



poppopov

RESEARCH NETWORK Last updated: September 2009

Family Size and Investments in Early Childhood Development in Ecuador

Abstract

This study will focus on how family size interacts with the use of the ECD interventions and how it mediates the impact of those interventions on child cognitive outcomes, a question that has not yet been addressed by the ongoing studies but that can be examined. Follow-up visits will be conducted to the same households to collect data on outcomes beyond pre-school ages, and thus to be able to link the ECD interventions also to school-age investments. The longitudinal household survey data, the existence of discrete interventions regarding ECD, and presence of an impact evaluation of those interventions are very attractive features for examining the effect of family size on investments in children.

Contact information

Norbert Schady (nschady@worldbank.org) and
Christina Paxson (cpaxson@princeton.edu)

Lead institution

World Bank

Country where the research will take place

Ecuador

How does the research describe the impact of population/reproductive health on poverty reduction and/or economic growth?

The work would focus on three questions:

1. Whether the cash transfer or food programs have an effect on fertility; whether the impact of the cash and food interventions on child health, nutrition, cognitive development, motor development, and socio-emotional development varies with the number of children in a benefiting household, as well as with the age and birth-order of the child;
2. How mother's nutrition and health while a baby was in-utero affect child outcomes;
3. How deficits at very early ages affect the development of children as they enter school.

How will the research address a policy need, and what kind of policy lesson is expected?

This study will examine how the interventions, cash transfers and/or fortified food impacts early childhood development. This evaluation will provide policy makers with better evidence for creating successful programs. The longitudinal household survey data, the existence of discrete interventions regarding ECD, and presence of an impact evaluation of those interventions are very attractive features for examining the effect of family size on investments in children.

Methods used

In Ecuador, a cohort of poor households in six provinces has been followed starting with a baseline survey that took place in 2003 and a follow-up survey fielded in 2005. The sample is reasonably large (about 4,600 households, including 9,600 kids), and attrition out of the sample has so far been minimal (less than 5%).

The data collected are very rich: For children, a battery of tests of cognitive development, socio-emotional development, motor skills, anthropometrics, blood hemoglobin; for mothers, mental and physical health, measures of their interaction with kids, measures of their cognitive ability, hemoglobin. The data were collected as part of a randomized experiment whereby one group received cash transfers; a second group received cash transfers as well as fortified food; and a third group served as a control group.

Analysis of the baseline survey has already yielded some important findings about the responses of households to specific programs: Better nutrition, as measured by higher hemoglobin levels, improves cognitive development, as measured by a child's test performance. Moreover, this association is larger for an older sample of children (ages 4 1/2 and older) than for a younger sample (ages 3-4 1/2), suggesting that the association between nutrition and cognitive development becomes stronger as the child matures (Paxson and Schady 2007).

This study will focus on how family size interacts with the use of the ECD interventions and how it mediates the impact

of those interventions on child cognitive outcomes, a question that has not yet been addressed by the ongoing studies but that can be examined. Follow-up visits to the same households to collect data on outcomes beyond pre-school ages, and thus to be able to link the ECD interventions also to school-age investments.

Data used

Two data-collection activities are proposed—a follow-up household survey, and a school-based survey that would be

used to gather additional information on children and assess school quality. The randomized study design and the limited scope for school choice in rural areas in Ecuador considerably reduce concerns about endogeneity.

Notes

Christina Paxson and Norbert Schady, “Cognitive Development Among Young Children in Ecuador: The Roles of Wealth, Health, and Parenting,” *Journal of Human Resources* 42, no. 1 (2007): 49-84.