

RIDGE PROGRAM SPOTLIGHT

Household Food Security Responses for SNAP Participants and Nonparticipants



The Supplemental Nutrition Assistance Program (SNAP) is the most important U.S. safety net program designed to reduce household food insecurity and hunger. SNAP's beneficial impact may differ across the various food-related hardships in the official survey that the federal government uses to measure household food insecurity. For example, SNAP might reduce feelings of anxiety or worry by assuring a certain minimal floor of monthly food acquisition; it might reduce the odds of having food not last during the month, depending in part on the timing of the monthly cycle in benefits and food use; it might make it easier for households to have balanced meals, especially if the program's rules steer households toward grocery food options rather than restaurant food options; and so forth for the other survey items.

In research published in 2024 in *Applied Economics Perspectives and Policy*, Drs. Parke Wilde (Tufts University) and Irma Arteaga (University of Missouri) found evidence that SNAP's associations with food-related hardship are larger for some survey items than for others, a pattern known as differential item function (DIF), as in panel (b) of the figure at right. Under the assumptions of statistical models commonly used in food security measurement research, there is no DIF, so one might have expected SNAP to reduce the odds of each type of hardship in parallel, as in panel (a). "The most distinct pattern we found was between survey items about worry and about *difficulty acquiring balanced meals*," Dr. Arteaga explained. "SNAP participants were more likely than nonparticipants to report worry, but this gap between participants and nonparticipants was much smaller for the survey item about balanced meals." Dr. Wilde added, "This research suggests the possibility of future research exploring program innovations specially designed to reduce particular types of hardship."

In addition to helping manage the RIDGE Partnership, Drs. Wilde and Arteaga directed a USDA-supported small grants program on innovations in measuring household food insecurity, to mark the 25th anniversary of modern survey-based food security measurement in the United States (see the "Foodsec 25 accomplishments" tab on the RIDGE Partnership website linked below). This research was published in a special issue of the *Journal of the Academy of Nutrition and Dietetics* edited by Dr. Elaine Waxman of the Urban Institute, including articles on how Latino/a parents interpret food security survey items, alternate survey instruments suitable for disaster settings, a new survey scale for individual personal food security measurement, distinct survey response patterns for American Indian and Alaska native adults, and validation of a shortened survey scale.

Wilde, P.E. and Arteaga, I., 2024. Household food security responses for SNAP participants and nonparticipants. *Applied Economic Perspectives and Policy*, 46(4), pp.1338-1354. doi: [10.1002/aepp.13435](https://doi.org/10.1002/aepp.13435)

Arteaga, I. and Wilde, P.E., 2023. Measuring food security in the United States for more than 25 years: History, methods, findings, and opportunities. *Journal of the Academy of Nutrition and Dietetics*, 123(10), pp.S5-S19. doi: [10.1016/j.jand.2023.01.007](https://doi.org/10.1016/j.jand.2023.01.007)

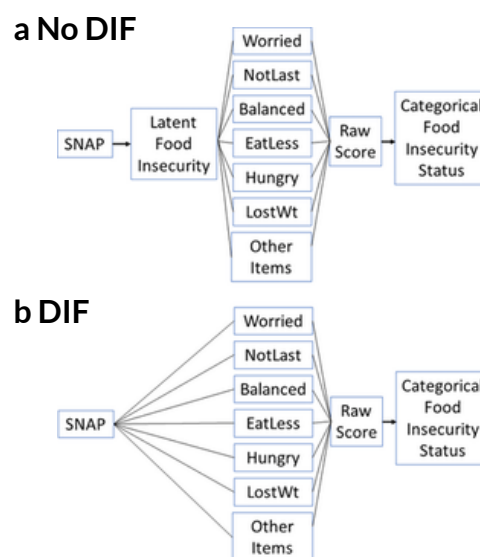


Figure 1. The effect of Supplemental Nutrition Assistance Program (SNAP) on Food Insecurity without and with differential item function (DIF).