

REDESIGNING CONDITIONAL CASH TRANSFERS

Restructuring a traditional cash transfer program in Colombia significantly increased re-enrollment in secondary school without weakening students' incentives to attend on a daily basis.



PHOTO BY MICHAEL EDDY

Conditional cash transfer (CCT) programs have become a popular and effective way to incentivize school attendance, particularly in Latin America. Given the number of CCT programs, there is surprisingly little variation in their structure. Most programs are inspired by the Mexican model, first known as PROGRESA and now as Oportunidades: families receive money when their children meet specified monthly attendance targets at school.

A randomized evaluation by J-PAL affiliates Marianne Bertrand and Leigh Linden, along with Felipe Barrera-Osorio and Francisco Perez-Calle, tested whether modifying the traditional CCT program could promote continued enrollment in secondary school and higher education, without sacrificing daily attendance. They compared three variations of a conditional cash transfer program in Bogotá, Colombia: one standard design, one program in which part of the transfer is delayed until the student pays school fees for the next year, and one program in which students receive lower monthly payments but are guaranteed a large payment upon graduation.

Can postponing part of the monthly transfer until a large payment when families need to pay school fees improve enrollment in secondary school? Are students willing to work towards long-term goals, such as a large graduation reward, rather than just short-term monthly attendance rewards?

- **Postponing part of the transfer to a larger payout when school fees for the following year were due increased enrollment without reducing daily attendance.** Students who received a large sum of money right before they had to pay their annual school fees were 4.5 percentage points more likely to re-enroll than students who received no money, and 3 percentage points more likely to re-enroll than students who received regular transfers. This was particularly true for the poorest and most at-risk students.
- **Participants were highly responsive to incentives for high school graduation and enrollment in higher education.** Students who received a large award upon graduation were 49 percentage points more likely to enroll in a higher education institution than students in the comparison group.
- **The two modified programs were especially effective at improving the enrollment of the lowest-income students and the students with the lowest participation rates.** In comparison, the standard program did not differentially increase enrollment for the poorest and most at-risk students.
- **Siblings, particularly sisters, of students in the program attended school less frequently and dropped out more often than those in families with no children in the program.** Families with a child in the program appeared to re-allocate educational opportunities away from their other children.

EVALUATION

As in most urban areas in middle-income countries, school attendance in Bogotá is highest for younger children. The enrollment rate for students between ages 5 and 13 is close to 100 percent. After age 13, the attendance rate starts to decline, and the trend is the worst among low-income individuals. Of the 89,000 children who were identified as being out of school in 2003, 74 percent of them were in the bottom two categories of the Colombian poverty index.



In 2005, the city of Bogotá established the *Subsidios Condicionados a la Asistencia Escolar* (Conditional Subsidies for School Attendance) program in an effort to increase student retention, lower drop-out rates, and reduce child labor. Hoping to better fulfill the goals of the program, while keeping the costs of the interventions roughly equivalent, policymakers collaborated with the researchers to pilot two program designs that varied from the standard conditional cash transfer (CCT) model, with the intention of using the results to inform the design of the final program that would operate city-wide.

The pilot tested three different conditional cash transfer programs:

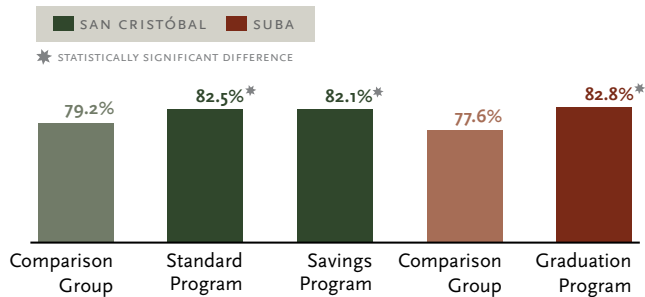
Intervention	Regular Transfers	Conditions	Additional Transfers
① Standard CCT	30,000 pesos (US\$15)/month	80 percent school attendance that month	
② Savings CCT	20,000 pesos (US\$10)/month	80 percent school attendance that month	100,000 pesos (US\$50) at enrollment time of next school year
③ Graduation CCT	20,000 pesos (US\$10)/month	80 percent school attendance that month Graduated from secondary school	600,000 pesos (US\$300) immediate payment with proof of enrollment in higher education; otherwise, payment delayed by one year

The standard and savings interventions were tested in the locality of San Cristóbal (grades 6–11), while the more expensive graduation intervention was tested on a smaller group of students in the locality of Suba (grades 9–11). Each intervention had a randomly selected comparison group in that location, which allowed the researchers to measure its impact. However, it is not possible to directly compare the interventions in San Cristóbal with the intervention in Suba. The full academic paper provides non-experimental comparisons between these groups.

RESULTS

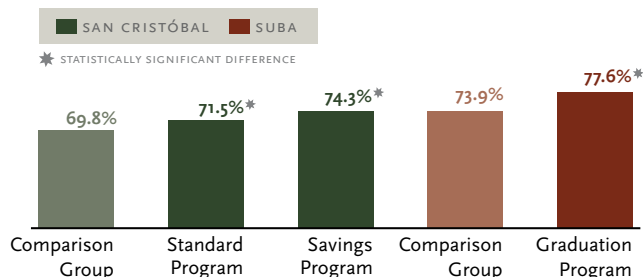
Despite reducing the regular payments, the saving and graduation interventions increased attendance rates by at least as much as the standard CCT. Students in the comparison groups attended school almost 80 percent of the time. The standard intervention and savings intervention increased attendance by 3.3 percentage points and 2.9 percentage points, respectively. The graduation intervention increased attendance by 5.2 percentage points (Figure 1). While the two non-traditional programs provided lower monthly rewards for good attendance, they were no less effective than the standard treatment at getting children to come to school every day.

FIGURE 1: EFFECT OF TRANSFERS ON MONTHLY ATTENDANCE



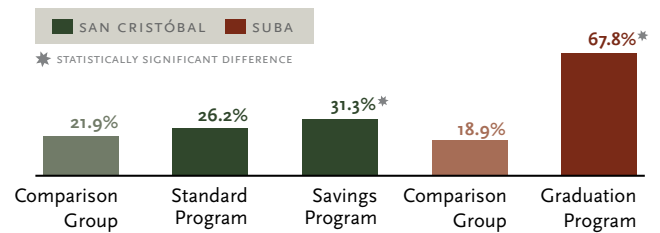
The non-traditional designs had a larger impact on re-enrollment in the following year. About 70 percent of students in the comparison groups re-enrolled in school. The graduation intervention increased this rate by 3.7 percentage points, suggesting that students were motivated to come back to school and work towards the longer-term goal of a graduation award. The savings intervention increased re-enrollment rates by an even larger amount—4.5 percentage points—while the standard intervention increased re-enrollment only by about 1.7 percentage points (Figure 2).

FIGURE 2: EFFECT OF TRANSFER PROGRAMS ON RE-ENROLLMENT THE FOLLOWING YEAR



The savings treatment was especially effective at improving the re-enrollment of the poorest students and those most at risk of dropping out. Estimates suggest that for students most in danger of dropping out, the savings treatment increased enrollment by an average of 12.6 percentage points.

FIGURE 3: EFFECT OF TRANSFER PROGRAMS ON ENROLLMENT IN HIGHER EDUCATION



The non-traditional designs increased enrollment in higher education institutions, while the standard intervention did not. About 20 percent of students in the comparison group enrolled in higher education. For the students who received the graduation intervention, there was a 49 percentage-point increase in enrollment in higher degree programs. Remarkably, even though it provided no direct incentives to continue, the savings intervention also increased enrollment in university and vocational schools by 9.4 percentage points. The standard transfer had no significant effect on enrollment in higher education (Figure 3).

CCTS: GOOD—BUT FOR WHOM?

While one might have hoped that the benefits of the transfers would be shared by all siblings, this evaluation found that the program increased inequality in educational attainment within households. Parents could enroll any or all of their children in the lottery for the program, yet not all eligible children were enrolled, suggesting that parents had a preference about which children to educate. The average family in the sample had 2.5 eligible children, but enrolled only 1.3 children. Once children were selected for the program, families appeared to divert resources away from siblings not in the program. This was primarily true for female siblings of program recipients. Sisters of children receiving the transfer were 10.4 percentage points less likely to be enrolled in school than sisters of children not in the program.

POLICY LESSONS



PHOTO BY CRISTOBAL MARSHALL

CCT programs typically focus on the day-to-day cash constraints families face, but much can be gained by designing CCTs to address other financial challenges, such as difficulty saving money. The typical CCT design focuses on the short-term constraints families face. The condition for receiving a monthly transfer is daily student attendance, which is designed to change the daily tradeoff between attending school or working, for example. This evaluation, however, showed that this tradeoff can be affected with smaller monthly transfers, and the remaining money can be used to help address additional problems of long-term savings.

Adjusting program design to address savings barriers could increase the effectiveness of a variety of policies. (See J-PAL Briefcase “A Well-Timed Nudge.”)

Policymakers can target specific behaviors by tweaking the design of conditional cash transfers. Incentivizing graduation rather than just attendance was particularly effective. Students working towards a graduation incentive attended school more often and were more likely to re-enroll in secondary school and enroll in higher education. Experimenting with the design of incentive programs can make them more effective, in some cases without increasing program costs.

CCT programs benefit children in the program, but it is important to look for and measure potential negative consequences on others, such as siblings. In this case, siblings, particularly sisters, of students in the program attended school less frequently and dropped out more often than those in families with no children in the program. While one might have hoped that the benefits of the CCT’s resources would be shared by all siblings, this evaluation found that the program increased inequality in educational attainment within households. Unexpected findings like these underscore the need for rigorous program evaluation and alertness to potential unintended consequences.

Featured Evaluation: Felipe Barrera-Osorio, Marianne Bertrand, Leigh Linden, Francisco Perez-Calle. 2011. “Improving the Design of Conditional Transfer Programs: Evidence from a Randomized Education Experiment in Colombia.” *American Economic Journal: Applied Economics* 3(2): 167-195.

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