Food and Nutrition Service, Office of Policy Support

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MEASURING THE EFFECT OF SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM (SNAP) PARTICIPATION ON FOOD SECURITY (SUMMARY)

Background and Objectives

SNAP is designed to reduce food insecurity – reduced food intake or disrupted eating patterns in a household due to lack of money or other resources – but data quantifying this effect is limited. The objectives of this study were to:

- Assess how food security and food expenditures vary with SNAP participation.
- Examine how relationships between SNAP and food security and between SNAP and food expenditures vary by household characteristics and circumstances.

Estimating the effect of SNAP on food insecurity using household survey data is challenging because households that choose to participate in SNAP can differ in systematic ways from households that do not participate, making it hard to distinguish the impact of SNAP from these other factors.

This study sought to control for the SNAP participation "selection bias" by comparing information collected from households within days of entering the program (new entrants) to information obtained after about 6 months of participation.

Methods

Data were collected from October 2011 through September 2012 using computer-assisted telephone interviewing (CATI). A total of 9,811 households were interviewed in 30 States.

The survey included USDA's 18-question food security module, but focused on a household's experience over the previous 30 days. Household food security was measured using the 10 adult-referenced questions, and children's food security status was measured using the 8-

question child scale. The survey also included a food expenditure module.

All analyses are based on two sets of comparisons: a cross-sectional comparison of new-entrant households with others that had been on SNAP for about 6 months, and a longitudinal comparison of those same new entrants with their circumstances after about 6 months of SNAP participation (see fig. 1).

Longitudinal Analysis New-Entrant New-Entrant **SNAP Households SNAP Households** n = 3,275 out of 6,436 After Six Months Completed interviews n = 3,275Cross-Sectional Analysis Six-Month **SNAP Households** n = 3.375Baseline Data Collection Follow-up Data Collection

Figure 1: Study Design

Key Findings

April 2012-September 2012

October 2011-February 2012

Participating in SNAP for 6 months was associated with a decrease in food insecurity by about 5 to 10 percentage points, including households with food insecurity among children.

• The percentage of *households that were food insecure* decreased by 4.6 percentage points in the cross-sectional sample (from 65.4 to 60.8 percent) and by 10.6 percentage points in the longitudinal sample (from 65.1 to 54.5 percent).

- The percentage of households that experienced very low food security decreased by 5.0 percentage points in the cross-sectional sample (from 36.4 to 31.4 percent) and by 6.3 percentage points in the longitudinal sample (from 35.9 to 29.6 percent).
- The percentage of *households in which children were food insecure* decreased by 8.6 percentage points in the cross-sectional sample (from 33.3 to 24.8 percent) and by 10.1 percentage points in the longitudinal sample (from 32.3 to 22.2 percent).

Participating in SNAP was associated with improved food security for most subgroups.

- Household Composition. SNAP was associated with improved food security for households with and without children, households without (but not those with) an elderly member, and households with and without a disabled member.
- Household Income. SNAP was associated with improved food security for most household income subgroups in the longitudinal sample, but only for households below 100 percent of poverty in the crosssectional sample.
- SNAP Benefit Amount. SNAP was associated with improved food security for all SNAP benefit levels except households receiving the lowest benefits in the crosssectional sample.

Evidence was mixed as to whether participating in SNAP was associated with changes in household spending on food.

- Participating in SNAP was not associated with a change in usual weekly household food expenditures.
- When usual weekly household food expenditures were analyzed relative to the thrifty food plan (TFP) amount for a household's specific size and composition, SNAP was associated with increased usual expenditures relative to the TFP in the crosssectional sample but not the longitudinal sample.

Conclusion

The study provides additional evidence of the association between participation in SNAP and lower levels of food insecurity. Participating for 6 months was associated with a decrease in food insecurity of about 5 to 10 percentage points. SNAP was associated with lower percentages of households that were food insecure, that experienced very low food security, and in which children were food insecure. This finding was true across most differences in household composition, income, and benefit levels.

For More Information

Mabli, James, Jim Ohls, Lisa Dragoset, Laura Castner, and Betsy Santos. *Measuring the Effect of Supplemental Nutrition Assistance Program (SNAP) Participation on Food Security.* Prepared by Mathematica Policy Research for the U.S. Department of Agriculture, Food and Nutrition Service, August 2013. Available online at www.fns.usda.gov/research-and-analysis

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