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Discussion Paper 188

Coping with the "Coffee Crisis" in Central America: The Role of the Nicaraguan *Red de Protección Social* (RPS)

John A. Maluccio

As coffee prices dropped in the last few years, poverty appeared to rise in the coffee-producing countries of Central America, particularly in rural areas. Little research exists on these dynamics at the micro level, however. Even less evidence exists on the potential for social safety-net programs to protect poor households.

Purpose of this Paper

This study examines the effect of a safety-net program on households' well-being and work activities during an economic downturn. It considers (1) how rural Nicaraguan households without the *Red de Protección Social* (RPS) program fared over the period 2000–02, and (2) whether households benefiting from the program were better able to protect household expenditures and other aspects of well-being than their control counterparts during the same period.

The *Red de Protección Social* (RPS)

The Nicaraguan *Red de Protección Social* (RPS) or Social Safety Net was designed to reduce both current and future poverty via cash transfers targeted to households living in extreme poverty in rural Nicaragua. The transfers are conditional, with households monitored to ensure that they undertake prescribed actions to improve their children's human capital development.

RPS's specific objectives include (1) supplementing household income for up to three years to increase expenditures on food, (2) improving the healthcare and nutritional status of children under age five, and (3) increasing primary school enrolment for the first four grades.

"While not designed as a traditional safety net program, RPS has performed like one, protecting most those in greatest need."

Data and Methodology

Data. The data come from an annual panel survey of nearly 1,500 households implemented for the evaluation in both intervention and control areas of RPS in 2000 before the program began, and in 2001 and 2002 after the program was operating. The survey was a stratified random sample of households at the *comarca* level. Half of the *comarcas* were randomly selected for the program. The areas represented comprise a relatively poor part of the rural Central Region in Nicaragua.

Econometric Methodology. The empirical approach exploits two key features of the data: the randomized design of the evaluation and the panel structure, allowing the use of double-difference estimation techniques. The analysis estimates a series of reduced-form specifications that essentially estimate program effects, differentiating them for households residing in coffee or noncoffee-growing areas. The resulting measures can be interpreted as the expected effect of implementing the program in a similar population elsewhere.

Results

Effects of the Coffee Crisis on the Control Group (Nonbeneficiaries). In *comarcas* without the RPS, the study found the following highlights.

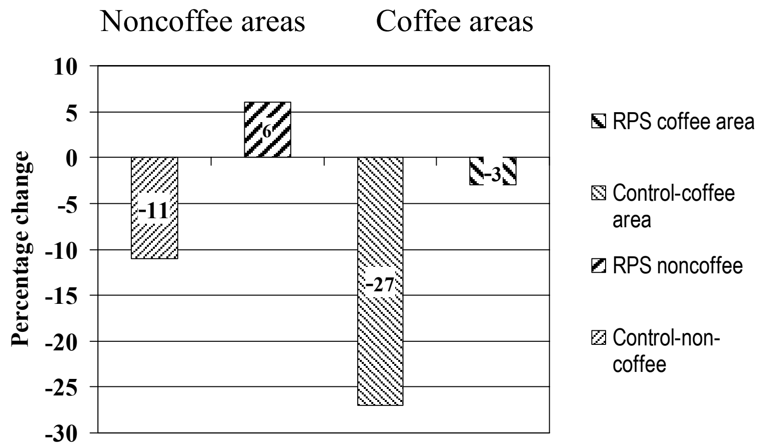
- *Expenditures*. Household and food expenditures declined 11 percent, on average, in control areas in noncoffee-growing areas. In coffee-growing areas, expenditures dropped 27 percent (see figure).
- *Labor supply*. *Nonbeneficiaries* worked longer hours during the downturn, even though they apparently earned less income, as reflected in their expenditures. The labor increase was particularly sharp in coffee-growing areas.
- *Child labor and school enrolment*. In 2000, boys 7–12 years old in coffee-growing areas *were* more likely to be working than those in noncoffee-growing areas. Not surprisingly, their net primary-school enrolment rates were substantially lower in coffee-growing areas. During the study years, however, child labor for young boys declined in all areas. At the same time, primary enrolment rates improved modestly—and somewhat more so in coffee-growing areas.

Effects of the RPS on Beneficiary Households. In *comarcas* where the RPS was operating, the study found the following highlights.

- *Expenditures*. Household and food expenditures were significantly higher than in control *comarcas*. Expenditures actually rose by 6 percent in noncoffee-growing areas. It slipped by only 3 percent in coffee-growing areas (see figure).
- *Labor supply*. Households worked approximately the same hours as before—while nonbeneficiary households were working significantly more.
- *Child labor and enrolment*. School enrolment rates of boys and girls rose significantly more than in control areas. Child labor simultaneously declined.

RPS helps households who have been hit the hardest in coffee growing areas

Change in real per capita total annual expenditures 2000–2002



Discussion

A major cause of the intergenerational transmission of poverty is the inability of poor households to invest in their children. Increasing the availability and quality of health and education services can be ineffective if people are too impoverished to make use of them. Programs like RPS attack the problem by targeting transfers to the poorest communities and households—and conditioning the transfers on attendance at school and health clinics. This effectively transforms pure transfers into human capital subsidies for poor households.

While not designed as a traditional safety net program, RPS has performed like one, protecting most those in greatest need. It provided a cushion for per capita expenditures and protected coffee laborers from working additional hours. It also safeguarded investment in children. Thus RPS played a significant role in helping poor, rural Nicaraguans weather the coffee crisis.

Keywords: conditional cash transfer program, coffee crisis, social safety net, Nicaragua

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