



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

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In recent years, investing in the human capital of the poor has been seen as crucial to alleviating long-term poverty. Concomitantly, 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. Not only are the stimulation of economic growth and investment in social safety nets both important strategies for economic development, they are also potentially complementary, because effective social safety nets may contribute directly to economic growth via improved human capital.

Consistent with this view, several Latin American countries have introduced conditional cash transfer programs that integrate investing in human capital with access to a social safety net. The primary objective of these programs is to generate a sustained decrease in poverty in some of the most disadvantaged areas. And 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.

These programs target the poorest communities and households and condition the cash transfers on attendance at school and health clinics. This effectively transforms cash transfers into human capital subsidies for poor households. By encompassing various dimensions of human capital, including nutritional status, health, and education, these programs have been able to influence many of the key indicators highlighted in national poverty reduction strategies. One early such program was PROGRESA in Mexico, begun in 1997.

## NICARAGUA'S RPS

Modeled after PROGRESA, the Nicaraguan *Red de Protección Social* (RPS), or “Social Safety Net,” is designed to address both current and future poverty via cash transfers targeted to households living in poverty in rural Nicaragua. 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-term poverty. The transfers are conditional, and households are monitored to ensure that they undertake prescribed actions intended to improve their children's human capital. RPS's specific objectives include supplementing household income for up to three years to increase expenditures on food, reducing school dropout during the first four years of primary school, and increasing the health care and nutritional status of children under five.

Piloted in 2000, RPS had a budget of \$11 million, representing approximately 0.2 percent of Nicaragua's gross domestic product or 2 percent of annual recurring government spending on health and education. Based, in part, on quantitative impact evaluation conducted by the International Food Policy Research Institute (IFPRI), the Inter-American Development Bank (IDB) and the government of Nicaragua expanded the program in 2002 with a \$22 million budget intended to continue the program for an additional three years.

## FINDINGS OF THE IMPACT EVALUATION

In *Impact Evaluation of a Conditional Cash Transfer Program: The Nicaraguan Red de Protección Social*, John A. Maluccio and Rafael Flores present the main findings of a quantitative impact evaluation of RPS against its primary objectives. To the authors' knowledge, this RPS study is the first rigorous, experimental evaluation of a government program in Nicaragua, and, as such, the main contributions of the research are empirical. The evaluation design is based on a randomized, community-based intervention with measurements before and after the intervention in both treatment and control communities.

In its pilot phase, RPS had positive and significant effects on a broad range of indicators and outcomes. Where it did not, it was often due to 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 most outcomes across expenditure classes.

On average, RPS supplemented total annual per capita household expenditures by 18 percent, most of which was spent on food. The program resulted in an average increase of 640 Nicaraguan córdoba in annual per capita 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. The economic crisis experienced by these communities during the period studied enabled RPS to operate somewhat like a traditional social safety net, aiding households during a downturn.

RPS produced a massive average net increase in school enrollment of 13 percentage points and an even larger effect of 20 percentage points on current attendance for the target population. The number of children in grades one through four who advanced two grades between 2000 and 2002 increased by 7.3 percentage points, despite the fact that advancement past fourth grade was not a formal requirement of the program. In tandem with the increased schooling, the percentage of working children aged 7 to 13 declined by 5.6 percentage points.

Further, the impact evaluation revealed an average net increase of 16 percentage points in the participation of children under 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 to 5 also increased substantially. As with the effects for expenditures and schooling, average program effects for VPCD measures are larger among poorer households.

While it was not possible to demonstrate statistically that RPS increased vaccination coverage for children ages 12–23 months in the intervention group, vaccination rates did climb 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 five. The net effect was a 5.5-percentage point decline in the number of stunted children. This decline was more than 1.7 times faster than the rate of annual improvement seen at the national level between 1998 and 2001. Despite improvements in the distribution of iron supplements to these same children, however, RPS was unable to improve hemoglobin levels or lower rates of anemia.

## CONCLUSION

RPS has improved a number of the indicators included in the Nicaraguan national poverty reduction strategy, at a time when many of them were not on track to achieve the goals set out in that plan. The evidence from the evaluation strongly suggests that if the program were expanded elsewhere in the poor rural areas of Nicaragua (as it was in 2003), it would be effective. As such, RPS could prove to be an important component of Nicaragua's overall poverty reduction policy.

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