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Childhood Food Insecurity: Factors Associated with the National School Lunch Program in the U.S.

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Almost a quarter of all U.S. children are food insecure. This translates into roughly 17.2 million or more than 1 in 5 children living at risk of hunger (Feeding America 2011). Several studies have demonstrated that childhood food insecurity opens risks of poor cognitive development among young children and is associated to poorer school performance. Some of the conditions that food insecure children are more likely to exhibit include behavioral problems, poorer physical and psychosocial function and development, higher rates of anxiety, depression, chronic health conditions, and lower math and reading achievement scores in schools (Nord 2009). In addition, children living in food-insecure households face elevated risks of problematic health and higher associated health costs.

A number of nutrition assistance programs administered by USDA's Food and Nutrition Service (FNS) and assisted by the federal government are available to provide better access to food and promote healthy eating through nutrition education programs. The National School Lunch Program, the foremost nutrition program for children, provided nutritionally balanced, low-cost or free lunches to more than 31.7 million children each school day in 2010 (USDA/FNS 2012).

This research analyzes factors associated with childhood food insecurity nationally as reflected by the NSLP participation rates. An empirical model is estimated to analyze county-level free and reduced-price lunch participation rates across the U.S. and its associations to different food environment factors and socio-economic characteristics such as food access, income, unemployment, metro/non-metro classification, education, and ethnicity. The model is estimated at the national and regional-level before and during the recessionary years, 2006 and 2008, respectively.

Results show that median household income and unemployment rate are consistently significant explanatory variables of childhood food insecurity, before and during the recession, both at the national and regional models. Other significant factors that need attention are education and presence of food deserts. The results have broad policy implications. Potential policies to alleviate childhood food insecurity include regional targeting of food assistance programs to increase program efficiency, revenue generation to mitigate food insecurity, and strengthening of school lunch programs targeting children's nutritional and food security levels.