



Examining an “Experimental” Food-Security-Status Classification Method for Households With Children

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What Is the Issue?

USDA has measured food security in U.S. households since 1995, and USDA’s Economic Research Service continues to refine food security measurement. An accurate food security measure is important for monitoring trends in food insecurity and for conducting policy-relevant research, including understanding the relationship between nutrition assistance and food insecurity. As such, ERS conducts ongoing research on the food security measure.

A review of USDA’s food-security-measurement methods by the National Academies Committee on National Statistics indicated that some long-known statistical biases in the measure should be addressed to make estimates of food insecurity between households with and without children more comparable. Nord and Coleman-Jensen (2014) presented an alternative (“experimental”) approach for classifying food security status based on the food security measure that addresses these statistical biases.

In this report, we examine which food-security-status classification approach (current or experimental) performs better by comparing how well the approaches relate to other indicators of food inadequacy, including food insufficiency, unmet food needs, and food pantry use. We also examine differences in demographic characteristics, dietary quality scores, and self-assessed dietary quality between households classified using the current versus experimental food security approach.

What Did the Study Find?

In this report, we refer to the largest group of households with a different food security status on the experimental and current classification approaches as “discordant households.” These are households with two affirmative responses to the adult food security questions and one affirmative response to the child questions. With the current approach, these households are classified as food insecure because they meet the standard threshold of three affirmative responses to all 18 items. With the experimental approach, these households are classified as food secure because neither adults nor children, independently, are food insecure. We focus on this group of discordant households as a window into which classification approach more consistently represents the characteristics and reported needs of these households.

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.

- In discordant households, we find that reports of food insufficiency, unmet food needs, and use of a food pantry are more consistent with the results of the current food-security-status classification approach than the experimental classification approach.
 - A larger share of *discordant* households indicate food insufficiency, unmet food needs, or use of a food pantry than do households classified as food secure with both classifications. For example, 8.8 percent of *discordant* households indicate they are food insufficient (sometimes or often not enough to eat), while 4.7 percent of households classified as food secure by both approaches indicate food insufficiency—a statistically significantly smaller percentage.
- Household characteristics of discordant households resemble those of households classified as low food secure with both approaches, and they significantly differ from households classified as food secure on both. This finding suggests the current classification approach more closely represents the characteristics of discordant households than the experimental approach does.
- No meaningful differences in dietary quality are apparent between the current and experimental food-security-classification approaches when differences in scores on the Healthy Eating Index (HEI) are examined along with self-reported dietary quality. HEI measures diet quality by its conformance to USDA’s Dietary Guidelines for Americans—a report updated every 5 years that contains nutritional and dietary information for the public.
- The evidence so far is not strong enough to favor one classification approach over the other. There are advantages to each approach, and researchers have several options they can use in empirical analyses to ensure the food security statuses of households with and without children are directly comparable.

How Was the Study Conducted?

Two data sources are used in the analysis. The first is the Current Population Survey Food Security Supplement (CPS-FSS), an annual, nationally representative survey of U.S. civilian households sponsored by ERS and conducted by the U.S. Census Bureau. The CPS-FSS is the source for USDA food security statistics, and data are used for the years 2008-15. We use cross-tabulations to examine whether the experimental or current food security classification is more consistent with other indicators of food inadequacy and conduct t-tests to determine if differences are statistically significant. We also estimate logistic regression models to examine the characteristics related to being in the discordant household group. The second data source is the National Health and Nutrition Examination Survey (NHANES), from which we use waves from 2005-06, 2007-08, 2009-10, and 2011-12 to examine the associations between the food-security-status classifications and dietary outcomes.