

Background

Three decades of research has produced convincing evidence that the Food Stamp Program (FSP) leads participants to increase their expenditures on food. Evidence of the program's impacts on food security and diet quality is less convincing and consistent. The Office of Management and Budget, in a recent performance review of the FSP, recommended that USDA "develop studies to demonstrate the impact of program participation on hunger and dietary status."

The most direct and credible method for evaluating programs like the FSP involves random assignment of a sample of eligible households to two groups, one that receives program benefits and a control group that does not. Such research is neither legal nor ethical, however, because authorizing legislation makes benefits available to all eligible households that apply.

To explore other options, FNS initiated an examination of the potential for non-experimental or survey-based designs to provide new information on how program participation impacts food security, diet quality, and other indicators of household well-being. A work group of independent, technical experts was formed to provide input; their expertise covered the fields of evaluation methods, statistics, nutrition research, survey design and nutrition assistance programs.

Findings

Not even the most ambitious survey-based design can be guaranteed to provide reliable estimates of program impact. There are two fundamental challenges.

Non-experimental designs are vulnerable to selection bias – that is, to pre-existing

differences between program participants and eligible non-participants that may be related to outcomes the program is trying to influence, such as dietary quality. A non-experimental design would attempt to overcome selection bias by incorporating extensive information of factors associated with FSP participation. Even with good information on selection, however, no currently available methods for non-experimental research consistently produce the same results as randomized designs.

The second challenge stems from the fact that little is known about the hypothesized chain of events. It is expected that food stamp participation, by giving households greater food purchasing power, will increase food expenditures which in turn will lead to a sequence of effects including improved household food supply, individual diets and food security. If an evaluation finds little or no impact on dietary quality or on food security which is the result of most prior research, it is impossible to know whether such findings reflect reality or are due to design and/or measurement flaws.

The best hope for a credible non-experimental evaluation of FSP impacts requires new information about the determinants of Program participation and the relationships among expected outcomes. A package of preliminary studies is proposed to provide this information. They are sequenced to build on the results of prior studies in the agenda.

One group of the preliminary studies would focus on identifying key factors that influence the decision to participate in the FSP and then test the effectiveness of a non-experimental design to control for these variables. A second group would collect new data on how individual food expenditures are connected to diet-related behaviors, measure the relationships between these outcomes quantitatively through a two-

wave survey, and then conduct a random-assignment experiment with food stamp households to test whether a benefit increment results impacts food expenditures and diet-related outcomes.

If the preliminary studies demonstrate that a non-experimental evaluation would be credible, a national impact assessment would follow.

The full research program is long, complex and expensive. The report estimates that the initial studies to lay the groundwork for a national impact evaluation would require about 12 years and cost over \$30 million. The national study would require an additional 4 to 5 years and \$5 to \$10 million.

The high costs are driven by multiple factors. They include a set of outcomes that are costly to measure, the need to collect outcome data from households on more than one occasion, and the need for large sample sizes.

The proposed research agenda can be trimmed but doing so introduces some risk. Omitting some studies from the agenda means taking a gamble that the information they provide is not essential to supporting a survey-based evaluation. Alternatively, some studies may be combined for greater efficiencies but doing so may increase respondent burden to the level that they are no longer feasible.

Given the costs and uncertainties, some consideration should be given to modifying the research objective. One option is to focus on whether or not the FSP population meets specified targets, such as percent of households who are food secure. Another option is to focus on program components, like nutrition education or incremental improvements, where random assignment is feasible.

For More Information

Burstein, Nancy R., William Hamilton, Mary Kay Fox, Cristofer Price and Michael Battaglia. *Assessing the Food Security and Diet Quality Impacts of FNS Program Participation*. Report prepared for the Food and Nutrition Service, USDA. Cambridge, Massachusetts: Abt Associates, Inc., December 2005.

The independent, technical working group was composed of Tom Cook, Ph.D., Northwestern University; Jim Ohls, Ph.D., Mathematica Policy research; Carol West Sutor, D.Sc., independent consultant; and Chris Winship, Ph.D., Harvard University.

The full report can be found on-line at www.fns.usda.gov/oane

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