Discussion Paper BRIEFS

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Discussion Paper 184

Impact Evaluation of a Conditional Cash Transfer Program: The Nicaraguan *Red de Protección Social*

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In recent years, increasing emphasis has been placed on the importance of human capital in stimulating economic growth and social development. Consequently, investing in the human capital of the poor is widely seen as crucial to alleviating poverty, particularly in the long term. At the same time, there is growing recognition of the need for social safety nets to protect poorer households from poverty and its consequences during the push for economic growth. While, at first glance, stimulating economic growth and investing in social safety nets are apparently different strategies for economic development, both are important. They are also potentially complementary, as effective social safety nets may directly contribute to economic growth via improved human capital, particularly in the long term.

Three Integrated Programs: PROGRESA, PRAF, and RPS

Consistent with this view, several Latin American countries have introduced programs that integrate investing in human capital with access to a social safety net. One reason for the growing popularity of these programs is that by encompassing various dimensions of human capital, including nutritional status, health, and education, they are able to influence many of the key indicators highlighted in national poverty reduction strategies. One of the first, and largest, programs was the *Programa Nacional de Educación, Salud y Alimentación* (PROGRESA) in Mexico, begun in 1997. Another large program is the *Programa de Asignación Familiar* (PRAF) in Honduras. This paper examines a third, the Nicaraguan *Red de Protección Social* (RPS) or "Social Safety Net."

The primary objective of these programs is to generate a sustained decrease in poverty in some of the most disadvantaged regions in their respective countries. Their basic premise is that a major cause of the intergenerational transmission of poverty is the inability of poor households to invest in the human capital of their children. Supply-side interventions, which increase the availability and quality of education and health services, are often ineffective in resolving this problem since the resource constraints facing poor households preclude them from incurring the private costs associated with utilizing these services. These programs attack this problem by targeting transfers to the poorest communities and households and by conditioning these transfers on attendance at school and health clinics. This effectively transforms cash transfers into human capital subsidies for poor households.

Modeled after PROGRESA, RPS is designed to address both current and future poverty via cash transfers targeted to households living in poverty in rural Nicaragua. The transfers are conditional, and households are monitored to ensure that they are undertaking prescribed actions intended to improve their children's human capital development. By targeting the transfers to poor households, the program alleviates short-term poverty. By linking the transfers to investments in human capital, the program addresses long-run poverty. RPS's specific objectives include supplementing household income for up to three years to increase expenditures on food, reducing school desertion during the first four years of primary school, and increasing the health care and nutritional status of children under age 5.

Purpose of This Paper

This paper presents the main findings of a quantitative impact evaluation of RPS, against its primary objectives. The evaluation design is based on a randomized, community-based intervention with measurements before and after the intervention in both treatment and control communities. Where possible, we erred on the side of assessing effects conservatively, for example, in the calculation of standard errors and treatment of possible contamination. In many instances, for example when assessing the effects on expenditures during what turned out to be an economic downturn, the critical importance of a control group for the evaluation was evident—without one, it would have been next to impossible to make reliable assessments of the program effect.

> ***The preponderance of evidence from the evaluation suggests that if RPS were expanded elsewhere in poor rural areas of Nicaragua, it would be equally successful.***

Results

Overall, we found that RPS in its pilot phase had positive and significant double-difference, estimated average effects on a broad range of indicators and outcomes. Where it did not, it was often due to similar, though smaller, improvements in the control group. Nearly all estimated effects were larger for the extremely poor, often reflecting their lower starting points. As a result, the program reduced inequality of these outcomes across expenditure classes.

RPS supplemented per capita annual total household expenditures by 18 percent, on average. For beneficiary households, this increase compensated for the large income loss experienced by nonbeneficiaries, while producing a small overall increase in expenditures. Most of the increase in expenditures was spent on food; the program resulted in an average increase of 566 Nicaraguan córdoba in per capita annual food expenditures and an improvement in the diet of beneficiary households. Expenditures on education also increased significantly, though there was no discernable effect on other types of investment expenditures. Labor market participation was apparently little changed. The economic crisis experienced by these communities during the period enabled RPS to operate somewhat like a traditional social safety net, aiding households during a downturn.

For schooling, RPS produced a massive average net increase on enrollment of 18 percentage points and an even larger effect of 23 percentage points on current attendance for the target population. Examining the number of children in Grades 1–4 who advanced two grades between 2000 and 2002, RPS led to an average increase of 6.5 percentage points, despite the fact that advancement past Grade 4 was not a formal requirement of the program. In tandem with the increased schooling, the percentage of children 7–13 years old working declined by 5 points.

RPS induced an average net increase of 11 percentage points in the participation of children under age 3 in VPCD (the health-care program). At the same time, the services provided by the program, as measured by process indicators, including whether the child was weighed and whether the child's health card was updated, improved even more. Participation by children ages 3–5 also increased substantially.

While it was not possible to statistically demonstrate that RPS increased vaccination coverage for children ages 12–23 months in the intervention group (relative to the control group), vaccination rates did climb over 30 percentage points in the intervention and control areas at a time when they were, on average, decreasing in rural areas nationally.

Finally, the more varied household diet and increased use of preventive health-care services for children were accompanied by an improvement in the nutritional status of beneficiary children under age 5. The net effect was a 5-percentage point decline in the number of children who were stunted. This decline is more than 1.5 times faster than the rate of annual improvement seen at the national level between 1998 and 2001.

Conclusions

RPS has improved a number of the indicators included in the Nicaraguan national poverty reduction strategy, at a time in which many of them are not on track to achieve the goals set out in that plan. The preponderance of evidence from the evaluation suggests that if the program were expanded elsewhere in poor rural areas of Nicaragua, it would be equally successful. As such, it could prove to be an important component of Nicaragua's overall poverty reduction policy.

Keywords: impact evaluation, conditional cash transfer, human capital, Nicaragua

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