Agriculture. [FULLNAME/the parent or guardian of FULLNAME]?	
SAMPLE MEMBER COMES TO PHONE1	GO TO INTRO1
SAMPLE MEMBER UNAVAILABLE/BAD TIME2	SCHEDULE CALL BACK
NO ONE ANSWERS3	GO TO NO ANSWER SCREEN
NO SUCH PERSON AT THIS NUMBER4	GO TO LOCATING SCREEN
HELLO SCREEN = 1	
SampMemb Hello, my name is and I'm calling from	Mathematica Policy
<del>-</del>	nailed you, we are Agriculture that funds STATE SNAP NAME], families and their and your cooperation will not affect any ature. All answers you presented. As a token
SampMemb Hello, my name is and I'm calling from Research. As you may recall from the letter we recently me conducting a survey on behalf of the U.S. Department of a the Supplemental Nutrition and Assistance Program, or [4] which is also known as food stamps, to learn more about food needs. The interview will take about 25-30 minutes, a is completely voluntary. Your participation in the survey government assistance you are receiving now or in the fugive will be confidential and no individual results will be pof appreciation, we will be sending you a \$20 gift card after the year and year after the year after the year and year and year and year and year after the year and	nailed you, we are Agriculture that funds STATE SNAP NAME], families and their and your cooperation will not affect any ature. All answers you presented. As a token
SampMemb Hello, my name is and I'm calling from Research. As you may recall from the letter we recently me conducting a survey on behalf of the U.S. Department of the Supplemental Nutrition and Assistance Program, or [3] which is also known as food stamps, to learn more about food needs. The interview will take about 25-30 minutes, a is completely voluntary. Your participation in the survey government assistance you are receiving now or in the further give will be confidential and no individual results will be of appreciation, we will be sending you a \$20 gift card after complete.	Agriculture that funds STATE SNAP NAME], families and their and your cooperation will not affect any sture. All answers you bresented. As a token er the interview is  GO TO LETTER SCREEN GO TO MORE INFO SCREEN

**INTRO1 = 1 STATE SNAP NAME** FROM SNAPstate name EBT STATE NAME FROM EBTstate name MONTH, YEAR FROM CertificationDate in MONTH, YEAR IF NEW PARTICIPANT around 6 months ago IF CURRENT PARTICIPANT SCRN1a. Based on the information we have, you were most recently approved for [STATE SNAP NAME] benefits (NEW: in MONTH, YEAR / CURRENT: around 6 months ago). Is that correct? PROBE: This program used to be called food stamps. It puts money on an [EBT STATE NAME] card that you can use to buy food. YES ......1 DON'T KNOW......d GO TO Sup Review REFUSED....r GO TO Sup Review IF NEW PARTICIPANT AND SCRN1A = 1, GO TO A1 IF CURRENT PARTICIPANT AND SCRN1A = 1 OR 0, GO TO SCRN1D NEW PARTICIPANT AND SCRN1A = 0 **STATE SNAP NAME** FROM SNAPstate name SCRN1b. Have you applied for [STATE SNAP NAME] benefits in the last two months? YES ......1 NO ....... **GO TO END** DON'T KNOW......d GO TO Sup Review REFUSED.....r GO TO Sup Review NEW PARTICIPANT AND SCRN1B = 1 SCRN1c. What was the outcome of that application? APPLICATION WAS APPROVED ......1 APPLICATION IS STILL PENDING ......2 GO TO Sup Review **GO TO END** DON'T KNOW......d **GO TO Sup Review** 

REFUSED.....r

GO TO Sup Review

NEW PARTICIPANT AND SCRN1C = 1	
EBT STATE NAME FROM EBTstate_name	
SCRN1ca. How many times has money been put on your [EBT STA you've been approved this most recent time?	TE NAME] card since
TIMES (0 - 5)	
DON'T KNOWd	GO TO Sup Review
REFUSEDr	GO TO Sup Review
PROGRAMMER: IF SCRN1ca = 0 OR 1, GO TO A1; IF SCRN1ca	>1, GO TO END
CURRENT PARTICIPANT AND SCRN1A = 1 OR 0	
STATE SNAP NAME FROM SNAPstate_name	
SCRN1d. Are you now participating in [STATE SNAP NAME]?	
YES1	
NO0	GO TO END
DON'T KNOWd	GO TO Sup Review
REFUSEDr	GO TO Sup Review
CURRENT PARTICIPANT AND SCRN1D = 1	
STATE SNAP NAME FROM SNAPstate_name	
SCRN1e. About how many months in a row have you been particip NAME]?	eating in [STATE SNAP
MONTHS (1 - 18)	
DON'T KNOWd	GO TO Sup Review
REFUSEDr	GO TO Sup Review
	·
INTERVIEWER: ENTER 18 IF MORE THAN 18 MONTHS PROGRAMMER: IF SCRN1e = 4 - 8 MONTHS GO TO A1; EL	SE GO TO END

SCRN1B = 0 OR R; SCRN1C = 3 OR 4; SCRN1CA>1 OR = R; SCRN1D=0 OR 4; SCRN1E=R

just recently were approved in [STATE SNAP NAME] IF NEW PARTICIPANT have been participating in [STATE SNAP NAME] for about 6 months IF CURRENT PARTICIPANT

**STATE SNAP NAME** FROM SNAPstate name

Those are all the questions I have. This survey is for people who are currently participating in [STATE SNAP NAME] and (were just recently approved /have been participating in [STATE SNAP NAME] for about 6 months). Thank you for your time. Good-bye. CODE AS INELIGIBLE

Sup Review Those are all the questions I have for now. I need to clarify some information with my supervisor. We will call you back if we have additional questions.

	my supervisor. We will call you back if we have additional que	estions.				
SCRN1A	= 1					
<b>A1</b> .	Are you the person who does most of the planning or preparing of meals in your family?					
	INTERVIEWER: IF R ANSWERS "SOMETIMES" OR "50/50," ENTER YES.					
	YES1	GO TO A2				
	NO0					
	DON'T KNOWd	GO TO A2				
	REFUSEDr	GO TO A2				
A1 = 0						
A1a.	Which adult in your household does <u>most</u> of the plannin meals?	g or preparing of				
	(STRING 40)					
	FIRST NAME					
	(STRING 40)					
	LAST NAIVIE					
	DON'T KNOWd					
	REFUSEDr					
SCRN1A	= 1					
A2.	Are you the person who does most of the shopping for fo	ood in your family?				
	YES1	GO TO A3				
	NO0					
	DON'T KNOWd	GO TO A3				
	REFUSEDr	GO TO A3				

A2 = 0		
A2a. W	hich adult in your household does most of the shoppin	g for food?
	ENTER 1 TO RECORD NAME1	
	SAME AS MEAL PLANNER	GO TO A3 CHECK
A2A = 1		
7 1		
A2a_NAME		
	(STRING 40) FIRST NAME	
	(STRING 40) LAST NAME	
	DON'T KNOWd	
	REFUSEDr	
	A3 PROGRAMMER CHECK	
	IS RESPONDENT THE MEAL PLANNER OR FOOD SHO	
IF YES, GO	TO B1, IF NO, GO TO A3a. IF NEITHER FOOD SHOPPER IS AVAILABLE, SCHEDULE CALL BACK.	NOR MEAL PLANNER
	TO THE MELL, COLLEGE OF THE BROKE.	
A1 = 0 AND /	A2 = 0	
A3a. C	an I please speak to [FILL NAME COLLECTED AT A2a]?	
	COMES TO PHONE1	
	FOOD SHOPPER UNAVAILABLE2	
	BAD TIME/CALL BACK3	SCHEDULE CALL BAC
A3A = 2 AND	A2A NE TO 2	
A4a. Ca	an I please speak to [FILL NAME COLLECTED AT A1a]?	•
	COMES TO PHONE1	GO TO INTRO2
	MEAL PLANNER UNAVAILABLE2	SCHEDULE CALL BAC
	BAD TIME/CALL BACK3	SCHEDULE CALL BAC

A4A = 1		
STATE S	NAP NAME FROM SNAPstate_name	
INTRO2	Hello, my name is and I'm calling from Mather Research. We are conducting a survey on behalf of the U Agriculture that funds the Supplemental Nutrition and As [STATE SNAP NAME], which is also known as food stam about families and their food needs. The interview will tal minutes, and your cooperation is completely voluntary. It the survey will not affect any government assistance you in the future. All answers you give will be confidential and will be presented. As a token of appreciation, we will be card after the interview is complete.	S. Department of sistance Program, or ps, to learn more ke about 25-30 our participation in are receiving now or d no individual results
	PROCEED WITH INTERVIEW1	
	BAD TIME/CALL BACK2	SCHEDULE CALL BACK
A5.	Are you at least 18 years old?	
	YES1	GO TO B1
	NO0	GO TO SUP REVIEW
	DON'T KNOWd	GO TO SUP REVIEW
	REFUSEDr	GO TO SUP REVIEW

#### B. HOUSEHOLD COMPOSITION

/\	
$\overline{}$	

The first few questions are about the people you live with.

B1. Please tell me the first name of everyone who lives in your household. By household, I mean the people who live with you and share food with you. Please include babies, small children, and people who are not related to you.

RESPONDENT LIVES ALONE	0	GO TO B4
ENTER NAMES	1	
(ALLOW UP TO 10 NAMES)		
	(STRING 40)	
NAME	<u> </u>	

#### **B1 NE 0**

ASK B2 FOR ALL HOUSEHOLD MEMBERS RECORDED IN B1.

NAME 1 FILL FIRST NAME COLLECTED AT B1

THEN FILL EACH SUBSEQUENT NAME (NAME 2 – NAME 10)

#### B2. And what is [NAME 1]'s relationship to you?

INTERVIEWER: CODE COHABITEE'S CHILD AND OTHER CHILDREN WHO ARE NOT NATURAL, ADOPTED OR STEP, BUT FOR WHOM THE SAMPLE MEMBER TAKES RESPONSIBILITY, AS "OTHER CUSTODIAL CHILD."

HUSBAND OR WIFE1	
UNMARRIED PARTNER2	
SON OR DAUGHTER (INCLUDING BIOLOGICAL, STEP, OR ADOPTED CHILD)3	
OTHER CUSTODIAL OR FOSTER CHILD4	
PARENT (MOTHER, FATHER, INCLUDING STEPPARENTS AND IN-LAWS)5	
SIBLING (BROTHER OR SISTER INCLUDING IN-LAWS)6	
GRANDCHILD7	
OTHER RELATIVE8	
NON-RELATIVE (INCLUDING ROOMER OR BOARDER)9	
OTHER SPECIFY10	)
(STRING 60)	
DON'T KNOWd	
REFLISED r	

B1 NE 0
ASK B3 FOR ALL HOUSEHOLD MEMBERS RECORDED IN B1.
NAME 1 FILL FIRST NAME COLLECTED AT B1
THEN FILL EACH SUBSEQUENT NAME (NAME 2 – NAME 10)
B3. What is [NAME 1]'s age?
AGE (0 - 99)
INTERVIEWER: IF LESS THAN 1 YEAR OLD ENTER "0".
YEARS1
B3 GE 15 (HOUSEHOLD MEMBERS RECORDED IN B1 15 OR OLDER).
NAME 1 FILL FIRST NAME COLLECTED AT B1
THEN FILL EACH SUBSEQUENT NAME (NAME 2 – NAME 10)
B3a. ASK ONLY IF NEEDED: IS [NAME 1] male or female?
MALE1
FEMALE2
DON'T KNOWd
REFUSEDr
ALL
<b>Do you</b> IF B1 = 0
Does anyone in your household IF B1 NE 0
you IF B1 = 0
anyone in the household IF B1 NE 0
B4. (Do you/Does anyone in your household) have a physical, mental, or other health condition that limits the kind or amount of work that (you/anyone in the household) can do?
YES1
NO0
DON'T KNOWd
REFUSEDr

#### C. TRIGGER EVENTS

The next few questions are about changes that may have occurred in your household in the past 6 months.

C1. Has there been a change in the number of people living in your household over the past 6 months?

YES1	
NO0	GO TO C2
DON'T KNOWd	GO TO C2
REFUSEDr	GO TO C2

C1 = 1

#### C1a. What caused that change?

	CODE ALL THAT APPLY
BIRTH OF CHILD	1
NEW STEP, FOSTER OR ADOPTED CHIL	_D2
MARRIAGE/NEW PARTNER	3
SEPARATION OR DIVORCE	4
DEATH OF HOUSEHOLD MEMBER	5
FAMILY/BOARDER MOVING IN	6
FAMILY/BOARDER MOVING OUT	7
OTHER (SPECIFY)	8
(S7	TRING 500)
DON'T KNOW	d
REFUSED	r

ALL			
were you	IF B1 = 0		
was your	household IF B1 NE 0		
C2.	At any time in the past 6 months (were you/was your household) evicted from your house or apartment?		
	YES1		
	NO0		
	DON'T KNOWd		
	REFUSEDr		
ALL			
or anyon	e in your household IF B1 NE 0		
C3.	Have you (or anyone in your household) had a change in employment or a change in pay or hours worked from a job in the past 6 months?		
	YES1		
	NO 0 GO TO D1		
	DON'T KNOWd GO TO D1		
	REFUSEDr GO TO D1		
B1 NE 0			
C3a.	Who in your household had a change in employment or a change in pay or hours worked from a job in the past 6 months?		
	[LIST ALL MEMBERS OF HOUSEHOLD AGE 15 AND OVER FROM B1]		
	CODE ALL THAT APPLY		
	RESPONDENT1		
	NAME 12		
	NAME 23		
	NAME 34		
	NAME 45		

C3 = 1
you IF B1 = 0 OR C3A = 1
NAME FILL FROM C3A

C3b. What was that change in employment or a change in pay or hours worked from a job that (you/[NAME]) experienced in the past 6 months?

	CODE ALL THAT APPLY
OBTAINED A JOB	1
LOST JOB	2
INCREASE IN PAY OR HOURS	3
DECREASE IN PAY OR HOURS	4
OTHER (SPECIFY)	5
	(STRING 500)
DON'T KNOW	d
REFUSED	r

[REPEAT FOR EACH PERSON RECORDED IN C3a]

	D. SNAP PARTICIPATION
ALL	
D1.	Next, we're going to ask you about your participation in SNAP.
NEW I	PARTICIPANT
EBT S	STATE NAME FROM EBTstate_name
D1a.	[IF CURRENT PARTICIPANT, GO TO D1b. IF NEW PARTICIPANT, ASK:] Have you already received your SNAP benefits? That is, has money been put on your [EBT/STATE NAME] card?
	YES1
	NO 0 GO TO D6
	DON'T KNOWd GO TO D6
	REFUSEDr GO TO D6
CURR	ENT PARTICIPANT OR D1A = 1
And o	n what IF D1a = 1
	nat IF CURRENT PARTICIPANT
1 -	EB1 = 0
your h	nousehold IF B1 NE 0
D1b.	(And on what/On what) date did (you/your household) receive your most recen SNAP benefits? That is, when was money most recently put on your [EBT/STATE NAME] card?
	_ /  / _ _  _  MONTH DAY YEAR (1 - 12) (1 - 31) (2011-2012)
	DON'T KNOWd
	REFUSEDr
	CHECK: IF DATE IS MORE THAN 1 MONTH PRIOR TO INTERVIEW DATE I just want sure I recorded the date correctly. Did you say DATE?
	CHECK: IF DATE IN FUTURE I'm sorry. I must have recorded the date incorrectly. ou please give me that date again?
CURR	ENT PARTICIPANT OR D1A = 1
	ehold's IF B1 NE 0 STATE NAME FROM EBTstate_name
D2.	How many dollars were put on your (household's) [EBT/STATE NAME] card this most recent time?
	\$   _  AMOUNT ISSUED ON EBT CARD (1 – 2,000)
	DON'T KNOWd GO TO D5

REFUSED	r	GO TO D5	
SOFT CHECK: IF HH MEMBERS LISTED IN B1 LT 8 AND D2 IS GT 1,000 I just want to be sure I recorded your response correctly. Did you say NUM?			
D2 NE D OR R			
D3. How much of the [I you used so far?	FILL AMOUNT IN D2] that you most red	cently received have	
NONE - HAVE N	OT USED YET0		
ENTER AMOUN	T SPENT SO FAR1		
ENTER BALANC	CE REMAINING2		
DON'T KNOW	d	GO TO D4	
REFUSED	r	GO TO D4	
D3 = 1 OR 2			
D3a.			
\$   <u> </u>   A	MOUNT (1 – 2,000)	GO TO D5	
	ECORDED IN D3A GT AMOUNT IN D2 In spent/balance remaining) is more that		
D3 OR D3A = D OR R			
D4. Would you say as	of now you have used		
	CODE O	NE ONLY	
Less than half,.	1		
About half,	2		
	alf of your monthly		
DON'T KNOW	d		
REFUSED	r		
IF NEW PARTICIPANT, GO TO	D6. IF CURRENT PARTICIPANT, ASK	:	

CURREN	T PARTICIPANTS
D5.	How many weeks do your SNAP benefits usually last? Do they last
	CODE ONE ONLY
	<b>1</b> week or less, 1
	2 weeks,2
	<b>3 weeks,</b> 3
	4 weeks, or4
	more than 4 weeks?5
	DON'T KNOWd
	REFUSEDr
ALL	
you IF B1	
_	sehold IF B1 NE 0
	e in your household IF B1 NE 0 YEAR FROM CertificationDate
D6.	Before (you/your household) began receiving SNAP benefits this most recent time, that is in (MONTH, YEAR), had you (or anyone in your household) ever participated in SNAP before?  PROBE: This program used to be called food stamps.
	PROBE: IF RESPONDENT MENTIONS RECEIVING SNAP AS A CHILD, SAY: Since turning 18.
	YES1
	NO 0 GO TO E1
	DON'T KNOWd GO TO E1
	REFUSEDr GO TO E1

NEW PARTICIPANT AND D6=1

or anyone in your household IF B1 NE 0

FILL MONTH AND YEAR FROM INTERVIEW DATE MINUS 3 MONTHS

IF CURRENT PARTICIPANT GO TO D9; IF NEW ENTRANT, ASK D7, D8 AND D9

D7. Were you (or anyone in your household) receiving SNAP benefits 3 months ago, that is, in [FILL MONTH AND YEAR]?

YES	1
NO	0
DON'T KNOW	Ч

NEW PAR	RTICIPANT AND D6=1
•	e in your household IF B1 NE 0 NTH AND YEAR FROM INTERVIEW DATE MINUS 6 MONTHS
D8.	Were you (or anyone in your household) receiving SNAP benefits 6 months ago, that is, in [FILL MONTH AND YEAR]?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
D6=1	
-	e in your household IF B1 NE 0 NTH AND YEAR FROM INTERVIEW DATE MINUS 1 YEAR
D9.	Were you (or anyone in your household) receiving SNAP benefits a year ago, that is, in [FILL MONTH AND YEAR]?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr

REFUSED.....r

#### E. FOOD PURCHASE BEHAVIOR

ALL		
E1.	Where do you buy most of your groceries?	
	ENTER NAME OF ONE STORE1	GO TO E1_NAME
	MULTIPLE STORES NAMED2	GO TO E1_NAME2
	DON'T KNOWd	GO TO F1
	REFUSEDr	GO TO F1
E1 = 1		
E1_NAME	NTERVIEWER: RECORD NAME OF STORE	
	(STRING 60) GC	) TO E1a
E1=2		
E1_NAME2	If you had to choose just one of these stores, which o shop at most often?	ne would you say you
	NTERVIEWER: RECORD NAME OF STORE	
	(STRING 60)	

#### E1 NE D OR R

#### E1a. What kind of store is that?

INTERVIEWER: CODE TYPE OF STORE

#### CODE ONE ONLY

SUPERMARKETS/GROCERY STORES	1
DISCOUNT STORES SUCH AS WAL-MART, TARGET, OR KMART	2
WAREHOUSE CLUBS, SUCH AS PRICE CLUB, COSTCO, PACE, SAM'S CLUB, BJ'S	3
CONVENIENCE STORES SUCH AS 7-11, QUICK CHECK, QUICK STOP, WAWA	4
ETHNIC FOOD STORES SUCH AS BODEGA'S ASIAN FOOD MARKETS, OR CARIBBEAN MARKETS	5
FARMER'S MARKET	6
DOLLAR STORES	7
OTHER (SPECIFY)	8
(STRING	100)
DON'T KNOW	d
REFUSED	r

#### E1 NE D OR R

#### E2. What is the <u>main</u> reason you shop at (FILL NAME FROM E1)?

### CODE ONE ONLY SALES .......02 VARIETY OF FOODS (GENERAL)......04 VARIETY OF SPECIAL FOODS CLOSE TO HOME/CONVENIENT......06 MEAT DEPARTMENT ......09 OTHER (SPECIFY)......11 (STRING 200) DON'T KNOW......d REFUSED.....r

#### E1 NE D OR R

#### E3. How do you usually get to (FILL NAME FROM E1)?

## 

E1 NE D	OR R
E3a.	Do you usually go to (FILL NAME FROM E1) directly from home?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
E1 NE D	OR R
E3b.	About how long does it take to go one way from home to (FILL NAME FROM E1)?
	NUMBER OF MINUTES ONE WAY (1 - 120)
	DON'T KNOWd
	REFUSEDr
E1 NE D	OR R
E3c.	And approximately how many miles away is (FILL NAME FROM E1) from your home – one way?
	MILES ONE WAY (0 - 99)
	INTERVIEWER: IF LESS THAN ONE MILE ENTER "0"
	DON'T KNOWd
	REFUSEDr
Г	
SOFT CH	IFCK: IF GT 30 Liust want to make sure I recorded your answer correctly. Did

you say NUM?

#### F. FOOD EXPENDITURES

These next questions are about all the places at which you bought food <u>last week</u>. (By last week I mean Sunday through Saturday. When answering these questions, please think about all food purchases, meaning those purchased with and without your [STATE NAME EBT CARD].

ALL	
you IF B	= 0
anyone i	n your household IF B1 NE 0
F1.	First, did (you/anyone in your household) shop for food at a supermarket or grocery store <u>last week</u> ?
	(PROBE IF INTERVIEWDATE = SATURDAY: By last week we don't mean the week that ends today, but the week that ended last Saturday.)
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
you IF B	= 0
anyone i	n your household IF B1 NE 0
F2.	Think about other places where people buy food, such as meat markets, produce stands, bakeries, warehouse clubs, and convenience stores. Did (you/anyone in your household) buy food from any stores such as these last week?
	(PROBE IF INTERVIEWDATE = SATURDAY: By last week we don't mean the week that ends today, but the week that ended last Saturday.)
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr

ALL	
you IF E	31 = 0
_	in your household IF B1 NE 0
include	any children who may have bought food at the school cafeteria IF B3 = 5 TO 18
F3.	<u>Last week</u> , did (you/anyone in your household) buy food at a restaurant, fast food place, cafeteria, or vending machine? (Include any children who may have bought food at the school cafeteria.)
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
you IF E	31 = 0
	in your household IF B1 NE 0
F4.	Did (you/anyone in your household) buy food from any other kind of place
	last week?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
F1, F2, I	F3 OR F4 = 1
Now I'm places v	TO F1 AND F2 AND F3 <u>AND</u> F4, GO TO F10. I going to ask you about the <u>actual</u> amount you spent on food <u>last week</u> in all the where you bought food. Then, since <u>last week</u> may have been unusual for you, I about the amount you <u>usually</u> spend.
F1 = 1	
you IF E	31 = 0
	in your household IF B1 NE 0
benefits	ig any purchases made with [STATE NAME EBT CARD] card or food stamp is IF CURRENT PARTICIPANT OR IF D1A = 1
SIAIE	NAME EBT CARD FROM EBTstate_name
F5.	How much did (you/anyone in your household) <u>actually</u> spend at supermarkets and grocery stores <u>last week</u> (including any purchases made with [STATE NAME EBT CARD] card or food stamp benefits)?
	PROBE: Your best estimate is fine.
	\$   _   _  .  _   AMOUNT SPENT LAST WEEK (1 – 2000.00)
	DON'T KNOWd GO TO F6

999.99 <b>I j</b>	ust want to make sure I recorded your response correctly. Did you say NUM?
o o	
F5 GT 0	
F5a.	How much of the [FILL AMOUNT FROM F5] was for non-food items, such as pet food, paper products, alcohol, detergents, or cleaning supplies?
	PROBE: Your best estimate is fine.
	\$   _ . _  AMOUNT SPENT ON NON-FOOD ITEMS (0 – 2,000.00)
	DON'T KNOWd
	REFUSEDr
mistake.	HECK: IF AMOUNT GT AMOUNT COLLECTED AT F5 I'm sorry. I must have made a This amount is more than the total amount spent that you reported in the last . Is there an error?
F2 = 1	
you IF B	
-	sehold IF B1 NE 0 a any purchases made with [STATE NAME EBT CARD] card or food stamp
	IF CURRENT PARTICIPANT OR IF D1A = 1
STATE N	AME EBT CARD FROM EBTstate_name
F6.	How much did (you/your household) spend at stores such as meat markets, produce stands, bakeries, warehouse clubs, and convenience stores <u>last week</u> (including any purchases made with your [STATE NAME EBT CARD] or food stamp benefits)?
	PROBE: Your best estimate is fine.
	\$   _ . _  AMOUNT SPENT LAST WEEK (1 – 2000.00)
	DON'T KNOWd GO TO F7
	REFUSEDr GO TO F7

SOFT CHECK: IF NUMBER OF HH MEMBERS IS LT 8 AND AMOUNT REPORTED HERE GT

SOFT CHECK: IF NUMBER OF HH MEMBERS IS LT 8 AND AMOUNT REPORTED HERE GT 999.99 I just want to make sure I recorded your response correctly. Did you say NUM?

GO TO F6

F6 GT 0	
F6a.	How much of the [FILL AMOUNT FROM F6] was for nonfood items, such as pet food, paper products, alcohol, detergents, or cleaning supplies?
	PROBE: Your best estimate is fine.
	\$   _ _  AMOUNT SPENT ON NON-FOOD ITEMS (0 – 2000.00)
	DON'T KNOWd
	REFUSEDr
mistake.	IECK: IF AMOUNT GT AMOUNT COLLECTED AT F6 I'm sorry. I must have made a This amount is more than the total amount spent that you reported in the last Is there an error?
F3 = 1	
you IF B1	
your hous	sehold IF B1 NE 0
F7.	How much did (you/your household) spend for food at restaurants, fast food places, cafeterias, and vending machines <u>last week</u> , not including alcohol purchases?
	PROBE: Your best estimate is fine.
	\$   _ .   AMOUNT SPENT LAST WEEK (1 – 2000.00)
	DON'T KNOWd
	REFUSEDr

SOFT CHECK: IF NUMBER OF HH MEMBERS IS LT 8 AND AMOUNT REPORTED HERE GT 999.99 I just want to make sure I recorded your response correctly. Did you say NUM?

F4 = 1		
you IF B1		
your hou	pusehold IF B1 NE 0	
F8.	How much did (you/your household) spend for food at any other k <a href="last week">last week</a> ?	ind of place
	PROBE: Your best estimate is fine.	
	\$   _ . _  AMOUNT SPENT LAST WEEK (1 – 2000.0	0)
	DON'T KNOWd	
	REFUSEDr	
	CHECK: IF NUMBER OF HH MEMBERS IS LT 8 AND AMOUNT REPORT I just want to make sure I recorded your response correctly. Did you	
D14 NF (	0 AND F1, F2, F3, OR F4 = 1	
you IF B1		
-	ousehold IF B1 NE 0	
-	NT FROM SUM OF (F5-F5a)+(F6-F6a)+F7+F8	
STATE N	NAME EBT CARD FROM EBTstate_name	
F9.	Let's see, (you/your household) spent about [AMOUNT] on food la How much of that was bought using your [STATE NAME EBT CAR	
	\$       AMOUNT SPENT WITH EBT CARD (0 - 2000) GO	TO F10
	DON'T KNOWd	
	REFUSEDr	
	CHECK: IF AMOUNT IS GT THAN AMOUNT RECORDED IN D3 I'm sorry mistake. This amount is more than the amount you said you used ear?	•
	CHECK: IF AMOUNT IS GT THAN SUM AMOUNT: I'm sorry. I may have	
F9 = D O	OR R	
F9a.	Would you say you spent	
	CODE ONE ONLY	
	Less than half,1	
	About half,2	
	Or more than half?3	
	DON'T KNOW	

REFUSEDr
ALL
Let's see, it seems that (you/your household) did not buy any food <u>last week</u> IF F1, F2, F3, AND F4 = $0$
Again,(you/your household) spent about (FILL AMOUNT) on food <u>last week</u> . IF F1, F2, F3, OR F4 = 1 AND D1A NE $0$
(You/Your household) spent about (FILL AMOUNT) on food <u>last week.</u> IF F1, F2, F3, OR F4 = 1 AND D1A=0
you AND do you IF B1 = 0
your household AND does your household IF B1 NE 0
Please include any purchases made with your [STATE NAME EBT CARD] or food stamp benefits IF CURRENT PARTICIPANT OR IF D1A = 1
STATE NAME EBT CARD FROM EBTstate_name
FILL AMOUNT FROM SUM OF (F5-F5a)+(F6-F6a)+F7+F8
F10. [Let's see, it seems that (you/your household) did not buy any food <u>last</u> week./Again,(you/your household) spent about (FILL AMOUNT) on food <u>last</u> week / (You/Your household) spent about (FILL AMOUNT) on food last week.]

week./Again,(you/your household) spent about (FILL AMOUNT) on food last week./ (You/Your household) spent about (FILL AMOUNT) on food last week.]

Now think about how much (you/your household) usually (spend/spends). How much (do you/does your household) usually spend on food at all the different places we've been talking about in a week? (Please include any purchases made with your [STATE NAME EBT CARD] or food stamp benefits). Do not include nonfood items such as pet food, paper products, detergent or cleaning supplies.

\$   _	AMOUNT SPENT IN A TYPICAL WEEK (1 – 3000.00)
DON'T KNOW	d
REFUSED	r

SOFT CHECK: IF NUMBER OF HH MEMBERS IS LT 8 AND AMOUNT REPORTED HERE GT 999.99 I just want to make sure I recorded your response correctly. Did you say NUM?

ALL	
or anyone in your household IF B1 NE 0	

That completes our questions about food purchased over the last week. Now we're going to talk about things people sometimes do each month to save money when buying food.

F11. In the last 30 days, have you (or anyone in your household)...

		YES	NO	DON'T KNOW	REFUSED
a.	Used coupons when buying food?	1	0	d	r
b.	Bought food in large quantities to receive bulk discounts?	1	0	d	r
C.	Bought food items because they were on sale?	1	0	d	r

	expiration date at a	discount?		1	0	d	r
	G.	PROGRAM PAR	TICIPA	ATION			
FEMALE ( A2=1) ANI	8 YEARS (SCHOOL-AC FEMALE AGE 15-45 IN D GENDER IN LOAD TO 1 (SAMPLE MEMB	HH); OR SAMPLE FILE = FEMALE	E MEN	IBER IS F AGE IN L	RESPONE	ENT (A1=	=1 OR
or someo	ne in your household l	F B1 NE 0					
	MALE AGE 15-45 IN HH IN HH), GO TO SECTI		RS (N	O SCHO	DL-AGE C	HILDREN	
The next of participation	questions are about pr ing in.	ograms you (or s	someo	ne in you	ır househ	iold) may	be
B3 = 5 TO	18 YEARS (SCHOOL-A	AGE CHILDREN P	PRESE	NT IN HE	<del>1</del> )		
G1.	During the past 30 da 18 years old) receive					tween 5 a	ind
	YES				1		
	NO				0		
	DON'T KNOW				d		
	REFUSED				r		
B3 = 5 TO	18 YEARS (SCHOOL-A	AGE CHILDREN P	PRESE	NT IN HE	1		
IE B3 - 5 '	18 YEARS (SCHOOL-A	CE CHII DDENI DI	DESEN	JT IN HH	Λ		
<b>G2.</b>	During the past 30 da			•	-	twoon E a	nd
<b>G2.</b>	18 years old) receive						iiiu
	YES				1		
	NO				0		
	DON'T KNOW				d		
	REFUSED				r		

d. Bought food that was near or past its

B3 LT 5 YEARS (PRE-SCHOOL AGED CHILDREN IN HH)
your child IF B3 LT 5 YEARS FOR ONE CHILD (ONE PRE-SCHOOL CHILD IN HH)
any children in the household IF B3 LT 5 YEARS FOR MORE THAN ONE CHILD
G3. During the past 30 days, did (your child/any children in the household) receive free or reduced-cost food at a day-care or Head Start program?
YES1
NO0
DON'T KNOWd
REFUSEDr
B3 LT 5 YEARS; OR B3 = 15-45 AND B3A = FEMALE (FEMALE AGE 15-45 IN HH) OR SAMPLE MEMBER IS RESPONDENT (A1=1 OR A2=1) AND AGE IN LOAD FILE = 15-45; OR A1 OR A2 NE TO 1 (SAMPLE MEMBER IS NOT RESPONDENT)
women IF B3 NE 4 OR LESS (NO CHILDREN 0-4 IN HH) women or children IF B3 LT 5 YEARS AND B3 = 15-45 AND B3a=FEMALE (FEMALE AGE 15-45 IN HH)
children IF B3 LT 5 YEARS AND B3 NE 15-45 FOR ANY FEMALE IN HH
IF B3 <5, OR FEMALE AGE 15-45 IN HH, ASK:
G4. During the past 30 days, did any (women/women or children/children) in this household get food through the WIC program?
YES1
NO0
DON'T KNOWd
REFUSEDr

#### H. FOOD SECURITY AND SUFFICIENCY

Λ	

you AND I AND my IF B1 = 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS IN HH) your household AND we AND our IF B1 NE 0 AND B3 GE 18 (MORE THAN ONE ADULT IN HH) OR B2=1 OR 2

Now, I'm going to read you several statements that people have made about their food situation. For these statements, please tell me whether the statement was <u>often</u> true, <u>sometimes</u> true, or <u>never</u> true for (you/your household) in the last 30 days.

H1. The first statement is, "(I/We) worried whether (my/our) food would run out before (I/we) got money to buy more." Was that <u>often</u> true, <u>sometimes</u> true, or <u>never</u> true for (you/your household) in the last 30 days?

	CODE ONE ONLY
OFTEN TRUE	1
SOMETIMES TRUE	2
NEVER TRUE	3
DON'T KNOW	d
REFUSED	r

#### ALL

I AND you IF B1 = 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS IN HH) we AND your household IF B1 NE 0 AND B3 GE 18 (MORE THAN ONE ADULT IN HH) OR B2 = 1 OR 2

H2. "The food that (I/we) bought just didn't last, and (I/we) didn't have money to get more." Was that often, sometimes, or never true for (you/your household) in the last 30 days?

	CODE ONE ONLY
OFTEN TRUE	1
SOMETIMES TRUE	2
NEVER TRUE	3
DON'T KNOW	d
REFUSED	r

ALL		
I AND you	IF B1 = 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER AD	ULTS IN HH)
<b>we</b> AND <b>y</b> B2 = 1 OR	our household IF B1 NE 0 AND B3 GE 18 (MORE THAN ON 2	IE ADULT IN HH) OR
Н3.	"(I/We) couldn't afford to eat balanced meals." Was that onever true for (you/your household) in the last 30 days?	often, <u>sometimes</u> , or
	CODE OI	NE ONLY
	OFTEN TRUE1	
	SOMETIMES TRUE2	
	NEVER TRUE3	
	DON'T KNOWd	
	REFUSEDr	
TO ONE C	HECK: IF AFFIRMATIVE RESPONSE (i.e., OFTEN TRUE OF OR MORE OF QUESTIONS H1-H3, THEN CONTINUE, ELSE	
		INT LULY
-	= 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS ner adults in your household IF B1 NE 0 AND B3 GE 18 (MC	•
you or oth	= 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS ner adults in your household IF B1 NE 0 AND B3 GE 18 (MC	ORE THAN ONE  ousehold) ever cut the
you or oth ADULT IN	= 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS ner adults in your household IF B1 NE 0 AND B3 GE 18 (MC HH)  In the last 30 days, did (you/you or other adults in your house of your meals or skip meals because there wasn't en	ORE THAN ONE  ousehold) ever cut the
you or oth ADULT IN	= 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS ner adults in your household IF B1 NE 0 AND B3 GE 18 (MC HH)  In the last 30 days, did (you/you or other adults in your house of your meals or skip meals because there wasn't enfood?	ousehold) ever cut the lough money for
you or oth ADULT IN	= 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS ner adults in your household IF B1 NE 0 AND B3 GE 18 (MC HH)  In the last 30 days, did (you/you or other adults in your he size of your meals or skip meals because there wasn't en food?  YES	ousehold) ever cut the lough money for
you or oth ADULT IN	= 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS ner adults in your household IF B1 NE 0 AND B3 GE 18 (MC HH)  In the last 30 days, did (you/you or other adults in your he size of your meals or skip meals because there wasn't en food?  YES	ousehold) ever cut the lough money for
you or oth ADULT IN H4.	= 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS ner adults in your household IF B1 NE 0 AND B3 GE 18 (MC HH)  In the last 30 days, did (you/you or other adults in your he size of your meals or skip meals because there wasn't en food?  YES	ORE THAN ONE  ousehold) ever cut the lough money for  GO TO H5 GO TO H5
you or oth ADULT IN H4.	= 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS ner adults in your household IF B1 NE 0 AND B3 GE 18 (MC HH)  In the last 30 days, did (you/you or other adults in your house of your meals or skip meals because there wasn't enfood?  YES	ORE THAN ONE  ousehold) ever cut the lough money for  GO TO H5 GO TO H5
you or oth ADULT IN H4.	= 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS ner adults in your household IF B1 NE 0 AND B3 GE 18 (MC HH)  In the last 30 days, did (you/you or other adults in your he size of your meals or skip meals because there wasn't en food?  YES	ORE THAN ONE  ousehold) ever cut the lough money for  GO TO H5 GO TO H5

REFUSED.....r GO TO H5

H4A = D	
H4b.	Do you think it was more than one or two days?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
H1, H2, C	OR H3 = 1 OR 2
H5.	In the last 30 days, did you ever eat less than you felt you should because there wasn't enough money for food?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
H1, H2, C	OR H3 = 1 OR 2
H6.	In the last 30 days, were you ever hungry but didn't eat because there wasn't enough money for food?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
H1, H2, C	OR H3 = 1 OR 2
H7.	In the last 30 days, did you lose weight because there wasn't enough money for food?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
INSERT (	CHECK: IF AFFIRMATIVE RESPONSE (i.e., OFTEN TRUE OR SOMETIMES TRUE) TO ONE OR MORE OF QUESTIONS H4-H7, THEN CONTINUE, ELSE SKIP
	TO H10.

H4, H5, H	6, OR H7 = 1	
you IF B1 = 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS IN HH)		
you or other adults in your household IF B1 NE 0 AND B3 GE 18 (MORE THAN ONE ADULT IN HH)		
H8.	In the last 30 days, did (you/you or other adults in your hofor a whole day because there wasn't enough money for	
	YES1	
	NO0	GO TO H10
	DON'T KNOWd	GO TO H10
	REFUSEDr	GO TO H10
H8 = 1		
H9.	How many times did this happen in the last 30 days?	
	_  NUMBER OF TIMES (1 – 30)	GO TO H10
	DON'T KNOWd	
	REFUSEDr	GO TO H10
H9 = D		
Н9а.	Do you think it was more than one or two days?	
	YES1	
	NO0	
	DON'T KNOWd	
	REFUSEDr	

### B3 = 0 - 18 (CHILDREN IN HOUSEHOLD)

I AND **my** AND I **was** AND **you** IF B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULT/PARTNER IN HH) AND B2 NE 1 OR 2

we AND our AND we were AND your household IF B3 GE 18 (MORE THAN ONE ADULT IN HH) OR B2 = 1 OR 2

the child in IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN HH) the children IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE THAN ONE CHILD IN HH)

IF NO CHILDREN IN HOUSEHOLD, GO TO H17. ELSE ASK:

Now I'm going to read you several statements that people have made about the food situation of their children. For these statements, please tell me whether the statement was <u>often</u> true, <u>sometimes</u> true, or <u>never</u> true in the last 30 days for any child under 18 years old living in the household.

H10. "(I/We) relied on only a few kinds of low-cost food to feed (the child in (my/our) household/the children) because (I was/we were) running out of money to buy food." Was that often, sometimes, or never true for (you/your household) in the last 30 days?

	CODE ONE ONLY
OFTEN TRUE	1
SOMETIMES TRUE	2
NEVER TRUE	3
DON'T KNOW	d
REFUSED	r

### B3 = 0 - 18 (CHILDREN IN HOUSEHOLD)

I AND my household AND you IF B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULT/PARTNER IN HH)

we AND our household AND your household IF B3 GE 18 (MORE THAN ONE ADULT IN HH) OR B2 = 1 OR 2

the child in IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN HH) the children IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE THAN ONE CHILD IN HH)

H11. "(I/We) couldn't feed (the child in (my/our)household/ the children) a balanced meal, because (I/we) couldn't afford that." Was that <u>often</u>, <u>sometimes</u>, or <u>never</u> true for (you/your household) in the last 30 days?

	CODE ONE ONLY
OFTEN TRUE	1
SOMETIMES TRUE	2
NEVER TRUE	3
DON'T KNOW	d
REFUSED	r

B3 = 0 -	18 (CHILDREN IN HOUSEHOLD)
The child	d in IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN
	ren were IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE NE CHILD IN HH)
my AND	I AND you IF B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS/PARTNER IN HH)
our AND OR 2	we AND your household IF B3 GE 18 (MORE THAN ONE ADULT IN HH) OR B2 = 1
H12.	"(The child in (my/our) household was/The children were) not eating enough because (I/we) just couldn't afford enough food." Was that often, sometimes, or never true for (you/your household) in the last 30 days?
	CODE ONE ONLY
	OFTEN TRUE1
	SOMETIMES TRUE2
	NEVER TRUE3
	DON'T KNOWd
	REFUSEDr
H10, H11	, OR H12 = 1 OR 2
any of th	's IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN HH) le children's IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE NE CHILD IN HH)
INSERT (	CHECK: IF AFFIRMATIVE RESPONSE (i.e., OFTEN TRUE OR SOMETIMES TRUE) TO ONE OR MORE OF QUESTIONS H10-H12, THEN CONTINUE, ELSE SKIP TO H17.
H13.	In the last 30 days, did you ever cut the size of (the child's/any of the children's) meals because there wasn't enough money for food?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
H10, H11	, OR H12 = 1 OR 2
any of th	's IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN HH) e children's IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE NE CHILD IN HH)
H14.	In the last 30 days, did (the child/any of the children) ever skip a meal because there wasn't enough money for food?
	YES1
	NO 0 GO TO H15

DON'T KNOW......d

REFUSED.....r

GO TO H15

GO TO H15

H14 = 1	
H14a.	How many days did this happen in the last 30 days?
	NUMBER OF DAYS (1 – 30) GO TO H15
	DON'T KNOWd
	REFUSEDr GO TO H15
H14A = [	
H14b.	Do you think it was more than one or two days?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
H10, H11	, OR H12 = 1 OR 2
was the (	child IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN
	<b>children</b> IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE NE CHILD IN HH)
H15.	In the last 30 days, (was the child/were the children) ever hungry but you just couldn't afford more food?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
H10, H11	, OR H12 = 1 OR 2
the child	IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN HH)
_	e children IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE NE CHILD IN HH)
H16.	In the last 30 days, did (the child/any of the children) ever not eat for a whole day because there wasn't enough money for food?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr

ALL	
or some	one in your household IF B1 NE 0 AND B3 GE 18
you or of	her adults in your household IF B1 NE 0 AND B3 GE 18
	ne next questions are about some community programs you (or someone in your busehold) may have participated in during the past 30 days.
	In the last 30 days, did (you/ you or other adults in your household) ever get emergency food from a church, a food pantry or food bank?
	PROBE: This includes all religious and charitable organizations.
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
you IF B	
anyone i	n this household IF B1 NE 0 AND B3 GE 18
H18.	During the past 30 days, did (you/anyone in this household) go to a community program or senior center to eat prepared meals?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
you IF B	I = 0
•	ther adults in your household IF B1 NE 0 AND B3 GE 18
H19.	During the last 30 days, did (you/you or other adults in your household) ever eat any meals at a soup kitchen or shelter?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr

ALL
you IF B1 = 0
anyone in this household IF B1 NE 0 AND B3 GE 18

H20. During the past 30 days, did (you/anyone in this household) receive any meals from "Meals on Wheels" or any other program delivering meals to your home?

YES	1
NO	0
DON'T KNOW	d
REFUSED	r

## I. HOUSEHOLD RESOURCES

ALL	
•	e in your household IF B1 NE 0
	ONTH FROM MONTH PRIOR TO INTERVIEW DATE
	/ELFARE NAME FROM StateWelfare_Name
	questions are about sources of income. The answer to these and all other son this survey will be kept strictly confidential and will never be associated name.
l1a_a.	During (LAST MONTH), did you (or anyone in your household) receive any
	TANF, Temporary Assistance to Needy Families (also known as [STATE WELFARE NAME])?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
	e in your household IF B1 NE 0
l1a b.	(During [LAST MONTH], did you (or anyone in your household) receive)
_	
	Other welfare such as General Assistance?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
	e in your household IF B1 NE 0
l1a_c.	(During [LAST MONTH], did you (or anyone in your household) receive any)
0.	(Danning [27.01 months], and you (or anyone in your neadeness) receive anyon,
	Social Security checks from the government for retirement, disability, or survivors' benefits?
	YES1
	NO0
	DON'T KNOWd

	REFUSEDr
ALL	
or anyon	e in your household IF B1 NE 0
l1a_d.	(During [LAST MONTH], did you (or anyone in your household) receive)
	Other retirement benefits such as a government or private pension or annuity?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
or anyon	e in your household IF B1 NE 0
l1a_e.	(During [LAST MONTH], did you (or anyone in your household) receive any)
	SSI or Supplemental Security Income from the federal, state, or local government?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
or anyon	e in your household IF B1 NE 0
l1a_f.	(During [LAST MONTH], did you (or anyone in your household) receive any)
	Veteran's Benefits?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr

ALL	
or anyone	e in your household IF B1 NE 0
l1a_g.	(During [LAST MONTH], did you (or anyone in your household) receive any)
	Unemployment Insurance or worker's compensation benefits?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
or anyone	e in your household IF B1 NE 0
l1a_h.	(During [LAST MONTH], did you (or anyone in your household) receive any)
	Child support payments?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
or anyone	e in your household IF B1 NE 0
l1a_i.	(During [LAST MONTH], did you (or anyone in your household) receive any)
	Payments from roomers or boarders?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr

ALL	
or anyone	e in your household IF B1 NE 0
l1a_j.	(During [LAST MONTH], did you (or anyone in your household) receive any)
	Financial support from friends or family?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
or anyone	e in your household IF B1 NE 0
l1a_k.	(During [LAST MONTH], did you (or anyone in your household) receive)
	Any other income besides earnings?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
I1A K = 1	
_	
l1a_k_Sp	ecify What is that other income?
I1A_A = 1	
STATE W	ELFARE NAME FROM StateWelfare_Name
l1b_a.	How much did you receive last month from TANF, Temporary Assistance to Needy Families (also known as [STATE WELFARE NAME])?
	\$  <u> </u>   ENTER AMOUNT (0 – 9999)
	DON'T KNOWd
	DEFLICED

I1A_A=1	AND B1 NE 0 AND B3 GE 18
l1c_a.	How much did other people in your household receive from TANF last month altogether?
	\$  _  ENTER AMOUNT (0 – 9999)
	DON'T KNOWd
	REFUSEDr
	HECK: IF I1A_A = 1 AND BOTH I1B_A AND I1C_A = 0: I must have made a mistake. sly recorded that you or someone in your household received TANF last month. an error?
I1A_B = 1	
l1b_b.	How much did you receive last month from Other welfare such as General Assistance?
	\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999)
	DON'T KNOWd
	REFUSEDr
I1A_B=1	AND B1 NE 0 AND B3 GE 18
l1c_b.	How much did other people in your household receive from Other welfare such as General Assistance?
	\$  <u> </u>       ENTER AMOUNT (0 – 9999)
	DON'T KNOWd
	REFUSEDr
I previou	HECK: IF I1A_B = 1 AND BOTH I1B_B AND I1C_B = 0: I must have made a mistake. sly recorded that you or someone in your household received Other welfare last s there an error?
I1A_C = '	1
l1b_c.	How much did you receive last month from Social Security checks from the government for retirement, disability, or survivors' benefits?
	\$  _ _  ENTER AMOUNT (0 – 9999)
	DON'T KNOWd

REFUSEDr
I1A_C=1 AND B1 NE 0 AND B3 GE 18
I1c_c. How much did other people in your household receive from Social Security checks from the government for retirement, disability, or survivors' benefits?
\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999)  DON'T KNOWd  REFUSEDr
HARD CHECK: IF I1A_C = 1 AND BOTH I1B_C AND I1C_C = 0: I must have made a mistake. I previously recorded that you or someone in your household received Social Security checks last month. Is there an error?
I1A_D = 1
I1b_d. How much did you receive last month from Other retirement benefits such as a government or private pension or annuity?
\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999)  DON'T KNOWd  REFUSEDr
I1A_D=1 AND B1 NE 0 AND B3 GE 18
I1c_d. How much did other people in your household receive from Other retirement benefits such as a government or private pension or annuity?
\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999)  DON'T KNOWd  REFUSEDr
HARD CHECK: IF I1A_D = 1 AND BOTH I1B_D AND I1C_D = 0: I must have made a mistake. I previously recorded that you or someone in your household received Other retirement benefits last month. Is there an error?
I1A_E = 1
I1b_e. How much did you receive last month from SSI or Supplemental Security Income from the federal, state, or local government?
\$  <u> </u>   ENTER AMOUNT (0 – 9999)

DON'T KNOWd
REFUSEDr
14 A T-4 AND D4 NE O
I1A_E=1 AND B1 NE 0
I1c_e. How much did other people in your household receive from SSI or Supplemental Security Income from the federal, state, or local government?
\$  <u> </u>   ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
HARD CHECK: IF I1A_E = 1 AND BOTH I1B_E AND I1C_E = 0: I must have made a mistake. I previously recorded that you or someone in your household received SSI or Supplemental Security Income last month. Is there an error?
I1A_F = 1
I1b_f. How much did you receive last month from Veteran's Benefits?
\$  <u> </u>   ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
I1A_F=1 AND B1 NE 0 AND B3 GE 18
I1c_f. How much did other people in your household receive from Veteran's Benefits?
\$  <u> </u>  _  ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
HARD CHECK: IF I1A_F = 1 AND BOTH I1B_F AND I1C_F = 0: I must have made a mistake. I previously recorded that you or someone in your household received Veteran's Benefits last month. Is there an error?

I1b\_g. How much did you receive last month from Unemployment Insurance or worker's compensation benefits?

I1A\_G = 1

\$  <u>                                    </u>
DON'T KNOWd
REFUSEDr
I1A_G=1 AND B1 NE 0 AND B3 GE 18
I1c_g. How much did other people in your household receive from Unemployment Insurance or worker's compensation benefits?
\$  <u> </u>   ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
HARD CHECK: IF I1A_G = 1 AND BOTH I1B_G AND I1C_G = 0: I must have made a mistake. I previously recorded that you or someone in your household received Unemployment Insurance or worker's compensation benefits last month. Is there an error?
I1A H = 1
<del>-</del>
I1b_h. How much did you receive last month from Child support payments?
\$  <u> </u> _ _  ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
I1A_H=1 AND B1 NE 0 AND B3 GE 18
I1c_h. How much did other people in your household receive from Child support payments?
\$  <u> </u>  _ _  ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
HARD CHECK: IF I1A_H = 1 AND BOTH I1B_H AND I1C_H = 0: I must have made a mistake. I previously recorded that you or someone in your household received Child support payments last month. Is there an error?

I1b\_i. How much did you receive last month from Payments from roomers or boarders?

\$  <u> </u>   ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
I1A_I=1 AND B1 NE 0 AND B3 GE 18
I1c_i. How much did other people in your household receive from Payments from roomers or boarders?
\$  <u>                                    </u>
DON'T KNOWd
REFUSEDr
HARD CHECK: IF I1A_I = 1 AND BOTH I1B_I AND I1C_I = 0: I must have made a mistake. I previously recorded that you or someone in your household received Payments from roomers or boarders last month. Is there an error?
I1A_J = 1
I1b_j. How much did you receive last month from Financial support from friends or family?
\$  _  ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
I1A_J=1 AND B1 NE 0 AND B3 GE 18
I1c_j. How much did other people in your household receive from Financial support from friends or family?
\$  <u> </u>   ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
HARD CHECK: IF I1A_J = 1 AND BOTH I1B_J AND I1C_J = 0: I must have made a mistake. I previously recorded that you or someone in your household received Financial support from friends or family last month. Is there an error?

I1b\_k. How much did you receive last month from (FILL FROM I1a\_k\_Specify)?

I1A\_K = 1

	\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999)
	DON'T KNOWd
	REFUSEDr
11A K=1	AND B1 NE 0 AND B3 GE 18
_	
l1c_k.	How much did other people in your household receive from (FILL FROM I1a_k_Specify)?
	\$  <u> </u>  _ _  ENTER AMOUNT (0 – 9999)
	DON'T KNOWd
	REFUSEDr
HADD CL	IECK: IF I1A_K = 1 AND BOTH I1B_K AND I1C_K = 0: I must have made a mistake.
I previous	sly recorded that you or someone in your household received (FILL FROM
11a_k_Spe	ecify) last month. Is there an error?
ALL	
12.	Are you currently working at a job for pay? Include any self-employment.
	YES1
	NO 0 GO TO I6
	DON'T KNOWd GO TO 16
	REFUSEDr GO TO I6
I2 = 1	
I3.	How many hours do you usually work per week on this job?
	NUMBER OF HOURS (1 – 80)
	DON'T KNOWd
	REFUSEDr
SOFT CH	ECK: IF GT 60 I just want to make sure I recorded you answer correctly. Did you?
12 = 1	
<b>I4</b> .	How much do you earn per hour on this job, before taxes and other deductions?
	\$             HOURLY WAGE (1.00 – 40.99) GO TO I6
	NOT PAID BY THE HOUR0
	DON'T KNOWd GO TO I6

SOFT CHECK: IF GT 20 I just want to make sure I recorded your ans you say NUM?	wer correctly. Did
14 = 0	
I5. ENTER AMOUNT	
\$ <u>       ,      </u> (1 - 99999)	
ENTER PAY PERIOD	
CODE ON	NE ONLY
WEEK1	
DAY2	
EVERY TWO WEEKS	
TWICE A MONTH4	
MONTHLY5	
YEARLY6	
OTHER (SPECIFY)7	
(STRING (NUM))	
DON'T KNOWd	
REFUSEDr	
SOFT CHECK: IF GT \$2,000 / MONTH I just want to make sure I reco-correctly. Did you say NUM PER UNIT?	rded your response
B1 NE 0 AND B3 GE15	
else IF I2 = 1	
IF R LIVES ALONE, GO TO 19	
16. Does anyone (else) in your household work at a job for pa	ay?
YES1	
NO0	GO TO 19
DON'T KNOWd	GO TO 19
REFUSEDr	GO TO 19

REFUSED.....r

**GO TO 16** 

I6 = 1	
other IF I	2 = 1
17.	How many (other) people in your household work at a job for pay?  PROBE: Not including yourself.
	_  NUMBER OF WORKING HOUSEHOLD MEMBERS (1 - 10)
	NONE
	HECK: IF GT TOTAL HH MEMBERS COLLECTED AT B3 I'm sorry. Earlier in the , I recorded that there were less people living in your HH. Did I make an error?
17 GT 0	
else IF I2	= 1
I7a.	Who (else) in your household works at a job for pay? [LIST ALL MEMBERS OF HOUSEHOLD AGE 15 AND OVER FROM B1]
	CODE ALL THAT APPLY
	NAME 12
	NAME 23
	NAME 34
	NAME 45
I6 = 1	
PERSON	1 FIRST NAME FOR FIRST PERSON SELECTED FROM 17a.
I8_1a.	How many hours per week does (PERSON 1) person usually work?
	NUMBER OF HOURS (0 - 80)
	DON'T KNOWd
	REFUSEDr
SOFT CH	ECK: IF GT 60 I just want to make sure I recorded you answer correctly. Did you?

18_1A > 0		
PERSON	1 FIRST NAME FOR FIRST PERSON SELECTED FROM IT	<sup>7</sup> a.
l8_1b.	How much does (PERSON 1) earn per hour on this job, deductions?	before taxes and other
	PROBE: Your best estimate is fine.	
	\$   _ .   HOURLY WAGE (1 – 40)	GO TO LOOP
	NOT PAID BY THE HOUR0	
	DON'T KNOWd	GO TO LOOP
	REFUSEDr	GO TO LOOP
SOFT CH	ECK: IF GT 20 I just want to make sure I recorded your ar	swer correctly. Did
I8_1B = 0		
18_1c.	ENTER AMOUNT	
	\$ <u>    ,           (1 – 99999)</u>	
	ENTER PAY PERIOD	
	CODE (	ONE ONLY
	WEEK1	
	DAY2	
	EVERY TWO WEEKS3	
	TWICE A MONTH4	
	MONTHLY5	
	YEARLY6	
	OTHER (SPECIFY)7 (STRING (NUM))	
	DON'T KNOWd	

SOFT CHECK: IF GT \$2,000 PER MONTH I just want to make sure I recorded your answer correctly. Did you say NUM PER UNIT?

REFUSED.....r

18_1A > 0		
PERSON	2 FIRST NAME FOR NEXT MEMBER OF HH SELECTED AT	17a.
18_2a.	How many hours per week does (PERSON 2) person usua	ally work?
	_  NUMBER OF HOURS (0 - 80)	
	DON'T KNOWd	
	REFUSEDr	
SOFT CH	ECK: IF GT 60 I just want to make sure I recorded you answ?	ver correctly. Did you
18_2a > 0		
PERSON	2 FILL FIRST NAME FOR NEXT MEMBER OF HH SELECTE	D AT 17a.
l8_2b.	How much does (PERSON 2) earn per hour on this job, be deductions?	efore taxes and other
	PROBE: Your best estimate is fine.	
	\$   _ .   HOURLY WAGE (1 – 40)	GO TO LOOP
	NOT PAID BY THE HOUR0	
	DON'T KNOWd	GO TO LOOP
	REFUSEDr	GO TO LOOP
SOFT CH	ECK: IF GT 20 I just want to make sure I recorded your ans	wer correctly. Did

$18_2B = 0$	
18_2c.	ENTER AMOUNT
	\$   <u> </u>  ,  <u> </u>  .  <u> </u>   (1 – 99999)
	ENTER PAY PERIOD
	CODE ONE ONLY
	WEEK1
	DAY2
	EVERY TWO WEEKS3
	TWICE A MONTH4
	MONTHLY5
	YEARLY6
	OTHER (SPECIFY)7
	(STRING 80)
	DON'T KNOWd
	REFUSEDr
ACCOUN	JE LOOP UNTIL ALL HOUSEHOLD MEMBERS SELECTED AT 17a ARE ITED FOR
	IECK: IF GT \$2,000 PER MONTH I just want to make sure I recorded your answer  Did you say NUM PER UNIT?
ALL	
or anyon	e in your household IF B1 NE 0
19.	Do you (or anyone in your household) currently own a car, truck, or other type of vehicle?
	YES 1 GO TO I11
	NO0
	DON'T KNOWd
	REFUSEDr
19 = 0, D	OR R
I10.	Do you have access to car, truck, or other type of vehicle when you need one?
	YES1
	NO0
	DON'T KNOW

ALL	
or anyone	in your household IF B1 NE 0
	Do you (or anyone in your household) currently have a credit card that can be used to make purchases?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
<b>I12</b> .	Now, I'd like to ask you some questions about where you live.
I	First, please tell me the kind of place where you now live?
	CODE ONE ONLY
	HOUSE, TOWNHOUSE, CONDO1
	MOBILE HOME/TRAILER2
	APARTMENT3
	ROOM4
	MOTEL/HOTEL5 GO TO I14
	HOMELESS, LIVING IN A SHELTER OR MISSION 6 GO TO 114
	HOMELESS, LIVING ON THE STREET7 GO TO I14
	CAR, VAN OR RECREATIONAL VEHICLE8 GO TO I14
	ABANDONED BUILDING9 GO TO I14
	OTHER (SPECIFY)10
	(STRING 100)
	DON'T KNOWd
	REFUSEDr
112 = 1, 2, 3	3, 4, 10, D, OR R
<b>I13.</b>	Do you
	CODE ONE ONLY
	Own the place you live, 1 GO TO I15
	Rent your own place or contribute to rent at a friend or family's place, or2
	Live rent free?3

REFUSED.....r

	DON'I KNOW	•
	REFUSEDr	
I13 = 2, 3	3, D, OR R	
l13a.	Does your household receive Section 8 or Public House	ing Assistance?
	YES	1
	NO	)
	DON'T KNOW	t
	REFUSEDr	
l14.	Do you have access to a place where you can prepare a	a meal?
	YES	1
	NO	)
	DON'T KNOW	d
	REFUSEDr	

# I12 = 1, 2, 3, 4, 5, 6, D, OR R

I15. Do you currently have the following items in your home in working condition...

	YES	NO	DON'T KNOW	REFUSED
a. Refrigerator?	1	0	d	r
b. Stand alone food freezer?	1	0	d	r
c. Gas or electric stove?	1	0	d	r
d. Microwave oven?	1	0	d	r

### J. MENTAL HEALTH AND WELL-BEING

ALL	
J1_a.	Now I am going to ask you some questions about feelings you may have experienced over the <u>past 30 days.</u>
	During the past 30 days, how often did you feel
	So sad that nothing could cheer you up?
	Would you say: <u>All</u> of the time, $\underline{most}$ of the time, $\underline{some}$ of the time, <u>a little</u> of the time, or $\underline{none}$ of the time?
	CODE ONE ONLY
	ALL OF THE TIME1
	MOST OF THE TIME2
	SOME OF THE TIME3
	A LITTLE OF THE TIME4
	NONE OF THE TIME5
	DON'T KNOWd
	REFUSEDr
ALL	
J1_b.	During the past 30 days, how often did you feel
	Nervous?
	PROBE: Would you say: <u>All</u> of the time, <u>most</u> of the time, <u>some</u> of the time, <u>a little</u> of the time, or <u>none</u> of the time?
	CODE ONE ONLY
	ALL OF THE TIME1
	MOST OF THE TIME2
	SOME OF THE TIME3
	A LITTLE OF THE TIME4
	NONE OF THE TIME5
	DON'T KNOWd
	REFUSEDr

ALL	
J1_c.	During the past 30 days, how often did you feel
	Restless or fidgety?
	PROBE: Would you say: <u>All</u> of the time, <u>most</u> of the time, <u>some</u> of the time, <u>a little</u> of the time, or <u>none</u> of the time?
	CODE ONE ONLY
	ALL OF THE TIME1
	MOST OF THE TIME2
	SOME OF THE TIME3
	A LITTLE OF THE TIME4
	NONE OF THE TIME5
	DON'T KNOWd
	REFUSEDr
ALL	
J1_d.	During the past 30 days, how often did you feel
	Hopeless?
	PROBE: Would you say: <u>All</u> of the time, <u>most</u> of the time, <u>some</u> of the time, <u>a little</u> of the time, or <u>none</u> of the time?
	CODE ONE ONLY
	ALL OF THE TIME1
	MOST OF THE TIME2
	SOME OF THE TIME3
	A LITTLE OF THE TIME4
	NONE OF THE TIME5
	DON'T KNOWd
	REFUSEDr
ALL	
J1_e.	During the past 30 days, how often did you feel
	That everything was an effort?
	PROBE: Would you say: <u>All</u> of the time, <u>most</u> of the time, <u>some</u> of the time, <u>a little</u> of the time, or <u>none</u> of the time?
	CODE ONE ONLY
	ALL OF THE TIME1

	2 , <b>or</b>
example, sickness or moving, ho family living nearby?  All of the help needed,	CODE ONE ONLY12 , or
example, sickness or moving, ho family living nearby?  All of the help needed,  Most of the help needed,  Very little of the help needed, No help?	CODE ONE ONLY12 , or
example, sickness or moving, ho family living nearby?  All of the help needed,  Most of the help needed,  Very little of the help needed, No help?	CODE ONE ONLY12 , or
example, sickness or moving, ho family living nearby?  All of the help needed,  Most of the help needed,  Very little of the help needed, No help?	CODE ONE ONLY12 , or
example, sickness or moving, ho family living nearby?  All of the help needed,	CODE ONE ONLY12 , or
example, sickness or moving, ho family living nearby?  All of the help needed,	CODE ONE ONLY12 , or3
example, sickness or moving, ho family living nearby?  All of the help needed,	CODE ONE ONLY 1
example, sickness or moving, ho family living nearby?  All of the help needed,	CODE ONE ONLY
example, sickness or moving, ho family living nearby?	ow much help would you expect to get from  CODE ONE ONLY
example, sickness or moving, ho	ow much help would you expect to get from
If /vau/vaum barrashald\ bast =	ablem with which you posted belonger
31 = 0 usehold IF B1 NE 0	
	-
	CODE ONE ONLY
the time, or <u>none</u> of the time?	time, most of the time, some of the time, a little of
<del></del>	did you feel
D : "	
REFUSED	r
DON'T KNOW	
	h
	the time, or none of the time?  ALL OF THE TIME

**CODE ONE ONLY** 

	All of the help needed,	
	Most of the help needed,	
	Very little of the help needed, or  No help?	
	DON'T KNOW	
	REFUSED	
	REFUSED	I
ALL		
you IF B1 your hous	= 0 sehold IF B1 NE 0	
J4.	If (you/your household) had a probler help would you expect to get from oth family and friends, such as a social s	
		CODE ONE ONLY
	All of the help needed,	1
	Most of the help needed,	2
	Very little of the help needed, or	3
	No help?	4
	DON'T KNOW	d
	REFUSED	r
The next	question is about your neighborhood.	
ALL		
J5.	Do you consider your neighborhood very unsafe?	very safe from crime, somewhat safe, or
		CODE ONE ONLY
	VERY SAFE	1
	SOMEWHAT SAFE	2
	VERY UNSAFE	3
	DON'T KNOW	d
	REFUSED	r

## K. RESPONDENT DEMOGRAPHICS AND HEALTH STATUS

The last few questions are for classification purposes only.

ALL		
K1.	What is your date of birth?	
	_ / _ _ / _	
	DON'T KNOW	d
	REFUSED	r
ALL		
K2.	Are you of Highenia or Letine origin?	
NZ.	Are you of Hispanic or Latino origin? YES	1
	NO	
	DON'T KNOW	
	REFUSED	f
ALL		
1/2		
K3.	I am going to read a list of five race categories. Ple races that you consider yourself to be. White; Blac American Indian or Alaska Native; Asian; or Native Islander?	k or African American;
NJ.	races that you consider yourself to be. White; Blac American Indian or Alaska Native; Asian; <u>or</u> Native Islander?	k or African American;
NJ.	races that you consider yourself to be. White; Blac American Indian or Alaska Native; Asian; <u>or</u> Native Islander?	k or African American; Hawaiian or other Pacific ALL THAT APPLY
NJ.	races that you consider yourself to be. White; Blac American Indian or Alaska Native; Asian; or Native Islander?  CODE	k or African American; Hawaiian or other Pacific ALL THAT APPLY1
NJ.	races that you consider yourself to be. White; Blac American Indian or Alaska Native; Asian; <u>or</u> Native Islander? <u>CODE</u> WHITE	k or African American; Hawaiian or other Pacific  ALL THAT APPLY 1
NJ.	races that you consider yourself to be. White; Blac American Indian or Alaska Native; Asian; or Native Islander?  CODE  WHITE  BLACK OR AFRICAN AMERICAN	k or African American; Hawaiian or other Pacific  ALL THAT APPLY 1 2 3
NJ.	races that you consider yourself to be. White; Blac American Indian or Alaska Native; Asian; or Native Islander?  CODE WHITE BLACK OR AFRICAN AMERICAN AMERICAN INDIAN OR ALASKA NATIVE ASIAN	k or African American; Hawaiian or other Pacific  ALL THAT APPLY 1 2 3 4
NJ.	races that you consider yourself to be. White; Blac American Indian or Alaska Native; Asian; or Native Islander?  CODE  WHITE  BLACK OR AFRICAN AMERICAN  AMERICAN INDIAN OR ALASKA NATIVE  ASIAN  NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER	k or African American; Hawaiian or other Pacific  ALL THAT APPLY 1 2 3 4
N3.	races that you consider yourself to be. White; Blac American Indian or Alaska Native; Asian; or Native Islander?  CODE WHITE BLACK OR AFRICAN AMERICAN AMERICAN INDIAN OR ALASKA NATIVE ASIAN NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER OTHER (SPECIFY)	k or African American; Hawaiian or other Pacific  ALL THAT APPLY 1 2 3 4 5 6
N3.	races that you consider yourself to be. White; Blac American Indian or Alaska Native; Asian; or Native Islander?  CODE  WHITE  BLACK OR AFRICAN AMERICAN  AMERICAN INDIAN OR ALASKA NATIVE  ASIAN  NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER	k or African American; Hawaiian or other Pacific  ALL THAT APPLY 1 2 3 4 5 6  (STRING 100)

ALL	
K4.	What is the highest level of education you have completed so far?
	Would you say
	CODE ONE ONLY
	Less than 9th grade,1
	Some high school, but no diploma,2
	High school graduate (diploma or equivalent diploma [GED]),3
	Technical, trade or vocational degree,4
	Some college, but no degree,5
	Associate's degree,6
	Bachelor's degree,7
	Some graduate school but no degree,8
	Master's degree, or9
	Professional school or doctorate?10
	DON'T KNOWd
	REFUSEDr
ALL	
K5.	ASK ONLY IF NEEDED: Are you male or female?
	MALE1
	FEMALE2
	DON'T KNOWd
	REFUSEDr
ALL	
K6.	In general, would say your health is excellent, very good, good, fair or poor?
	CODE ONE ONLY
	EXCELLENT1
	VERY GOOD2

A 1 1		
ALL		
K7a.	How tall are you without shoes?	
	ENTER UNIT	
	FFFT/MOUEO	
	FEET/INCHES	
	METERS/CENTIMETERS2	
	DON'T KNOWd	
	REFUSEDr	
K7A=1 O		
FEET IF I	(7A=1	
METERS	IF K7A=2	
K7b.	ENTER (FEET/METERS)	
	_  NUMBER (3 – 7 IF FEET; 1.0 - 2.50 IF METERS)	
	DON'T KNOWd	
	REFUSEDr	
1/= 1 1 0		
K7A=1 O	<sup>10</sup>	
INCHES	F K7A=1	
CENTIMETERS IF K7A=2		
K7c.	ENTER (INCHES/CENTIMETERS)	
	_  NUMBER (1-12 IF INCHES; 100-220 IF CENTIMETERS)	
	DON'T KNOWd	
	REFUSEDr	

SOFT CHECK: IF GE 7 FEET OR GT 2 METERS I just want to make sure I recorded your answer correctly. Did you say 7 feet/2 meters?

ALL	
K8.	How much do you weigh without shoes?
	IF RESPONDENT SAYS SHE IS PREGNANT, SAY: <b>How much did you weigh before your pregnancy?</b>
	ENTER UNIT
	POUNDS 1
	KILOGRAMS2
	DON'T KNOWd
	REFUSEDr
K8=1 OR	2
K8a.	ENTER NUMBER
	NUMBER (70 – 999)
	DON'T KNOWd
	REFUSEDr

#### L. RESPONDENT FOLLOW UP CONTACT INFORMATION

IF CURRENT PARTICIPANT, GO TO END. IF NEW PARTICIPANT, ASK L1.

NEW PARTICIPANT IF A3A=2 THEN USE A4A NAME; OTHERWISE USE A3A NAME.

L1. I would like to thank you for participating in the survey. We would like to interview you again in 6 months and I would like to know how to get in touch with you. There will be a \$20.00 gift card for completing that survey as well.

IFI12=5,6,7,8, 9, D,OR R, SAY

"Please give me an address at which you usually receive mail, or the name and address of a relative or friend who can receive mail for you."

#### **OTHERWISE:**

#### COLLECT/CONFIRM CURRENT CONTACT INFO FOR RESPONDENT

	(STRING 40)
FIRST NAME	
	(STRING 40)
MIDDLE INITIAL/NAME	
	(STRING 40)
LAST NAME	
	(STRING 100)
ADDRESS 1	
	(STRING 100)
ADDRESS 2	
•	(STRING 100)
CITY	
	(STRING 40)
STATE/TERRITORY	
ZIP CODE (+ 4 IF NEEDED)	
	_    PHONE NUMBER - HOME
(200-999) (100-999)	
	PHONE NUMBER – CELLULAR
(200-999) (100-999)	
	PHONE NUMBER - OTHER
(200-999) (100-999)	
	(STRING 80)
EMAIL	
DON'T KNOW	d
REFUSED	r

SOFT CHECK: IF Exchange=555 I'm sorry. I must have made a mistake. The area code I recorded does not exist. Can you tell me the phone number again?

HARD CHECK: IF AREA CODE LT 200 I'm sorry. I must have made a mistake. The area

code I recorded does not exist. Can you tell me the phone number again.

#### **NEW PARTICIPANT**

L2. Next, I would like to ask you for the name, address, and telephone number of 3 close friends or relatives we can contact in case you move and we cannot easily locate you for your next interview. All information collected will be held in strictest confidence and will only be used to locate you if we cannot reach you at your current address.

#### **CONTACT 1:**

	_(STRING 40)	
FIRST NAME		
MIDDLE INITIAL (NAME	_(STRING 40)	
MIDDLE INITIAL/NAME		
	_(STRING 40)	
LAST NAME		
RELATIONSHIP TO RESPONDENT	(STRING 100)	
RELATIONSHIP TO RESPONDENT		
	_(STRING 100)	
ADDRESS 1		
ADDRESS 2	_(STRING 100)	
CITY	_(STRING 100)	
	(CTDING 40)	
STATE/TERRITORY	_(STRING 40)	
_ _ - _ - _  ZIP CODE (+ 4 IF NEEDED)		
<u> </u>   <u> </u>   -  <u> </u>   -  <u> </u>  -  <u> </u>  -  <u> </u>  - - - -	PHONE NUMBER - HOME 999)	
<u> </u>	PHONE NUMBER – CELLULA 999)	٩R
<u> </u>     -   <u> </u>   -   <u> </u>   -   <u> </u>   (200-999) (0000-999)	PHONE NUMBER - OTHER 999)	
EMAIL		
DON'T KNOW		
REFLISED	r GO TO L3	

SOFT CHECK: IF Exchange=555 I'm sorry. I must have made a mistake. The area code I recorded does not exist. Can you tell me the phone number again?

HARD CHECK: IF AREA CODE LT 200 I'm sorry. I must have made a mistake. The area code I recorded does not exist. Can you tell me the phone number again.

NFW	, ,	$\neg$	$\sim$ 1	$\neg$	
N = VV	$\nu$	$\sim$ 1 $^{\circ}$	( 1	$\mathbf{P}^{\Delta}$	IXI I

## **CONTACT 2:**

FIRST NAME	_(STRING 40)	
MIDDLE INITIAL/NAME	_(STRING 40)	
	_(STRING 40)	
	(STRING 100)	
RELATIONSHIP TO RESPONDENT	(STRING 100)	
ADDRESS 1	_,	
ADDRESS 2	_(STRING 100)	
CITY	_(STRING 100)	
STATE/TERRITORY	_(STRING 40)	
_ _ - _ - _  ZIP CODE (+ 4 IF NEEDED)		
<u> </u>	PHONE NUM 999)	BER - HOME
<u> </u>	PHONE NUM 999)	BER – CELLULAR
_  -    -      -      (200-999) (100-999) (0000-999)	PHONE NUM 999)	BER - OTHER
EMAIL	_(STRING 80)	
EMAIL PONT KNOW		00.70.10
DON'T KNOW		
REFUSED	r	GO TO L3

SOFT CHECK: IF Exchange=555 I'm sorry. I must have made a mistake. The area code I recorded does not exist. Can you tell me the phone number again?

HARD CHECK: IF AREA CODE LT 200 I'm sorry. I must have made a mistake. The area code I recorded does not exist. Can you tell me the phone number again.

# **NEW PARTICIPANT**

#### **CONTACT 3:**

	_(STRING 40)
FIRST NAME	
MIDDLE INITIAL/NAME	_(STRING 40)
	_(STRING 40)
LAST NAME	_(31KING 40)
	(STRING 100)
RELATIONSHIP TO RESPONDENT	
ADDRESS 1	_(STRING 100)
ADDRESS 2	_(STRING 100)
OLTY	(STRING 100)
CITY	_(0
STATE/TERRITORY	_(STRING 40)
STATE/TERRITORY	
_  -    -    ZIP CODE (+ 4 IF NEEDED)	
<u> </u>	PHONE NUMBER - HOME 999)
<u> </u>	PHONE NUMBER – CELLULAR 999)
_  -    -      -      (200-999) (100-999) (0000-999)	PHONE NUMBER - OTHER 999)
FRAGU	_(STRING 80)
EMAIL PON'T KNOW	A
DON'T KNOW	u

SOFT CHECK: IF Exchange=555 I'm sorry. I must have made a mistake. The area code I recorded does not exist. Can you tell me the phone number again?

HARD CHECK: IF AREA CODE LT 200 I'm sorry. I must have made a mistake. The area code I recorded does not exist. Can you tell me the phone number again.

ALL

provide IF ADDRESS COLLECTED AT L1

confirm IF NO ADDRESS COLLECTED AT L1

END. Those are all our questions. Thank you very much for your participation in the survey. Please (provide/confirm) the name and address where we should send the gift card.

RECORD NAME AND ADDRESS FOR CHECK

[IF ADDRESS COLLECTED AT L1, PRE-FILL HERE] (STRING 40) **FIRST NAME** (STRING 40) MIDDLE INITIAL/NAME (STRING 40) LAST NAME (STRING 100) ADDRESS 1 (STRING1 00) **ADDRESS 2** (STRING 100) CITY (STRING 40) STATE/TERRITORY DON'T KNOW......d REFUSED.....r



# **SNAP** Food Security Telephone Survey

**CATI SPECIFICATIONS** 

Updated for the Follow-Up Data Collection Effort

April 4, 2012

# A. INTRODUCTION

A 1 1			
ALL			
SAMPLE	E MEMBER FROM SAMPMEM_NAME		
Hello			
	Hello, my name is [INTVNAME]. I am calling from Research on behalf of the US Department of Agric [SAMPLE MEMBER]?		
	SAMPLE MEMBER COMES TO PHONE	1	GO TO INTRO1
	SAMPLE MEMBER UNAVAILABLE/BAD TIME	2	SCHEDULE CALL BACK
	NO ONE ANSWERS	3	GO TO NO ANSWER SCREEN
	NO SUCH PERSON AT THIS NUMBER	4	GO TO LOCATING SCREEN
	NEW RESPONDENT	5	GO TO SCRN1a
	INTERVIEWER: CODE 5 ONLY WITH SUPERVINOTE DOCUMENTING CIRCUMSTANCES	SOR P	ERMISSION AND WRITE
HELLO =	= 1		
STATE S	SNAP NAME FROM SNAPstate_name		
Intro1	Hello, my name is and I'm calling Research. As you may recall from the letter we reconce again conducting a survey on behalf of the LAgriculture that funds the Supplemental Nutrition [STATE SNAP NAME], which is also known as footake about 20-30 minutes, and your cooperation is participation in the survey will not affect any gover receiving now or in the future. All answers you givindividual results will be presented. As a token of again be sending you a \$20 gift card after this interest.	cently J.S. De Assis d stan s comp rnmer ve will appre	mailed you, we are epartment of tance Program, or the interview will bletely voluntary. Your assistance you are be confidential and no ciation, we will once
	BEGIN INTERVIEW		io complete.
	DID NOT RECEIVE OR DOES NOT RECALL		
	LETTER	2	GO TO LETTER SCREEN
	WANTS MORE INFORMATION	3	GO TO MORE INFO SCREEN
	NOT A GOOD TIME	4	GO TO APPOINTMENT SCREE
	HUNG UP DURING INTRODUCTION	5	
	SUPERVISOR REVIEW	6	

INTRO1 = 1	OR HELLO=5		
STATE SNAF	P NAME FROM SNAPstate_name		
EBT STATE	NAME FROM EBTstate_name		
	sased on the information from our last interview, your heceiving [STATE SNAP NAME] benefits around 6 months	•	
P	ROBE: This program used to be called food stamps. It p [EBT STATE NAME] card that you can use to buy		
	YES1	GO TO SCRN1D	
	NO0	GO TO SCRN1D	
	DON'T KNOWd	GO TO Sup Review	
	REFUSEDr	GO TO Sup Review	
SCRN1	A = 1 OR 0		
STATE	SNAP NAME FROM SNAPstate_name		
SCRN1d. A	re you now participating in [STATE SNAP NAME]?		
	YES1		
	NO0	GO TO END	
	DON'T KNOWd	GO TO Sup Review	
	REFUSEDr	GO TO Sup Review	
PROGRAMMER: IF SCRN1a=0 & SCRN1d=1, GO TO SCRN1e; IF SCRN1a=1 & SCRN1d=1, GO TO A1			
	bout how many months in a row have you been particip	oating in [STATE SNAP	
	MONTHS (0 - 9)		
	DON'T KNOWd	GO TO Sup Review	
	REFUSEDr	GO TO Sup Review	
INTER' 1 MONTH	VIEWER: ENTER 9 IF MORE THAN 9 MONTHS; ENT		
	PROGRAMMER: IF SCRN1e = 5-8 MONTHS GO TO A1; ELSE GO TO END		

SCRN1D=0 OR; SCRN1E=0, 1, 2, 3, 4, 9 OR R **STATE SNAP NAME** FROM SNAPstate name Those are all the questions I have. This survey is for people who are currently **END** participating in [STATE SNAP NAME] and have been participating in [STATE SNAP NAME] for about 6 months. Thank you for your time. Good-bye. CODE AS SUP REVIEW Sup Review Those are all the questions I have for now. I need to clarify some information with my supervisor. We will call you back if we have additional questions. SCRN1A = 1 & SCRN1D = 1 OR SCRN1E=5-8 OR HELLO=5 A1. Are you the person who does most of the planning or preparing of meals in your family? INTERVIEWER: IF R ANSWERS "SOMETIMES" OR "50/50," ENTER YES. YES ......1 GO TO A2 DON'T KNOW ......d GO TO A2 REFUSED.....r GO TO A2 A1 = 0A1a. Which adult in your household does most of the planning or preparing of meals? (STRING 40) FIRST NAME (STRING 40) LAST NAME DON'T KNOW......d REFUSED.....r SCRN1A = 1 A2. Are you the person who does most of the shopping for food in your family? YES ......1 GO TO A3 NO ....... DON'T KNOW ......d GO TO A3 REFUSED....r GO TO A3

A2 = 0	
A2a.	Which adult in your household does most of the shopping for food?
	ENTER 1 TO RECORD NAME1
	SAME AS MEAL PLANNER2 GO TO A3 CHECK
A2A = 1	
A2a_NAMI	RECORD NAME
	(STRING 40)
	FIRST NAME
	(STRING 40)
	LAST NAME
	DON'T KNOWd
	REFUSEDr
	A3 PROGRAMMER CHECK
	RESPONDENT THE MEAL PLANNER (A1=1) OR FOOD SHOPPER (A2=1)? O TO B1, IF NO, GO TO A3a. IF NEITHER FOOD SHOPPER NOR MEAL PLANNER IS AVAILABLE, SCHEDULE CALL BACK.
A1 = 0 ANI	0 A2 = 0
	May I please speak to [FILL NAME COLLECTED AT A2a]? COMES TO PHONE 1 GO TO INTRO2
	FOOD SHOPPER UNAVAILABLE2
	BAD TIME/CALL BACK 3 SCHEDULE CALL BAC
A3A = 2 AN	ID A2A NE TO 2
A4a.	May I please speak to [FILL NAME COLLECTED AT A1a]?
	COMES TO PHONE 1 GO TO INTRO2
	MEAL PLANNER UNAVAILABLE2 SCHEDULE CALL BAC
	BAD TIME/CALL BACK 3 SCHEDULE CALL BAC

A4A OR A	A3A = 1; OR HELLO=5		
STATE SNAP NAME FROM SNAPstate_name			
Hello, my OR A3A=	name isand I'm calling from Mathematica Policy	y Research IF A4A	
INTRO2			
	PROCEED WITH INTERVIEW1		
	BAD TIME/CALL BACK2	SCHEDULE CALL BACK	
IF NEW F	ESPONDENT (A3A=1, A4A=1, OR HELLO=5)		
A5.	Are you at least 18 years old? YES1		
	NO0	GO TO SUP REVIEW	
	DON'T KNOWd	GO TO SUP REVIEW	
	REFUSEDr	GO TO SUP REVIEW	
HELLO=5	AND A4A OR A3A <b>NE</b> 1		
HELLO5_	NAME What is your name?		
	RECORD NAME		
	FIRST NAME (STRING 40)		
	(STRING 40) LAST NAME		
	DON'T KNOWd		
	REFUSED r		

# B. HOUSEHOLD COMPOSITION

The first few questions are about the people you live with.

HH SIZE	HH SIZE = 1 AT BASELINE AND SAME RESPONDENT				
B1.	During the last interview, we recorded that you live alone.	. Is this still correct?			
	YES1	GO TO B1b			
	NO0	GO TO B1c			
	DON'T KNOWd	GO TO B1c			
	REFUSEDr	GO TO B1c			
HH SIZE	>1 AT BASELINE AND SAME RESPONDENT				
B1a.	During the last interview, we recorded that the following phousehold and share food with you. [READ NAMES] Is the				
	[BASELINE RESP]				
	[NAME 1]				
	[NAME 2]				
	[NAME 3]				
	[NAME 4]				
	YES1	GO TO B1b			
	NO0	GO TO B1c			
	DON'T KNOWd	GO TO B1c			
	REFUSEDr	GO TO B1c			
B1 =1 OR	B1A = 1 AND SAME RESPONDENT				
B1b.	Has anyone else joined your household since the last interview?				
	YES1	GO TO B1c			
	NO0	GO TO B4			
	DON'T KNOWd	GO TO B4			
	REFUSEDr	GO TO B4			

B1 OR B1A NE1; OR B1B = 1 OR NEW RESPONDENT

now lives in your household IF B1 OR B1a = 0, d, or r, OR NEW RESPONDENT joined your household since the last interview IF B1b =1

B1c. Please tell me the first name of everyone who (now lives in your household/joined your household since the last interview which was about 6 months ago). By household, I mean the people who live with you and share food with you. Please include babies, small children, and people who are not related to you.

RESPONDENT LIVES ALONE	0	GO TO B4
ENTER NAMES		
(ALLOW UP TO 10 NAMES)		
	(STRING 40)	
NAME		

B1c NE 0

ASK B2 FOR ALL HOUSEHOLD MEMBERS RECORDED IN B1c.

NAME 1 FILL FIRST NAME COLLECTED AT B1c

THEN FILL EACH SUBSEQUENT NAME (NAME 2 - NAME 10)

# B2. And what is [NAME 1]'s relationship to you?

INTERVIEWER: CODE COHABITEE'S CHILD AND OTHER CHILDREN WHO ARE NOT NATURAL, ADOPTED OR STEP, BUT FOR WHOM THE SAMPLE MEMBER TAKES RESPONSIBILITY, AS "OTHER CUSTODIAL CHILD."

HUSBAND OR WIFE	1
UNMARRIED PARTNER	2
SON OR DAUGHTER (INCLUDING BIOLOGICAL, STEP, OR ADOPTED CH	IILD)3
OTHER CUSTODIAL OR FOSTER CHIL	.D4
PARENT (MOTHER, FATHER, INCLUDING STEPPARENTS AND IN-LA	AWS)5
SIBLING (BROTHER OR SISTER INCLUDING IN-LAWS)	6
GRANDCHILD	7
OTHER RELATIVE	8
NON-RELATIVE (INCLUDING ROOMER OR BOARDER)	9
OTHER SPECIFY	10
	(STRING 60)
DON'T KNOW	d
REFLISED	r

B1c NE 0	
ASK B3 FOR ALL HOUSEHOLD MEMBERS RECORDED IN B1c.	
NAME 1 FILL FIRST NAME COLLECTED AT B1c	
THEN FILL EACH SUBSEQUENT NAME (NAME 2 – NAME 10)	
B3. What is [NAME 1]'s age?	
AGE (0 - 99)	
INTERVIEWER: IF LESS THAN 1 YEAR OLD ENTER "0".	
YEARS1	
B3 GE 15 (HOUSEHOLD MEMBERS RECORDED IN B1c 15 OR OLDER).	
NAME 1 FILL FIRST NAME COLLECTED AT B1c	
THEN FILL EACH SUBSEQUENT NAME (NAME 2 – NAME 10)	
P2a ACK ONLY IF NEEDED: IC INAME 41 made on famale 2	
B3a. ASK ONLY IF NEEDED: IS [NAME 1] male or female?	
MALE1	
FEMALE 2	
DON'T KNOWd	
REFUSEDr	
ALL	
<b>Do you</b> IF B1c = 0	
Does anyone in your household IF B1c NE 0	
you IF B1C = 0	
anyone in the household IF B1c NE 0	
B4. (Do you/Does anyone in your household) have a physical, mental, or other health condition that limits the kind or amount of work that (you/anyone in the household) can do?	,
YES1	
NO0	
DON'T KNOWd	
REFUSEDr	

# **C. TRIGGER EVENTS**

# B1 OR B1A NE1; OR B1B = 1;

C1a. I just recorded that there has been a change in the household since the last interview. What caused that change?

	CODE ALL THAT APPLY
BIRTH OF CHILD	1
NEW STEP, FOSTER OR ADOPTED CH	IILD2
MARRIAGE/NEW PARTNER	3
SEPARATION OR DIVORCE	4
DEATH OF HOUSEHOLD MEMBER	5
FAMILY/BOARDER MOVING IN	6
FAMILY/BOARDER MOVING OUT	7
OTHER (SPECIFY)	8
(\$	STRING 500)
DON'T KNOW	d
DEELIGED	r

ALL	
In the pas Were you	last interviewed you 6 month ago IF SAME RESPONDENT AS BASELINE at 6 months IF NEW RESPONDENT IF B1c=0 household IF B1c NE 0
C2.	At any time (since we last interviewed you 6 months ago/ in the past 6 months)
	(were you/was your household) evicted from your house or apartment?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
or anyone	e in your household IF B1c NE 0
in the pas	st 6 months IF NEW RESPONDENT
since our	last interview IF SAME RESPONDENT AS BASELINE
C3.	Have you (or anyone in your household) had a change in employment or a change in pay or hours worked from a job (in the past 6 months/since our last interview)?
	YES1
	NO 0 GO TO D1
	DON'T KNOWd GO TO D1
	REFUSEDr GO TO D1
546 115 6	
B1C NE 0	et 6 months IF NEW RESPONDENT
-	last interview IF SAME RESPONDENT AS BASELINE
C3a.	Who in your household had a change in employment or a change in pay or hours worked from a job (in the past 6 months/since our last interview)?
	[LIST ALL MEMBERS OF HOUSEHOLD AGE 15 AND OVER FROM B1c]
	CODE ALL THAT APPLY
	RESPONDENT1
	NAME 12
	NAME 23
	NAME 34
	NAME 45
	· · · · · · · · · · · · · · · · · · ·

C3 = 1

you IF B1c = 0 OR C3A = 1

NAME FILL FROM C3A

in the past 6 months IF NEW RESPONDENT

since our last interview IF SAME RESPONDENT AS BASELINE

C3b. What was that change in employment or a change in pay or hours worked from a job that (you/[NAME]) experienced (in the past 6 months/since our last interview)?

# CODE ALL THAT APPLY OBTAINED A JOB 1 LOST JOB 2 INCREASE IN PAY OR HOURS 3 DECREASE IN PAY OR HOURS 4 OTHER (SPECIFY) 5 \_\_\_\_\_\_\_\_\_(STRING 500) DON'T KNOW d REFUSED r

[REPEAT FOR EACH PERSON RECORDED IN C3a]

# D. SNAP PARTICIPATION

D1. Next, we're going to ask you about your participation in SNAP.
ALL
you IF B1c = 0 your household IF B1c NE 0
D1b. On what date did (you/your household) receive your most recent SNAP benefits? That is, when was money most recently put on your [EBT/STATE NAME] card?
/      /       MONTH DAY YEAR (1 - 12) (1 - 31) (2011-2012)
DON'T KNOWd
REFUSEDr
SOFT CHECK: IF DATE IS MORE THAN 1 MONTH PRIOR TO INTERVIEW DATE I just want to be sure I recorded the date correctly. Did you say DATE?
HARD CHECK: IF DATE IN FUTURE I'm sorry. I must have recorded the date incorrectly. Can you please give me that date again?
household's IF B1c NE 0
EBT/STATE NAME FROM EBTstate_name
D2. How many dollars were put on your (household's) [EBT/STATE NAME] card this most recent time?
D2. How many dollars were put on your (household's) [EBT/STATE NAME] card
D2. How many dollars were put on your (household's) [EBT/STATE NAME] card this most recent time?
D2. How many dollars were put on your (household's) [EBT/STATE NAME] card this most recent time?  \$   _   AMOUNT ISSUED ON EBT CARD (1 – 2,000)
D2. How many dollars were put on your (household's) [EBT/STATE NAME] card this most recent time?  \$   _   AMOUNT ISSUED ON EBT CARD (1 – 2,000)  DON'T KNOW
B2. How many dollars were put on your (household's) [EBT/STATE NAME] card this most recent time?  \$     AMOUNT ISSUED ON EBT CARD (1 – 2,000)  DON'T KNOW
B2. How many dollars were put on your (household's) [EBT/STATE NAME] card this most recent time?  \$     AMOUNT ISSUED ON EBT CARD (1 – 2,000)  DON'T KNOW
B2. How many dollars were put on your (household's) [EBT/STATE NAME] card this most recent time?  \$   _   AMOUNT ISSUED ON EBT CARD (1 – 2,000)  DON'T KNOW
B2. How many dollars were put on your (household's) [EBT/STATE NAME] card this most recent time?  \$   _   AMOUNT ISSUED ON EBT CARD (1 – 2,000)  DON'T KNOW

	ENTER BALANCE REMAINING	2	
	DON'T KNOW	d	GO TO D4
	REFUSED	r	GO TO D4
D3 = 1 OR 2	)		
	<u>-</u>		
D3a.			
	\$     AMOUNT (1 – 2,000)		GO TO D5
HARD CHECK: IF AMOUNT RECORDED IN D3A GT AMOUNT IN D2 I'm sorry. I must have made a mistake. The (amount spent/balance remaining) is more than the amount you received. Is there an error?			
D3 OR D3A	= D OR R		
D4. V	Vould you say as of now you have used		
	COD	E 01	NE ONLY
	Less than half,	1	
	About half,	2	
	Or more than half of your monthly SNAP benefits?	3	
	DON'T KNOW	d	

REFUSED.....r

Λ		
А	ш	

# D5. How many weeks do your SNAP benefits usually last? Do they last...

# **CODE ONE ONLY**

1 week or less,	1
2 weeks,	2
3 weeks,	
4 weeks, or	
more than 4 weeks?	5
DON'T KNOW	d
REFUSED	r

# E. FOOD PURCHASE BEHAVIOR

IF NEW RESPONDENT GO TO E1, ELSE READ INTRO		
In this next section I will be asking you many of the same questions we asked you 6 months ago because things can change over time.		
ALL		
E1. Where do you buy most of your groceries?		
ENTER NAME OF ONE STORE1	GO TO E1_NAME	
MULTIPLE STORES NAMED2	GO TO E1_NAME2	
DON'T KNOWd	GO TO F1	
REFUSEDr	GO TO F1	
E1 = 1		
E1_NAME		
INTERVIEWER: RECORD NAME OF STORE		
(STRING 60) GC	TO E1a	
E1=2		
E1_NAME2 If you had to choose just one of these stores, which o shop at most often?	ne would you say you	
INTERVIEWER: RECORD NAME OF STORE		
(STRING 60)		

# E1 NE D OR R

# E1a. What kind of store is that?

INTERVIEWER: CODE TYPE OF STORE

# CODE ONE ONLY

SUPERMARKETS/GROCERY STORES	1
DISCOUNT STORES SUCH AS WAL-MART, TARGET, OR KMART	2
WAREHOUSE CLUBS, SUCH AS PRICE CLUB, COSTCO, PACE, SAM'S CLUB, BJ'S	3
CONVENIENCE STORES SUCH AS 7-11, QUICK CHECK, QUICK STOP, WAWA	4
ETHNIC FOOD STORES SUCH AS BODEGA'S ASIAN FOOD MARKETS, OR CARIBBEAN MARKETS	5
FARMER'S MARKET	6
DOLLAR STORES	7
OTHER (SPECIFY)	8
(STRING	100)
DON'T KNOW	d
REFUSED	r

#### E1 NE D OR R

# E2. What is the <u>main</u> reason you shop at (FILL NAME FROM E1)?

# 

#### E1 NE D OR R

## E3. How do you usually get to (FILL NAME FROM E1)?

# 

REFUSED.....r

E1 NE D	OR R	
E3a.	Do you usually go to (FILL NAME FROM E1) directly from home?	
	YES1	
	NO0	
	DON'T KNOWd	
	REFUSEDr	
E1 NE D	OR R	
E3b.	About how long does it take to go one way from home to (FILL NAME FROM E1)?	
	NUMBER OF MINUTES ONE WAY (1 - 120)	
	DON'T KNOWd	
	REFUSEDr	
E1 NE D OR R		
E3c.	And approximately how many miles away is (FILL NAME FROM E1) from your home – one way?	
	MILES ONE WAY (0 - 99)	
	INTERVIEWER: IF LESS THAN ONE MILE ENTER "0"	
	DON'T KNOWd	
	REFUSEDr	
Г		
SOFT CH	IFCK: IF GT 30 Liust want to make sure I recorded your answer correctly. Did	

you say NUM?

## F. FOOD EXPENDITURES

These next questions are about all the places at which you bought food <u>last week</u>. (By last week I mean Sunday through Saturday. When answering these questions, please think about all food purchases, meaning those purchased with and without your [STATE NAME EBT CARD].

ALL	
you IF B1 anyone in	lc = 0 n your household IF B1c NE 0
F1.	First, did (you/anyone in your household) shop for food at a supermarket or grocery store last week?  (PROBE IF INTERVIEWDATE = SATURDAY: By last week we don't mean the week that ends today, but the week that ended last Saturday.)  YES
ALL	
you IF B1	lc = 0 n your household IF B1c NE 0
F2.	Think about other places where people buy food, such as meat markets, produce stands, bakeries, warehouse clubs, and convenience stores. Did (you/anyone in your household) buy food from any stores such as these last week?  (PROBE IF INTERVIEWDATE = SATURDAY: By last week we don't mean the week that ends today, but the week that ended last Saturday.)
	YES

ALL	
you IF B	1c = 0
	in your household IF B1c NE 0
include a	any children who may have bought food at the school cafeteria IF B3 = 5 TO 18
F3.	<u>Last week</u> , did (you/anyone in your household) buy food at a restaurant, fast food place, cafeteria, or vending machine? (Include any children who may have bought food at the school cafeteria.)
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
you IF B	
anyone i	n your household IF B1c NE 0
F4.	Did (you/anyone in your household) buy food from any other kind of place <u>last week</u> ?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
F1, F2, F	3 OR F4 = 1
Now I'm places w	TO F1 AND F2 AND F3 <u>AND</u> F4, GO TO F10.  going to ask you about the <u>actual</u> amount you spent on food <u>last week</u> in all the where you bought food. Then, since <u>last week</u> may have been unusual for you, I about the amount you <u>usually</u> spend.
F1 = 1	
you IF B	1c = 0
	in your household IF B1c NE 0
STATE N	NAME EBT CARD FROM EBTstate_name
F5.	How much did (you/anyone in your household) <u>actually</u> spend at supermarkets and grocery stores <u>last week</u> including any purchases made with [STATE NAME EBT CARD] card or food stamp benefits?
	PROBE: Your best estimate is fine.
	\$   _ . _  AMOUNT SPENT LAST WEEK (1 – 2000.00)
	DON'T KNOWd GO TO F6
	PEFUSED r GO TO F6

SOFT CHECK: IF NUMBER OF HH MEMBERS IS LT 8 AND AMOUNT REPORTED HERE GT 999.99 I just want to make sure I recorded your response correctly. Did you say NUM?

F5 GT 0				
F5a.	How much of the [FILL AMOUNT FROM F5] was for non-food items, such as pet food, paper products, alcohol, detergents, or cleaning supplies?			
	PROBE: Your best estimate is fine.			
	\$   _ _  AMOUNT SPENT ON NON-FOOD ITEMS (0 – 2,000.00)			
	DON'T KNOWd			
	REFUSEDr			
HARD CHECK: IF AMOUNT GT AMOUNT COLLECTED AT F5 I'm sorry. I must have made a mistake. This amount is more than the total amount spent that you reported in the last question. Is there an error?				
F2 = 1				
you IF B1				
your hous	sehold IF B1c NE 0			
STATE N	AME EBT CARD FROM EBTstate_name			
F6.	How much did (you/your household) spend at stores such as meat markets, produce stands, bakeries, warehouse clubs, and convenience stores <u>last week</u> including any purchases made with your [STATE NAME EBT CARD] or food stamp benefits?			
	PROBE: Your best estimate is fine.			
	\$   _ _ .   AMOUNT SPENT LAST WEEK (1 – 2000.00)			
	DON'T KNOWd GO TO F7			
	REFUSEDr GO TO F7			
	ECK: IF NUMBER OF HH MEMBERS IS LT 8 AND AMOUNT REPORTED HERE GT ust want to make sure I recorded your response correctly. Did you say NUM?			

F6 GT 0				
F6a. How much of the [FILL AMOUNT FROM F6] was for nonfood items, such a food, paper products, alcohol, detergents, or cleaning supplies?				
	PROBE: Your best estimate is fine.			
	\$   _ _  AMOUNT SPENT ON NON-FOOD ITEMS (0 – 2000.00)			
	DON'T KNOWd			
	REFUSEDr			
mistake.	ECK: IF AMOUNT GT AMOUNT COLLECTED AT F6 I'm sorry. I must have made a This amount is more than the total amount spent that you reported in the last Is there an error?			
F3 = 1				
you IF B1				
your hous	sehold IF B1c NE 0			
F7.	F7. How much did (you/your household) spend for food at restaurants, fast food places, cafeterias, and vending machines <u>last week</u> , not including alcohol purchases?			
	PROBE: Your best estimate is fine.			
	\$   _   _   _   AMOUNT SPENT LAST WEEK (1 – 2000.00)			
	DON'T KNOWd			
	REFUSEDr			

SOFT CHECK: IF NUMBER OF HH MEMBERS IS LT 8 AND AMOUNT REPORTED HERE GT 999.99 I just want to make sure I recorded your response correctly. Did you say NUM?

F4 = 1				
you IF B				
your hou	isehold IF B1c NE 0			
F8.	3. How much did (you/your household) spend for food at any other kind of place last week?			
	PROBE: Your best estimate	is fine.		
	\$   _ . _  AN	MOUNT SPENT LAST WEEK (1 – 2000.00)		
	DON'T KNOW	d		
	REFUSED	r		
		MBERS IS LT 8 AND AMOUNT REPORTED HERE GT ded your response correctly. Did you say NUM?		
	3, OR F4 = 1			
you IF B				
-	repower Moe (55 550)+(56	E60)+E7+E0		
	「FROM SUM OF (F5-F5a)+(F6 IAME EBT CARD FROM EBTst	•		
F9. Let's see, (you/your household) spent about [AMOUNT] on food last week. How much of that was bought using your [STATE NAME EBT CARD] card?				
	\$   _  AMOUNT S	SPENT WITH EBT CARD (0 - 2000) GO TO F10		
	DON'T KNOW	d		
	REFUSED	r		
	mistake. This amount is more	I AMOUNT RECORDED IN D3 I'm sorry. I may have than the amount you said you used earlier. Is there		
		SUM AMOUNT: I'm sorry. I may have made a amount you said you spent on food last week.		
F9 = D O	R R			
F9a.	Would you say you spent			
		CODE ONE ONLY		
	Less than half,	1		
	About half,	2		
	Or more than half?	3		
	DON'T KNOW	_1		

REFUSEDr
ALL
Let's see, it seems that (you/your household) did not buy any food <u>last week</u> IF F1, F2, F3, AND F4 = $0$
Again,(you/your household) spent about (FILL AMOUNT) on food <u>last week</u> . IF F1, F2, F3, OR F4 = $1$
(You/Your household) spent about (FILL AMOUNT) on food <u>last week.</u> IF F1, F2, F3, OR F4 = 1
you AND do you IF B1c = 0
your household AND does your household IF B1c NE 0
STATE NAME FRI CARD FROM FRI state name

F10. [Let's see, it seems that (you/your household) did not buy any food <u>last week</u>./Again,(you/your household) spent about (FILL AMOUNT) on food <u>last week</u>.] Now think about how much (you/your household) <u>usually</u> (spend/spends). How much (do you/does your household) <u>usually</u> spend on food at all the different places we've been talking about <u>in a week</u>? Please include any purchases made with your [STATE NAME EBT CARD] or food stamp benefits. Do not include nonfood items such as pet food, paper products, detergent or cleaning supplies.

FILL AMOUNT FROM SUM OF (F5-F5a)+(F6-F6a)+F7+F8

\$	AMOUNT SPENT IN A TYPICAL WEEK (1 – 3000.00)
DON'T KNOW	d
REFUSED	r

SOFT CHECK: IF NUMBER OF HH MEMBERS IS LT 8 AND AMOUNT REPORTED HERE GT 999.99 I just want to make sure I recorded your response correctly. Did you say NUM?

ALL	
or anyone in your household IF B1c NE 0	

That completes our questions about food purchased over the last week. Now we're going to talk about things people sometimes do each month to save money when buying food.

F11. In the last 30 days, have you (or anyone in your household)...

		YES	NO	DON'T KNOW	REFUSED
a.	Used coupons when buying food?	1	0	d	r
b.	Bought food in large quantities to receive bulk discounts?	1	0	d	r
C.	Bought food items because they were on sale?	1	0	d	r
d.	Bought food that was near or past its expiration date at a discount?	1	0	d	r

## **G. PROGRAM PARTICIPATION**

B3 = 0 - 18 YEARS (SCHOOL-AGE CHILDREN PRESENT IN HH); OR B3 = 15-45 AND B3A =
FEMALE (FEMALE AGE 15-45 IN HH); OR SAMPLE MEMBER IS RESPONDENT (A1=1 OR
A2=1) AND GENDER IN LOAD FILE = FEMALE AND AGE IN LOAD FILE = 15-45; OR A1
OR A2 NE TO 1 (SAMPLE MEMBER IS NOT RESPONDENT)

or someone in your household IF B1c NE 0

IF NO FEMALE AGE 15-45 IN HH OR B3 > 18 YEARS (NO SCHOOL-AGE CHILDREN PRESENT IN HH), GO TO SECTION H

The next questions are about programs you (or someone in your household) may be participating in.

B3 = 5 TO 18 YEARS (SCHOOL-AGE CHILDREN PRESENT IN HH)			
G1.	During the past 30 days, did any children in the household (between 5 and 18 years old) receive free or reduced-cost lunches at school?		
	YES	1	
	NO	0	
	DON'T KNOW	d	
	REFUSED	r	

B3 = 5 TO 18 YEARS (SCHOOL-AGE CHILDREN PRESENT IN HH

IF B3 = 5-18 YEARS (SCHOOL-AGE CHILDREN PRESENT IN HH), ASK:

G2. During the past 30 days, did any children in the household (between 5 and 18 years old) receive free or reduced-cost breakfasts at school?

YES	1
NO	0
DON'T KNOW	d
REFUSED	r

B3 LT 5 YEARS (PRE-SCHOOL AGED CHILDREN IN HH)			
your child IF B3 LT 5 YEARS FOR ONE CHILD (ONE PRE-SCHOOL CHILD IN HH) any children in the household IF B3 LT 5 YEARS FOR MORE THAN ONE CHILD			
G3. During the past 30 days, did (your child/any children in the household) receive free or reduced-cost food at a day-care or Head Start program?			
YES1			
NO0			
DON'T KNOWd			
REFUSEDr			
B3 LT 5 YEARS; OR B3 = 15-45 AND B3A = FEMALE (FEMALE AGE 15-45 IN HH) OR SAMPLE MEMBER IS RESPONDENT (A1=1 OR A2=1) AND AGE IN LOAD FILE = 15-45; OF A1 OR A2 NE TO 1 (SAMPLE MEMBER IS NOT RESPONDENT)	R		
women IF B3 NE 4 OR LESS (NO CHILDREN 0-4 IN HH)			
women or children IF B3 LT 5 YEARS AND B3 = 15-45 AND B3a=FEMALE (FEMALE AGE 15-45 IN HH)			
children IF B3 LT 5 YEARS AND B3 NE 15-45 FOR ANY FEMALE IN HH			
IF B3 <5, OR FEMALE AGE 15-45 IN HH, ASK:			
G4. During the past 30 days, did any (women/women or children/children) in this household get food through the WIC program?			
YES1			
NO0			
DON'T KNOWd			
REFUSEDr			

#### H. FOOD SECURITY AND SUFFICIENCY

Δ	ı	ı
$\overline{}$	_	

you AND I AND my IF B1c = 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS IN HH) your household AND we AND our IF B1c NE 0 AND B3 GE 18 (MORE THAN ONE ADULT IN HH) OR B2=1 OR 2

Now, I'm going to read you several statements that people have made about their food situation. For these statements, please tell me whether the statement was <u>often</u> true, <u>sometimes</u> true, or <u>never</u> true for (you/your household) in the last 30 days.

H1. The first statement is, "(I/We) worried whether (my/our) food would run out before (I/we) got money to buy more." Was that <u>often</u> true, <u>sometimes</u> true, or never true for (you/your household) in the last 30 days?

	CODE ONE ONLY
OFTEN TRUE	1
SOMETIMES TRUE	2
NEVER TRUE	3
DON'T KNOW	d
REFUSED	r

#### ALL

I AND you IF B1c = 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS IN HH) we AND your household IF B1c NE 0 AND B3 GE 18 (MORE THAN ONE ADULT IN HH) OR B2 = 1 OR 2

H2. "The food that (I/we) bought just didn't last, and (I/we) didn't have money to get more." Was that often, sometimes, or never true for (you/your household) in the last 30 days?

-	CODE ONE ONLY
OFTEN TRUE	1
SOMETIMES TRUE	2
NEVER TRUE	3
DON'T KNOW	d
REFUSED	r

ALL		
•	IF B1c = 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER AC our household IF B1c NE 0 AND B3 GE 18 (MORE THAN OI 2	•
Н3.	"(I/We) couldn't afford to eat balanced meals." Was that one entry true for (you/your household) in the last 30 days?	ften, <u>sometimes</u> , or
	CODE Of	NE ONLY
	OFTEN TRUE1	
	SOMETIMES TRUE2	
	NEVER TRUE3	
	DON'T KNOWd	
	REFUSEDr	
	HECK: IF AFFIRMATIVE RESPONSE (i.e., OFTEN TRUE OF OR MORE OF QUESTIONS H1-H3, THEN CONTINUE, ELSE	
H1, H2, O	R H3 = 1 OR 2	
•	c = 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS	•
you or oth ADULT IN	ner adults in your household IF B1c NE 0 AND B3 GE 18 (M HH)	ORE THAN ONE
H4.	In the last 30 days, did (you/you or other adults in your hosize of your meals or skip meals because there wasn't enfood?	
	YES1	
	NO0	GO TO H5
	DON'T KNOWd	GO TO H5
	REFUSEDr	GO TO H5
H4 = 1		
H4a.	How many days did this happen in the last 30 days?	
	_  NUMBER OF DAYS (1 – 30)	GO TO H5
	DON'T KNOWd	
	REFUSEDr	GO TO H5

H4A = D	
H4b.	Do you think it was more than one or two days?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
114 110 6	
	OR H3 = 1 OR 2
H5.	In the last 30 days, did you ever eat less than you felt you should because there wasn't enough money for food?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
H1, H2, C	OR H3 = 1 OR 2
H6.	In the last 30 days, were you ever hungry but didn't eat because there wasn't enough money for food?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
H1, H2, C	OR H3 = 1 OR 2
H7.	In the last 30 days, did you lose weight because there wasn't enough money for food?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
INSERT (	CHECK: IF AFFIRMATIVE RESPONSE (i.e., OFTEN TRUE OR SOMETIMES TRUE) TO ONE OR MORE OF QUESTIONS H4-H7, THEN CONTINUE, ELSE SKIP TO H10.

H4, H5, H6, OR H7 = 1			
you or ot	c = 0 OR B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS her adults in your household IF B1C NE 0 AND B3 GE 18 (M	,	
ADULT IN	нн)		
H8.	In the last 30 days, did (you/you or other adults in your hofor a whole day because there wasn't enough money for t		
	YES1		
	NO0	GO TO H10	
	DON'T KNOWd	GO TO H10	
	REFUSEDr	GO TO H10	
H8 = 1	H8 = 1		
H9.	How many times did this happen in the last 30 days?		
Н9.	How many times did this happen in the last 30 days? $ \underline{} $ NUMBER OF TIMES $(1-30)$	GO TO H10	
Н9.		GO TO H10	
H9.	_  NUMBER OF TIMES (1 – 30)	GO TO H10	
<b>H9</b> .	_   NUMBER OF TIMES (1 – 30) DON'T KNOW		
	_   NUMBER OF TIMES (1 – 30) DON'T KNOW		
H9 = D	NUMBER OF TIMES (1 – 30)  DON'T KNOW		
H9 = D	NUMBER OF TIMES (1 – 30)  DON'T KNOW		
H9 = D	_   NUMBER OF TIMES (1 – 30)  DON'T KNOW		
H9 = D	Do you think it was more than one or two days?  YES		

#### B3 = 0 - 18 (CHILDREN IN HOUSEHOLD)

I AND my AND I was AND you IF B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULT/PARTNER IN HH) AND B2 NE 1 OR 2

we AND our AND we were AND your household IF B3 GE 18 (MORE THAN ONE ADULT IN HH) OR B2 = 1 OR 2

the child in IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN HH) the children IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE THAN ONE CHILD IN HH)

IF NO CHILDREN IN HOUSEHOLD, GO TO H17. ELSE ASK:

Now I'm going to read you several statements that people have made about the food situation of their children. For these statements, please tell me whether the statement was <u>often</u> true, <u>sometimes</u> true, or <u>never</u> true in the last 30 days for any child under 18 years old living in the household.

H10. "(I/We) relied on only a few kinds of low-cost food to feed (the child in (my/our) household/the children) because (I was/we were) running out of money to buy food." Was that often, sometimes, or never true for (you/your household) in the last 30 days?

	CODE ONE ONLY
OFTEN TRUE	1
SOMETIMES TRUE	2
NEVER TRUE	3
DON'T KNOW	d
REFUSED	r

#### B3 = 0 - 18 (CHILDREN IN HOUSEHOLD)

I AND my household AND you IF B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULT/PARTNER IN HH)

we AND our household AND your household IF B3 GE 18 (MORE THAN ONE ADULT IN HH) OR B2 = 1 OR 2

the child in IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN HH) the children IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE THAN ONE CHILD IN HH)

H11. "(I/We) couldn't feed (the child in (my/our)household/ the children) a balanced meal, because (I/we) couldn't afford that." Was that <u>often</u>, <u>sometimes</u>, or <u>never</u> true for (you/your household) in the last 30 days?

	CODE ONE ONLY
OFTEN TRUE	1
SOMETIMES TRUE	2
NEVER TRUE	3
DON'T KNOW	d
REFUSED	r

B3 = 0 -	18 (CHILDREN IN HOUSEHOLD)
The child	in IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN
	ren were IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE NE CHILD IN HH)
my AND	I AND you IF B3 LE 17 AND B2 NE 1 OR 2 (NO OTHER ADULTS/PARTNER IN HH)
our AND OR 2	we AND your household IF B3 GE 18 (MORE THAN ONE ADULT IN HH) OR B2 = 1
H12.	"(The child in (my/our) household was/The children were) not eating enough because (I/we) just couldn't afford enough food." Was that often, sometimes, or never true for (you/your household) in the last 30 days?
	CODE ONE ONLY
	OFTEN TRUE1
	SOMETIMES TRUE2
	NEVER TRUE3
	DON'T KNOWd
	REFUSEDr
H10, H11	, OR H12 = 1 OR 2
any of th	's IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN HH) e children's IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE NE CHILD IN HH)
INSERT (	CHECK: IF AFFIRMATIVE RESPONSE (i.e., OFTEN TRUE OR SOMETIMES TRUE) TO ONE OR MORE OF QUESTIONS H10-H12, THEN CONTINUE, ELSE SKIP TO H17.
H13.	In the last 30 days, did you ever cut the size of (the child's/any of the children's) meals because there wasn't enough money for food?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
H10, H11	, OR H12 = 1 OR 2
any of th	IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN HH) e children IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE NE CHILD IN HH)
H14.	In the last 30 days, did (the child/any of the children) ever skip a meal because there wasn't enough money for food?
	YES1
	NO 0 GO TO H15

DON'T KNOW......d

REFUSED.....r

GO TO H15

GO TO H15

H14 = 1	
H14a.	How many days did this happen in the last 30 days?
	_   NUMBER OF DAYS (1 – 30) GO TO H15
	DON'T KNOWd
	REFUSEDr GO TO H15
H14A = [	
H14b.	Do you think it was more than one or two days?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
H10, H11	, OR H12 = 1 OR 2
was the (	child IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN
	children IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE IE CHILD IN HH)
H15.	In the last 30 days, (was the child/were the children) ever hungry but you just couldn't afford more food?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
H10, H11	, OR H12 = 1 OR 2
the child	IF B3 LE 17 AND B2 NE 1 OR 2 FOR JUST ONE INSTANCE (ONE CHILD IN HH)
_	e children IF B3 LE 17 AND B2 NE 1 OR 2 FOR MULTIPLE INSTANCES (MORE NE CHILD IN HH)
H16.	In the last 30 days, did (the child/any of the children) ever not eat for a whole day because there wasn't enough money for food?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr

ALL	
or some	one in your household IF B1C NE 0 AND B3 GE 18 1C = 0
you or o	ther adults in your household IF B1C NE 0 AND B3 GE 18
	he next questions are about some community programs you (or someone in your ousehold) may have participated in during the past 30 days.
	In the last 30 days, did (you/ you or other adults in your household) ever get emergency food from a church, a food pantry or food bank?
	PROBE: This includes all religious and charitable organizations.
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
you IF B	
anyone i	n this household IF B1C NE 0 AND B3 GE 18
H18.	During the past 30 days, did (you/anyone in this household) go to a community program or senior center to eat prepared meals?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
you IF B	1C = 0
,	
you or o	ther adults in your household IF B1C NE 0 AND B3 GE 18
you or of	ther adults in your household IF B1C NE 0 AND B3 GE 18  During the last 30 days, did (you/you or other adults in your household) ever eat any meals at a soup kitchen or shelter?
-	During the last 30 days, did (you/you or other adults in your household) ever
-	During the last 30 days, did (you/you or other adults in your household) ever eat any meals at a soup kitchen or shelter?
-	During the last 30 days, did (you/you or other adults in your household) ever eat any meals at a soup kitchen or shelter?  YES
-	During the last 30 days, did (you/you or other adults in your household) ever eat any meals at a soup kitchen or shelter?  YES
-	During the last 30 days, did (you/you or other adults in your household) ever eat any meals at a soup kitchen or shelter?  YES

ALL
you IF B1C = 0
anyone in this household IF B1C NE 0 AND B3 GE 18

H20. During the past 30 days, did (you/anyone in this household) receive any meals from "Meals on Wheels" or any other program delivering meals to your home?

YES	1
NO	0
DON'T KNOW	d
REFUSED	r

## I. HOUSEHOLD RESOURCES

ALL	
_	e in your household IF B1C NE 0
	ONTH FROM MONTH PRIOR TO INTERVIEW DATE
	VELFARE NAME FROM StateWelfare_Name
	questions are about sources of income. The answer to these and all other son this survey will be kept strictly confidential and will never be associated name.
l1a_a.	During (LAST MONTH), did you (or anyone in your household) receive any
	TANF, Temporary Assistance to Needy Families (also known as [STATE WELFARE NAME])?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
A. I.	
ALL	e in your household IF B1C NE 0
l1a_b.	(During [LAST MONTH], did you (or anyone in your household) receive)
ma_b.	(During [LAST MONTH], did you (of anyone in your nousehold) receive)
	Other welfare such as General Assistance?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
A 1 1	
ALL	e in your household IF B1C NE 0
	(During [LAST MONTH], did you (or anyone in your household) receive any…)
l1a_c.	(During [LAST MONTH], did you (or anyone in your nousehold) receive any)
	Social Security checks from the government for retirement, disability, or survivors' benefits?
	YES1
	NO0
	DON'T KNOWd

	REFUSEDr
ALL	
or anyon	e in your household IF B1C NE 0
l1a_d.	(During [LAST MONTH], did you (or anyone in your household) receive)
	Other retirement benefits such as a government or private pension or annuity?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
or anyon	e in your household IF B1C NE 0
l1a_e.	(During [LAST MONTH], did you (or anyone in your household) receive any)
	SSI or Supplemental Security Income from the federal, state, or local government?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
or anyon	e in your household IF B1C NE 0
l1a_f.	(During [LAST MONTH], did you (or anyone in your household) receive any)
	Veteran's Benefits?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr

ALL	
or anyon	e in your household IF B1C NE 0
l1a_g.	(During [LAST MONTH], did you (or anyone in your household) receive any)
	Unemployment Insurance or worker's compensation benefits?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
or anyon	e in your household IF B1C NE 0
l1a_h.	(During [LAST MONTH], did you (or anyone in your household) receive any)
	Child support payments?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
or anyon	e in your household IF B1C NE 0
l1a_i.	(During [LAST MONTH], did you (or anyone in your household) receive any)
	Payments from roomers or boarders?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr

ALL	
or anyone	e in your household IF B1C NE 0
l1a_j.	(During [LAST MONTH], did you (or anyone in your household) receive any)
	Financial support from friends or family?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
ALL	
	e in your household IF B1C NE 0
l1a_k.	(During [LAST MONTH], did you (or anyone in your household) receive)
	Any other income besides earnings?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
I1A K = 1	
_	
ı1а_к_Sp	ecify What is that other income?
I1A_A = 1	
STATE W	ELFARE NAME FROM StateWelfare_Name
l1b_a.	How much did you receive last month from TANF, Temporary Assistance to Needy Families (also known as [STATE WELFARE NAME])?
	\$  <u> </u>   ENTER AMOUNT (0 – 9999)
	DON'T KNOWd
	DEFLICED

I1A_A=1 A	AND B1C NE 0 AND B3 GE 18
I1c_a.	How much did other people in your household receive from TANF last month altogether?
	\$  _  ENTER AMOUNT (0 – 9999)
	DON'T KNOWd
	REFUSEDr
	IECK: IF I1A_A = 1 AND BOTH I1B_A AND I1C_A = 0: I must have made a mistake. sly recorded that you or someone in your household received TANF last month. n error?
I1A_B = 1	
l1b_b.	How much did you receive last month from Other welfare such as General Assistance?
	\$  <u> </u>  _ _  ENTER AMOUNT (0 – 9999)
	DON'T KNOWd
	REFUSEDr
I1A_B=1 A	AND B1C NE 0 AND B3 GE 18
l1c_b.	How much did other people in your household receive from Other welfare such as General Assistance?
	\$  <u> </u>     ENTER AMOUNT (0 – 9999)
	DON'T KNOWd
	REFUSEDr
I previous	IECK: IF I1A_B = 1 AND BOTH I1B_B AND I1C_B = 0: I must have made a mistake. sly recorded that you or someone in your household received Other welfare last is there an error?
I1A_C = 1	
l1b_c.	How much did you receive last month from Social Security checks from the government for retirement, disability, or survivors' benefits?
	\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999) DON'T KNOWd

	REFUSEDr
I1A_C=1 A	AND B1C NE 0 AND B3 GE 18
l1c_c.	How much did other people in your household receive from Social Security checks from the government for retirement, disability, or survivors' benefits?
	\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999)  DON'T KNOWd
	REFUSEDr
mistake.	ECK: IF I1A_C = 1 AND BOTH I1B_C AND I1C_C = 0: I must have made a I previously recorded that you or someone in your household received Social checks last month. Is there an error?
I1A_D = 1	
l1b_d.	How much did you receive last month from Other retirement benefits such as a government or private pension or annuity?
	\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999)  DON'T KNOWd  REFUSEDr
I1A_D=1 A	AND B1C NE 0 AND B3 GE 18
l1c_d.	How much did other people in your household receive from Other retirement benefits such as a government or private pension or annuity?
	\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999)  DON'T KNOWd  REFUSEDr
mistake.	ECK: IF I1A_D = 1 AND BOTH I1B_D AND I1C_D = 0: I must have made a I previously recorded that you or someone in your household received Other t benefits last month. Is there an error?
I1A_E = 1	
l1b_e.	How much did you receive last month from SSI or Supplemental Security Income from the federal, state, or local government?
	\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999)

DON'T KNOWd
REFUSEDr
I1A_E=1 AND B1C NE 0
I1c_e. How much did other people in your household receive from SSI or Supplemental Security Income from the federal, state, or local government?
\$  <u> </u>  _    ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
HARD CHECK: IF I1A_E = 1 AND BOTH I1B_E AND I1C_E = 0: I must have made a mistake. I previously recorded that you or someone in your household received SSI or Supplemental Security Income last month. Is there an error?
I1A_F = 1
I1b_f. How much did you receive last month from Veteran's Benefits?
\$  <u>                </u>   ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
I1A_F=1 AND B1C NE 0 AND B3 GE 18
I1c_f. How much did other people in your household receive from Veteran's Benefits?
\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999) DON'T KNOWd
REFUSEDr
HARD CHECK: IF I1A_F = 1 AND BOTH I1B_F AND I1C_F = 0: I must have made a mistake. I previously recorded that you or someone in your household received Veteran's Benefits last month. Is there an error?

I1b\_g. How much did you receive last month from Unemployment Insurance or worker's compensation benefits?

I1A\_G = 1

\$  <u>                                    </u>		
DON'T KNOWd		
REFUSEDr		
I1A_G=1 AND B1C NE 0 AND B3 GE 18		
I1c_g. How much did other people in your household receive from Unemployment Insurance or worker's compensation benefits?		
\$  <u> </u>  _    ENTER AMOUNT (0 – 9999)		
DON'T KNOWd		
REFUSEDr		
HARD CHECK: IF I1A_G = 1 AND BOTH I1B_G AND I1C_G = 0: I must have made a mistake. I previously recorded that you or someone in your household received Unemployment Insurance or worker's compensation benefits last month. Is there an error?		
I1A_H = 1		
I1b_h. How much did you receive last month from Child support payments?		
\$  <u> </u> _ _  ENTER AMOUNT (0 – 9999)  DON'T KNOWd		
REFUSEDr		
I1A_H=1 AND B1C NE 0 AND B3 GE 18		
I1c_h. How much did other people in your household receive from Child support payments?		
\$  <u> </u>  _ _  ENTER AMOUNT (0 – 9999)		
DON'T KNOWd		
REFUSEDr		
HARD CHECK: IF I1A_H = 1 AND BOTH I1B_H AND I1C_H = 0: I must have made a mistake. I previously recorded that you or someone in your household received Child support payments last month. Is there an error?		
I1A I = 1		

I1b\_i. How much did you receive last month from Payments from roomers or boarders?

\$  <u> </u>   ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
I1A_I=1 AND B1C NE 0 AND B3 GE 18
I1c_i. How much did other people in your household receive from Payments from roomers or boarders?
\$  <u>                                    </u>
DON'T KNOWd
REFUSEDr
HARD CHECK: IF I1A_I = 1 AND BOTH I1B_I AND I1C_I = 0: I must have made a mistake. I previously recorded that you or someone in your household received Payments from roomers or boarders last month. Is there an error?
I1A_J = 1
I1b_j. How much did you receive last month from Financial support from friends or family?
\$  _  ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
I1A_J=1 AND B1C NE 0 AND B3 GE 18
I1c_j. How much did other people in your household receive from Financial support from friends or family?
\$  <u> </u>   ENTER AMOUNT (0 – 9999)
DON'T KNOWd
REFUSEDr
HARD CHECK: IF I1A_J = 1 AND BOTH I1B_J AND I1C_J = 0: I must have made a mistake. I previously recorded that you or someone in your household received Financial support from friends or family last month. Is there an error?

I1b\_k. How much did you receive last month from (FILL FROM I1a\_k\_Specify)?

I1A\_K = 1

	\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999)  DON'T KNOWd  REFUSEDr
I1A K=1	AND B1C NE 0 AND B3 GE 18
 I1c_k.	How much did other people in your household receive from (FILL FROM I1a_k_Specify)?
	\$  <u> </u>   <u> </u>   ENTER AMOUNT (0 – 9999)  DON'T KNOWd  REFUSEDr
I previous	IECK: IF I1A_K = 1 AND BOTH I1B_K AND I1C_K = 0: I must have made a mistake. sly recorded that you or someone in your household received (FILL FROM ccify) last month. Is there an error?
ALL	
<b>I2</b> .	Are you currently working at a job for pay? Include any self-employment.  YES
	DON'T KNOWd GO TO I6  REFUSEDr GO TO I6
I2 = 1	
I3.	How many hours do you usually work per week on this job?      NUMBER OF HOURS (1 – 80)  DON'T KNOW
SOFT CH	ECK: IF GT 60 I just want to make sure I recorded you answer correctly. Did you?
12 = 1	
I4.	How much do you earn per hour on this job, before taxes and other deductions?
	\$   _   _     HOURLY WAGE (1.00 – 40.99) GO TO I6
	NOT PAID BY THE HOUR0
	DON'T KNOWd GO TO I6

SOFT CHECK: IF GT 20 I just want to make sure I recorded your answer correctly. Did you say NUM?		
14 = 0		
I5. ENTER AMOUNT		
\$ <u>       ,      </u> (1 - 99999)		
ENTER PAY PERIOD		
CODE O	NE ONLY	
WEEK1		
DAY2		
EVERY TWO WEEKS3		
TWICE A MONTH4		
MONTHLY5		
YEARLY6		
OTHER (SPECIFY)7		
(STRING (NUM))		
DON'T KNOWd		
REFUSEDr		
SOFT CHECK: IF GT \$2,000 / MONTH I just want to make sure I recorded your response correctly. Did you say NUM PER UNIT?		
B1C NE 0 AND B3 GE15		
else IF I2 = 1		
IF R LIVES ALONE, GO TO 19		
I6. Does anyone (else) in your household work at a job for p	ay?	
YES1		
NO0	GO TO 19	
DON'T KNOWd	GO TO 19	
REFUSEDr	GO TO 19	

REFUSED.....r

**GO TO 16** 

I6 = 1	
other IF I	2 = 1
17.	How many (other) people in your household work at a job for pay?  PROBE: Not including yourself.
	_  NUMBER OF WORKING HOUSEHOLD MEMBERS (1 - 10)
	NONE
	HECK: IF GT TOTAL HH MEMBERS COLLECTED AT B3 I'm sorry. Earlier in the , I recorded that there were less people living in your HH. Did I make an error?
17 GT 0	
else IF I2	= 1
I7a.	Who (else) in your household works at a job for pay? [LIST ALL MEMBERS OF HOUSEHOLD AGE 15 AND OVER FROM B1C]
	CODE ALL THAT APPLY
	NAME 12
	NAME 23
	NAME 34
	NAME 45
I6 = 1	
PERSON	1 FIRST NAME FOR FIRST PERSON SELECTED FROM I7a.
I8_1a.	How many hours per week does (PERSON 1) person usually work?
	NUMBER OF HOURS (0 - 80)
	DON'T KNOWd
	REFUSEDr
SOFT CH	ECK: IF GT 60 I just want to make sure I recorded you answer correctly. Did you?

18_1A > 0			
PERSON 1 FIRST NAME FOR FIRST PERSON SELECTED FROM 17a.			
I8_1b.	How much does (PERSON 1) earn per hour on this job, before taxes and other deductions?		
	PROBE: Your best estimate is fine.		
	\$   _  HOURLY WAGE (1 – 40)		GO TO LOOP
	NOT PAID BY THE HOUR	0	
	DON'T KNOW	d	GO TO LOOP
	REFUSED	r	GO TO LOOP
SOFT CH	ECK: IF GT 20 I just want to make sure I recorded you	r ans	swer correctly. Did
18_1B = 0			
I8_1c.	ENTER AMOUNT		
	\$   <u> </u>  ,  <u> </u>  .  <u> </u>   (1 – 99999)		
	ENTER PAY PERIOD		
	COL	DE O	NE ONLY
	WEEK	1	
	DAY	2	
	EVERY TWO WEEKS	3	
	TWICE A MONTH	4	
	MONTHLY	5	
	YEARLY		
	OTHER (SPECIFY)(STRING (NU	7 IM))	
	DON'T KNOW	d	

SOFT CHECK: IF GT \$2,000 PER MONTH I just want to make sure I recorded your answer correctly. Did you say NUM PER UNIT?

REFUSED.....r

18_1A > 0			
PERSON	PERSON 2 FIRST NAME FOR NEXT MEMBER OF HH SELECTED AT 17a.		
18_2a.	I8_2a. How many hours per week does (PERSON 2) person usually work?		
	_  NUMBER OF HOURS (0 - 80)		
	DON'T KNOWd		
	REFUSEDr		
SOFT CH	ECK: IF GT 60 I just want to make sure I recorded you answ?	ver correctly. Did you	
18_2a > 0			
PERSON	2 FILL FIRST NAME FOR NEXT MEMBER OF HH SELECTE	D AT 17a.	
l8_2b.	How much does (PERSON 2) earn per hour on this job, be deductions?	efore taxes and other	
	PROBE: Your best estimate is fine.		
	\$   _ .   HOURLY WAGE (1 – 40)	GO TO LOOP	
	NOT PAID BY THE HOUR0		
	DON'T KNOWd	GO TO LOOP	
	REFUSEDr	GO TO LOOP	
SOFT CH	ECK: IF GT 20 I just want to make sure I recorded your ans	wer correctly. Did	

18_2B = 0	)	
18_2c.	ENTER AMOUNT	
	\$   <u> </u> ,  <u> </u> ,  <u> </u> . _ .  (1 – 99	999)
	ENTER PAY PERIOD	
		CODE ONE ONLY
	WEEK	<del></del>
	DAY	
	EVERY TWO WEEKS	3
	TWICE A MONTH	4
	MONTHLY	5
	YEARLY	6
	OTHER (SPECIFY)	7
		_(STRING 80)
	DON'T KNOW	d
	REFUSED	r
ACCOUN	JE LOOP UNTIL ALL HOUSEHOLD MEME ITED FOR	
	HECK: IF GT \$2,000 PER MONTH <b>I just wa</b> v. Did you say NUM PER UNIT?	ant to make sure I recorded your answer
IF SAME F	RESPONDENT ASK 191NTRO; OTHERWIS	E GO TO 19.
19INTRO	Once again, I am going to ask some ques because things can change over time.	tions we asked in your last interview
ALL		
or anyon	e in your household IF B1C NE 0	
<b>19</b> .	Do you (or anyone in your household) of vehicle?	currently own a car, truck, or other type
	YES	1 GO TO I11
	NO	0
	DON'T KNOW	d
	REFUSED	r

19 = 0, D OR R

110.	Do you have access to car, truck, or other type of vehicle	wnen you need one?		
	YES1			
	NO0			
	DON'T KNOWd			
	REFUSEDr			
ALL				
or anyo	ne in your household IF B1C NE 0			
l11.	Do you (or anyone in your household) currently have a crused to make purchases?	edit card that can be		
	YES1			
	NO0			
	DON'T KNOWd			
	REFUSEDr			
ALL				
l12.	Next some questions about where you live.			
	First, please tell me the kind of place where you now live?	?		
	CODE ONE ONLY			
	HOUSE, TOWNHOUSE, CONDO1			
	MOBILE HOME/TRAILER2			
	APARTMENT3			
	ROOM4			
	MOTEL/HOTEL5	GO TO 114		
	HOMELESS, LIVING IN A SHELTER OR MISSION 6	GO TO 114		
	HOMELESS, LIVING ON THE STREET7	GO TO 114		
	CAR, VAN OR RECREATIONAL VEHICLE8	GO TO 114		
	ABANDONED BUILDING9	GO TO I14		
	OTHER (SPECIFY)10			
	(STRING 100)			
	DON'T KNOWd			
	REFUSEDr			

I12 = 1, 2, 3, 4, 10, D, OR R

I13. Do you...

# CODE ONE ONLY

Own the place you live,1	GO TO 115
Rent your own place or contribute to rent at a friend or family's place, or2	
Live rent free? 3	
DON'T KNOWd	
REFUSEDr	

## 113 = 2, 3, D, OR R

## I13a. Does your household receive Section 8 or Public Housing Assistance?

YES	1
NO	0
DON'T KNOW	d
REFUSED	r

## I14. Do you have access to a place where you can prepare a meal?

YES	1
NO	0
DON'T KNOW	c
REFUSED	r

## I12 = 1, 2, 3, 4, 5, 6, D, OR R

# I15. Do you currently have the following items in your home in working condition...

		YES	NO	DON'T KNOW	REFUSED
a.	Refrigerator?	1	0	d	r
b.	Stand alone food freezer?	1	0	d	r
C.	Gas or electric stove?	1	0	d	r
d.	Microwave oven?	1	0	d	r

#### J. MENTAL HEALTH AND WELL-BEING

ALL		
J1_a.	Now I am going to ask you some questions about feelings you may experienced over the past 30 days.	y have
	During the past 30 days, how often did you feel	
	So sad that nothing could cheer you up?	
	Would you say: <u>All</u> of the time, <u>most</u> of the time, <u>some</u> of the time, time, or <u>none</u> of the time?	a little of the
	CODE ONE ONLY	
	ALL OF THE TIME1	
	MOST OF THE TIME2	
	SOME OF THE TIME3	
	A LITTLE OF THE TIME4	
	NONE OF THE TIME5	
	DON'T KNOWd	
	REFUSEDr	
ALL		
J1_b.	During the past 30 days, how often did you feel	
	Nervous?	
	PROBE: Would you say: <u>All</u> of the time, <u>most</u> of the time, <u>some</u> of the ti the time, or <u>none</u> of the time?	me, <u>a little</u> of
	CODE ONE ONLY	
	ALL OF THE TIME1	
	MOST OF THE TIME2	
	SOME OF THE TIME3	
	A LITTLE OF THE TIME4	
	NONE OF THE TIME5	
	DON'T KNOWd	
	REFUSEDr	

ALL	
J1_c.	During the past 30 days, how often did you feel
	Restless or fidgety?
	PROBE: Would you say: <u>All</u> of the time, <u>most</u> of the time, <u>some</u> of the time, <u>a little</u> of the time, or <u>none</u> of the time?
	CODE ONE ONLY
	ALL OF THE TIME1
	MOST OF THE TIME2
	SOME OF THE TIME3
	A LITTLE OF THE TIME4
	NONE OF THE TIME5
	DON'T KNOWd
	REFUSEDr
ALL	
J1_d.	During the past 30 days, how often did you feel
	Hopeless?
	PROBE: Would you say: <u>All</u> of the time, <u>most</u> of the time, <u>some</u> of the time, <u>a little</u> of the time, or <u>none</u> of the time?
	CODE ONE ONLY
	ALL OF THE TIME1
	MOST OF THE TIME2
	SOME OF THE TIME3
	A LITTLE OF THE TIME4
	NONE OF THE TIME5
	DON'T KNOWd
	REFUSEDr
ALL	
J1_e.	<u>During the past 30 days</u> , how often did you feel
_	That everything was an effort?
	PROBE: Would you say: <u>All</u> of the time, <u>most</u> of the time, <u>some</u> of the time, <u>a little</u> of the time, or <u>none</u> of the time?
	CODE ONE ONLY
	ALL OF THE TIME1

J3.	If (you/your household) had a problem with which you needed help, how much help would you expect to get from friends?
•	usehold IF B1C NE 0
ALL you IF E	R1C = 0
A1.1	
	REFUSEDr
	DON'T KNOWd
	No help?4
	Very little of the help needed, or3
	Most of the help needed,2
	All of the help needed,1
	family living nearby?  CODE ONE ONLY
J2.	If (you/your household) had a problem with which you needed help, for example, sickness or moving, how much help would you expect to get from
you IF E your ho	B1C = 0 Susehold IF B1C NE 0
ALL	
	REFUSEDr
	DON'T KNOWd
	NONE OF THE TIME5
	A LITTLE OF THE TIME4
	SOME OF THE TIME3
	MOST OF THE TIME2
	ALL OF THE TIME1
	CODE ONE ONLY
	PROBE: Would you say: <u>All</u> of the time, <u>most</u> of the time, <u>some</u> of the time, <u>a little</u> of the time, or <u>none</u> of the time?
	Worthless?
J1_f.	During the past 30 days, how often did you feel
ALL	
	REFUSEDr
	DON'T KNOWd
	NONE OF THE TIME5

**CODE ONE ONLY** 

	All of the help needed,	1
	Most of the help needed,	2
	Very little of the help needed, or	3
	No help?	4
	DON'T KNOW	d
	REFUSED	r
ALL		
you IF B1		
your hous	sehold IF B1C NE 0	
J4.		m with which you needed help, how much the people in the community besides service agency or a church?
		CODE ONE ONLY
	All of the help needed,	1
	Most of the help needed,	2
	Very little of the help needed, or	3
	No help?	4
	DON'T KNOW	d
	REFUSED	r
The next	question is about your neighborhood.	
ALL		
J5.	Do you consider your neighborhood very unsafe?	very safe from crime, somewhat safe, or
		CODE ONE ONLY
	VERY SAFE	1
	SOMEWHAT SAFE	2
	VERY UNSAFE	3
	DON'T KNOW	d
	REFUSED	r

#### K. RESPONDENT DEMOGRAPHICS AND HEALTH STATUS

The last few questions are for classification purposes only.

IF NEW	RESPONDENT, ELSE GO TO K6
K1.	What is your date of birth?
	_ /   / _
	DON'T KNOWd
	REFUSEDr
	NEI OGED
IF NEW	RESPONDENT
K2.	Are you of Hispanic or Latino origin?
	YES1
	NO0
	DON'T KNOWd
	REFUSEDr
IF NEW	RESPONDENT
K3.	I am going to read a list of five race categories. Please choose one or more races that you consider yourself to be. White; Black or African American; American Indian or Alaska Native; Asian; or Native Hawaiian or other Pacific Islander?
	CODE ALL THAT APPLY
	WHITE1
	BLACK OR AFRICAN AMERICAN2
	AMERICAN INDIAN OR ALASKA NATIVE3
	ASIAN4
	NATIVE HAWAIIAN OR
	OTHER PACIFIC ISLANDER5
	OTHER (SPECIFY)6
	(STRING 100)
	DON'T KNOWd
	REFUSEDr

# IF NEW RESPONDENT

K4. What is the highest level of education you have completed so far?

	Would you say	
		CODE ONE ONLY
	Less than 9th grade,	1
	Some high school, but no diploma,	2
	High school graduate (diploma or equivalent diploma [GED]),	3
	Technical, trade or vocational degree,	4
	Some college, but no degree,	5
	Associate's degree,	6
	Bachelor's degree,	7
	Some graduate school but no degree,	8
	Master's degree, or	9
	Professional school or doctorate?	10
	DON'T KNOW	d
	REFUSED	r
IF NEW	RESPONDENT	
K5.	ASK ONLY IF NEEDED: Are you male or female	e?
	MALE	
	FEMALE	
	DON'T KNOW	
		d
	REFUSED	-
		-
ALL		-
ALL K6.		r
	REFUSED	r
	REFUSED	very good, good, fair or poor?  CODE ONE ONLY
	In general, would say your health is excellent,	very good, good, fair or poor?  CODE ONE ONLY1
	In general, would say your health is excellent,	very good, good, fair or poor?  CODE ONE ONLY1
	In general, would say your health is excellent,  EXCELLENT  VERY GOOD	very good, good, fair or poor?  CODE ONE ONLY123
	In general, would say your health is excellent,  EXCELLENT	very good, good, fair or poor?  CODE ONE ONLY1234
	In general, would say your health is excellent,  EXCELLENT	very good, good, fair or poor?  CODE ONE ONLY

ALL (NO	TE: ASKING K7A&K7B AGAIN SO K8 IS NOT SO SENSITIVE
K7a.	How tall are you without shoes?
	ENTER UNIT
	FEET/INCHES 1
	METERS/CENTIMETERS2
	DON'T KNOWd
	REFUSEDr
K7A=1 O	D 2
FEET IF I	
METERS	IF K7A=2
K7b.	ENTER (FEET/METERS)
	NUMBER (3 – 7 IF FEET; 1.0 - 2.50 IF METERS)
	DON'T KNOWd
	REFUSEDr
K7A=1 O	R 2
INCHES	F K7A=1
CENTIME	ETERS IF K7A=2
OLIVI	
K7c.	ENTER (INCHES/CENTIMETERS)
	ENTER (INCHES/CENTIMETERS)

SOFT CHECK: IF GE 7 FEET OR GT 2 METERS I just want to make sure I recorded your answer correctly. Did you say 7 feet/2 meters?

ALL	
K8.	How much do you weigh without shoes?
	IF RESPONDENT SAYS SHE IS PREGNANT, SAY: <b>How much did you weigh before your pregnancy?</b>
	ENTER UNIT
	POUNDS 1
	KILOGRAMS2
	DON'T KNOWd
	REFUSEDr
K8=1 OR	2
K8a.	ENTER NUMBER
	_  NUMBER (70 – 999)
	DON'T KNOWd
	REFUSEDr

#### L. RESPONDENT FOLLOW UP CONTACT INFORMATION

ALL		
END.	Those are all our questions. Thank you very much for your participation in the survey. Please confirm the name and address where we should send the gift card.  RECORD NAME AND ADDRESS FOR CHECK	
	[IF ADDRESS COLLECTED AT L1, PRE-FILL HERE]	
	FIRST NAME	(STRING 40)
	MIDDLE INITIAL/NAME	(STRING 40)
	LAST NAME	(STRING 40)
	ADDRESS 1	(STRING 100)
	ADDRESS 2	(STRING1 00)
	CITY	(STRING 100)
	STATE/TERRITORY	(STRING 40)
	_ _ - - - - - - - - - - - -	_
	DON'T KNOW	