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Supplemental Nutrition Assistance Program (SNAP) Participation Leads to Modest Changes in Diet Quality

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What Is the Issue?

The Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program) is the largest food assistance program administered by the Food and Nutrition Service of the U.S. Department of Agriculture (USDA). Approximately 47 million people participated in SNAP in 2012, at a cost of almost \$75 billion. While much of the policy interest in SNAP involves its effectiveness in combating food insecurity—defined as uncertain access to enough healthy, nutritious food for an active life—another goal of the program is to support low-income families in making food choices consistent with dietary guidance. This goal of SNAP has recently received public attention, illustrated by suggestions that SNAP participants should be prevented from using benefits to purchase certain foods that are perceived to contribute to poor dietary health—sugar-sweetened beverages, for example.

Social scientists have been interested in SNAP's possible dietary effects since the program's inception, but much of the existing research is inconclusive and limited; namely, it cannot address the unobserved characteristics (for example, preferences for nutritious food) that could affect SNAP participation and diet quality simultaneously. This report examines Healthy Eating Index (HEI) scores for adults in low-income households that do and do not participate in SNAP, taking factors into account that could influence both SNAP participation and diet quality. HEI measures survey respondents' adherence to dietary guidance (as detailed in the 2005 Dietary Guidelines for Americans) and is USDA's primary tool for monitoring the diet quality of the U.S. population.

What Did the Study Find?

The evidence as to whether SNAP participation is beneficial or adverse regarding diet quality is inconclusive. Nevertheless, two sets of observations emerge from the study.

First, the study shows the effects of SNAP participation on those who choose to participate. SNAP increases the likelihood that participants will consume whole fruit by 23 percentage points; it also induces participants to decrease their intake of dark green/orange vegetables by a modest amount—the equivalent of about 1 ounce for a 2,000-calorie diet.

These effects could be the result of both time constraints associated with SNAP's work requirements and extra income—people participating in SNAP may see whole fruit as more affordable with a little extra income, and they may consume more of it because it requires no preparation time. At the same time, dark green/orange vegetables could be less attractive to SNAP participants

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because these foods may require more preparation time. Moreover, this could also be due to the substitution of one convenient snack food for another—apples or bananas for baby carrots, for example.

The study also revealed a difference in diet quality between SNAP participants and low-income nonparticipants once the effects of SNAP and other unobserved characteristics are taken into account. For most components of diet (e.g., fruits, vegetables, whole grains) measured by HEI scores, SNAP participants are at a small, statistically significant disadvantage in terms of diet quality relative to comparable nonparticipants. SNAP participants' total HEI score was about 1.25 points (about 2.5 percent) lower than that for similar nonparticipants. In terms of dietary components, this difference amounts roughly to a half a cup of fruit, two-thirds of a cup of vegetables, or 1-1/3 ounces of whole grain products. At the same time, SNAP participants do better on some aspects of diet; for example, they eat less sodium and saturated fat than nonparticipants.

How Was the Study Conducted?

The study used a unique data set that took HEI scores based on responses from four waves of the National Health and Nutrition Examination Survey (NHANES) and matched them to State-level policies (eligibility/poverty thresholds and vehicle exemption allowances) that affect SNAP participation. These State-level variables identify the effect of SNAP participation on HEI total and component scores. The study used a model that accounts for unobserved, individual-level differences in diet quality that affect the likelihood of SNAP participation.