

BY PROVIDING ADDITIONAL RESOURCES FOR FOOD, the Supplemental Nutrition Assistance Program (SNAP, previously called the Food Stamp Program) is expected to make people better off—in the immediate term by reducing food insecurity, and in the longer term by enhancing nutrition and health. This brief provides an overview of research on how SNAP is linked to food security, nutrition, health, and obesity. Further, it discusses some of the pervasive challenges in linking policies such as SNAP to complex outcomes such as these, while highlighting some of the critical questions still remaining. The discussion draws on a comprehensive new book, *SNAP Matters: How Food Stamps Affect Health and Well-Being**, edited by the authors of this brief.

Measuring SNAP Impacts

Why is it so hard to measure impacts?

A pervasive challenge in public policy research is how to measure the impacts of programs when exposure to those programs is neither random nor occurring in a vacuum. The counterfactual—or what would have happened in the absence of the program—is missing. Effectively dealing with this challenge is central to conducting high-quality research on the outcomes of SNAP.

The core difficulty is that those who participate in SNAP have, on average, higher levels of food insecurity, worse health, and more risk factors that contribute to poor long-term outcomes, compared to those who are eligible for the program but do not participate. That is, SNAP participation is endogenous to many of the outcomes of interest. Efforts to measure the value added by SNAP need to use appropriate methodological strategies to account for these baseline differences.

A related challenge is that changes in SNAP policy may occur in tandem with other changes in the policy or economic environment, making it complicated to tease out the unique role of SNAP. Furthermore, while some potential outcomes are immediate, others may take longer to emerge, so it may be hard to detect impacts in the near term or to assess causality in the longer term. Data limitations—such as reliance on survey data, in which program participation is under-reported—add further difficulties.

What methodological strategies are used?

Researchers use a variety of strategies to tackle these challenges.

- Statistical strategies can help control for underlying differences between participants and nonparticipants.
- Dose-response models, which link the intensity and duration of SNAP exposure to outcomes of interest, can provide additional leverage to assess impacts. The logic is that higher amounts of SNAP, or longer durations of participation, should have larger impacts than lower amounts and shorter periods.
- Longitudinal studies can track people over time to detect longer-term impacts.
- Natural experiments that capitalize on differences in SNAP policies and practices across locations and over time may reveal program impacts.

Food Insecurity

Household food insecurity jumped sharply at the start of the Great Recession—from 11.1% in 2007 to 14.6% in 2008—and has remained high since—most recently 14% in 2014.

Very low food security—a more severe measure—increased from 4.1% in 2007 to 5.7% in 2008, and was still high, at 5.6%, in 2014.

Food insecurity is influenced by a variety of factors in addition to SNAP, including household characteristics and circumstances, unemployment rates, prevailing wages, other food assistance programs, and non-food safety net programs.

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Does SNAP reduce food insecurity?

Higher SNAP benefits reduce the risk of food insecurity.

A central goal of SNAP is to alleviate food insecurity—the inadequate or uncertain access to enough food for an active, healthy life due to limited resources. Food insecurity is measured with a series of questions regarding worries about having enough food to eat and reductions in food intake for economic reasons.

Strong and consistent evidence that SNAP reduces the risk of food insecurity comes from dose-response models. Households receiving larger benefits have lower risk of food insecurity than similar households receiving lower benefits; and households participating in SNAP for a longer duration have lower risk than similar households who more recently came on the program. These findings persist across a wide range of modeling strategies and across household types. In general, dose-response models are better able to detect impacts than studies comparing participants with nonparticipants.

In contrast, studies that use statistical approaches to control for differences between participants and nonparticipants find varying results depending on choice of data and modeling strategy used. With less rigorous strategies, these studies find the counterintuitive result that participants are worse off than nonparticipants, seemingly due to underlying differences in who chooses to participate. In other cases, the studies can't reliably determine which group is better off, as impacts are often measured imprecisely. When models control explicitly and appropriately for endogeneity, SNAP recipients often fare better than nonrecipients.

Yet another approach is to compare food insecurity across households that are affected differently by changes in SNAP policies, rather than to compare households with different participation statuses. This approach suggests that more broadly accessible and more generous SNAP policies are linked to lower food insecurity risk for at least certain groups. For instance, in conjunction with increases in the maximum SNAP benefit in 2009, food insecurity fell for households who were income-eligible and thus stood to benefit from the change, but did not fall for near-eligible households.

*Chapter 3 by Christian Gregory, Matthew P. Rabbitt, and David C. Ribar; Chapter 4 by Hilary W. Hoynes, Leslie McGranahan, and Diane W. Schanzenbach; Chapter 5 by Marianne P. Bitler; and Chapter 6 by Craig Gundersen.

Consumption, Obesity, and Health

SNAP is intended to affect household food consumption by providing additional resources for food. In doing so, it could also influence health insofar as food consumption choices and patterns are linked to a variety of health outcomes.

How does SNAP affect consumption?

SNAP affects food consumption similarly to other income sources.

Food is a “normal good,” meaning that households spend more on it when more resources are available. If SNAP benefits are below the amount households would choose to spend on food with an equivalent amount of unrestricted income, then the impact of SNAP on food consumption should be the same as the impact of higher income. In economic parlance, such households are called “*inframarginal*.”

Research shows that most SNAP-eligible households are *inframarginal*, so that SNAP is expected to have the same impact as any other income source. This expectation is largely borne out by the evidence: While early research sometimes found that SNAP increased spending on food more than equivalent amounts of unrestricted income, more recent and more rigorous studies have found that for most households, SNAP, consistent with economic theory, has a similar impact to unrestricted income. In simple terms, most SNAP recipients appear to adjust their food spending in response to SNAP just like people who have more income from other sources.

While SNAP increases spending on food, it is less clear whether or how it affects specific food choices. Here again, economic theory predicts that for *inframarginal* households SNAP would have the same impact on food choices as would other income. That is, we would expect a household’s choice of which foods to buy to be influenced by the same factors as influence other households at similar income levels. However, the research here is limited; we lack good studies that measure, in ways that control appropriately for underlying differences between participants and nonparticipants, whether and how SNAP affects specific nutritional outcomes. Some evidence suggests the monthly timing of SNAP receipt, as distinct from the amount, influences food-purchase patterns; further research could shed more light here.

How does SNAP affect obesity?

SNAP has no clear positive or negative impact on obesity.

Some have raised concerns that participation in SNAP could contribute to obesity if, by providing additional resources for food, it encourages or enables households to spend more on unhealthful foods than they would otherwise, or to eat more food than optimal. Of course, it is also possible that the increased resources from SNAP would enable more healthful food choices or eating patterns, which could reduce obesity.

Income is, for most groups and by most measures, inversely related to obesity—the risk of obesity goes down for women and for children as income goes up, although not by all measures for adult men. Thus, it seems more likely that SNAP would reduce the risk of obesity—insofar as it in practice provides households with additional resources much as income does. Phrased differently, so long as most SNAP households are *inframarginal* (as research suggests they are), we would expect SNAP to increase obesity only if an equivalent amount of unrestricted income would also increase obesity, and that does not appear to be the case.

When rigorous statistical approaches are used to control for underlying differences, most empirical studies find that SNAP has either no impact on obesity or, in some studies, reduces the risk of obesity; a small number find small positive impacts on obesity, although this is not the predominant finding in the literature. Taken as a whole, the literature provides no strong case that SNAP affects obesity in either direction. Indeed, influencing obesity is not the intent of the program.

How does SNAP affect health?

SNAP has long-term health benefits, but we need more research to understand SNAP’s health impacts in more recent years.

SNAP could improve health if it allows participants to eat a more healthful diet; it could also free up other resources that could be used towards improving or maintaining health.

While some health impacts are possible in the short-term—in particular outcomes amenable to changes in short-term dietary patterns or short-term income constraints—many of the potential health benefits that would credibly arise from SNAP via an impact on consumption would take longer to emerge, and would depend on the extent and timing of SNAP exposure. Measuring such impacts requires, as per our earlier discussion, adequately controlling for baseline differences between participants and nonparticipants, or comparing people with differences in extent of exposure to SNAP rather than differences in participation status.

Evidence of SNAP impacts on health comes from longitudinal studies capitalizing on the gradual rollout of SNAP across counties in the 1960s. That work finds that people exposed to SNAP in infancy up to 5 years of age have better health outcomes many decades later, including lower risks of high blood pressure, diabetes, and obesity as compared to those whose counties of birth introduced SNAP later. These studies also indicate that mothers exposed to SNAP during pregnancy had newborns with higher birthweight. Of course, we don’t know if these impacts would be the same for SNAP receipt in more recent years.

Research also provides suggestive evidence that SNAP may be beneficial in the management of diabetes; more attention to the role of SNAP in short-term health outcomes that have clear nutritional dimensions is warranted. Other priorities include research utilizing measures of intensity and duration of SNAP exposure, as well as use of more rigorous strategies to control for underlying differences that influence both SNAP participation and health outcomes.

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