Long-Term Effects of a Conditional Cash Transfer Program in Nicaragua

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**Location:** Six rural municipalities in central and northern Nicaragua

**Sample:** 2,709 households

**Timeline:**
2000 to 2011

**Partners:**
- Inter-American Development Bank (IDB)
- International Initiative for Impact Evaluation (3ie)
- National Science Foundation (NSF)

While conditional cash transfers (CCTs) have been demonstrated to have substantial short-term impacts on education, there is little evidence on whether their short-term educational impacts translate into longer-term benefit. Researchers conducted a long-term follow-up survey with households that benefited from a national CCT program in Nicaragua that took place from 2000-2003. They found that seven years after households stopped receiving cash transfers, students that benefitted from the program at ages with high risk of drop-out show substantial sustained gains in learning outcomes.

**Policy Issue:** Conditional cash transfer (CCT) programs, which offer families cash grants conditional on attendance at school or preventive health visits, have expanded rapidly over the past decade, and currently operate in more than 30 countries worldwide. There is substantial evidence that, by increasing incentives for parents and helping to offset the costs of schooling, CCT programs can significantly increase participation in school in the short term. There is also a large literature showing substantial impacts of CCTs on poverty reduction, nutritional outcomes and health. Together with education, these short-term impacts correspond to the primary objectives of most CCT programs, including the program studied in this evaluation. However, due to the high cost of providing cash transfers to families, when compared to other programs increasing short-term enrollment, CCT programs can appear relatively expensive. There is little evidence to date on whether their short-term educational impacts eventually translate into longer-term educational benefits, like improved performance on standardized tests. Comprehensive assessment of such longer-term impacts, in addition to the short-term gains in various domains, is important for more accurate cost-benefit analysis of these programs.

**Context of the Evaluation:** In 2000, the government of Nicaragua launched a national CCT program, called Red de Protección Social (RPS), that incentivized parents to invest in their children’s health and wellbeing. The program lasted six years and reached over 30,000 poor rural families. The cash transfers, which were delivered every other month to a
designated female caregiver within each household, came in two forms. The first was a fixed ‘food security transfer,’ which was given to all households in the program. The second transfer was a ‘school attendance transfer,’ which was available only for households with children ages 7–13 who had not yet completed fourth grade, and was contingent on those children's enrollment and regular school attendance. For each eligible child, the household also received an annual cash transfer at the start of the school year, which was intended to cover the cost of school supplies.

The RPS program included two phases. In May 2000, 42 localities in central and northern Nicaragua were randomly assigned to either the first phase (the ‘early treatment’) or the second phase (the ‘late treatment’). The 21 early-treatment localities became eligible for the program and received their first transfers in November 2000. Households in these localities were eligible for cash transfers for three years, receiving the last transfer in late 2003. Meanwhile, the 21 late-treatment localities were phased into the program starting in the beginning of 2003. Households in the late treatment localities were also eligible to receive three years’ worth of cash transfers.

Details of the Intervention: Between 2009 and 2011 (9-11 years after the start of the program in the early treatment group), researchers conducted a long-term follow-up survey with 1,330 households in the early treatment group and 1,379 households in the late treatment group. Researchers focused on the cohort of boys who were between 9 and 12 years old in 2000. Because only children between 7 and 13 were eligible for education transfers during the program, children in the early treatment group who were between 9 and 12 years old in 2000 benefitted more intensively from the education transfers than the same age group in the late treatment group; some of the children in the late treatment group would have been too old to be eligible for the education transfers by the time the late-treatment localities were phased into the program. Furthermore, for boys, this age cohort encompasses the ages where the risk of school dropout, without the program, is high, further increasing the potential impact of the program.

The survey included information on primary school enrollment and years of education for all household members, household demographics and basic assets, and individuals’ labor market history and economic activities. In addition, in order to determine whether the original increases in years of schooling were accompanied by increases in longer-term learning outcomes, the survey included a number of tests to assess cognition and learning achievement. Data collection efforts between 2009 and 2011 included extensive tracking of migrants throughout the country and to Costa Rica, paying off in a minimum level of attrition.

Results and Policy Lessons: Short-term impacts: Short-term estimates confirm previous research. By 2002 the program had led to a half year increase in the years of schooling completed among students in the early treatment group compared to an average schooling of 2.4 years among students in the late treatment group who were not eligible for the program until 2003. Students in the early treatment group also had a 14.2 percentage point increase in the enrollment rate compared to 78 percent among children in the late treatment group, and a 4 day reduction in the number of days missed of school in the past month from 6.46 days among children in the late treatment group. By 2004, the 9-12 year old cohort of boys in the early treatment group still had 0.49 years of education more than the same cohort in the late treatment group, despite the fact that they were no longer receiving program benefits. This indicates that, at least by 2004, the program had led to a sustained increase in the number of years of completed education for the early treatment group.

Long-term impacts: By 2010, seven years after the early treatment group stopped receiving the transfers, boys in the early treatment group still had nearly half a year more schooling than those in the late treatment group. The increase in years of schooling was accompanied by gains in learning. In particular, individuals in the early treatment group saw an average improvement of approximately a quarter of a standard deviation on standardized tests in math (speed and problem solving) and Spanish (reading and spelling), compared to those in the late treatment group. However, no significant impact was found on cognition, consistent with cognitive development taking place mostly during early childhood.

In J-PAL’s comparative cost-effectiveness analysis, the RPS program led to 0.13 additional years of education per $100 spent. For more information, see the full comparative cost-

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