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Title: Does Welfare Policy Influence Children's Behavior? A Regression Discontinuity Analysis of Food Stamps Recipients

Session: I want to submit to Session 3: Children and Youth

Abstract:

Recent research in welfare policy and child behavior outcomes suggests an association between welfare participation and children's behavior problem. There are two major problems in this literature when examining the causal impact of welfare participation on children's behavior outcome. One is selection bias. By simply controlling for a set of observable variables, prior research has ignored the selectivity of children into welfare program. The other is the straightforward application of cross-sectional multivariate regression. Results from simple cross-sectional multivariate regression are usually biased and inconsistent. A regression discontinuity design is developed to examine this causal impact. Using data from the National Longitudinal Survey of Youth Mother-Child Files of the most recent waves between 1998 and 2006, I find that children of food stamp recipients exhibit higher levels of emotional and behavior problems than their peers. This discrepancy varies across gender and racial/ethnic groups. The findings' potential for policy analysis is also examined.

Extended abstract:

This paper examines whether school-aged children from families receiving the Food Stamp Program exhibit adverse behaviors, relative to their peers without participating that program.

My interest in the effect of Food Stamp Program (FSP) on the child well-being comes from its recent low participation rate. The FSP was a means-tested transfer program to provide low-income families with a minimally nutritional diet. It started in the 1960s and administrated by the United States Department of Agriculture. As a researcher of child welfare studies, my policy concern is what may happen to children as fewer mothers depend on food assistance. A few potential consequences may emerge. First, as family FSP use declines, family income or other financial resources become tighter which directly causes insecurity and fluctuation in children's food consumption. The worse consumption may reduce child health both physically and socio-emotionally. Second, as parents experience hardship or stress from meeting working requirements, their mental

health status may overall decrease, and transfer to their children by creating family tension and less parent-child interaction. Finally, the receipt of federal food assistance may itself cause low self-esteem among children, and further lead to deviant behaviors. These direct and indirect changes in family FSP receipt could have a lasting effect in children's well-being.

Prior research has found that food hardship or food insecurity is a significant predictor of adverse health conditions, and is associated with poor behaviors among children (Murphy et al. 1998; Reid 2002; Weinreb et al. 2002; Dunifon & Kowaleski-Jones, 2003). Their conclusions are made from a wide range of data sources and different welfare programs. In terms of their analytic methods, those early research mainly adapted "selection on observables", and assumed that selection to treatment program can be ignored after controlling for a set of carefully chosen observable variables. However, failure to account for the selection of children into welfare program may produce biased estimates of program effect.

This study instead uses a regression discontinuity design (RDD) to examine the causal effect of the FSP on children's socio-emotional well-being. The idea comes from the fact that the FSP eligibility is largely based on a pre-determined income variable adjusted for family size. The exogenous variation generated by the decision rule allows me to identify the causal impact. The realistic senario from my preliminary descriptive summary is that children participating in FSP show significantly more serious behavior problems than those not particiption in FSP. They also differ systematically in some selected observable characteristics such that FSP children are more likely to be Blacks and Hispanics, there are more of them receiving discounted school lunch, their mother are less likely to graduate from high school, fathers have a higher percentage of not living in the household, etc. It is near certain that the simple differences in behavior outcomes are confounded by both the differences in selected observables as well as differences in unobservables such as parents' expectation on children. Since the FSP participation is not randomly assigned, treatment effect estimates tend to be biased by these differences. RDD method is one type of quasi-experiment, which solves the non-randomization problem around the cutoff line. In detail, the assignment of a value just above or below the cut-off point should approximate randomization. In my story, children whose family-size-adjusted-family-income are just above and just below the cutoff points should have similar distribution of observables, and by extension unobservable under some assumption. Therefore, the treatment stutus (whether FSP children) becomes the only explanatory variable that is discontinuous at the cutoff, and we are able to identify the causal effect.

The dataset used here is the combined file from the National Longitudinal Survey of Youth 1979 (NLSY79) mother sample and child sample. The sample period is limited to five waves collected after 1996 welfare reform.

This paper contributes to the literature of welfare impact on child well-being in several important ways. First, to my understanding, this study is the first one to apply RDD approach into analysis of welfare impact on child wellbeing. I provide detailed explanation of how to translate this method into this research context from both theory and empirical strategy. Second, this paper provides additional information on the impact of FSP participation on child behavior. The gender disparity and racial disparity are discussed. Since results are obtained from national representative dataset, they are more informative and accurate. Third, since many other forms of public assistance employ a similar assignment rule for allocating applicants into certain welfare, my result may help such welfare programs evaluate the consequences of participation. However, if the assignment rule is complicated and dependent on multiple standards, the RDD may not apply to that context. Fourth, caution should be executed when applying to welfare impacts on adult recipients. Adults are more likely to manipulate their behaviors in order to meet administrative cutoff standards. Then, endogeneity problem will invalidate the identification strategy.