



AgEcon SEARCH

RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.



Discussion Paper BRIEFS

Food Consumption and Nutrition Division of the International Food Policy Research Institute

Discussion Paper 104

An Evaluation of the Impact of PROGRESA on Preschool Child Height

Jere R. Behrman and John Hoddinott

The nutrition of preschool children is of considerable interest not only because of concern over their immediate welfare, but also because their nutrition in this formative stage of life is widely perceived to have substantial persistent impact on their physical and mental development and on their health status as adults. Children's physical and mental development shape their later lives by affecting their schooling success and post-schooling productivity. Improving the nutritional status of currently malnourished preschoolers may, therefore, have important payoffs over the long term. Within rural Mexico, stunting, or short height relative to standards established for healthy populations, is the major form of protein-energy malnutrition (PEM). Low weight for height, or wasting, is much less of a problem. But stunting is symptomatic of longer-term effects of early childhood malnutrition.

Why Take a Second Look at PROGRESA's Apparent Failure to Improve Children's Nutritional Status?

One of the major components of the PROGRESA program has been directed toward improving the nutritional status of children in poor rural communities in Mexico. Cross-sectional comparisons of height for children who received PROGRESA treatment with others who were in PROGRESA-eligible households but who did not receive treatment suggest no positive effect of PROGRESA, either on average child height or on the proportion of children who are stunted, i.e., more than two standard deviations below recognized norms. But these comparisons may

be misleading, because of the failure to control for unobserved child, parental and household, and market and community characteristics that may be correlated with children receiving the PROGRESA treatment or because of the failure to control for systematic initial differences. For example, on average, the children in the control sample tended to have better anthropometric status than children in the treatment sample.

What Apparent Impact Has PROGRESA Had When Controlling for Unobserved Differences?

The preferred estimates used in this study control for these factors. PROGRESA treatment is represented by those who reportedly received nutritional supplements in the treatment group (less than 60 percent of children in the treatment group) for children in the critical age range of 12 to 36 months. These estimates find significant effects of receiving PROGRESA treatment in increasing child growth and reducing the probability of child stunting. These

estimates imply an increase of about one-sixth in mean growth per year for these children, and perhaps somewhat greater for children from poorer house-

holds and poorer communities but whose household heads are more educated.

Why Is This Impact Noteworthy?

This is a potentially important effect: under the assumptions that (1) there is strong persistence of changes in small children's anthropometric development so that the percentage changes for

While the estimates are speculative, they do suggest that PROGRESA may have substantial effects on lifetime productivity and earnings of preschool children in poor households.

adults equal those (are half of those) that we estimate for children and (2) that adult anthropometric-earnings relations from elsewhere in Latin America apply to the labor markets in which these children will be working as adults, the impact from this effect alone would be a 2.9 percent (1.4 percent) increase in lifetime earnings. In addition, there are likely to be other effects through increased cognitive development, increased schooling, and lowered age of completing given levels of schooling through starting when younger and passing successfully grades at a higher rate. While these estimates remain fairly speculative, they suggest that PROGRESA may have substantial effects on lifetime productivity and earnings of preschool children in poor households.

Recent FCND Discussion Papers

Targeting the Poor in Mexico: An Evaluation of the Selection of Households for PROGRESA, Emmanuel Skoufias, Benjamin Davis, and Sergio de la Vega, March 2001 **DP103**

School Subsidies for the Poor: Evaluating a Mexican Strategy for Reducing Poverty, T. Paul Schultz, March 2001 **DP102**

Poverty, Inequality, and Spillover in Mexico's Education, Health, and Nutrition Program, Sudhanshu Handa, Mari-Carmen Huerta, Raul Perez, and Beatriz Traffon, March 2001 **DP101**

On the Targeting and Redistributive Efficiencies of Alternative Transfer Instruments, David Coady and Emmanuel Skoufias, February 2001 **DP100**

Cash Transfer Programs with Income Multipliers: PROCAMPO in Mexico, Elisabeth Sadoulet, Alain de Janvry, Benjamin Davis, January 2001 **DP99**

Participation and Poverty Reduction: Issues, Theory, and New Evidence from South Africa, John Hoddinott, Michelle Adato, Tim Besley, Lawrence Haddad, January 2001 **DP98**

Socioeconomic Differentials in Child Stunting Are Consistently Larger in Urban Than in Rural Areas, Purnima Menon, Marie T. Ruel, Saul S. Morris, December 2000 **DP97**

Attrition in Longitudinal Household Survey Data: Some Tests for Three Developing-Country Samples, Harold Alderman, Jere R. Behrman, Hans-Peter Kohler, John A. Maluccio, Susan Cotts Watkins, October 2000 **DP96**

Attrition in the Kwazulu Natal Income Dynamics Study 1993-1998, John Maluccio, October 2000 **DP95**

Targeting Urban Malnutrition: A Multi-City Analysis of the Spatial Distribution of Childhood Nutritional Status, Saul Sutkover Morris, September 2000 **DP94**

Keywords: Mexico, nutrition, poverty intervention

The full text of this document and other FCND Discussion Papers are available on our Website (www.ifpri.org/divs/fcnd/dp.htm) or via B.McClafferty@cgiar.org

FCND BRIEFS



International
Food
Policy
Research
Institute

2033 K Street, N.W.
Washington, D.C. 20006 U.S.A.

While the estimates are speculative, they do suggest that PROGRESA may have substantial effects on lifetime productivity and earnings of preschool children in poor households.-DP104
