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Analysis of the Current Population Survey Food Security Supplement Split-Panel Test

Alisha Coleman-Jensen and Matthew P. Rabbitt





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Analysis of the Current Population Survey Food Security Supplement Split-Panel Test

Alisha Coleman-Jensen and Matthew P. Rabbitt

Abstract

The U.S. Department of Agriculture (USDA) has monitored the extent and severity of food insecurity in U.S. households for more than 25 years. Data on food security is collected annually as part of the Current Population Survey Food Security Supplement (CPS-FSS). USDA, Economic Research Service (ERS) undertook a process to update the survey instrument used for CPS-FSS data collection to ensure that questions accurately reflect respondent engagement with the current food environment and to decrease nonresponse on select questions and lower respondent burden. The updated instrument was created through a process of expert content review and cognitive testing and implemented by the U.S. Department of Commerce, Bureau of the Census in a split-panel data collection in September 2020. A portion of the survey sample received the revised survey instrument, and the other portion received the standard survey instrument, which was implemented in 1995 and has been consistent since 2008. This process ensured that any unforeseen outcomes of the revisions did not affect the annual food security estimates that USDA, ERS produced. The split panel forms two samples that were weighted to represent the U.S. population. Estimates for food spending, food security, and participation in Federal and community nutrition assistance were compared. Based on the analysis of the split-panel test, the test instrument performed well. The differences observed in the test and the standard instrument for food spending and community nutrition assistance were expected, given the changes in the survey questions. The food security measure is based on the Rasch measurement model. Rasch analysis was used to assess the comparability of the food security questions across the split-panel samples. The analysis confirmed that the minor changes to the food security section are unlikely to affect the measurement of food insecurity or affect the comparability of year-to-year estimates.

Keywords:

Food security, food insecurity, food spending, food pantry, soup kitchen, emergency kitchen, free groceries, free meals, material well-being, material hardship, food security measurement, food security data, split-panel survey, Current Population Survey Food Security Supplement, CPS-FSS

About the authors

Alisha Coleman-Jensen is the deputy director for data development and Matthew P. Rabbitt is a research economist in the USDA, Economic Research Service (ERS) Food Economics Division.

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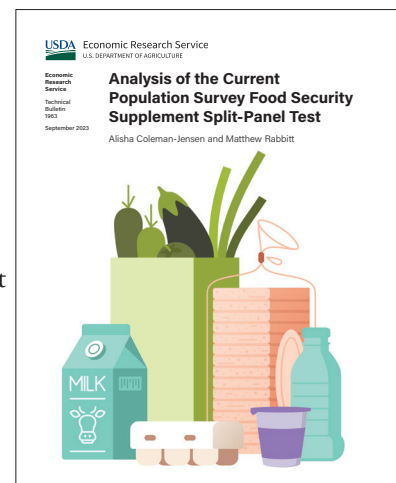
Analysis of the Current Population Survey Food Security Supplement Split-Panel Test

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What Is the Issue?

The U.S. Department of Agriculture (USDA) has monitored the extent and severity of household food insecurity in the United States for more than 25 years. USDA defines food-insecure households as those that had difficulty at some time during the year providing enough food for all their members because of a lack of resources. USDA, Economic Research Service (ERS) sponsors the annual, nationally representative Food Security Supplement (FSS) to the Current Population Survey (CPS). The FSS data are collected by the U.S. Department of Commerce, Bureau of the Census and then analyzed by ERS to produce the annual report series titled “*Household Food Security in the United States*.”

As ERS approached 25 years of food security data collection, researchers worked with the Census Bureau and USDA’s Food and Nutrition Service to review the FSS survey content, make revisions, and conduct cognitive interviews to ensure the data collected continued to be relevant, current, and useful. The Census Bureau collected split-panel test data as a supplement to the September 2020 CPS to assess differences in data collected from the standard instrument and test instrument across food spending, food security, and nutrition assistance. This report presents findings in the order they are asked about in the modified survey. Modifications included changing the ordering of sections, updating language about food spending, and revising questions about community nutrition assistance use.



What Did the Study Find?

ERS updated food spending questions to reflect changes in terminology, the retail environment, and technology:

- Most differences in usual food spending between the split-panel samples were not statistically significant. For both the standard and test instrument medians, usual food spending per person per week was about \$60.
- The results suggest that the modified questions functioned at least as well as the standard instrument and show possible improvement, with slightly lower nonresponse.

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

The food security section was moved earlier in the survey, the language used in two questions about child food security was standardized, and a lead-in to one screening variable was modified:

- Psychometric analyses of the food security measure based on the Rasch measurement model showed that all the food security items that comprise the adult and child food security scales captured similar levels of the severity of food hardship in the standard and test instruments, suggesting the instruments would produce comparable measures of food security.
- Based on the results of the psychometric analyses, modest differences in prevalence were not due to differences in how respondents interpreted the food security module. Based on the September 2020 standard instrument, 9.7 percent of U.S. households were food insecure, and based on the September 2020 test instrument, 10.7 percent of U.S. households were food insecure. The December 2020 prevalence of food insecurity previously published in USDA's annual food security report was 10.5 percent.
- Differences in prevalence between the test and standard instrument may be related to differences in sample characteristics and nonresponse bias related to the Coronavirus (COVID-19) pandemic.
- Given the findings from this study and from past studies regarding the stability of the food security scale to similar minor modifications, the authors expect that the proposed updates to the FSS instrument will continue to produce comparable estimates to previous years.

Questions used to assess participation in community nutrition assistance were revised significantly to ask about receipt of free groceries and free meals. These items are not comparable because of changes in wording:

- For both questions about free groceries and free meals in the test supplement, the reported receipt was higher than for the questions about food pantries and soup kitchens in the standard instrument. In the standard instrument, 5.9 percent of households reported receiving food from food pantries; in the test instrument, 6.9 percent of households reported receiving free groceries. In the standard instrument, 0.5 percent of households reported receiving meals from soup kitchens; in the test instrument, 2.1 percent of households reported receiving free meals.
- Based on expert review, cognitive testing, and the results of the test instrument, the revised questions on community nutrition assistance appear to be an improvement and function well.

How Was the Study Conducted?

USDA, ERS developed a revised survey instrument for the FSS in collaboration with the U.S. Census Bureau and USDA's Food and Nutrition Service. A split-panel test of the standard and revised FSS survey instrument was implemented in the September 2020 CPS. In the split-panel test, half of respondents received the standard survey instrument and half received the test instrument. The data were analyzed to assess performance of the revised instrument. The split panels form two samples that were weighted to represent the U.S. population. Estimates for food spending, food security, and participation in Federal and community nutrition assistance were compared across the two samples. Psychometric analyses using conditional maximum likelihood (CML) Rasch measurement models were performed to assess how respondents interpreted the food security module.

Analysis of the Current Population Survey Food Security Supplement Split-Panel Test

Introduction

The U.S. Department of Agriculture (USDA) has sponsored annual data collection of the Food Security Supplement (FSS) since 1995. The supplement was first sponsored by the USDA, Food and Nutrition Service (FNS); the USDA, Economic Research Service (ERS) assumed sponsorship beginning in 1998. The FSS has been added to the monthly Current Population Survey (CPS) each December since 2001 to form the Current Population Survey Food Security Supplement (CPS-FSS). Prior to that, the FSS was not in the same month each year. The survey collects information on household food spending, food security, and the use of Federal and community nutrition assistance programs. The CPS-FSS is used for annual monitoring of household food security in the United States (Coleman-Jensen et al., 2022). Food insecurity is a key indicator of well-being for the U.S. population. Two examples of the focus on food insecurity at the Federal level are Healthy People 2030, an initiative of the U.S. Department of Health and Human Services' (HHS) Office of Disease Prevention and Health Promotion, which identifies U.S. public health priorities, and the Federal Interagency Forum on Child and Family Statistics, a collection of 23 Federal agencies involved in research and activities related to children and families. The CPS-FSS has also been used by USDA, ERS researchers and other stakeholders to research correlates and determinants of food insecurity. For a full history of the development of the food security measure and data, see Coleman-Jensen (2015).

The CPS-FSS survey questions have been largely unchanged since collection began in 1995. Minor modifications were made in the early years of implementation; however, the survey content and wording have been consistent since 2008. As USDA, ERS was approaching 25 years of data collection with the CPS-FSS, agency researchers believed it was important to critically review the survey instrument. To ensure the continued relevance of the survey questions, ERS contracted with the U.S. Department of Commerce, Bureau of the Census to review the CPS-FSS instrument as it was implemented at the time, develop changes as needed, and conduct cognitive testing of any possible revisions to the survey instrument. Cognitive testing is used to examine how well survey respondents understand survey questions—if the questions make sense to the respondents and if they interpret the questions as intended. Cognitive testing or cognitive interviewing involves asking respondents about how they interpreted or understood questions as they complete a survey (for more information, see Kephart et al., 2021).

To begin, USDA, ERS researchers reviewed the survey items in collaboration with research staff at USDA, FNS and survey methods staff at the Census Bureau's Center for Behavioral Science Methods in the Research and Methodology Directorate. USDA, ERS also considered previous comments about the survey received from academic food security experts, researchers, experts in the Federal Government, and practitioners in other organizations. The review perceived some wording in the survey items to be outdated. For example, questions about food spending referred to produce stands and meat markets but did not ask about spending at farmers' markets or online food purchases. Thus, some survey items were updated. Based on the review, the authors included minor modifications to some of the 18 items in the food security measure to standardize consistent language and reduce burden. The burden on respondents can be reduced in a few ways, such as by reducing the time it takes to complete a survey or making the survey easier to complete. One way to make the

survey easier to complete is to make the wording of questions more consistent. An example is to use “wasn’t enough money for food” across items in place of “we just couldn’t afford more food” used in only a few items. Questions regarding nutrition assistance were added to reflect new and changing Federal and community nutrition assistance programs. For example, a new question asks about the receipt of a free or reduced-price meal or snack at an after-school program.

In addition, the reordering of questions was proposed. The food security items were moved earlier in the survey interview with a possible effect of reducing nonresponse to those items from respondents who would stop part-way through and not complete the survey. A new questionnaire was developed for testing that incorporated revisions to some survey items and a reordering of items. The revised questionnaire went through three rounds of cognitive testing led by the Census Bureau in 2019. The findings and recommendations from the cognitive test are included in a published Census Bureau report (Kephart et al., 2021).

In 2020, USDA, ERS sought and received U.S. Office of Management and Budget (OMB) approval for a one-time split-panel test to assess the revised CPS-FSS survey instrument that resulted from the review and cognitive testing process. This split-panel test was a separate data collection from the regular annual CPS-FSS data collection used to monitor the Nation’s food security. USDA, ERS researchers proposed adding a split-panel test because they did not want the test instrument to affect annual food security estimates to cause an unnecessary break in the long-time series. The data from this one-time split-panel test are being used to assess the functioning of the updated questionnaire and the effect of modifying some survey items on key outcomes of interest, like the measure of food security.

The timing of the data collection was not ideal because the split sample data were collected in September 2020 during the Coronavirus (COVID-19) pandemic. The timing may have affected response rates, nonresponse bias, and the use of nutrition assistance programs like school meal programs and community nutrition assistance. However, the advantage of a split panel is that the sample receiving the standard instrument and the sample receiving the test instrument were subject to the same pandemic conditions.

This report presents analyses comparing the two instruments implemented in the September 2020 CPS supplement—the FSS standard instrument and the FSS test instrument. Based on expert review and recommendations, as well as cognitive testing, the authors believe the modifications made in the test instrument were valid and important updates. This report documents how the modifications and updates may affect the estimates produced from the FSS data. The authors examined the survey items that form the three sections of USDA’s annual food security report series titled *Household Food Security in the United States*: food spending, household food security, and participation in Federal nutrition assistance programs. Also examined are questions on community nutrition assistance that are presented annually in the report titled *Statistical Supplement to Household Food Security in the United States*. Responses to the individual food security items are also presented in the supplement each year (Coleman-Jensen et al., 2022b).

A preliminary version of this report with the analyses included was previously submitted to OMB’s Office of Information and Regulatory Affairs (OIRA) as part of the Information Collection Request (ICR) process under the Paperwork Reduction Act to obtain approval for Federal data collection. The test instrument examined in this report was submitted as part of the ICR package to obtain approval to use the revised survey instrument beginning with the regular December 2022 CPS-FSS data collection. Approval was obtained in 2022, and the revised survey instrument was implemented in December 2022. All documentation for the ICR package is available online at the OMB’s Office of Information and Regulatory Affairs website under control number 0536-0043, the number assigned to the CPS-FSS.

Data

The general methodology for food security measurement is described in USDA, ERS's annual food security report (Coleman-Jensen et al., 2022) and other publications (Bickel et al., 2000; National Research Council, 2006).¹

In a split-panel test, a portion of the survey sample receives one questionnaire, and the other portion receives an alternate questionnaire. The sample for the split panel was intentionally chosen so that it would not affect the regular CPS-FSS data collection. The CPS sample contains eight months-in-sample groups. The survey is designed so that households are interviewed for 4 consecutive months. After the four monthly interviews, respondents are out of the sample for 8 months; they are interviewed again in the same 4 months the following year. These become their months-in-sample 5 through 8. For example, in each month of the CPS, "month-in-sample group 1" includes respondents in the survey for the first month; that group becomes "month-in-sample group 2" in the next monthly interview. Each month of the CPS contains respondents from all 8 months-in-sample groups. Three-quarters of the regular monthly CPS sample members were eligible for the September 2020 split-panel test. Only three-quarters were eligible because the authors did not want to interview households in the test that may also be interviewed in the regular December 2020 CPS-FSS. CPS months-in-sample groups 2, 3, 4, 6, 7, and 8 were eligible to be interviewed in the September 2020 split panel. CPS months-in-sample groups 1 and 5 (one-quarter of the total sample) were not included because those groups would be eligible for interview in the regular December 2020 CPS-FSS data collection. The eight months-in-sample groups are representative subsamples of the CPS sample. Therefore, the September 2020 split panel was representative because it included six complete month-in-sample groups that comprised six representative subsamples. For the split-panel test in September 2020, half of the sample interviewed received the standard food security instrument, and half received the revised test instrument that resulted from the expert review and cognitive interviewing.

The September 2020 CPS consisted of 46,300 households. Of these, 11,216 households were not eligible for the food security supplement because they were in months-in-sample groups 1 or 5. The remaining 35,084 households were eligible for the split panel. For the split panel, 17,496 households were assigned to the test instrument, and 17,588 were assigned to the original instrument. A total of 26,292 interviews were completed. For the standard instrument, 13,160 interviews were completed (74.8 percent response). For the test instrument, 13,132 interviews were completed (75.1 percent response).

Each split panel was weighted separately to represent the U.S. population. All statistics in this report were calculated by applying the food security supplement weight for the appropriate panel (test instrument or standard instrument). Unweighted estimates were specifically noted as unweighted. Unless otherwise noted, statistical differences described in this report are significant at the 90-percent confidence level. Standard errors were calculated using balanced repeated replication (BRR) methods based on replicate weights computed for the September 2020 CPS-FSS by the Census Bureau. Replicate weights were computed separately for each panel.

The CPS-FSS includes questions on food spending, food security, and the use of nutrition assistance programs. Each section was modified, although most were minor updates to the wording of questions. Questions were also reordered, with the food security questions moved earlier in the module, immediately after the food spending questions. As a result, the questions on Federal nutrition assistance were moved after the food security questions. This change was made for two reasons: first, to possibly reduce missing responses

¹ See also a listing of food security measurement and technical research on the USDA, ERS website under Food Security in the U.S., Survey Tools, and Technical Reports and Food Security Measurement Research.

on the food security questions from respondents who started the survey but dropped off part way through; and second, to reduce any possibility that asking about nutrition assistance prior to the food security items could influence responses to the food security questions. Modifications to the instrument are shown in appendix A, which includes the test instrument with revisions highlighted in yellow. For a summary of modifications and updates, see box, “Modifications to the CPS-FSS Test Instrument.”

Modifications to the CPS-FSS Test Instrument

Overview

The Current Population Survey Food Security Supplement (CPS-FSS) was modified and evaluated in the split-panel test in September 2020. Modifications were made to the instrument across food spending, food security, and nutrition assistance. Changes included reordering the sections, updating language on food spending, and revising questions on community nutrition assistance use.

Screeners

Screeners are used to reduce respondent burden by screening households out of those sections if they are unlikely to experience food insecurity or participate in nutrition assistance. One change was made to the location of the screening questions because sections of the instrument were reordered. The screening question about running short of money and trying to make food or food money go further (variable name “HES9”) and the food sufficiency screening question asking households to describe whether they have enough of the kinds of food they want to eat (variable name “HESS1”) are now placed immediately after one another. The lead-in for HES9 was removed, and the former lead-in for HESS1 became the lead-in for HES9 in the test instrument. Because HESS1 is located earlier in the test instrument, this question was also used to screen households into the Federal nutrition assistance sections. In the standard instrument, only income and HES9 were used to screen households in the Federal nutrition assistance sections. No changes to screening were made based on income. Screening procedures in the food security section and community nutrition assistance section were unchanged from the standard to the test instrument. (Note: HES9 and HESS1 are the variable names in the public-use data file. In the questionnaire in the appendix, these questions are S9 and SS1.)

Food Spending

Questions in the section on food spending were modified to reflect changes in terminology, the retail environment, and technology. In both instruments, the section first asks respondents to recall all the places they purchased food and how much they spent, and then asks them to report usual food spending. Questions that ask respondents to think about all the places they spent money on food purchases and how much they spent last week were modified. For example, the new wording asks about online food purchases and purchases at farmers’ markets that were not included when the survey was developed in the 1990s.

Food Security

The section on food security was moved earlier in the survey instrument. A few questions about child food insecurity were modified to standardize the resource constraint to “there wasn’t enough money for food.” Also, the lead-in to the screening variable (HES9) was dropped due to moving sections in the questionnaire.

Federal Nutrition Assistance

The section on Federal nutrition assistance was moved after the food security section. The lead-in to the first question (HESP1) changed due to moving the section. Questions on school meals were modified slightly to refer to “reduced-price” meals instead of “reduced-cost” meals. A new question was added on receipt of free or reduced-price afterschool meals and snacks.

Community Food and Nutrition Assistance

New questions that ask about the receipt of free groceries and free meals were added to the section on community food and nutrition assistance. These questions were tested and recommended by experts in the charitable feeding sector. The section no longer asks separate questions about free meals received by older adults but includes those programs in the more general questions about the receipt of free meals.

Methods and Results: Food Spending

In USDA’s annual food security reports (e.g., Coleman-Jensen et al., 2021), food spending is reported for various demographic and household groups and by food security status. The survey questions about food spending aim to help respondents reflect on all the places the household purchased food in the previous week. USDA does not report food spending for the individual questions in the survey. Rather, respondents are first asked to report the amount of money their household spent on food in the week before the interview, including purchases made with Supplemental Nutrition Assistance Program (SNAP) benefits. Total spending for food, based on responses to the series of questions about places where food was purchased and how much was spent, was verified with the respondent. The respondent is then asked how much the household usually spends on food per week.

The questions in this section were modified based on expert review and cognitive testing to better reflect the places where households currently purchase food compared with when the instrument was first developed. For example, the test instrument asks about spending at Walmart and Target in addition to supermarkets and grocery stores. The test instrument also asks about food purchases at dollar stores, pharmacies, club stores, farmers’ markets, and online—all places that were not previously included. Low-income households continued to be prompted to include spending on food purchases made with SNAP benefits, as has been implemented in previous FSS data collections. In one case, where the food spending question was modified to include convenience stores where SNAP benefits may be used, the prompt to include purchases made with SNAP was included in the revised test question. The survey asks about the specific places to prompt the respondent to recall all the places they purchased food. The total usual food spending is the focus of USDA’s analysis of this section, not the specific spending at each type of retail outlet. The question that forms the basis for usual food spending was not revised in the test instrument. However, since the questions before it about all the places where the households purchased food in the last week were revised in the test instrument, differences may exist in how respondents reported their usual food spending between the test and standard instrument.

Table 1 is formatted similarly to table 7 in USDA’s annual food security reports. Usual food spending by split panel is shown in the table. Usual food spending was adjusted for household size and composition in two ways. First, researchers divided each household’s usual weekly food expenditure by the number of household

members, yielding the “usual weekly food spending per person” for that household. The second adjustment more precisely accounts for the different food needs of households by comparing each household’s usual food spending to the estimated cost of the Thrifty Food Plan (TFP) for that household in September 2020 (USDA, 2020).² USDA’s TFP serves as a national standard for a nutritious, minimal-cost diet. Each household’s reported usual weekly food spending was divided by the household-specific cost of the TFP based on the age- and gender-specific cost of the TFP for each household member and the number of persons in the household.

The medians of each of the two food-spending measures (spending per person per week and total spending relative to the cost of the September 2020 TFP) were estimated at the national level and for households in various categories. Medians are reported rather than averages (means) because medians are not unduly affected by some unexpectedly high values of food spending. Thus, the median better reflects what a typical household spent.

Some interviewed households did not respond to the food-spending questions or reported zero usual food spending and were excluded from the analysis. For the standard instrument, the exclusions represented 7.8 percent of all U.S. households (6.8 percent of unweighted respondents). For the test instrument, the exclusions represented 6.9 percent of all households (6.3 percent of unweighted respondents). Nonresponse to the food-spending questions was somewhat lower with the test instrument, which could be due to random variation or a better understanding of the question based on improvements made from the expert review and cognitive interviews. In other words, the revised food-spending questions may have elicited more valid responses.

The results for food spending for the standard instrument and test instrument are shown in table 1. The left side of the table shows the standard instrument sample; the right side shows the test instrument sample. According to the findings for the standard instrument, the reported usual weekly food spending per person was \$60, and the median weekly food spending relative to the cost of the TFP was 1.32. The TFP adjusts for food price inflation and adjusts more precisely for the food needs of persons in different age or gender categories. A ratio of household food spending relative to the TFP that is above 1.0 indicates the household spends more than the cost of the TFP; a ratio below 1.0 means the household spends less than the cost of the TFP. The findings for the test instrument showed that the reported usual weekly food spending per person was also \$60, and the median weekly food spending relative to the cost of the TFP was 1.36.

Differences between the panel samples in food spending relative to the TFP were tested for statistical significance. Differences were statistically significant for only a few categories (denoted by an asterisk in table 1). When differences were significant, reported food spending was higher for test instrument households. Higher reported food spending suggests an improvement in the instrument because food spending in the CPS-FSS may be underreported compared with other sources. For example, USDA, ERS’s reported normalized annual food expenditures by households suggest a weekly average in food spending of \$225 per household in 2020 and \$98 per capita (Zeballos & Sinclair, 2023; see the USDA, ERS Food Expenditure Series on the USDA, ERS website under Data Products; specifically under Current Food Expenditure Series, see the excel file “Normalized food expenditures by all purchasers and household final users”). Some seasonal variation exists in food spending, so the total annual expenditures from the food expenditure series used to approximate average weekly spending are not precisely comparable with food spending reported for a single week. Medians are reported in table 1. For those with positive reported food spending, the average or mean food spending

² The cost of the Thrifty Food Plan (TFP) is revised each month to account for inflation in food prices and was revised significantly in 2021 (USDA, 2021). For this analysis, TFP costs are from prior to the 2021 revision. The TFP is used as the basis for setting maximum SNAP benefits.

per person per week in the standard instrument was \$68; the average food spending per person per week in the test instrument was \$69.

Most differences in usual food spending between the split-panel samples are not statistically significant. However, the results suggest that the modified questions functioned at least as well as the standard instrument and show possible improvement, with slightly lower nonresponse and slightly higher reported food spending.

Table 1

Median weekly household food spending per person and relative to the household cost of the Thrifty Food Plan (TFP), by instrument version, September 2020

	Standard instrument Median weekly food spending			Test instrument Median weekly food spending		
	Number of house- holds ¹ in thousands	Per peson	Relative to household cost of September 2020 TFP	Number of house- holds ¹ in thou- sands	Per peson	Relative to household cost of September 2020 TFP
Category		U.S. dollars	Ratio		U.S. dollars	Ratio
All households	120,143	60.00	1.32	121,280	60.00	1.36
Household composition:						
With children <18 years	34,860	48.00	1.21	35,854	50.00	1.24
At least one child <6 years	14,617	44.00	1.28	14,818	43.33	1.25
Married-couple families	22,876	50.00	1.25	23,479	46.67	1.22
Female head, no spouse	8,490	45.00	1.16	9,127	50.00	1.26 *
Male head, no spouse	3,039	42.00	1.09	2,790	50.00	1.18
Other household with child ²	NA	NA	NA	NA	NA	NA
With no children <18 years	85,283	65.00	1.42	85,426	65.00	1.44
More than one adult	50,494	57.50	1.29	50,934	60.00	1.36 *
Women living alone	19,108	70.00	1.52	19,141	70.00	1.52
Men living alone	15,681	80.00	1.63	15,351	80.00	1.63
Adults aged 65 and older	36,555	50.00	1.22	36,874	55.00	1.24
Adults aged 65 and older living alone	13,374	60.00	1.30	13,937	60.00	1.3
Race/ethnicity of household reference persons:						
White, non-Hispanic	79,012	60.00	1.40	79,521	60.00	1.42
Black, non-Hispanic	15,339	50.00	1.14	15,073	50.00	1.19
Hispanic ³	16,697	50.00	1.23	17,591	50.00	1.22
Other, non-Hispanic	9,095	60.00	1.38	9,095	56.00	1.29
Household income-to-poverty ratio:						
Under 1.00	9,486	50.00	1.08	8,783	50.00	1.06
Under 1.30	14,616	50.00	1.08	14,598	50.00	1.08
Under 1.85	23,323	50.00	1.09	23,314	50.00	1.09
1.85 and over	66,939	65.00	1.47	67,051	63.33	1.47
Income unknown	29,882	50.00	1.22	30,915	55.00	1.30 *
Area of residence: ⁴						
Inside metropolitan area	103,172	60.00	1.38	103,910	60.00	1.40
In principal cities	35,232	60.00	1.43	35,338	60.00	1.42
Not in principal cities	52,485	60.00	1.40	52,593	60.00	1.42
Outside metropolitan area	16,971	50.00	1.13	17,370	50.00	1.14

Continues on next page >

	Standard instrument Median weekly food spending			Test instrument Median weekly food spending		
	Number of house- holds ¹ in thousands	Per peson	Relative to household cost of September 2020 TFP	Number of house- holds ¹ in thou- sands	Per peson	Relative to household cost of September 2020 TFP
Category		U.S. dollars	Ratio		U.S. dollars	Ratio
Census geographic region:						
Northeast	20,462	60.00	1.47	20,695	62.50	1.48
Midwest	25,509	50.00	1.26	25,946	56.67	1.30
South	46,872	55.00	1.27	46,871	57.50	1.30
West	27,300	60.00	1.41	27,768	60.00	1.33

NA = not available because fewer than 100 interviewed households in the category.

* Indicates a statistically significant difference between the standard and test instrument in the ratio of food spending relative to the household cost of the September TFP, with 90 percent confidence.

¹ Totals exclude households that did not answer the questions about spending on food or reported zero usual food spending. For the standard instrument, these exclusions represented 7.8 percent of all households (6.8 percent of unweighted respondents). For the test instrument, these exclusions represented 6.9 percent of all households (6.3 percent of unweighted respondents).

² Households with children in complex living arrangements.

³ Hispanics may be of any race.

⁴ Metropolitan refers to residence areas as defined in the 2013 Office of Management and Budget Delineation files.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, September 2020 Current Population Survey, Food Security Supplement.

Methods and Results: Food Security Measures

The primary focus of the CPS-FSS is to collect data on food security in U.S. households. The data provide information for annual monitoring of the Nation's well-being and enable research to better understand the determinants of and policy impacts on food security. It is important to understand how any changes to the survey instrument may affect food insecurity prevalence estimates. The methods underlying the food security scale have been described in other publications (Bickel et al., 2000; Coleman-Jensen et al., 2022). The food security questions and rules for assigning each household a food security status are shown in the box "Questions Used To Assess the Food Security of Households in the CPS Food Security Supplement." The measurement methods are unchanged between the standard and test instruments. In the test instrument, some sections were reordered, which resulted in a change to the lead-ins to the items used to screen households into the food security module (see box, "Modifications to the CPS-FSS Test Instrument" and in-depth on pages 4–5).

The characteristics of respondent households for each version of the instrument are shown in table 2. Because food security status is closely related to respondent characteristics, it helps to identify any differences in the sample characteristics. These estimates are weighted and include households that responded to the split panel and had valid food security status. The total number of households across selected household characteristics, as well as the percentage of households for each characteristic, are shown in the table. The characteristics of respondent households with valid food security status are quite similar across the standard and test instruments. The largest difference in the percentage of households is for households with an income-to-poverty

ratio under 1.0. For the standard instrument, 8.0 percent of all respondent households were in this lowest income category. For the test instrument, 7.2 percent of all respondent households were in the under-1.0 household income-to-poverty ratio category. However, a nearly equal percentage of households in each split panel had incomes below 130 percent of the Federal poverty line (12.1 percent of households for the standard instrument and 12.0 percent for the test instrument). The test instrument sample had a somewhat larger share of households with children compared with the standard instrument sample—29.1 percent of test instrument households included children, and 28.6 percent of standard instrument households included children. Note that the characteristics of respondent households are not expected to be influenced by the different instruments because households were randomly assigned to either the test or standard instrument. Rather, sample distributions are provided to understand how the two samples may differ and whether they may affect differences in items between the instruments.

Overall food insecurity prevalence rates between the September 2020 standard and test instrument panel samples were compared. Table 3, panel A, shows statistically significant differences in both the prevalence of food insecurity and very low food security between the standard instrument and the test instrument. The prevalence of food insecurity in the standard instrument in September 2020 was 9.7 percent, significantly below the prevalence in the September test instrument (10.7 percent). The prevalence of very low food security with the September standard instrument was 3.5 percent, significantly below the prevalence in the September test instrument (4.0 percent).

Table 3, panel B shows the results for households with children. The prevalence of household food insecurity for households with children was statistically significantly different between the September 2020 standard instrument (12.8 percent) and the September test instrument (14.6 percent).

Differences in the prevalence of food insecurity between the test instrument and standard instrument may be partly due to sampling error, which had a greater impact on the smaller samples in the split panel that was potentially more problematic during the COVID-19 pandemic when response rates were lower. Sampling variation is inherent in any survey that relies on a sample. However, sampling error during the pandemic may have been greater, resulting in nonresponse bias. Sampling error and nonresponse bias may have resulted in greater variation in the food security estimates than would be typical of other full CPS-FSS data collections. Respondents were assigned to a given panel randomly, so no systematic differences between the panel samples should exist. However, nonresponse bias or sampling error related to the pandemic challenges may have resulted in unsystematic differences between the samples. Evidence from a Census Bureau analysis suggests that nonresponse during the pandemic was more strongly associated with income than in prior years of the CPS data collections (Rothbaum & Bee, 2021). This is an area for future research with the CPS-FSS.

The response rates were similar between the test and standard instruments. For all households in both instrument panel samples, 0.2 percent of all households were missing food security status because they had no valid responses on those items (weighted; see footnote 1, table 3). For the standard instrument, 22 households (unweighted) were excluded, and for the test instrument, 26 households (unweighted) were excluded due to having no valid responses to the food security questions. For households with children, 0.1 percent of households (weighted) in the standard instrument panel and 0.3 percent of households (weighted) in the test instrument panel were excluded due to nonresponse to the food security items (see footnote 2, table 3). For the standard instrument, three households with children (unweighted) in the sample were excluded, and for the test instrument, seven households with children (unweighted) in the sample were excluded based on nonresponse to the food security items.

Table 4 shows the percentage of households affirming each of the individual food security items. A lower percentage of households in the September standard instrument affirmed the food security items when compared with households in the September test instrument, with statistically significant differences marked with an asterisk. Note that the child items with changes in wording between the test and standard instrument were not statistically significantly different.

Given the modest differences observed in the prevalence of food insecurity and rates of affirmative responses to the food security items used to construct food security measures between the standard and test supplements, additional psychometric analyses were conducted to better understand the differences and their implications for future food security measurement activities. Psychometric analyses specifically assess how households responded to the food security items and if household response patterns were as expected. These analyses can also be used to assess whether food security measures across different surveys are comparable. Two measurement subsamples were constructed for the psychometric analyses based on households administered the standard and test instruments in the September 2020 CPS-FSS. Households were included in the standard and test measurement subsamples if their incomes were below 185 percent of the Federal poverty line,³ had no incomplete or missing responses to the food security questions, and had no extreme raw scores on the 10-item adult and 8-item child food security scales. Extreme raw scores are a measurement term simply meaning the respondents have zero affirmative responses or all affirmative responses. These households were omitted from the subsamples because households with extreme raw scores are not identified under the assumptions of the conditional maximum likelihood (CML) Rasch measurement model USDA uses to develop and continually monitor the properties of adult and child food security scales. Households with extreme raw scores do not provide information to the Rasch measurement model and are, therefore, not useful in comparing the responses to the food security items across the instruments to determine the severity of items. Most households with extreme scores had a zero, meaning no affirmative responses to the food security items. The resulting subsamples for the adult food security scale consisted of 1,192 and 1,241 households administered the standard and test instruments, respectively. For the analysis of the child food security scales, the subsamples consisted of 316 households administered the standard instrument, and 296 households administered the test instrument. The subsamples consisted of households that affirmed at least one of, but not all, the food security items.

The four measurement subsamples were used to separately estimate the parameters of the Rasch measurement model for the adult and child food security scales for households administered the standard and test instruments. Researchers used the ERS Rasch program developed in SAS by USDA, ERS. Based on the measurement theory underlying the Rasch measurement model, any differences in the estimates of severity parameters for households administered the standard and test instruments may indicate respondents perceive the food security questions differently or reflect differences in the way they experience food hardships. If this were to occur, then the standard and test instruments would measure different levels of the severity of food hardship, leading to biased comparisons of food security measures—such as the prevalence of food insecurity—based on these scales.

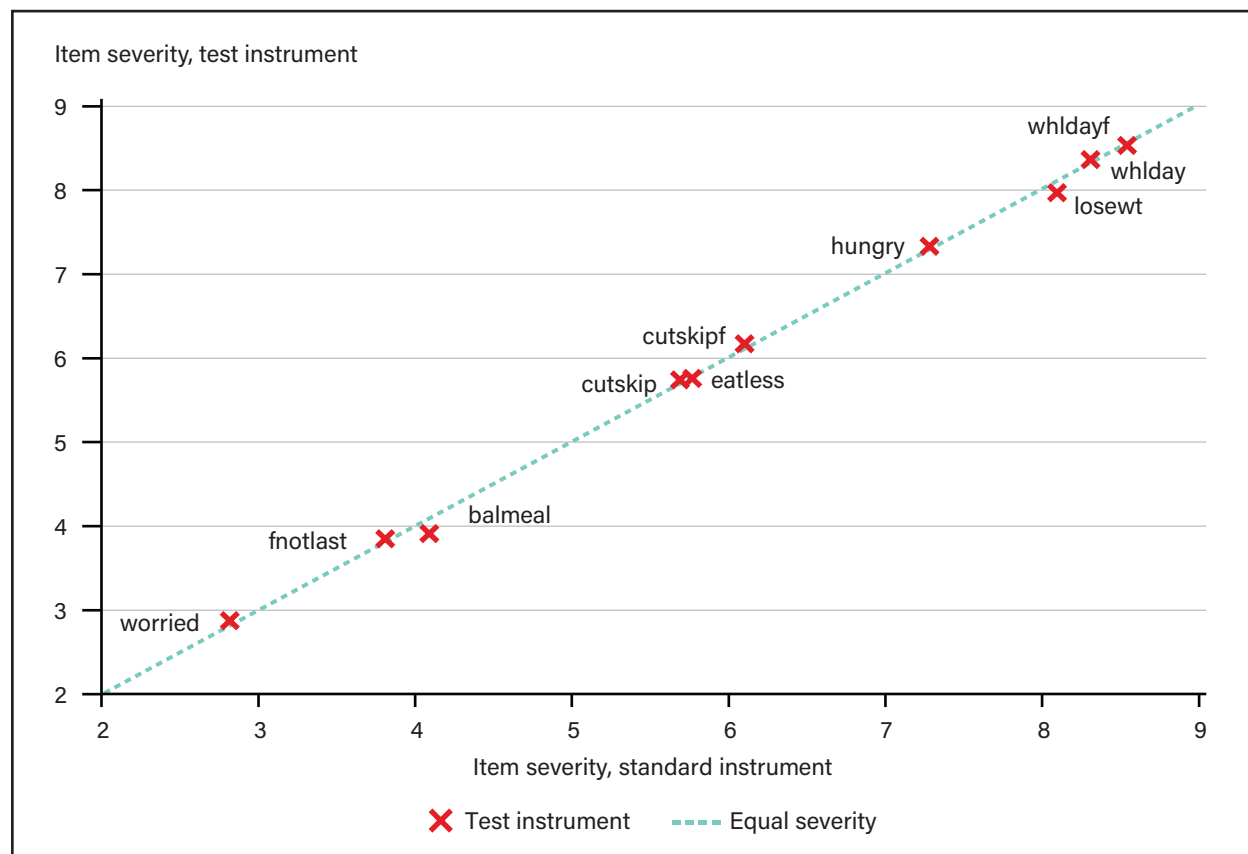
Estimates of the Rasch severity parameters for the items for the adult food security scale are shown separately in figure 1 for households administered the standard and test instruments. The food security items that are

³ The authors use this income threshold for their analyses because it is the initial screening threshold for a household to be administered the food security items in the CPS-FSS. While this results in the exclusion of a small proportion of high-income households from analyses, it mitigates bias associated with income that could result from the screening procedure (Nord, 2012). Households are also initially screened into the food security items based on reported food hardship in addition to income, but this is a much smaller group, and the respondents were less likely to answer more than the first three questions in the food security scale. The advantage of screening based on income is to reduce respondent burden for higher income households unlikely to experience food insecurity. Early research suggested that only a very small proportion of higher income households that were screened out of the food security items based on income would be classified as food insecure were they to be asked the full module (Bickel et al., 2000).

estimated to capture a greater severity of food hardship in the test instrument relative to the standard instrument are indicated by a red X located above the equal severity line. Those that capture a lesser severity of food hardship in the test instrument are indicated by a red X below the equal severity line. All the items that comprise the adult food security scale captured similar levels of the severity of food hardship in the standard and test instruments, suggesting these items would produce comparable measures of adult food security.

Figure 1

Comparisons of the adult food security scale question severity parameters, 2020 September CPS-FSS test versus standard instrument



balmeal = Couldn't afford to eat balanced meals; cutskip = Adult(s) cut size of meals or skipped meals; cutskipf = Adult(s) cut size or skipped meals in 3 or more months; eatless = Respondent ate less than felt he/she should; fnotlast = Food bought didn't last, and (I/we) didn't have money to get more; hungry = Respondent hungry but didn't eat because couldn't afford food; losewt = Respondent lost weight; whlday = Adult(s) did not eat for a whole day; whldayf = Adult(s) did not eat for whole day in 3 or more months; worried = Worried food would run out before (I/we) got money to buy more. (For complete wording of questions, see box "Questions Used To Assess the Food Security of Households in the Current Population Survey Food Security Supplement.")

Note: Question severity parameters estimated from separate conditional maximum likelihood (CML) Rasch measurement models for households administered the standard and test instruments in the 2020 September Current Population Survey Food Security Supplement.

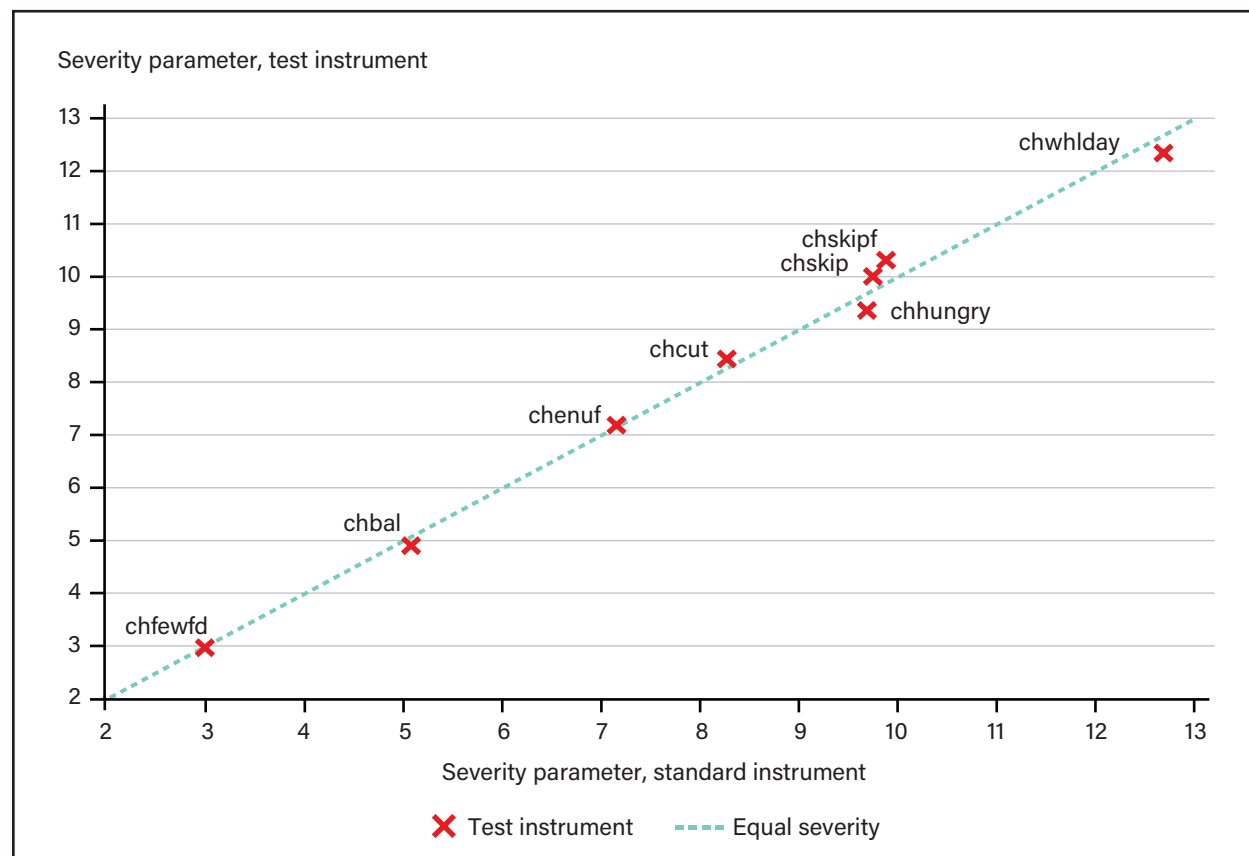
Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, September 2020 Current Population Survey Food Security Supplement.

Figure 2 provides estimates of the Rasch severity parameters for the child food security scale items, estimated separately for households administered the standard and test instruments. Like the findings for the adult food security items, the findings of the child food security items were similar for households administered the standard and test instruments. Therefore, food security measures based on these instruments captured similar experiences and are comparable. In addition, the proposed wording changes for "The child in (my/our) house-

hold was/The children were) not eating enough because (I/we) just couldn't afford enough food” and “In the last 12 months, (was the child/were the children) ever hungry but you just couldn't afford more food?” does not appear to have affected the way households with children interpreted these items. See box “Questions Used To Assess the Food Security of Households in the CPS Food Security Supplement” for a comparison of wording between the standard and test questions.

Figure 2

Comparisons of the child food security scale question severity parameters, 2020 September CPS-FSS test versus standard instrument



chbal = Couldn't feed child(ren) balanced meals; chcut = Cut size of child(ren)'s meals; chenuf = Child(ren) were not eating enough; chfewfd = Relied on few kinds of low-cost food to feed child(ren); chhungry = Child(ren) were hungry; chskip = Child(ren) skipped meals; chskiptf = Child(ren) skipped meals in 3 or more months; chwhlday = Child(ren) did not eat for a whole day. (For complete wording of questions, see box “Questions Used To Assess the Food Security of Households in the Current Population Survey Food Security Supplement.”)

Note: Question severity parameters estimated from separate conditional maximum likelihood (CML) Rasch measurement models for households administered the standard and test instruments in the 2020 September Current Population Survey Food Security Supplement (CPS-FSS).

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, September 2020 CPS-FSS.

While the psychometric analyses provide evidence that standard and test instruments produced similar food security measures, it is important to note that the test instrument screened in more households than the standard supplement. Screeners are used to reduce respondent burden so that higher income households or households showing no food hardship are not asked additional food security questions. A similar proportion of households administered the standard instrument (38.2 percent) and test instrument (38.1 percent)

were initially screened into the food security module (based on income and variables HES9 and HESS1). However, households administered the test instrument were more likely than households administered the standard instrument to screen past the first internal food security screener (18.2 percent versus 17.1 percent) and second screener (8.3 percent versus 7.3 percent). Households administered the standard instrument (12.8 percent) and test instrument (12.9 percent) had similar rates of passing the child food insecurity screener. Given the decline in response rates during the past few years to the monthly CPS and CPS-FSS, screening additional households through the initial and internal food security screeners to the most severe food security items ensures that USDA, ERS is able to reliably produce statistics for even the most severe forms of food insecurity. The differences in the percentages of households screened through the food security module based on the version of the instrument may be related to the placement of the food security items earlier in the test instrument survey before the questions on nutrition assistance, but the authors could not definitively determine that to be the cause.

The Rasch analyses suggest that the test instrument measured food insecurity comparably to the standard USDA instrument. When USDA instituted similar modifications in previous years, those modifications also did not appreciably affect the food security measure. For example, in the 2007 CPS-FSS, food security items were reordered in the questionnaire so that all household- and adult-referenced questions were administered first, followed by the child-referenced items. Changes were also made in internal screener specifications to accommodate the new order of items in 2007, but those changes resulted in only negligible differences in item responses (Nord, 2008). The changes in item ordering did not result in a break in the food security series, and food insecurity estimates were comparable to previous years (Nord et al., 2008). Also, in the 2006 CPS-FSS questionnaire, the resource constraint was standardized for the items addressed to adults, “Were you ever hungry?” and “Did you lose weight?” to “Because there wasn’t enough money for food,” so that the wording of the resource constraint was more consistent across questions (Nord et al., 2006; Nord et al., 2007). Again, this minor change did not result in a break in the series or a change in the comparability of the estimates from year to year. Given the current findings and past findings regarding the stability of the food security scale to similar minor modifications, the authors expect that the proposed updates to the CPS-FSS instrument will continue to produce estimates comparable to previous years.

Questions Used To Assess the Food Security of Households in the Current Population Survey Food Security Supplement

1. “We worried whether our food would run out before we got money to buy more.” Was that often, sometimes, or never true for you in the last 12 months?
2. “The food that we bought just didn’t last, and we didn’t have money to get more.” Was that often, sometimes, or never true for you in the last 12 months?
3. “We couldn’t afford to eat balanced meals.” Was that often, sometimes, or never true for you in the last 12 months?
4. In the last 12 months, did you or other adults in the household ever cut the size of your meals or skip meals because there wasn’t enough money for food? (Yes/No)
5. (If yes to question 4) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?
6. In the last 12 months, did you ever eat less than you felt you should because there wasn’t enough money for food? (Yes/No)

7. In the last 12 months, were you ever hungry, but didn't eat, because there wasn't enough money for food? (Yes/No)
8. In the last 12 months, did you lose weight because there wasn't enough money for food? (Yes/No)
9. In the last 12 months did you or other adults in your household ever not eat for a whole day because there wasn't enough money for food? (Yes/No)
10. (If yes to question 9) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?

Note: Questions 11–18 were asked only if the household included children age 0–17.

11. “We relied on only a few kinds of low-cost food to feed our children because we were running out of money to buy food.” Was that often, sometimes, or never true for you in the last 12 months?
12. “We couldn't feed our children a balanced meal because we couldn't afford that.” Was that often, sometimes, or never true for you in the last 12 months?

13. **Standard:** “The children were not eating enough because we just couldn't afford enough food.” Was that often, sometimes, or never true for you in the last 12 months?

Test: “The children were not eating enough because there wasn't enough money for food.” Was that often, sometimes, or never true for you in the last 12 months?

14. In the last 12 months, did you ever cut the size of any of the children's meals because there wasn't enough money for food? (Yes/No)

15. **Standard:** In the last 12 months, were the children ever hungry but you just couldn't afford more food? (Yes/No)

Test: In the last 12 months, were the children ever hungry because there wasn't enough money for food? (Yes/No)

16. In the last 12 months, did any of the children ever skip a meal because there wasn't enough money for food? (Yes/No)

17. (If yes to question 16) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?

18. In the last 12 months, did any of the children ever not eat for a whole day because there wasn't enough money for food? (Yes/No)

Coding of Responses

Questions 1–3 and 11–13 are coded as affirmative (i.e., possibly indicating food insecurity) if the response is “often” or “sometimes.” Questions 5, 10, and 17 are coded as affirmative if the response is “almost every month” or “some months but not every month.” The remaining questions are coded as affirmative if the response is “yes.”

Assessing Food Security Status in Households Without Children

Households without children are classified as food insecure if they report 3 or more indications of food insecurity in response to the first 10 questions; households are classified as having very low food security if they report 6 or more food-insecure conditions out of the first 10 questions.

Assessing Food Security Status in Households with Children Age 0–17

Households with children are classified as food insecure if they report 3 or more indications of food insecurity in response to the entire set of 18 questions; households are classified as having very low food security if they report 8 or more food-insecure conditions in response to the 18 questions.

The food security status of children in the household is assessed by responses to the child-referenced questions (questions 11–18). Households reporting two or more of these conditions are classified as having food insecurity among children. Households reporting five or more are classified as having very low food security among children.

Table 2

Characteristics of respondent households with valid food security status, by instrument version, September 2020

	Standard instrument		Test instrument	
	Number of households in thousands	Percent of total number of households	Number of households in thousands	Percent of total number of households
Category				
All households ¹	130,124	100.0	129,976	100.0
Household composition:				
With children <18 years	37,275	28.6	37,864	29.1
With children <6 years	15,750	12.1	15,573	12.0
Married-couple families	24,101	18.5	24,679	19.0
Female head, no spouse	9,317	7.2	9,645	7.4
Male head, no spouse	3,362	2.6	3,050	2.3
Other household with child ²	495	0.4	490	0.4
With no children <18 years	92,849	71.4	92,112	70.9
More than one adult	54,719	42.1	54,553	42.0
Women living alone	20,997	16.1	20,797	16.0
Men living alone	17,133	13.2	16,762	12.9
With adults aged 65 and older	40,585	31.2	40,382	31.1
Adults aged 65 and older living alone	15,200	11.7	15,528	11.9
Race/ethnicity of households:				
White, non-Hispanic	84,804	65.2	84,934	65.3
Black, non-Hispanic	16,940	13.0	16,492	12.7
Hispanic ³	18,361	14.1	18,764	14.4
Other, non-Hispanic	10,018	7.7	9,786	7.5

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	Standard instrument		Test instrument	
	Number of households in thousands	Percent of total number of households	Number of households in thousands	Percent of total number of households
Category				
Household income-to-poverty ratio:				
Under 1.00	10,357	8.0	9,392	7.2
Under 1.30	15,765	12.1	15,538	12.0
Under 1.85	24,902	19.1	24,525	18.9
1.85 and over	69,962	53.8	69,869	53.8
Income unknown	35,260	27.1	35,582	27.4
Area of residence: ⁴				
Inside metropolitan area	111,982	86.1	111,484	85.8
In principal cities	38,518	29.6	38,340	29.5
Not in principal cities	56,628	43.5	55,862	43.0
Outside metropolitan area	18,142	13.9	18,492	14.2
Census geographic region:				
Northeast	22,326	17.2	22,181	17.1
Midwest	27,885	21.4	27,859	21.4
South	50,631	38.9	50,238	38.7
West	29,282	22.5	29,698	22.8

¹ Totals exclude households for which food security status is unknown because household respondents did not give a valid response to any of the questions in the food security scale. For all respondent households, these exclusions represent for the September 2020 standard instrument: 218,000 households (0.2 percent of all households) and for the September 2020 test instrument: 315,000 households (0.2 percent of all households). Totals also exclude households that did not respond to the September Food Security Supplement. Survey weights are adjusted to account for supplement nonresponse so that weighted estimates from each split panel are nationally representative. Percentages may not sum to 100 due to rounding.

² Households with children in complex living arrangements.

³ Hispanics may be of any race.

⁴ Metropolitan refers to residence areas as defined in the 2013 Office of Management and Budget Delineation files.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, September 2020 Current Population Survey, Food Security Supplement.

Table 3

Households by food security status and instrument version, September 2020

Panel A: All households									
	Total ¹	Food secure		Food insecure					
				All		With low food security		With very low food security	
Category	Thou-sands	Thou-sands	Percent	Thou-sands	Percent	Thou-sands	Percent	Thou-sands	Percent
September standard instrument									
All households	130,124	117,511	90.3	12,613	9.7*	8,025	6.2	4,588	3.5*
September test instrument									
All households	129,976	116,080	89.3	13,896	10.7	8,738	6.7	5,158	4.0
Panel B: Households with children									
	Total ²	Food-secure households		Food-insecure households		Households with food-insecure children		Households with very low food security among children	
Category	Thou-sands	Thou-sands	Percent	Thou-sands	Percent	Thou-sands	Percent	Thou-sands	Percent
September standard instrument									
All households with children	37,275	32,506	87.2	4,769	12.8*	2,320	6.2	200	0.5
September test instrument									
All households with children	37,864	32,331	85.4	5,533	14.6	2,707	7.1	311	0.8

*Difference between the September standard instrument and September test instrument is statistically significant with 90 percent confidence ($t > 1.645$).

¹ Totals exclude households for which food security status is unknown because household respondents did not give a valid response to any of the questions in the food security scale. For all households (panel A), these exclusions represent:

- September 2020 standard instrument: 218,000 households (0.2 percent of all U.S. households).
- September 2020 test instrument: 315,000 households (0.2 percent of all U.S. households).

² Totals exclude households for which food security status is unknown because household respondents did not give a valid response to any of the questions in the food security scale. For households with children (panel B), these exclusions represent:

- September 2020 standard instrument: 28,000 households (0.1 percent of all U.S. households).
- September 2020 test instrument: 115,000 households (0.3 percent of all U.S. households).

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, September 2020 Current Population Survey, Food Security Supplement.

Table 4

Responses to items in the food security scale, standard instrument and test instrument, September 2020

	Households affirming item	
Scale item ¹	Standard	Test
	Percent of U.S. households ²	
Household items:		
Worried food would run out before (I/we) got money to buy more	14.0	14.7
Food bought didn't last and (I/we) didn't have money to get more	10.9	11.6
Couldn't afford to eat balanced meals	10.4	11.8*
Adult items:		
Adult(s) cut size of meals or skipped meals	5.7	6.3*
Respondent ate less than felt he/she should	5.7	6.5*
Adult(s) cut size or skipped meals in 3 or more months	4.1	4.7*
Respondent hungry but didn't eat because couldn't afford	3.0	3.2
Respondent lost weight	2.0	2.2
Adult(s) did not eat for whole day	1.1	1.1
Adult(s) did not eat for whole day in 3 or more months	0.8	0.8
Child items:		
Relied on few kinds of low-cost food to feed child(ren)	11.6	11.8
Couldn't feed child(ren) balanced meals	6.6	7.4
Child(ren) were not eating enough (question revised in test instrument to "...there wasn't enough money for food?")	3.0	2.9
Cut size of child(ren)'s meals	1.5	1.6
Child(ren) were hungry (question revised in test instrument to "...there wasn't enough money for food?")	0.6	1.0
Child(ren) skipped meals	0.4	0.6
Child(ren) skipped meals in 3 or more months	0.2	0.4
Child(ren) did not eat for whole day	0.1	0.1

*Difference between the September standard instrument and September test instrument is statistically significant with 90 percent confidence ($t > 1.645$).

¹ The full wording of each question includes explicit reference to resource limitation. See box "Questions Used To Assess the Food Security of Households in the Current Population Survey Food Security Supplement" for item wording.

² Households not responding to an item are omitted from the calculations of percentages for that item. Household without children are omitted from the calculation of child-referenced items.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, September 2020 Current Population Survey Food Security Supplement.

Methods and Results: Federal Nutrition Assistance

USDA's annual food security report presents statistics on the use of Federal nutrition assistance by food security status. The CPS-FSS data on nutrition assistance are not intended to describe total participation in these programs. Participation rates of eligible households and characteristics of participation are available from USDA, FNS. The data in the CPS-FSS and information presented in USDA's report are meant to inform understanding of the relationship between nutrition assistance programs and food security.

In the CPS-FSS, all households with reported annual income below 185 percent of the Federal poverty threshold were asked questions about their participation in Federal nutrition assistance. To minimize respondent burden in the standard instrument, households with annual incomes above that range were not asked these questions unless they indicated some level of difficulty in meeting their food needs on the first of the two preliminary screener questions asked of all households (HES9). In the test instrument, because of the change in the location of the nutrition assistance questions, the second preliminary screener question on food insufficiency was also used as a screener question for the nutrition assistance items.

In the split panel, a few differences existed between the standard and test instruments. In the test instrument, the questions on Federal nutrition assistance were moved after the questions on food security. The lead-in to one of the screener questions (HES9) was also changed due to the change in location of the question. The lead-in preceding HES9 in the test instrument was formerly the lead-in for HESS1 (food sufficiency) in the standard instrument. Thus, the change was an alteration in which item the lead-in preceded rather than an entirely new lead-in. The previous lead-in to HES9 was removed from the test instrument. The standard and test lead-ins for HES9 are:

Standard: People do different things when they are running out of money for food in order to make their food or their food money go further.

In the last 12 months, since September of last year, did you ever run short of money and try to make your food or your food money go further?

Test: The next questions are about the food eaten in your household in the last 12 months, since September of last year, and whether you were able to afford the food you need.

In the last 12 months, since September of last year, did you ever run short of money and try to make your food or your food money go further?

Also, a lead-in for the question about participation in SNAP was added (HESP1) in the test instrument due to the new location in the instrument. There was no lead-in for the standard instrument because the question about SNAP immediately followed question HES9. For both these items, the wording of the question did not change. Questions about free and reduced-price lunch were reworded to use reduced-price language instead of reduced-cost meals, which is more consistent with the Federal programs.

Standard: In the past 12 months, did (you/anyone in this household) get SNAP or food stamp benefits?

Test: Sometimes people need help getting food for their household. There are many programs that can help.

In the past 12 months, did (you/anyone in this household) get SNAP or food stamp benefits?

A new question was added about the receipt of free or reduced-price meals or snacks at an afterschool program. USDA, FNS staff recommended that the authors ask about these programs during the expert review of the CPS-FSS instrument. Afterschool supper programs have become more common in recent years. There was a slight error in the test instrument for this item, and only households that reported receipt of free or reduced-price school lunches were asked the item. In the regular implementation of the revised instrument, all low-income or screened-in households with school-age children will be asked this item, regardless of whether they receive free or reduced-price school meals. One potential concern with the item before the test was that only a small number of households might affirm the item. Because the survey was administered in September 2020 during the COVID-19 pandemic, when many school districts had implemented online learning, and only households reporting receipt of free or reduced-price school lunch were asked the item, the

number of affirmative responses was likely suppressed. However, 163 households affirmed the item with the test, and the total is likely to be higher when schools are open for in-person learning, the item is not restricted to free or reduced-price school lunch recipients, and the item is administered in a full CPS-FSS sample. The item will likely have sufficient affirmations in a regular implementation to be useable for research and analysis.

Question included in September 2020 test instrument: During the past 30 days, did any children in the household (between 5 and 18 years old) receive a free or reduced-price meal or snack at an after school program?

Note: The item is only asked for households that have school-age children. For households with younger children as well, the parenthetical statement is added to indicate that the question refers only to school-age children.

Table 5 shows the prevalence of food insecurity by participation in Federal nutrition assistance programs. While differences in screening between the test and standard instrument resulted in more households being screened into these sections based on reported food insufficiency, this table is limited to respondents with reported incomes within the range to make them eligible for the programs, and these households would all automatically be screened in based on having a low income. Statistically significant differences exist between the standard and test instruments in the prevalence of food insecurity for SNAP participants. The prevalence of food insecurity among low-income households that received SNAP benefits in the previous 12 months was 39.3 percent in the standard instrument, significantly lower than 46.7 percent in the test instrument. In December 2020, 45.4 percent of low-income households that received SNAP benefits in the previous 12 months were food insecure (for the December 2020 estimates, see table 8 in Coleman-Jensen et al., 2021). For both the test and standard instruments, a consistent pattern with previous years emerges, with higher food insecurity rates among low-income SNAP participants than among low-income nonparticipants.

The results suggest that the modified nutrition assistance items functioned similarly to the standard instrument in the pattern of results between households that reported receiving assistance and income-eligible respondents who did not report receiving benefits. No statistically significant differences existed in the prevalence of food insecurity for those receiving free or reduced-price school lunches or Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) or income-eligible nonparticipants. A statistically significant difference was noted for the prevalence of food insecurity among households that received SNAP benefits in the previous 12 months. However, this may be due to factors besides the change in location of the SNAP questions in the survey and the different lead-in between the standard and test instruments. The statistical difference may be related to differences in the sample since estimates from the test instrument show greater food insecurity overall. Including the additional food insufficiency screening variable to screen households into the nutrition assistance section of the questionnaire and adding a lead-in to the SNAP variable may have affected SNAP reporting, but any possible effect does not appear to be detrimental to the results. Cell sizes are relatively small for these estimates, so sampling errors or misreporting may have an undue effect on the estimates. The test instrument included 672 low-income households, and the standard instrument included 706 households that reported receipt of SNAP benefits and had valid food security data. Previous research showed that nutrition assistance participation is underreported by household survey respondents in the CPS (see footnote 45 in Coleman-Jensen et al., 2021; Meyer & Goerge, 2011).

Table 5

Percentage of households by food security status and participation in selected Federal nutrition assistance programs, by instrument version, September 2020

	Standard instrument				Test instrument			
	Food se- cure	Food insecure			Food se- cure	Food insecure		
		All	With low food security	With very low food security		All	With low food security	With very low food security
	Percent				Percent			
Income less than 130 percent of poverty line:								
Received SNAP benefits in previous 12 months	60.7	39.3	20.0	19.3	53.3	46.7*	26.4	20.3
Did not receive SNAP benefits in previous 12 months	78.3	21.7	12.4	9.3	75.1	24.9	14.5	10.4
Income less than 185 percent of poverty line; school-age children in household:								
Received NSLP free or reduced-price school lunch in previous 30 days	68.8	31.2	21.8	9.3	62.3	37.7	26.6	11.1
Did not receive NSLP free or reduced-price school lunch in previous 30 days	71.5	28.5	17.0	11.5	71.0	29.0	19.1	10.0
Income less than 185 percent of poverty line; children under age 5 in household:								
Received WIC in previous 30 days	70.4	29.6	14.5	15.1	62.4	37.6	30.8	6.9
Did not receive WIC in previous 30 days	76.0	24.0	16.6	7.4	70.0	30.0	18.6	11.4

SNAP = Supplemental Nutrition Assistance Program, formerly the Food Stamp Program. NSLP = National School Lunch Program. WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

* Difference between the September standard instrument and that September test instrument is statistically significant with 90 percent confidence ($t > 1.645$).

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, September 2020 Current Population Survey, Food Security Supplement.

Methods and Results: Community Nutrition Assistance

In USDA's statistical supplement to the annual food security report, statistics on the use of community nutrition assistance programs are presented by food security status (Coleman-Jensen et al., 2022b). The combined use of community and Federal nutrition assistance is also reported, as is the use of food pantries by household characteristics. Community nutrition assistance refers to free food available from food pantries, food banks, churches, etc., as well as free meals received from community soup kitchens and other sources. Anti-hunger advocates had previously commented to USDA, ERS staff that the statistics from the CPS-FSS likely underestimate the use of community nutrition assistance (Weinfield et al., 2014), do not cover the full range of how free food is made available, and are dated in the terminology used in the questions. As a result, the authors revised the items based on recommended wording from Feeding America. Feeding America is a national nonprofit organization that provides food to nearly every county in the United States through a network of food banks and charitable programs. The organization has expertise in the charitable feeding system and conducts research on food security and community nutrition assistance. Feeding America had previously conducted cognitive testing of these survey items about free groceries and free meals in 2017, and these questions were fielded in the Urban Institute's Wellbeing and Basic Needs Survey (McDonald et al., 2017). These items underwent cognitive testing with the Census Bureau and, based on the recommendations of expert review and cognitive testing, these new items were included in the food security test instrument.

USDA, ERS has explicitly acknowledged in the annual statistical supplement to the household food security report that estimates for the use of emergency or soup kitchens understate actual use because sample households are selected from an address-based list (Coleman-Jensen et al., 2022b). While the revisions to the wording of the questions may improve estimates of reported use of community food providers, underreporting may remain because the sample does not include people who were homeless at the time of the survey.

Screening for the community nutrition assistance questions is the same as screening for the food security questions, and the screening procedures did not change for the test beyond dropping the lead-in for question HES9. Households are screened into this section based on reporting a low income or reporting some level of food hardship (in response to questions HES9 and HESS1). While screening is important for reducing respondent burden and reducing irritation or awkwardness of interviewers asking respondents questions that do not apply to their household or appear inappropriate based on earlier responses, the limitation is that some households using community nutrition assistance may not pass through these screeners, and their use of these programs would not be reported.

One item in the standard instrument asked about emergency food from food pantries, and another asked about meals from a soup kitchen. These items were revised significantly for the test instrument:

Standard instrument:

Food pantries: In the last 12 months, did you or other adults in your household ever get emergency food from a church, a food pantry, or food bank?

Soup kitchens: In the last 12 months, did you or other adults in your household ever eat any meals at a soup kitchen or shelter?

Test instrument:

Free groceries: In the last 12 months, did you or anyone in your household ever get free groceries from a food pantry, food bank, church, or other place that helps with free food?

Free meals: In the last 12 months, have you or anyone in your household received a free meal from a church, shelter, home-delivered meal service like Meals on Wheels, or other place that helps with free meals?

In response to the questions about free groceries and free meals in the test supplement, the reported receipt was higher than for the questions about food pantries and soup kitchens in the standard instrument. This is consistent with the authors' expectations for the test items. The language for the test items is more inclusive in several ways, including asking if "anyone in your household" received assistance rather than just "adults," referring to "free groceries" rather than only "emergency food," asking about "home-delivered meals," and by asking about any "other place that helps with free food/meals."

Differences in statistical significance are not presented in table 6 because these items are not comparable given the changes in wording. The new questions about the receipt of free groceries and free meals appear to have functioned adequately. For both questions in the test panel, the receipt of free food was more common for food-insecure households and most common for households with very low food security. This is to be expected as the use of nutrition assistance, both Federal and community, is more common among food-insecure households. In addition, in the test panel, the reported receipt was more common among low-income households. For households with incomes under 185 percent of the poverty level, 21.9 percent reported receipt of free groceries, and 7.5 percent reported receipt of free meals. By contrast, in the test panel, among households with incomes of 185 percent of the poverty level and over, 3 percent reported receipt of free

groceries, and 0.7 percent reported receipt of free meals (estimates not shown in table). These findings further confirm that the relationship between the receipt of community nutrition assistance as obtained from the test instrument and household income is as expected. Based on expert review, cognitive testing, and the results of the test instrument, the revised questions on community nutrition assistance appear to be an improvement and function well.

Table 6

Use of community nutrition assistance,¹ by standard and test instrument, September 2020

	Standard Instrument					
	Food pantries			Soup kitchens		
	Total	Users		Total	Users	
	Thousands	Thousands	Percent	Thousands	Thousands	Percent
All households ²	129,564	7,584	5.9	129,574	597	0.5
Households by food security status: ³						
Food secure	117,108	3,618	3.1	117,121	224	0.2
Food insecure	12,454	3,966	31.8	12,437	374	3.0
Low food security	7,963	2,174	27.3	7,938	206	2.6
Very low food security	4,491	1,793	39.9	4,499	167	3.7
	Test Instrument					
	Free groceries			Free meals		
	Total	Users		Total	Users	
	Thousands	Thousands	Percent	Thousands	Thousands	Percent
All households ²	129,198	8,888	6.9	129,103	2,705	2.1
Households by food security status: ³						
Food secure	115,597	4,355	3.8	115,533	1,448	1.3
Food insecure	13,566	4,533	33.4	13,546	1,257	9.3
Low food security	8,530	2,598	30.5	8,529	579	6.8
Very low food security	5,036	1,934	38.4	5,018	678	13.5

¹ Questions about the receipt of community nutrition assistance are not comparable between the standard and test instruments. Percentages between the two instruments are not tested for statistical significance because the wording of the items changed enough that there is no expectation of comparability.

² Totals for "All households" exclude households that did not answer the question about food pantries/free groceries or emergency kitchens/free meals. For all households, these exclusions represent:

- September 2020 standard instrument: 0.6 percent of all households had missing data on food pantries, and 0.6 percent of all households had missing data on soup kitchens.
- September 2020 test instrument: 0.8 percent of all households had missing data on free groceries, and 0.9 percent of all households had missing data on free meals.

³ Totals also exclude households for which food security status is unknown because household respondents did not give a valid response to any of the questions in the food security scale.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, September 2020 Current Population Survey, Food Security Supplement.

Conclusions

Based on the analysis of the split-panel test in the September 2020 CPS-FSS, the authors conclude the test instrument performed reasonably well. The observed differences in the test and standard instruments for food spending and community nutrition assistance were as expected. The Rasch analysis confirms that the minor changes to the food security section are unlikely to affect the measurement of food insecurity or the comparability of estimates from year to year. The differences in the prevalence of food insecurity between the test and standard instruments may be related to sampling error, which was more of a concern during the early months of the COVID-19 pandemic.

This analysis, along with the recommendations from the expert review and from cognitive testing, indicates that updates to the CPS-FSS September 2020 test instrument should be implemented in the regular CPS-FSS data collection moving forward. USDA, ERS sought and obtained approval from OMB to implement these changes in the regular CPS-FSS data collection beginning in December 2022. These changes to the regular CPS-FSS December instrument will be documented for researchers using the data for analyses and for stakeholders who read or cite the future annual reports in the series *Household Food Security in the United States* and *Statistical Supplement to Household Food Security in the United States*.

References

- Bickel, G., Nord, N., Price, C., Hamilton, W.T., & Cook, J.T. (2000). *Guide to measuring household food security, (revised 2000)*. U.S. Department of Agriculture, Food and Nutrition Service.
- Coleman-Jensen, A., (2015, October 5). Commemorating 20 years of U.S. food security measurement. *Amber Waves*, U.S. Department of Agriculture, Economic Research Service.
- Coleman-Jensen, A., Rabbitt, M.P., Gregory, C.A., & Singh, A. (2021). *Household food security in the United States in 2020* (Report No. ERR-298). U.S. Department of Agriculture, Economic Research Service.
- Coleman-Jensen, A., Rabbitt, M.P., Gregory, C.A., & Singh, A. (2022). *Household food security in the United States in 2021* (Report No. ERR-309). U.S. Department of Agriculture, Economic Research Service.
- Coleman-Jensen, A., Rabbitt, M.P., Gregory, C.A., & Singh, A. (2022b). *Statistical supplement to household food security in the United States in 2021* (Report No. AP-105). U.S. Department of Agriculture, Economic Research Service.
- Federal Interagency Forum on Child and Family Statistics. (2021). *America's children: Key national indicators of well-being, 2021*. U.S. Government Printing Office, Washington, DC.
- Healthy People 2030. (n.d.). *Healthy people 2030 leading health indicators (LHIs)*. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion.
- Kephart, K., Katz, J., Virgile, M., Terry, R., & Holzberg, J. (2021). *Cognitive testing results for the current population survey food security supplement*. Research report series: Survey methodology. (Report No. 2021-06). Center for Behavioral Science Methods, Research, and Methodology Directorate, U.S. Department of Commerce, Bureau of the Census.
- McDonald, E., Engelhard, E., & Hake, M. (2017). *Recommendation of survey questions to measure receipt of charitable food assistance on FoodAPS 2.0*. Memo to Elizabeth Larimore, Economic Research Service, USDA, September 29, from Feeding America.
- Meyer, B.D., & Goerge, R. (2011). *Errors in survey reporting and imputation and their effects on estimation of food stamp participation*. Working Paper, The Harris School, University of Chicago.
- Nord, M. (2008). December 2007 microdata file: technical documentation (CPS Food Security Supplement). U.S. Department of Agriculture, Economic Research Service.
- Nord, M. (2012). *Assessing potential technical enhancements to the U.S. household food security measures* (Report No. TB-1936). U.S. Department of Agriculture, Economic Research Service.
- Nord, M., Andrews, M., & Carlson, S. (2006). *Household food security in the United States, 2005* (Report No. ERR-29). U.S. Department of Agriculture, Economic Research Service.
- Nord, M., Andrews, M., & Carlson, S. (2007). *Household food security in the United States, 2006* (Report No. ERR-49). U.S. Department of Agriculture, Economic Research Service.
- Nord, M., Andrews, M., & Carlson, S. (2008). *Household food security in the United States, 2007* (Report No. ERR-66). U.S. Department of Agriculture, Economic Research Service.

- Rothbaum, J., & Bee, A. (2021, March 30). *Coronavirus infects surveys, too: Survey nonresponse bias and the coronavirus pandemic* (Report No. WP2020-10). Social, Economic, and Housing Statistics Division working papers, U.S. Department of Commerce, Bureau of the Census Bureau.
- U.S. Department of Agriculture. (2020). *Official USDA food plans: Cost of food at home at four levels, U.S. average, September 2020*. U.S. Department of Agriculture, Center for Nutrition Policy and Promotion.
- U.S. Department of Agriculture. (2021). *Thrifty Food Plan, 2021* (Report No. FNS-916). U.S. Department of Agriculture, Food and Nutrition Service.
- Weinfield, N.S., Mills, G., Borger, C., Gearing, M., Macaluso, T., Montaquila, J., & Zedlewski, S. (2014). *Hunger in America 2014*, national report prepared for Feeding America by Westat and Urban Institute.
- Zeballos, E., & Sinclair, W. (2023). *USDA Economic Research Service's food expenditure series data product*. U.S. Department of Agriculture, Economic Research Service.

Appendix A: Test Questionnaire–September 2020 Food Security Supplement

Test Questionnaire to test recommended changes from Census Cognitive Testing
Draft test questionnaire January 3, 2020

NOTE: This test version starts with the 2019 CPS-FSS questionnaire. HRPOOR may need to be updated before final production in September 2020. Changes from 2018 CPS-FSS to 2019 CPS-FSS questionnaire: There are updates to the POORCK specification (HRPOOR variable). Three new household size and income combinations will be screened into the module in 2019 with POOR now equal to 1 for these groups.

NOTE: Changes are highlighted in yellow below in POORCK specification and shown here:

NUMHOU=1 and FAMINC=8 set POOR=1
NUMHOU=4 and FAMINC=12 set POOR=1
NUMHOU=5 and FAMINC=13 set POOR=1

NOTE: Update year where appropriate to 2020. Update month where appropriate from December to September. Changes for test are highlighted in yellow.

SPECIFICATIONS

Set SUPTM SUPTM is a timer for the entire supplement.

NOTES: <SNAPNAME1> and <SNAPNAME2> are State-specific names for the SNAP/Food Stamp program.

POORCK NUMHOU = 1 and FAMINC = 1, 2, 3, 4, 5, 6, 7, or 8 set POOR=1 else if
NUMHOU = 2 and FAMINC = 1, 2, 3, 4, 5, 6, 7, 8, or 9 set POOR=1 else if
NUMHOU = 3 and FAMINC = 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 set POOR=1 else if
NUMHOU = 4 and FAMINC = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, or 12 set POOR=1 else if
NUMHOU = 5 and FAMINC = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 or 13 set POOR=1 else
if
NUMHOU = 6 and FAMINC = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, or 13
set POOR=1
else if
NUMHOU = 7 and FAMINC = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, or 14
set POOR=1
else if
NUMHOU = 8 and FAMINC = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, or 14
set POOR=1
else if
NUMHOU= 9-16 and FAMINC = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, or 15
set POOR=1
else if
Set POOR = 2.

[LEAD for one-person households] This month we are asking some questions about food used in your household and the ways you are managing to meet your food needs.

[Lead for two or more person households] This month we are asking some questions about food used in your household and the ways you are managing to meet your food needs. (The best person to answer would be the adult most knowledgeable about food shopping and meal preparation. Would that be you or someone else?)

[Change respondent if needed and available, otherwise continue with current respondent]
[If group quarters, go to S9]

I. FOOD EXPENDITURES

S1A If more than one HHMEM=1 has an AGE equal to or greater than 10 fill with second option else fill with first option.

These first questions are about all the places at which you bought food LAST WEEK. By LAST WEEK, I mean from Sunday through Saturday.

First, did (you/anyone in your household) shop for food at a supermarket, grocery store, Walmart or Target LAST WEEK?

<1> Yes
<2> No

Blind <D> or <R>

SCOMPL If onpath entry, D or R in S1A then set SCOMPL=1 otherwise set SCOMPL=0

S1B If more than one HHMEM=1 has an AGE equal to or greater than 10 fill with second option else fill with first option.

Think about other places where people buy food, such as dollar stores, pharmacies, club stores, farmers markets, or online. Did (you/anyone in your household) buy food from any stores such as these LAST WEEK?

<1> Yes
<2> No

Blind <D> or <R>

S1C If more than one HHMEM=1 has an AGE equal to or greater than 6 fill with second option else fill with first option in first parenthetical.

If one or more HHMEM=1 with AGE between 6 and 18 then fill second parenthetical else fill blank.

LAST WEEK, did (you/anyone in your household) buy food at a restaurant, fast food place, cafeteria, deli, convenience store, or vending machine? (Include any children who may have bought food at the school cafeteria).

- <1> Yes
- <2> No

Blind <D> or <R>

S1D If more than one HHMEM=1 has an AGE equal to or greater than 10 fill with second option else fill with first option.

Did (you/anyone in your household) buy food from any other kind of place LAST WEEK?

- <1> Yes
- <2> No

Blind <D> or <R>

SCKA If onpath entry of <2>, <D> or <R> in S1A, S1B, S1C and S1D then skip to S8 else go to SLEAD.

SLEAD Now I'm going to ask you about the **TOTAL** amount you spent on food **LAST WEEK** in all the places where you bought food. Then, since **LAST WEEK** may have been unusual for you, I will ask about the amount you **USUALLY** spend.

<P> Proceed

SCKB If onpath entry of <1> in S1A then ask S2 else skip to SCKC.

S2 If more than one HHMEM=1 has an AGE equal to or greater than 10 fill with second option else fill with first option.

If POOR=1 then fill second parenthetical else fill blank.

How much did (you/anyone in your household) spend in total at supermarkets, grocery stores, Walmart or Target LAST WEEK (including any purchases made with <SNAPNAME1> or food stamp benefits)?

ENTER <0> IF RESPONDENT CAN ONLY GIVE RANGE

\$ _ _ .00

S2CK If entry of <0> in S2 goto S2CK1A else store entry in S2O. If S2O is between \$1.00 and \$450.00 goto S3A else if S2O is equal to D or R go to SCKC otherwise go to S2RC.

S2CK1A *****DO NOT READ TO RESPONDENT *****

Enter range reported by respondent

___.00

If entry is D or R, store in S2O

<1-999> GOTO S2CK1B

<D, R> GOTO SCKC

S2CK1B Enter range reported by respondent

___.00

If entry is D or R, store in S2O

<1-999> GOTO S2RG

<D, R> GOTO SCKC

S2RG Add the entries in S2CK1A and S2CK1B and divide by 2. Store the answer in S2O. If S2O is between \$1.00 and \$450.00 go to S3A otherwise go to S2RC.

S2RC *****DO NOT ASK THE RESPONDENT*****

Amount spent recorded as: (entry in S2O) Is this entry correct?

<1> YES (GO TO S3A)

<2> NO (GO TO S2COR)

S2COR *****DO NOT ASK THE RESPONDENT*****

Incorrect entry was recorded as: (entry in S2O)

Correct entry is:

\$___.00 (store entry in S2O)

S3A **How much of the (fill with S2O) was for non-food items, such as pet food, paper products, alcohol, detergents, or cleaning supplies?**

Enter <1> for whole dollar amount (GOTO S3)

Enter <2> if respondent can only give range (GOTO S3CK2A)

\$___.00

Blind <D> or <R> (GOTO SCKC)

S3 Enter whole dollar amount
 \$ _ _ .00

 Store amount in S3O

 <1-100> GOTO SCKC
 <0, ge 101> GOTO S3RC

S3CK2A *****DO NOT READ TO RESPONDENT*****

Enter range reported by respondent

 _ _ _ .00

 If entry is D or R, store in S3O

 <1-999> GOTO S3CK2B
 <D, R> GOTO SCKC

S3CK2B Enter range reported by respondent

 _ _ _ .00

 If entry is D or R, store in S3O

 <1-999> GOTO S3RG
 <D, R> GOTO SCKC

S3RG Add the entries in S3CK2A and S3CK2B and divide by 2. Store the answer in S3O. Do not allow entry in S3O to be greater than entry in S2O. If S3O is between \$1.00 and \$100.00 go to SCKC otherwise go to S3RC.

S3RC *****DO NOT ASK THE RESPONDENT*****

Amount spent recorded as: (entry in S3O)
Is this entry correct?

 <1> YES (GO TO SCKC)
 <2> NO (GO TO S3COR)

S3COR *****DO NOT ASK THE RESPONDENT*****

Incorrect entry was recorded as: (entry in S3O)
Correct entry is:

 \$ _ _ .00 (store entry in S3O)

Do not allow entry in S3O to be greater than entry in S2O.

SCKC If onpath entry of <1> in S1B then ask S4 else skip to SCKD.

S4 If more than one HHMEM=1 has an AGE equal to or greater than 10 fill with second option else fill with first option.

If POOR=1 then fill second parenthetical with first option else fill with blank.

How much did (you/your household) spend at stores such as dollar stores, pharmacies, club stores, farmers markets, or online LAST WEEK (including any purchases made with <SNAPNAME1> or food stamp benefits)?

Enter whole dollar amount
Enter <0> if respondent can only give range

\$___.00

Blind <D> or <R> (GO TO SCKD)

S4CK If entry of <0> in S4 go to S4CK1A else store entry in S4O. If S4O is between \$1.00 and \$300.00 go to S5 else if S4O is D or R go to SCKD otherwise go to S4RC.

S4CK1A *****DO NOT READ TO RESPONDENT*****

Enter range reported by respondent

___.00

If entry is D or R, store in S4O

<1-999> GOTO S4CK1B
<D, R> GOTO SCKD

S4CK1B Enter range reported by respondent

___.00

If entry is D or R, store in S4O

<1-999> GOTO S4RG
<D, R> GOTO SCKD

S4RG Add the entries in S4CK1A and S4CK1B and divide by 2. Store the answer in S4O. If S4O is between \$1.00 and \$300.00 go to S5A otherwise go to S4RC.

S4RC

*****DO NOT READ TO RESPONDENT*****

Amount spent recorded as: (entry in S4O)

Is this entry correct?

<1> Yes (GO TO S5A)

<2> No (GO TO S4COR)

S4COR

*****DO NOT READ TO RESPONDENT*****

Incorrect entry was recorded as: (entry in S4O)

Correct entry is:

\$ _ _ .00 (store entry in S4O)

S5A

How much of the \$(fill with S4O) was for non-food items, such as pet food, paper products, alcohol, detergents, or cleaning supplies?

Enter <1> for whole dollar amount (GOTO S5)

Enter <2> if respondent can only give range (GOTO S5CK1A)

\$ _ _ .00

Blind <D> or <R> (GOTO SCKD)

S5

Enter whole dollar amount

\$ _ _ .00

Store amount in S5O

<1-100> GOTO SCKD

<D, R, 0, ge 101> GOTO S5RC

S5CK1A

*****DO NOT READ TO RESPONDENT*****

Enter range reported by respondent

_ _ _ .00

If entry is D or R, store in S5O

<1-999> GOTO S5CK1B

<D, R> GOTO SCKD

S5CK1B Enter range reported by respondent

 __ __.00

 If entry is D or R, store in S5O

 <1-999> GOTO S5RG

 <D, R> GOTO SCKD

S5RG Add the entries in S5CK1A and S5CK1B and divide by 2. Store the answer in S5O. Do not allow entry in S5O to be greater than entry in S4O. If S5O is between \$1.00 and 100.00 go to SCKD else go to S5RC.

S5RC *****DO NOT ASK THE RESPONDENT*****

 Amount spent recorded as : (entry in S5O)

 Is this entry correct?

 <1> Yes (GO TO SCKD)

 <2> No (GO TO S5COR)

S5COR *****DO NOT ASK THE RESPONDENT*****

 Incorrect entry was recorded as: (entry in S5O)

 Correct entry is:

 \$ __ __.00 (store entry in S5O)

 Do not allow entry in S5O to be greater than entry in S4O.

SCKD If entry of <1> in S1C then ask S6 else skip to SCKE

S6 If more than one HHMEM=1 has an AGE equal to or greater than 10 fill with second option else fill with first option.

How much did (you/your household) spend for food at restaurants, fast food places, cafeterias, delis, convenience stores, and vending machines LAST WEEK, not including alcohol purchases (including any purchases made with (SNAP) or food stamp benefits)?

 Enter whole dollar amount

 Enter <0> if respondent can only give range

 \$ __ __.00

 Blind <D> or <R>

 If entry is 1-999, D, or R store in S6O

<0> GOTO S6CK1A
<1-200, D, R> GOTO SCKE
<ge 201> GOTO S6RC

S6CK1A *****DO NOT READ TO RESPONDENT *****

Enter range reported by respondent

__ __.00

If entry is D or R, store in S6O

<1-999> GOTO S6CK1B
<D, R> GOTO SCKE

S6CK1B Enter range reported by respondent

__ __.00

If entry is D or R, store in S6O

<1-999> GOTO S6RG
<D, R> GOTO SCKE

S6RG Add the entries in S6CK1A and S6CK1B and divide by 2. Store the answer in S6O. If S6O is between \$1.00 and \$200.00 go to SCKE else go to S6RC.

S6RC *****DO NOT ASK THE RESPONDENT*****

Amount spent recorded as : (entry in S6O)
Is this entry correct?

<1> Yes (GO TO SCKE)
<2> No (GO TO S6COR)

S6COR *****DO NOT ASK THE RESPONDENT*****

Incorrect entry was recorded as: (entry in S6O)
Correct entry is:

\$__ __.00 (store entry in S6O)

SCKE If entry of <1> in S1D then ask S7 else skip to SCKE.

S7 If more than one HHMEM=1 has an AGE equal to or greater than 10 fill with second option else fill with first option.

How much did (you/your household) spend for food at any other kind of place LAST WEEK?

Enter whole dollar amount

Enter <0> if respondent can only give range

\$___.00

Blind <D> or <R>

If entry is 1-999, D, or R store in S7O

<0> GOTO S7CK1A

<1-150> GOTO SCKF

<ge 151> GOTO S7RC

<D, R> GOTO SCKF

S7CK1A *****DO NOT READ TO RESPONDENT *****

Enter range reported by respondent

___.00

If entry is D or R, store in S7O

<1-999> GOTO S7CK1B

<D, R> GOTO SCKF

S7CK1B Enter range reported by respondent

___.00

If entry is D or R, store in S7O

<1-999> GOTO S7RG

<D, R> GOTO SCKF

S7RG Add the entries in S7CK1A and S7CK1B and divide by 2. Store the answer in S7O. If S7O is between \$1.00 and \$150.00 go to SCKF otherwise go to S7RC.

S7RC *****DO NOT ASK THE RESPONDENT*****

Amount spent recorded as: (entry in S7O)

Is this entry correct?

<1> YES (GO TO SCKF)

<2> NO (GO TO S7COR)

Incorrect entry was recorded as: (entry in S7O)

Correct entry is:

\$___.00 (store entry in S7O)

SCKF

If any amounts 0 or over in S2O, S4O, S6O or S7O then add together and store in SFDAMT. If any amounts 0 or over in S3O or S5O, then add these together and store in SNFAMT. Subtract SNFAMT from SFDAMT and store the result in S8O.

S8A

If (entry of D or R in S2, S4, S6, and S7) or (S8O equals 0) or (onpath entry of <2>, <D>, or <R> in S1A, S1B, S1C and S1D) then fill first parenthetical with first option else fill with second option.

If more than one HHMEM=1 has an AGE equal to or greater than 10 fill remaining parentheticals with second option else fill with first.

If POOR= 1 fill last parenthetical with first option else fill with blank.

(Let's see, it seems that (you/your household) did not buy any food LAST WEEK. / Let's see, (you/your household) spent about (fill with S8O) on food LAST WEEK.) Now think about how much (you/anyone in 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 <SNAPNAME1> or food stamp benefits). Do not include non-food items such as pet food, paper products, detergent or cleaning supplies.

Enter <1> for whole dollar amount

Enter <2> if respondent can only give range

Blind <D> or <R>

If entry is D or R store in S8OU

<1> GOTO S8

<2> GOTO S8CK1A

<D, R> GOTO S9

S8

Enter whole dollar amount

\$___.00

Store amount in S8OU

<0> GOTO S8ZA

<1-450> GOTO S8B

<ge 451> GOTO S8RC

<D, R> GOTO S9

S8CK1A

*****DO NOT READ TO RESPONDENT *****

Enter range reported by respondent

___.00

If entry is D or R, store in S8OU

<1-999> GOTO S8CK1B

<D, R> GOTO S9

S8CK1B

Enter range reported by respondent

___.00

If entry is D or R, store in S8OU

<1-999> GOTO S8RG

<D, R> GOTO S9

S8RG

Add the entries in S8CK1A and S8CK1B and divide by 2. Store the answer in S8OU. If S8OU is between \$1.00 and \$450.00 go to S8B otherwise go to S8RC.

S8ZA

If that is because you shop for food only once in a while, how much would you say you spend in total in a month?

NOTE: This question previously asked "If that is because you shop for food infrequently, how much would the weekly average be over several weeks?" The previous version asked the respondent to determine the weekly average. The new question asks the respondent how much they spend in a month. The survey software instrument will then calculate the weekly average for the respondent. Census will need to provide guidance on how this change should be reflected in the interviewer instructions below. We still want to enter a weekly average in the data even though the question now asks for a monthly average.

Enter <1> for whole dollar amount or if the amount really is zero

Enter <2> if respondent can only give range

Blind <D> or <R>

If entry is D or R store in S8OU

<1> GOTO S8Z

<2> GOTO S8ZCK1A

<D, R> GOTO S9

S8Z

Enter whole dollar amount

\$___.00

Store amount in S8OU **NOTE: Divide by 4 before storing in S8OU**

<0> GOTO S8RC

<1-450> GOTO S8B

<ge 451> GOTO S8RC

S8ZCK1A *****DO NOT READ TO RESPONDENT *****

Enter range reported by respondent

___.00

If entry is D or R, store in S8OU

<1-999> GOTO S8ZCK1B

<D, R> GOTO S9

S8ZCK1B Enter range reported by respondent

___.00

If entry is D or R, store in S8OU

<1-999> GOTO S8ZRG

<D, R> GOTO S9

S8ZRG Add the entries in S8ZCK1A and S8ZCK1B and divide by 2. Store the answer in S8OU.
NOTE: Divide by 4 before storing in S8OU If S8OU is between \$1.00 and \$450.00 go to S8B otherwise go to S8RC.

S8RC *****DO NOT ASK THE RESPONDENT*****

Amount spent recorded as: (entry in S8OU)

Is this entry correct?

<1> Yes (GO TO S8B)

<2> No (GO TO S8COR)

S8COR *****DO NOT ASK THE RESPONDENT*****

Incorrect entry was recorded as: (entry in S8OU)

Correct entry is:

\$ ___.00

II. MINIMUM SPENDING NEED TO HAVE ENOUGH FOOD

S8B If NUMHOU = 1 then fill parenthetical with first option else fill with second option.

In order to buy just enough food to meet (your needs/the needs of your household), would you need to spend more than you do now, or could you spend less?

*****DO NOT READ*****

- <1> More (GO TO S8C)
- <2> Less (GO TO S8D)
- <3> Same (GO TO S9)
- Blind <D> or <R> (GO TO S9)

S8C **About how much MORE would you need to spend each week to buy just enough food to meet the needs of your household?**

Enter whole dollar amount
Enter <0> if respondent can only give range

\$___.00

Blind <D> or <R>

If entry is 1-999, D, or R store in S8CO

<0> GOTO S8CCKA
<1-999, D, R> GOTO S9

S8CCKA *****DO NOT READ TO RESPONDENT*****

Enter range reported by respondent

____.00

If entry is D or R, store in S8CO

<1-999> GOTO S8CCKB
<D, R> GOTO S9

S8CCKB Enter range reported by respondent

____.00

If entry is D or R, store in S8CO

<1-999> GOTO S8CRG
<D, R> GOTO S9

S8CRG Add the entries in S8CCKA and S8CCKB and divide by 2. Store the answer in S8CO.
GOTO S9.

S8D About how much LESS could you spend each week and still buy enough food to meet the needs of your household?

Enter whole dollar amount

Enter <0> if respondent can only give range

\$___.00

Blind <D> or <R>

If entry is 1-999, D, or R store in S8DO

<0> GOTO S8DCKA

<1-999, D, R> GOTO S9

S8DCKA *****DO NOT READ TO RESPONDENT *****

Enter range reported by respondent

___.00

If entry is D or R, store in S8DO

<1-999> GOTO S8DCKB

<D, R> GOTO S9

S8DCKB Enter range reported by respondent

___.00

If entry is D or R, store in S8DO

<1-999> GOTO S8DRG

<D, R> GOTO S9

S8DRG Add the entries in S8DCKA and S8DCKB and divide by 2. Store the calculated value in S8DO. GOTO S9.

III. FOOD SUFFICIENCY AND FOOD SECURITY

S9_Lead The next questions are about the food eaten in your household in the last 12 months, since September of last year, and whether you were able to afford the food you need.

S9 In the last 12 months, since September of last year, did you ever run short of money and try to make your food or your food money go further?

<1> Yes (GO TO SS1)

<2> No (GO TO SS1)

Blind <D> or <R> (GO TO SS1)

If NUMHOU = 1 then fill parenthetical with first option else fill with second option.

SS1 Which of these statements best describes the food eaten in your household—enough of the kinds of food (I/we) want to eat, enough but not always the kinds of food (I/we) want to eat, sometimes not enough to eat, or often not enough to eat?

<1> Enough of the kinds of food we want to eat

<2> Enough but not always the kinds of food we want to eat

<3> Sometimes not enough to eat

<4> Often not enough to eat

Blind <D> or <R>

SX1CK If POOR=2 and (SS1= <1> or <R>) and (S9= <2> or <R>), then go to END OF SUPPLEMENT else ask SS2

NOTE: ADULT_COUNT=number of household members with AGE>=18 or PURRP=1, 2, 3, 13, or 14

CHILD_COUNT=number of household members with AGE<=17 and PURRP>=4 and PURRP not 13 or 14

SS2 If ADULT_COUNT=1 for the household then fill first option in parenthetical else fill second option.

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 OFTEN true, SOMETIMES true, or NEVER true for (you/your household) in the last 12 months.

The first statement is "(I/We) worried whether (my/our) food would run out before (I/we) got money to buy more." Was that OFTEN true, SOMETIMES true, or NEVER true for (you/your household) in the last 12 months?

<1> Often true

<2> Sometimes true

<3> Never true (GO TO SS3)

Blind <D> or <R> (GO TO SS3)

SSM2

Did this ever happen in the last 30 days?

<1> Yes

<2> No

Blind <D> or <R>

SS3

"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 12 months?

<1> Often true

<2> Sometimes true

<3> Never true (GO TO SS4)

Blind <D> or <R> (GO TO SS4)

SSM3

Did this ever happen in the last 30 days?

<1> Yes

<2> No

Blind <D> or <R>

SS4

"(I/we) couldn't afford to eat balanced meals." Was that OFTEN, SOMETIMES or NEVER true for (you/ your household) in the last 12 months?

<1> Often true (GO TO SSM4)

<2> Sometimes true (GO TO SSM4)

<3> Never true (GO TO SX2CK)

Blind <D> or <R> (GO TO SX2CK)

SSM4

Did this ever happen in the last 30 days?

<1> Yes

<2> No

Blind <D> or <R>

SX2CK If SS1 = <3> or <4> OR SS2 = <1> or <2> OR SS3 = <1> or <2> OR SS4 =
<1> or <2> then go to SH2
else go to SX4CK.

SH2 If ADULT_COUNT=1 for the household then fill first option in parenthetical else fill second option.

In the last 12 months, did (you/you or other adults in your household) ever cut the size of your meals or skip meals because there wasn't enough money for food?

<1> Yes

<2> No (GO TO SH3)

Blind <D> or <R> (GO TO SH3)

SHF2 **How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?**

<1> Almost every month

<2> Some months but not every month

<3> Only 1 or 2 months

Blind <D> or <R>

SHM2 If ADULT_COUNT=1 for the household then fill first option in parenthetical else fill second option.

Now think about the last 30 days. During that time did (you/you or other adults in your household) ever cut the size of your meals or skip meals because there wasn't enough money for food?

<1> Yes

<2> No (GO TO SH3)

Blind <D> or <R> (GO TO SH3)

SHMF2 **How many days did this happen in the last 30 days?**

_____number of days (GO TO SH3)

<1-30>

Blind <D> or <R> (GO TO SH3)

SH3 **In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?**

<1> Yes

<2> No (GO TO SH4)

Blind <D> or <R> (GO TO SH4)

- SHF3 **How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?**
- <1> Almost every month
 <2> Some months but not every month
 <3> Only 1 or 2 months
- Blind <D> or <R>
- SHM3 **Did this happen in the last 30 days?**
- <1> Yes
 <2> No (GO TO SH4)
- Blind <D> or <R> (GO TO SH4)
- SHMF3 **In the last 30 days, how many days did you eat less than you felt you should because there wasn't enough money for food?**
- _____ number of days
 <1-30>
- Blind <D> or <R>
- SH4 **In the last 12 months, were you ever hungry but didn't eat because there wasn't enough money for food?**
- <1> Yes
 <2> No (GO TO SH5)
- Blind <D> or <R> (GO TO SH5)
- SHF4 **How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?**
- <1> Almost every month
 <2> Some months but not every month
 <3> Only 1 or 2 months
- Blind <D> or <R>
- SHM4 **Did this happen in the last 30 days?**
- <1> Yes
 <2> No (GO TO SH5)
- Blind <D> or <R> (GO TO SH5)

SHMF4 **In the last 30 days, how many days were you hungry but didn't eat because there wasn't enough money for food?**

_____ number of days
<1-30>

Blind <D> or <R>

SH5 **In the last 12 months, did you lose weight because there wasn't enough money for food?**

<1> Yes
<2> No (GO TO SX3CK)

Blind <D> or <R> (GO TO SX3CK)

SHM5 **Did this happen in the last 30 days?**

<1> Yes
<2> No

Blind <D> or <R>

SX3CK If SH2=<1> OR SH3=<1> OR SH4=<1> OR SH5=<1> then continue to SSH1 else skip to SX4CK

SSH1 If ADULT_COUNT=1 for the household then fill first option in parenthetical else fill second option.

In the last 12 months, did (you/you or other adults in your household) ever not eat for a whole day because there wasn't enough money for food?

<1> Yes
<2> No (GO TO SX4CK)

Blind <D> or <R> (GO TO SX4CK)

SSHF1 **How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?**

<1> Almost every month
<2> Some months but not every month
<3> Only 1 or 2 months

Blind <D> or <R>

SSHM1 If ADULT_COUNT=1 for the household then fill first option in parenthetical else fill second option.

Now think about the last 30 days. During that time did (you/you or other adults in your household) ever not eat for a whole day because there wasn't enough money for food?

<1> Yes

<2> No (GO TO SX4CK)

Blind <D> or <R> (GO TO SX4CK)

SSHMF1 How many times did this happen in the last 30 days?

_____ times

<1-30>

Blind <D> or <R>

SX4CK If CHILD_COUNT is greater than or equal to 1 in household go to SS5 else skip to SP1.

SS5_LEAD 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 **OFTEN** true, **SOMETIMES** true, or **NEVER** true in the last 12 months for any child under 18 years old living in the household.

SS5 If ADULT_COUNT=1 for the household fill first, third, fourth and fifth parenthetical with first option else fill with second option.

If CHILD_COUNT=1 then fill second parenthetical with first option else fill with second option.

"(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 12 months?

<1> Often true

<2> Sometimes true

<3> Never true (GO TO SS6)

Blind <D> or <R> (GO TO SS6)

SSM5 Did this ever happen in the last 30 days?

<1> Yes

<2> No

Blind <D> or <R>

SS6	<p>If ADULT_COUNT=1 fill first, third, fourth and fifth parenthetical with first option else fill with second option.</p> <p>If CHILD_COUNT=1 then fill second parenthetical with first option else fill with second option.</p> <p>"(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 OFTEN, SOMETIMES or NEVER true for (you/your household) in the last 12 months?</p> <p><1> Often true (GO TO SSM6) <2> Sometimes true (GO TO SSM6) <3> Never true (GO TO SH1)</p> <p>Blind <D> or <R> (GO TO SH1)</p>
SSM6	<p>Did this ever happen in the last 30 days?</p> <p><1> Yes <2> No</p> <p>Blind <D> or <R></p>
SH1	<p>If ADULT_COUNT=1 then fill second, third, and fourth parenthetical with first option else fill with second option.</p> <p>If CHILD_COUNT=1 then fill first parenthetical with first option else fill with second option.</p> <p>"(The child in (my/our) household was/The children were) not eating enough because there wasn't enough money for food." Was that OFTEN, SOMETIMES or NEVER true for (you/ your household) in the last 12 months?</p> <p><1> Often true <2> Sometimes true <3> Never true (GO TO SX5CK)</p> <p>Blind <D> or <R> (GO TO SX5CK)</p>
SHM1	<p>Did this ever happen in the last 30 days?</p> <p><1> Yes <2> No</p> <p>Blind <D> or <R></p>

SX5CK If SS5 = <1> or <2> OR SS6 = <1> or <2> OR SH1 = <1> or <2> go to SSH2 else skip to
 SP1.

SSH2 If CHILD_COUNT=1 then fill with first option else fill with second option.

In the last 12 months, did you ever cut the size of (the child's/any of the children's) meals because there wasn't enough money for food?

- <1> Yes
- <2> No (GO TO SSH3)

Blind <D> or <R> (GO TO SSH3)

SSHF2 **How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?**

- <1> Almost every month
- <2> Some months but not every month
- <3> Only 1 or 2 months

Blind <D> or <R>

SSHM2 **Did this happen in the last 30 days?**

- <1> Yes
- <2> No (GO TO SSH3)

Blind <D> or <R> (GO TO SSH3)

SSHMF2 If CHILD_COUNT=1 then fill with first option else fill with second option.

In the last 30 days, how many days did you cut the size of (the child's/any of the children's) meals because there wasn't enough money for food?

_____days
<1-30>

Blind <D> or <R>

SSH3 If CHILD_COUNT=1 then fill with first option else fill with second option.

In the last 12 months, (was the child/were the children) ever hungry because there wasn't enough money for food?

<1> Yes

<2> No (GO TO SSH4)

Blind <D> or <R> (GO TO SSH4)

SSHF3 **How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?**

<1> Almost every month

<2> Some months but not every month

<3> Only 1 or 2 months

Blind <D> or <R>

SSHM3 **Did this happen in the last 30 days?**

<1> Yes

<2> No (GO TO SSH4)

Blind <D> or <R> (GO TO SSH4)

SSHMF3 If CHILD_COUNT=1 then fill with first option else fill with second option.

In the last 30 days, how many days (was the child/were the children) hungry because there wasn't enough money for food?

_____ number of days

<1-30>

Blind <D> or <R>

SSH4 If CHILD_COUNT=1 then fill with first option else fill with second option.

In the last 12 months, did (the child/any of the children) ever skip a meal because there wasn't enough money for food?

<1> Yes

<2> No (GO TO SSH5)

Blind <D> or <R> (GO TO SSH5)

- SSH4 **How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?**
- <1> Almost every month
 <2> Some months but not every month
 <3> Only 1 or 2 months
- Blind <D> or <R>
- SSHM4 If CHILD_COUNT=1 then fill with first option else fill with second option.
- Now think about the last 30 days. Did (the child/any of the children) ever skip a meal during that time because there wasn't enough money for food?**
- <1> Yes
 <2> No (GO TO SSH5)
- Blind <D> or <R> (GO TO SSH5)
- SSHMF4 **How many days did this happen in the last 30 days?**
- _____days
 <1-30>
- Blind <D> or <R>
- SSH5 If CHILD_COUNT=1 then fill with first option else fill with second option.
- In the last 12 months, did (the child/any of the children) ever not eat for a whole day because there wasn't enough money for food?**
- <1> Yes
 <2> No (GO TO SP1)
- Blind <D> or <R> (GO TO SP1)
- SSHM5 **Did this happen in the last 30 days?**
- <1> Yes
 <2> No
- Blind <D> or <R>
 All responses go to SP1

IV. FOOD PROGRAM PARTICIPATION

SP1_LEAD Sometimes people need help getting food for their household. There are many programs that can help.

SP1 If hhnum=1 fill with first option else fill with second.

In the past 12 months, since September of last year, did (you/anyone in this household) get <SNAPNAME2> or food stamp benefits?

<1> Yes (GO TO SP2)

<2> No (GO TO SP6CK)

Blind <D> or <R> (GO TO SP6CK)

NOTE: Since the test interview will be in September, it will change how months of SNAP receipt and receipt within 30 days of interview are asked about. SP2 and SP2DCK and SP2D below may need more revision.

SP2 In which months since September of last year were <SNAPNAME1> or food stamp benefits received?

DO NOT READ LIST. MARK ALL THAT APPLY

<1> January 2020

<2> February 2020

<3> March 2020

<4> April 2020

<5> May 2020

<6> June 2020

<7> July 2020

<8> August 2020

<9> September 2020

<10> October 2019

<11> November 2019

<12> December 2019

<13> All

SP2DCK If SP2 = 8 AND ≠ 9 AND ≠ 13 go to SP2D else go to SP3

SP2D

If hhnum = 1 fill with first option else fill with second.

On what date in **August** did (you/your household) receive <SNAPNAME1> or food stamp benefits?

SP2D

Day_____

<1-31>

Blind <D> or <R>

SP3

If hhnum=1 fill with first option else fill with second.

How much did (you/your household) receive the last time you got <SNAPNAME1> or food stamp benefits?

\$ _ _ .00

Blind <D> or <R>

SP3CK

Store entry in SP3O. If SP3O is between \$1.00 and \$700.00 go to SP6CK otherwise go to SP3RC.

SP3RC

*****DO NOT ASK THE RESPONDENT*****

AMOUNT RECEIVED RECORDED AS: (entry in SP3O)
IS THIS ENTRY CORRECT?

<1> YES (GO TO SP6CK)

<2> NO (GO TO SP3COR)

SP3COR

*****DO NOT ASK THE RESPONDENT*****

INCORRECT ENTRY WAS RECORDED AS: (entry in SP3O) CORRECT ENTRY IS:

\$ _ _ .00 (store entry in SP3O)

Items SP3 through SP3COR go into making the out variable SP3O. This is the amount received in food stamp benefits.

SP6CK

If HHMEM=1 and AGE is 5 THROUGH 18 for anyone in the household ask SP6 else skip to SP7ACK.

SP6 If 1 or more children under 5 years old, fill parenthetical, else fill blank.

During the past 30 days, did any children in the household (between 5 and 18 years old) receive free or reduced-price lunches at school?

<1> Yes

<2> No (GO TO SP7ACK)

Blind <D> or <R> (GO TO SP7ACK)

SP7 If 1 or more children under 5 years old, fill parenthetical, else fill blank.

During the past 30 days, did any children in the household (between 5 and 18 years old) receive free or reduced-price breakfasts at school?

<1> Yes

<2> No

Blind <D> or <R>

NEW 1 If 1 or more children under 5 years old, fill parenthetical, else fill blank.

During the past 30 days, did any children in the household (between 5 and 18 years old) receive a free or reduced-price meal or snack at an after school program?

<1> Yes

<2> No

Blind <D> or <R>

Note: Question "NEW 1" is a newly added question. It does not replace any previous item.

SP7ACK If HHMEM=1 and AGE is 0-6 for anyone in the household ask SP7A
else skip to SP8CK.

SP7A If only 1 child under age 6 fill with first option else fill with second option

During the past 30 days, did any children in the household (under 6 years old) receive free or reduced-price food at a day-care or Head Start program?

<1> Yes

<2> No

Blind <D> or <R>

SP8CK If [(SEX=2 and AGE = 15-45) OR (AGE 0-4)] and HHMEM=1 for anyone in the household then ask SP8 else skip to "NEW 2"

SP8 If [(SEX=2 and AGE=15-45) for any hh member and (AGE=0-4) for any hh member] then fill second option else if

(SEX=2 and AGE=15-45) for any hh member and (no AGE=0-4) for any hh member then fill first option else fill third option.

During the past 30 days, did any (women/women or children/children) in this household get food through the WIC program?

<1> Yes

<2> No (GO TO "NEW 2")

Blind <D> or <R> (GO TO "NEW 2")

SP9 If [(SEX=2 and AGE=15-45) for any hh member and (AGE=0-4) for any hh member] then fill second option else if

(SEX=2 and AGE=15-45) for any hh member and (no AGE=0-4) for any hh member then fill first option else fill third option.

How many (women/women or children/children) in the household got WIC foods?

Number _____

Blind <D> or <R>

V. COMMUNITY FOOD ASSISTANCE

SC1CK If HHMEM = 1 and AGE is 60 years old or older of anyone in the household ask SC1 else go to SC3.
=====

SC1 If more than one person in household fill with second option, else fill with first option.

During the past 30 days, did (you/anyone in this household) receive any meals delivered to the home from community programs, "Meals on Wheels," or any other programs?

<1> Yes

<2> No

Blind <D> or <R>

SC2 — If more than one person in household fill with second option, else fill with first option.

During the past 30 days, did (you/anyone in this household) go to a community program or senior center to eat prepared meals?

<1> Yes

<2> No

Blind <D> or <R>

NOTE: Items SC1 and SC2 will be deleted. These questions are incorporated into "NEW 3" below.

For items "NEW 2" and "NEW 3," if only 1 HHMEM = 1 and (AGE>=18 or PURRP <=3) in household then fill first parenthetical with first option else fill with second option.

NEW 2 (Replaces SC3) **In the last 12 months, did (you/you or anyone in your household) ever get free groceries from a food pantry, food bank, church, or other place that helps with free food?**

<1> Yes

<2> No (GO TO SC3A)

Blind <D> or <R> (GO TO SC4)

SCF3 **How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?**

<1> Almost every month

<2> Some months but not every month

<3> Only 1 or 2 months

Blind <D> or <R>

SCM3 **Did this happen in the last 30 days?**

<1> Yes (GO TO SC4)

<2> No (GO TO SC4)

SC3A **Is there a food pantry, food bank, church, or other place in your community where you could get free groceries if you needed it?**

<1> Yes

<2> No

Blind <D> or <R>

NEW 3 (Replaces SC4) **In the last 12 months, have (you/you or anyone in your household) received a free meal from a church, shelter, home-delivered meal service like Meals on Wheels, or other place that helps with free meals?**

<1> Yes

<2> No (GO TO **NEW 4**)

Blind <D> or <R> (GO TO **NEW 4**)

SCF4 **How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?**

<1> Almost every month

<2> Some months but not every month

<3> Only 1 or 2 months

Blind <D> or <R>

SCM4 **Did this happen in the last 30 days?**

<1> Yes

<2> No

Blind <D> or <R>

NEW 4 **Is there a church, shelter, home-delivery meal service like Meals on Wheels, or other place in your community where you could get free meals if you needed it?**

<1> Yes

<2> No

Blind <D> or <R>

NOTE: "NEW 4" is a newly added item. It does not replace any previous items.

SSPCK1 (Interviewer query, do not read)
Did you use the Spanish language version for none, some, or all of the questions about having adequate food?

<1> None

<2> Some

<3> All

*****END OF SUPPLEMENT*****