State Financial Education Mandates: It’s All in the Implementation

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Disclaimer

- The views expressed in this talk are those of the authors and do not necessarily represent the views of the Federal Reserve Board, the Federal Reserve System, or their staffs.

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Financial Literacy across the world is generally low, but financial knowledge amongst young adults is particularly weak:

- 1 in 3 adults worldwide show an understanding of basic financial concepts (Klapper, Lusardi, van Oudheusden 2015).
- < 1 in 3 Americans aged 23 - 28 possess basic knowledge of interest rates, inflation and risk diversification. (Lusardi, Mitchell, and Curto 2010).
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Low Levels of Financial Literacy have been associated with:

- lower rates of planning for retirement, asset accumulation, stock market participation (Lusardi and Mitchell 2007, 2014; Lusardi et al. 2010; van Rooij et al. 2012).

- greater use of high cost financial services and higher levels of debt (Lusardi and Tufano 2009; Meier and Springer 2010).
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Policy Response: Financial Education in U.S. High Schools

- Policymakers push states towards implementing K-12 personal finance and economic education requirements.
- However, the existing body of research on the effectiveness of personal finance education yields conflicting findings (Fernandes et al. 2013).
  - Does financial education improve financial decisions (Bruhn et. Al. 2013)? Or is it ineffective (Cole et. Al. 2013; Willis 2011)?
- Our research asks how effective financial education in high school is in 3 states with rigorous curriculum and course mandates.
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Why Previous Studies may be Flawed

All three of the following errors could lead previous literature to find that financial education is ineffective:

1. The education is usually not implemented for another 3 or 4 years after the law is passed. Previous studies do not always account for this.

2. Some states do not require school districts to implement the curriculum.

3. Cole et. Al. (2013) and Brown et. Al. (2013) assume all financial education is the same, even though some states simply require schoolss to discuss personal finance for one day in social studies class and others require a course, teacher training, and testing.
Our Contribution

Question: What are the effects of an intensive personal finance course requirement in High School on credit behavior?

- We choose 3 states with intensive mandates post-2000: Georgia, Idaho, Texas.
- We determine exactly what financial education entailed: sample curricula, graduation requirements, testing, etc.
- See how the first, second, and third graduating classes were affected by financial education. Are there differences in magnitude?
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States: Georgia, Idaho, Texas

- Each came into effect with graduating class of 2007.
- Each taught Personal Finance in a required High School Economics course.
- Each offered an extensive model curriculum.
- All students were required to pass the class before they could graduate from high school.
- No other economics, personal finance, or math course requirement changes in the study period (2000-2013).

<table>
<thead>
<tr>
<th>State</th>
<th>Length</th>
<th>Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia</td>
<td>1 yr</td>
<td>Yes</td>
</tr>
<tr>
<td>Idaho</td>
<td>0.5 yr</td>
<td>No</td>
</tr>
<tr>
<td>Texas</td>
<td>1 yr</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Model Curricula

All three states contain the following topics in their sample curricula:

- Understanding interest.
- Credit, debt, banking.
- The role of insurance.
- Understanding credit scores.
- Interactions between global and domestic economies.
- Encourage participation in stock market game simulations.
Each Curriculum Caters to Student Population

Georgia:
- How are workers’ earnings determined?
- Greater focus on credit: costs, benefits, and amount.

Idaho:
- 25% of the course focuses on family finances: designing resumes, applying for jobs, and understanding consumer purchases by reading Consumer Reports magazines.

Texas:
- Understand the tradeoff between renting and purchasing a home and how to save for homeownership.
- Learn to be a “prudent investor" and a “low-risk borrower."
- Retirement planning and charitable giving are included.
The data in our study come from the Federal Reserve Bank of New York’s Consumer Credit Panel.

- 5% sample of all U.S. credit files from Equifax.
- Look at those 18-22 years of age.
- Compare each of these states to one state that it borders, as well as students within the same state before and after the education began.
- This tells us what students in Georgia, Idaho, and Texas would have looked like if they never had the education.
- Look at the first three graduating classes exposed to the mandate to see if and when the education became effective.
Financial Education Increases Credit Scores

For the first graduating class that received financial education, there is no measurable change in credit scores for any state.

**Georgia:** The 2\textsuperscript{nd} graduating class saw an increase of 6 points. The 3\textsuperscript{rd} graduating class had an increase of 11 points.

**Idaho:** The 2\textsuperscript{nd} graduating class saw an increase of 8 points. The 3\textsuperscript{rd} graduating class had an increase of 16 points.

**Texas:** The 2\textsuperscript{nd} graduating class saw an increase of 16 points. The 3\textsuperscript{rd} graduating class had an increase of 32 points.
The first graduating class receiving financial education had no measurable change in 90+ day defaults in Georgia or Idaho.

**Georgia:** The 2\textsuperscript{nd} graduating class saw a decrease of 1.2 percentage point. The 3\textsuperscript{rd} graduating class had a decrease of 1.8 percentage points.

**Idaho:** The 2\textsuperscript{nd} graduating class saw a decrease of 1.9 percentage point. The 3\textsuperscript{rd} graduating class had a decrease of 2.0 percentage points.

**Texas:** The first graduating class had a decrease of 1.4 percentage points. The 2\textsuperscript{nd} graduating class saw a decrease of 3.4 percentage point. The 3\textsuperscript{rd} graduating class had a decrease of 5.8 percentage points.
Why is Education Ineffective in Year 1?

Potential Reasons:

- Often course requirements are unfunded, meaning school districts have to finance the added course.
- It may take a few years to accumulate enough resources to offer the course well.
- The teachers with flexibility in their schedules are often art, physical education, or social studies teachers. They are often not trained in financial education.
- It may take these teachers a year or two to adjust to the new curriculum.
Why is the Effect Different in Each State?

- Each state has a different demographic composition:
  - Idaho has a predominantly white population (94%), an agriculture-based society, and a low rate of college attendance (45%).
  - Texas has a high proportion of hispanics (44%), a large petroleum and natural gas industry, a religious culture where talking about money is often taboo, and a slightly higher rate of college attendance (56%).
  - Georgia has a high proportion of African Americans (32%), a largely service-based economy, a religious culture, and the highest rate of college attendance (68%).

- We emphasize that each state needs to teach concepts targeted to the population.
Why is the Effect Different in Each State?

- Each state has a different baseline financial level:
- For example, Idaho has higher average credit scores and lower default rates.
- This makes the effect in Idaho relatively larger, when compared to state averages.

<table>
<thead>
<tr>
<th>State</th>
<th>Average Credit Score</th>
<th>Average 90+ Day Default Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia</td>
<td>606.5</td>
<td>18.18%</td>
</tr>
<tr>
<td>Idaho</td>
<td>632.3</td>
<td>12.17%</td>
</tr>
<tr>
<td>Texas</td>
<td>609.3</td>
<td>17.81%</td>
</tr>
</tbody>
</table>

*Urban, Collins, Schmeiser, Brown*
Some research finds that there is little to no benefit of K-12 financial education.

This literature does not distinguish between the types of education offered.

Our research suggests that rigorous education, tailored to a state’s population affect early-life delinquency and credit scores.
Takeaways

- The education does not affect the first graduating class.
- The education increases credit scores by between 6 and 16 points for the 2\textsuperscript{nd} graduating class and between 11 and 32 points for the 3\textsuperscript{rd} graduating class depending on the state.
- The education decreased default rates for the 2\textsuperscript{nd} graduating class by between 1.2 and 3.4 percentage points and between 1.8 and 5.8 percentage points for the 3\textsuperscript{rd} graduating class depending on the state.
What’s Next?

- What happens if state requirements are slightly less? For example, some states are now beginning to implement standards for K-12 education without requiring a class. Is that as effective?

- In Georgia, teachers received a 2-day training session prior to teaching the new financial education course.
  - What would happen if we required more teacher training?
  - Would the program be more effective in the first year?
  - Can we test to ensure that teachers learn the material?

- We often rely on parents to teach their children about their finances. However, if the financial literacy of adults is also limited, can schools and young adults actually improve parent’s financial behaviors?
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Big 3 Questions (*Lusardi and Mitchell 2008, 2011*)

1. Suppose you had $100 in a savings account and the interest rate was 2 percent per year. After 5 years, how much do you think you would have in the account if you left the money to grow: more than $102, exactly $102; less than $102; do not know; refuse to answer.

2. Imagine that the interest rate on your savings account was 1 percent per year and inflation was 2 percent per year. After 1 year, would you be able to buy: more than, exactly the same as, or less than today with the money in this account; do not know; refuse to answer.

3. Do you think that the following statement is true or false? “Buying a single company stock usually provides a safer return than a stock mutual fund.” [true; false; do not know; refuse to answer]
Timeline Figure for Graduation Cohorts
References


Urban, Collins, Schmeiser, Brown
References Continued


