



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

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What Is the Issue?

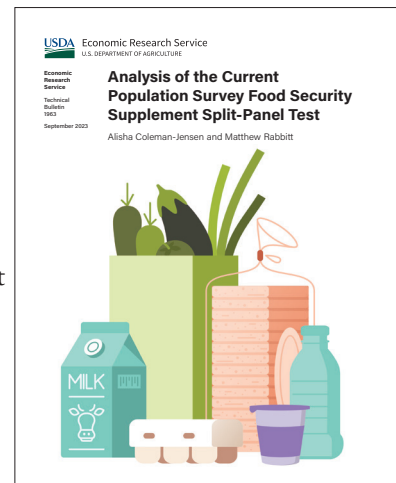
The U.S. Department of Agriculture (USDA) has monitored the extent and severity of household food insecurity in the United States for more than 25 years. USDA defines food-insecure households as those that had difficulty at some time during the year providing enough food for all their members because 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.