Supplemental Nutrition Assistance Program and food insecurity among families with children

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Abstract

The roles of Supplemental Nutrition Assistance Program (SNAP) and parental resources in household food insecurity (FI) are investigated. For husband–wife families with children, SNAP participation reduces the probability of household FI among adults by 8.8%, but increases the probabilities of low food security by 6.1% and very low food security by 2.7%, both among children. The positive effects cast doubt on effectiveness of SNAP alone and call for additional policy measures to improve FI among children. SNAP participation can be promoted by policy instruments such as broad-based categorical eligibility and simplified reporting, and food security by promoting education and providing employment opportunities.

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1. Introduction

Household food security is an important public policy issue worldwide. Even in a developed country like the United States (U.S.), some low-income families still experience food insecurity (FI) due to lack of financial or other resources. In 2013, 14.3% of households in the U.S. were food insecure (a decrease from 14.9% in 2011) at least some time during the year, including 5.6% with

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very low food security (VLFS) (Coleman-Jensen, Gregory, & Singh, 2014). Children and adults were food-insecure in 9.9% of households with children, essentially unchanged from 10.0% in 2011 and 2012 (Coleman-Jensen et al., 2014).

To enhance food security of low-income households, the U.S. Department of Agriculture (USDA) implements the Supplemental Nutrition Assistance Program (SNAP), formerly the Food Stamp Program (FSP), to provide food assistance via benefit payments to households meeting eligibility criteria. In 2013, SNAP provides benefits to 47.6 million people in the U.S. at a program expenditure of nearly $80 billion. Despite strong support from the government, the rate of households reporting FI had continued to rise until recently.

This mounting evidence of FI despite the government effort casts doubt on effectiveness of SNAP alone and calls for continuous investigation of the relationship between SNAP participation and FI. A better and up-to-date information on this relationship is important for deliberation of food assistance policies. Many studies have investigated the relation between SNAP participation and FI, with mixed findings. Some studies find SNAP participants more likely to be food insecure (Jensen, 2002; Ribar & Hamrick, 2003; Wilde & Nord, 2005), while others find no significant relation between SNAP participation and FI (Gundersen & Oliveira, 2001; Huffman & Jensen, 2008). More recent studies find that SNAP ameliorates FI to some extent (Bartfeld & Dunifon, 2006; Borjas, 2004; DePolt, Moffitt, & Ribar, 2009; Mykerezi & Mills, 2010; Nord & Golla, 2009; Yen, Andrews, Chen, & Eastwood, 2008).

Among studies reporting positive or statistically insignificant relation between SNAP and FI, Jensen (2002) estimates an ordered probability model of household FI and finds dependence between FSP participation and FI. Using a two-year panel sample from the Current Population Survey (CPS), Wilde and Nord (2005) find food security status deteriorated for households who entered FSP during 2001–2002. Gundersen and Oliveira (2001) estimate a simultaneous probit model using data from 1991 to 1992 Survey of Income and Program Participation (SIPP), and find FSP has no effect on food insufficiency. Huffman and Jensen (2008) estimate the effects of FSP and labor force participation on FI with a simultaneous equation model. FI is found to increase the probability FI participation whereas the effect of FSP on FI is not significant.

Positive or insignificant effect of SNAP on household FI is generally believed to be caused by failure to accommodate household’s self-selection into SNAP (Nord & Golla, 2009). Inconsistency among previous results calls for a more thorough investigation of the role of SNAP participation in FI. Recent analyses on the subject feature more careful attention to the selection issue of SNAP participation and find SNAP participation generally ameliorates FI (DePolt et al., 2009; Mykerezi & Mills, 2010; Ratcliffe & McKernan, 2010; Wilde, 2007; Yen et al., 2008).

Using data from 1996 to 1997 National Food Stamp Program Survey, Yen et al. (2008) estimate a recursive system, a restricted form of the simultaneous equation system, and find FSP participation lowers FI score by 0.4 among food insecure households. Mykerezi and Mills (2010) estimate a similar model with the 1999 Panel Study of Income Dynamics (PSID); FSP participation is found to lower the severity of FI as in Yen et al. (2008) but in greater magnitudes. DePolt et al. (2009) use longitude data from low-income families with children living in Boston, Chicago, and San Antonio to evaluate the effect of FSP on food hardships. A quasi fixed-effects procedure is used to control for unobservable household characteristics and a strong negative association between FSP and food hardship is found. Ratcliffe and McKernan (2010) estimate a dummy endogenous variable model with 1996–2004 SIPP, using state policy variables as instruments for SNAP. Participation in SNAP is found to reduce the probability of FI by 31.2% and the probability of VLFS by 20.2%.

Most recent findings of negative association between SNAP and FI were based on the instrumental variable approach to address endogenous SNAP participation, and we identify four
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