Impact Evaluation of Brazil’s School Based Financial Education Program
The need for improved financial education is particularly pressing.

Personal finance is not taught systematically in the Brazilian school system.

82% of consumers unaware of the interest rate when borrowing money,

Overdue installments mostly caused by poor financial management.

87% of families do not save for the future, and that 40% do not make any sort of investments with excess income.

Among investors, 59% have a savings account, 20% have investments in real estate, 17% own an application in investment funds, and just 8% buy stocks.
Brazilian Government Response

- The federal government sets the national education strategy, but state ministries of education and schools have autonomy in determining curriculum,
- In 2007, the government formed the Group for Pedagogical Support (GAP) to define the best strategy for integrating financial education in the school curriculum.
- GAP consists of representatives from the Government (Central Bank, Securities Commission, Pensions Secretary, Insurance Superintendent, the Council of educations, etc.).
- The private sector joined the initiative (through nonprofit organizations related to Banking, capital markets, etc.)
- GAP is to develop a program for: building personal finance skills, stimulating savings, broadening the use of financial institutions.
- The ultimate goal to improve consumers’ ability to make decisions that are beneficial to their financial well-being.
The project
Financial Literacy at high school level

- GAP developed a project that focuses on teaching financial literacy in high schools educating on financial decision making. Students are the vehicle for change.
- High school students typically face fewer financial decisions than adults, but they will apply and practice concepts, such as budget management, savings and responsible spending.
- In Brazil, an increasing number of youths have the opportunity to use cell phones, credit cards and make purchases in installments.
- The financial education textbook has 72 cases that teachers will incorporate in different subjects (history, math, etc.) and exercises that students will be asked to do with their parents (such as making a family budget).
GAP’s goal is to reach all Brazilian public high schools with the financial education curriculum. The program is now at pilot stage on a smaller number of schools.

GAP approached the World Bank (WB) asking support for an impact evaluation (IE) of the pilot project.

IE will allow to fine-tune the material and also to decide on the best dissemination and implementation strategy of the financial literacy program.

The WB agreed to provide technical / financial support and approached other donors (such as Trust Fund on Financial Literacy & Education) to secure additional financing.
Objectives

- Measure the impact of high school financial education on students’
  - Financial knowledge
  - Attitudes about financial decisions
  - Actual financial behavior and decision making

- Measure spillover effects on the students’ parents AND measure the additional impact of providing financial education to parents on their
  - Financial knowledge
  - Financial behavior and decision making
  - Household income and expenditures
Before Brazil’s school based financial education program is rolled out nationally, it will be pilot tested in a number of schools.

We have the opportunity to conduct a randomized evaluation at the school level.

Schools that are interested in participating in the pilot are randomly divided into two groups:

- Treatment group receives financial education text books for free AND receives teacher training for how to implement the material.
- Control group will receive the same two school years later (possibly with modified material and training, based on evaluation results).
Parents in treatment schools will be randomly divided into two groups

- Treatment group receives financial education material in the mail (or sent home with students) and is invited to a parent financial education workshop in school
- Control group is invited to a health workshop instead (to make sure parents do not feel left out)
### Summary of Overlapping Study Design

<table>
<thead>
<tr>
<th></th>
<th>Group 1a</th>
<th>Group 1b</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student intervention</td>
<td>Treatment</td>
<td>Treatment</td>
<td>Control</td>
</tr>
<tr>
<td>Parent intervention</td>
<td>Treatment</td>
<td>Control</td>
<td>Control</td>
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</tbody>
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- This design allows for testing spillovers from student financial education on parents and vice versa
  - Comparing students in Group 1a and Group 1b gives effect of parents also receiving financial education
  - Comparing parents in Group 1b and Group 2 gives effect of student financial education on parents
Sample Size

- Total of 900 schools in six states (450 treatment and 450 control schools)

<table>
<thead>
<tr>
<th>State</th>
<th>Number of schools</th>
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<tbody>
<tr>
<td>São Paulo</td>
<td>375</td>
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<tr>
<td>Rio de Janeiro</td>
<td>270</td>
</tr>
<tr>
<td>Ceará</td>
<td>125</td>
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<tr>
<td>Distrito Federal</td>
<td>65</td>
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<tr>
<td>Tocantins</td>
<td>35</td>
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<tr>
<td>Minas Gerais</td>
<td>30</td>
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- 24,000 students and parents (one class per school)
Randomization

- Stratified by state and by whether the municipality in which the school is located has above or below the median number of financial institutions per capita
  - Will allow for examining heterogeneous treatment effects on these groups

- To increase power, form pairs of schools within strata, matching on
  - Number of students in high school, number of teachers in high school
  - Drop-out rates, graduation rates
  - Municipality GDP per capita and municipality savings per capita

- Finally, randomly allocate one school in each pair into treatment, one school into control group
Data Collection

- Student surveys are self-administered in the classroom
- Parent surveys are also self-administered
  - Students take parent surveys home and return filled-in questionnaires to schools
  - Response rate thus far has been high (92%)
- Survey firm spends three days in each school to allow for two days of student surveys, time to return parent questionnaires, and extra time for making-up missed surveys
- Will also conduct a short teacher survey regarding their experience with implementing the material and measuring their financial literacy
Outcome Variables (Students)

- **Financial knowledge**
  - Measured through a test, specifically designed based on the textbook material

- **Attitudes**
  - Measured through a series of questions asking “to what extent do you agree with the following statement”

- **Behavior**
  - Students may make few “big” financial decisions
  - But can ask about fundamental concepts, such as making a budget, recording expenses, relying less on credit/purchasing on installments (very common in Brazil, especially for cell phones)
  - Plan to get all students an official ID number as part of the project, allowing us to track their credit scores (and to possibly conduct a long-run follow-up survey)
Outcome Variables (Parents)

- **Financial literacy**
  - Measured through questions that are typically used in the literature

- **Financial behavior**
  - Making a budget
  - Keeping track of expenditures
  - Holding accounts at financial institutions
  - Saving and borrowing

- **Household income/expenditures**
## Timeline

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>April – May 2010</td>
<td>Complied list of interested schools with help of State Ministries of Education; Randomly divided schools into treatment and control group</td>
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<tr>
<td>May – July 2010</td>
<td>Teacher training</td>
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<td>Early August 2010</td>
<td>Baseline survey</td>
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<tr>
<td>Mid August 2010</td>
<td>Teachers started teaching financial education material, continuing until November 2011</td>
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<td>Late November 2010</td>
<td>First follow-up survey</td>
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<tr>
<td>Spring 2011</td>
<td>Parent mailings &amp; workshops</td>
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<tr>
<td>November 2011</td>
<td>Second follow-up survey</td>
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