

Introduction

The Food and Nutrition Service (FNS) has a strong interest in understanding why some eligible households choose to participate in the Supplemental Nutrition Assistance Program (SNAP) and some do not. In addition to improving outreach approaches, an understanding of the circumstances and factors that contribute to an eligible household's decision to participate in the program will inform the methodology for developing appropriate comparison groups for assessing SNAP outcomes.

Because of ethical and legal considerations, FNS cannot examine the effect of participation in SNAP on outcomes such as food security through experimental studies that would require withholding benefits from those eligible. Therefore, this study was conducted to identify whether regression modeling of extant data could yield adequate comparison groups to assess SNAP outcomes.

Method

The study contained two parts: a review of recent research to expand our knowledge of participation predictors and an analysis of data from the Survey of Income and Program Participation (SIPP) to identify factors that contribute to a household's decision to participate or not participate in SNAP.

Issues and recommendations discussed in the literature helped to guide the econometric modeling approach. The conceptual approach relates SNAP participation by eligible households in a particular month to factors including measures of household needs, resources, personal preferences and traits, SNAP policies, and economic conditions. Within this framework, several modeling approaches were used that varied in terms of the predictors

included and the econometric techniques applied.

Findings

Literature Review: A review of existing literature suggests that limiting the factors that are included in the decision making process to participate or not participate in SNAP to solely family needs and resources may be less than optimal. The review implies that low-income households' decision to participate or not participate in the program is a function of a broad array of ever-changing alternatives. The literature review provided a wider set of psychosocial concepts that, in addition to basic economic factors, may frame a household's SNAP participation decision.

The literature review yielded a large set of potentially relevant covariates that have been discussed in research related not only to SNAP, but also in research on poverty and food security more generally. The review led to a number of participation predictors that had not been included in previous quantitative models of SNAP participation. They include variables such as respondents' reliance on friends and family in times of hardship, beliefs about help from people in their community, and attitudes about taking government assistance or charity.

Model Development: The model development process resulted in two models: (1) a standard model, which includes only measures of what are generally recognized to be key factors in SNAP participation, and (2) an expanded model, which adds other factors that were identified through the literature review.

The "better" of the two models, based on explanatory power, is the expanded model. This model indicates that biometric technology, household current and projected needs, household resources, personal preferences and traits, and demographic characteristics among

eligible households are strongly related to SNAP participation. The strongest predictor in the expanded model was past SNAP participation.

The inclusion of other variables, such as number of persons over 12 years old, recent change of address, child care and support expenses, age, race, and ethnicity of household head in the models did not show a significant relationship with SNAP participation.

The results of this study cannot affirm that the best model generated, which predicts SNAP participation with approximately 75 percent accuracy, will adequately address selection bias. But regardless of the accuracy of prediction, the key question is whether the remaining sources of variation are systematic and related to outcomes of interest, such as food security, food expenditures, household food supplies, and dietary intakes.

Conclusion

This study tested a variety of statistical models with different combinations of variables primarily from SIPP and found that extant data, such as the SIPP, along with some additional information can be used to estimate SNAP participation through data modeling. However, the best model predicted participation with approximately 75 percent accuracy.

For More Information

Burstein, N. R., Patrabansh, S., Hamilton, W. L., and Siegel, A. Y. (2009). *Understanding the Determinants of Supplemental Nutrition Assistance Program Participation*. Prepared by Abt Associates, for the Food and Nutrition Service (available online at www.fns.usda.gov/ora).

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