Finance & PSD Impact
The Lessons from DECFP Impact Evaluations
AUGUST 2022
ISSUE 59

The Long-Term Impact of High School Financial Education: Evidence from Brazil

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Many countries around the world are implementing national strategies for financial education. These strategies often involve teaching financial education in schools. While the literature on school financial education has expanded during recent years, we still know little about the effects of these programs on long-term financial behavior, as most studies measure effects less than a year following the intervention.

In 2011, Bruhn et al. (2016) studied the impact of a high school financial education program through a randomized control trial with about 25,000 students from 892 schools in six Brazilian states (see impact note 26). In new research, we use administrative data to follow 16,000 of these students for the next nine years, allowing us to measure the effect of the program on long-term financial behavior and employment outcomes.

High School Financial Education Program

The program was developed and implemented as part of the National Strategy for Financial Education (ENEF). It spanned the 2010 and 2011 academic years, and was integrated into classroom curricula of Mathematics, Science, History, and Portuguese during the two last years of high school. The instruction used new textbooks with interactive classroom exercises, take-home exercises such as creating household budgets, and role-play assignments. The textbooks covered nine themes: everyday family life, social life, personal property, work, entrepreneurship, large expenditures, public goods, the country's economy, and the world economy.

Short-Term Effects

Half of the 892 public schools in the impact evaluation sample were randomly selected to receive teacher training and financial education textbooks. Control group schools did not receive training or materials but participated in the surveys. Students in the randomized control trial graduated from high school at the end of the program and the control group was never exposed to the financial education program.

The short-term effects showed increased financial knowledge, as well as positive effects on savings attitudes, self-reported saving up for purchases, money management, and budgeting. On the flip side, the program led to significantly greater use of expensive financial products such as credit cards, and a higher likelihood of being behind on credit repayments, likely because the program tried to inform students about these products but did not actively discourage their use.

Administrative Data

Based on students' name and age, we obtained the taxpayer identification number (CPF) for nearly 16,000 students in the original sample. We then used the CPF to consult administrative data housed at the Central Bank of Brazil (BCB). This data includes bank account ownership (but not account balances), use of various credit products, as well as information on formal employment status and formal microenterprise ownership. We follow young adults from when they finished high school in 2011, until February 2020, just before the COVID-19 pandemic hit Brazil.

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Long-Term Effects

Comparing the randomized treatment and control groups gives four main findings:

- The financial education program had no effect on long-run bank account ownership, but a high percentage of students (85 percent) have a bank account after graduating high school.
- Treatment students use fewer expensive credit products. Treatment students are 1.4 percentage points less likely to have credit card debt and 0.9 percentage point less likely to use overdrafts, compared to 23 percent of control students with credit card debt and 11 percent of control students with overdrafts.
- The program led to a lower likelihood of having loans with repayment delays, by about 0.9 percentage point, compared to 15 percent of control students with repayment delays (see figure 1).

Figure 1: Credit Repayment Delays over Time

- Eight to nine years after graduating, treatment students are 10 percent more likely to own a formal microenterprise than control students (a 0.69 percentage point increase relative to 6.9 percent of control students with a formal microenterprise). And treatment group students are 1.2 percentage points less likely to hold a job with a written contract, relative to 49.5 percent of control students with a formal job, suggesting that the program caused them to switch occupations from being employees to being business owners.

Policy Implications

1. High school financial education can improve long-term financial outcomes of students.
2. The long-term effects may differ from the short-term effects. In the short run, treatment students were more likely to use expensive sources of credit than control students, while treatment students are less likely than control students to use these sources in the long run. It could be that in the short-run, students experimented with expensive credit early and realized that this was not a sound financial decision. It is also likely that the credit they used while still in high school was only for small purchases, whereas in the long term the stakes are higher, and students avoid larger amounts of debt.
3. Financial education can affect employment outcomes, particularly if it is comprehensive and includes modules on work and entrepreneurship.

For further reading see: Bruhn, Miriam, Gabriel Garber, Sergio Koyama, and Bilal Zia. "The Long-Term Impact of High School Financial Education: Evidence from Brazil," World Bank Policy Research Working Paper no. 10131, July 2022.

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