

NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.

Household Finance: Research Findings and Implications for Policy

Brigitte Madrian and Stephen Zeldes: Organizers

November 21, 2014

National Press Club
529 14th Street, NW
Washington, DC

**The Impact of High School Financial Education:
Evidence from a Large-Scale Evaluation in Brazil**

Miriam Bruhn, World Bank
Luciana de Souza Leao, Columbia University
Arianna Legovini, World Bank
Rogelio Marchetti, World Bank
Bilal Zia, World Bank

Executive Summary

The fast rate of financial development around the world has made financial products and services widely available, yet such proliferation has consistently outpaced the capacity of individuals and households to make informed financial choices. The risk of misplaced spending decisions is particularly relevant as recent studies have shown that many individuals and families have trouble understanding even basic financial concepts.

In the wake of these developments, financial education has emerged as a key policy goal. Many of these programs take the form of relatively short workshops that are geared towards adults. However, rigorous evidence on the impact of these types of courses shows only small improvements in financial behavior, and these effects tend to dissipate over time. Also, interest and participation in adult financial education workshops tends to be low, so they do not appear to be an effective way of reaching broad audiences.

An alternative approach to financial education is to introduce it early, in formative schooling years. Calls for such school based programs are widespread: the U.S. Consumer Financial Protection Bureau now officially recommends introducing and building key financial education concepts throughout the K-12 school years. Similarly, the UK government has mandated financial education to become part of the national secondary school curriculum since September 2014, and the Australian government has voted for the same. Many developing countries including Brazil, Colombia, India,

Indonesia, and Uganda are introducing financial education in their school systems as well.

The focus on youth is attractive and relevant for a number of reasons. First, good financial habits formed at an early age are likely to benefit schooling, employment, and standards of living throughout adulthood. Second, the focus on youth leverages their learning capacity as students who are primed to absorb, recall, and apply learning on a regular basis. Finally, well-informed students have the opportunity to modify not only their own financial choices, but also to act as agents of change in their households' financial decisions. In this paper, we test these questions in the field and use a **randomized control trial** to study the impact of a comprehensive financial education program for public high school students in Brazil.

The program we study spanned 17 months and was integrated in classroom curricula of Mathematics, Science, History, and Portuguese. The instruction used new textbooks with interactive and repeated classroom exercises on financial education themes, take-home exercises such as creating household budgets with parents, and role-playing assignments. The curriculum was complemented by teacher training, web learning tools, and instructor handbooks. As such, the intensity of treatment of this program was much stronger than typical one-off financial education workshops. To date, our study is the largest randomized evaluation in the financial education literature, covering 868 public high schools in six Brazilian states and approximately 20,000 students.

We find that the program led to **significant improvements in student financial proficiency**. In particular, **students at all levels of capability showed marked improvements** in proficiency scores. Further, **class failure rates went down by 11 percent** as a result of the program.

We also find significant effects on financial behavior. Students who were exposed to the program were **substantially more likely to save for purchases** rather than buy items on credit installments, and **more likely to identify themselves as savers rather than spenders**. Further, they were **significantly more likely to write and maintain a budget, negotiate prices in the market, and discuss financial topics with their parents**.

The **parents themselves showed significant improvements in their financial knowledge as well as in their savings and budgeting behavior**. Finally, we find **feedback effects of a parent financial education workshop on subsequent student savings**.

Overall, our study shows that financial education in high schools can be an effective tool in improving financial outcomes of students when delivered in a comprehensive manner and over a significant period of time. Furthermore, key complementary benefits can be derived by involving the entire household, students and parents, as indicated by the impacts on parents.