Family Networks, Consumption, and Investment in Mexico

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Sector(s): Education, Social Protection

Location: Mexico

Sample: 22,000 households in 503 rural villages

Target group: Rural population

Outcome of interest: Enrollment and attendance Food security

Intervention type: Cash transfers Social networks Conditional cash transfers

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Research Papers: Consumption and Investment in Resource Pooling Family Networks

Partner organization(s): Prospera

Pooling resources may help low-income rural households overcome barriers to making beneficial consumption and investment decisions. Researchers studied a government-funded conditional cash transfer program to evaluate the impact of family networks on consumption and investment decisions for low-income households in Mexico. Food expenditure increased among both eligible connected households and ineligible households connected to families who were offered the program. Connected households increased their education investments and reduced child labor, implying that being connected to other nearby family members helped them to pool resources.

Policy issue

Low-income rural households face multiple barriers to making beneficial consumption and investment decisions, such as limited access to credit and insurance. On the one hand, extended family networks may help households smooth their consumption in difficult times by providing informal sources of credit. Pooling resources among extended family networks could also help households make investments that are more profitable and escape cycles of poverty. On the other hand, social pressures to share resources may also have negative consequences by forcing households to contribute limited resources to their extended family. Thus, the impact of a cash transfer program might differ based on the composition of a household's family networks. There is little evidence of how the impact of cash transfers on food consumption and investment choices varies based on someone's extended family networks.

Context of the evaluation

Progresa (most recently called Prospera) was a publicly funded anti-poverty program in Mexico that provided cash transfers to low-income households conditional on their children's primary and secondary school attendance and mother's attendance at health facilities. At the time of the study, secondary school enrollment rates among the sample population were around 65 percent. In an effort to encourage families to continue investing in their child's education, Progresa offered larger cash transfers for students in higher school grades. The value of these larger cash transfers (up to MXN 610—US$61 in March 1998—per month for ninth grade girls in 1999) corresponded to between one-half and two-thirds of the full-time child wage in villages surveyed in a 2004 study.[1]

Access to credit is limited in rural Mexico. In the area where this evaluation took place in 1998, less than 1 percent of surveyed households reported having access to formal credit.



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Details of the intervention

Researchers utilized a randomized evaluation of the Progresa program to examine how extended families in rural Mexico living in the same village shared resources. In 1998, the Mexican government randomly assigned the Progresa program to 320 villages, while 183 villages served as a comparison group and did not receive the program until a later time. Within treatment villages, all eligible households who fell under a certain poverty index were offered the Progresa cash transfers.

To identify which households had family connections within their villages, researchers combined information on the paternal and maternal surnames of household heads and their spouses to construct a map of extended family networks in the study villages. This mapping demonstrated that 80 percent of households in the villages were "connected," meaning that the households had at

least one other extended family member heading a different household within the same village. The remaining 20 percent of households were isolated, meaning they had no extended family in their village.

To understand how the size of an extended family affected the way households used the Progresa cash transfers on food consumption and investment choices, such as children's education and livestock, researchers conducted household surveys for over 20,000 households. They compared outcomes among households who were or were not connected to nearby family, who were or were not eligible for the program, and who were in comparison villages that did not receive the program. Surveys occurred every six months starting one year before the intervention and ending a year and a half after the intervention. Researchers measured these outcomes again five years after the program.

Results and policy lessons

Results demonstrate that eligible connected households that could pool resources within their family networks made different consumption and investment decisions than isolated households. Compared to connected households in comparison villages, eligible connected household and ineligible households in their family networks spent more on food, and eligible connected households invested more in their children's education and experienced long-term improvements in household welfare.

Food Consumption: Connected households who were offered the program increased their food expenditures by MXN 32.7 (US$3.27 in March 1998) relative to those in the comparison group, nearly a 23 percent increase. Among eligible households, the cash transfer increased food expenditures by a greater amount among connected households than isolated households, even though they received transfers of similar amounts. In addition, relative to comparable households in comparison villages, the transfers increased food expenditures among ineligible households connected to eligible households by MXN 22.6 (US$2.26 in March 1998), a 16 percent increase. These increases were driven largely by changes among larger family networks, suggesting the important role that family networks play in resource distribution.

Investments: Eligible isolated households used a substantial portion of the cash transfer to purchase large livestock (cattle) in the short term, increasing the value of the cattle they owned by MXN 887 (US$88.70 in March 1998) relative to comparable isolated households in comparison villages. These households may have chosen to use their transfers to purchase livestock rather than food, because it would be difficult to otherwise finance such large investments without access to credit, and livestock could generate an additional source of income. However, these changes in livestock ownership faded within five years of the end of the program, perhaps because households chose to sell the livestock when hard economic situations arose.

Eligible connected households showed no increase in livestock investments, and instead increased their children's enrollment in secondary education by 7.5 percentage points on average relative to comparable households in the comparison group, a 12 percent increase. These households also reduced their incidence of child labor by 3.6 percentage points relative to the comparison group. Eligible isolated households reported no differences in schooling investments or children working, and this gap in schooling investments between connected and isolated households increased over the five-year period.

Researchers hypothesize that only connected households invested in their children's secondary education because the transfers alone were not large enough to compensate for the income lost from sending children to school instead of work. Only connected households could afford to make that investment by pooling resources with their extended families. These results suggest that when connected families have more resources, they prefer to invest in children's schooling rather than having them work. Furthermore, there were no impacts on child labor among ineligible connected households, suggesting that family networks allocated resources to the poorest family units (those eligible for Progresa) for education investments.

The consumption and education investment gains within family networks persisted in the long term. Researchers suggest that initial increases in education investment may have enabled the increased consumption experienced later. Connected households that received cash did not return to pre-program poverty levels after five years, suggesting that the combined effect of the cash

transfer and families pooling their resources might have enabled them to escape poverty traps.

Angelucci, Manuela, Giacomo de Giorgi, Marcos A. Rangel, and Imran Rasul. 2010. "Family Networks and School Enrolment: Evidence from a Randomized Social Experiment." Journal of Public Health Economics 94:197-221. Angelucci, Manuela, Giacomo de Giorgi, and Imran Rasul. "Resource Pooling within Family Networks: Insurance and Investment." Working Paper, April 2015.

1. 1.Schultz, P. 2004. “School Subsidies for the Poor: Evaluating the Mexican Progresa Poverty Program.” *Journal of Development Economics*. 74: 199-250.