Understanding Policy with Data: High School Personal Finance Courses

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Research using RCTs consistently finds that required financial education in classrooms improve financial decisions:

- Kaiser and Menkhoff (2020, EcEdRev)
- Kaiser et al. (2022, JFE)

...but all of the randomized experiments in high schools are outside of the U.S.
In the U.S., education policy is local:

- States decide graduation requirements and standards for K-12 education.
- Local school districts and individual schools can also require specific classes.
- Even if states have requirements, local schools are not audited to make sure state policies are implemented locally.
- Local changes, particularly in bigger schools, often include parental involvement and school boards.
State variation in personal finance graduation requirements is often used as a natural experiment to determine causal effects. As of the graduating class of 2023:

- 8 states require a full semester of PF ("guarantee states"),
- 25 states require PF content flexibly.
Studies lump the two policy levers together when considering causal effects of required personal finance education.

In the U.S., education remains locally controlled and not all state-level education policies are enforced.

Which state policies translate to near universal access?

If access is not universal with a policy, who is left behind?

Even without a policy, schools can locally implement requirements. How often does this happen? And for whom?
Research using state mandates as natural experiments finds:

- Reduces delinquencies and increases credit scores (Brown et al. 2016; Urban et al. 2020)
- Reduces payday borrowing (Harvey 2019)
- Shifts student loan borrowers from high-interest to low-interest financing (Stoddard & Urban 2020)
- Improves student loan repayment among students from low-income families (Mangrum 2022)
Research uses state mandates as natural experiments finds:

- Does not change retirement savings (Harvey & Urban 2023)
- Does not change high school graduation rates (Urban 2022)
- Reduces subjective financial well-being for those who end their education with a high school diploma (Burke et al. 2023)
New Data: High Schools

I collect data from all U.S. high schools with online course catalogs.

- Start with list of all U.S. high schools from the US Dept of Education NCES
- Go to each website of every public high school, find an online course catalog, and code up:
  - each course that contains personal finance,
  - the duration of the course,
  - whether or not it’s required or an elective,
  - the course description,
  - record if the school has no personal finance content in any class.
I use the course-level data to create school-level measures.

- For each school, I create a policy measure that represents the maximum school-level policy:
  - standalone required,
  - embedded required,
  - standalone elective offered,
  - embedded elective offered,
  - no personal finance content in any class.

- I merge these data with school-level characteristics from NCES, such as enrollment, enrollment by race/ethnicity, and students receiving free or reduced-lunch.
About the Data

The data span 2019-2020 through the 2022-2023 Academic Years (AYs).

- The 2022-23 data include:
  - 19,263 courses coded,
  - 10,784 U.S. high schools.

- A full panel includes 7,446 schools with data for every year.
In 2022-23, 2.6 million students are in high schools where personal finance is required as a standalone course (24%).
Mapping Standalone Requirements
Access by State Policy

In states with embedded requirements, 39 percent of students are in schools where personal finance is required for high school graduation.

States with Embedded Requirements

![Graph showing the mean prevalence of financial education content in states with embedded requirements. The content types include: standalone required, embedded required, personal finance elective, any personal finance content, and nothing. The prevalence values are given for each content type.]

Mean Prevalence

- Standalone Req’d: 0.11
- Embedded Reqmt: 0.28
- PF Elective: 0.43
- Any PF Content: 0.14
- Nothing: 0.04

Content Type
In states with no requirements, 16 percent of students are in schools where personal finance is required for high school graduation.

States without Policies

![Graph showing mean prevalence of personal finance content types in states without policies.](image-url)
Summary of State Policies

- In states where a standalone personal finance course is required for high school graduation—commonly referred to as a “guarantee”—every student is in a school with a standalone personal finance course requirement.
- In states where personal finance is required with flexibility, 40% of schools have PF in a required class.
- In states without policies, it’s even lower: 22% of school have PF in a required class.
- Is there equity in access?
### Predicting School PF: States without Policies

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<th>PF Req’d</th>
<th>Req’d At All</th>
<th>PF Req’d</th>
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## Predicting School PF: States with Embedded Policies

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Urban (MSU)
In “guarantee” states—every student has access to a standalone personal finance course requirement.

In states without policies, schools with more non-white students have less access to PF requirements, and students in rural schools have relatively more access than those in the suburbs or urban areas.

In states where personal finance is required with flexibility, the inequities in access are much smaller.
Changes over Time

Standalone Required

Any Required
Mapping Changes over Time

Standalone Required

Any Required
Policy Transitions

Over the sample period, 5 states passed and began implementing guarantees.
What does this tell us for research?

- Research that considers the causal effects of required financial education needs to consider “ever takers" and “never takers."
- Calculate treatment on treated based on these data.
- Researchers can compare guarantee and no policy states to get cleaner estimates of full compliance, remembering that 22% of students in no policy states are still required to complete some PF content.
- The implementation of state guarantees has clear rollout before the first graduating cohort is required to complete, likely understating the effect of the policy. Researchers should probably use a donut approach, omitting the year or two prior to the policy.
What does this tell us for research?

- The effects documented in the literature are the effects of state policy, not financial education itself.
- In studies finding positive effects of financial education graduation requirements on financial behaviors, the effect of the education is likely under-stated because access is not universal.
- In studies reporting null effects, future work should consider cleaner identification strategies if the desire is to determine the specific effect of the education.
- In Burke et al. (2020), the heterogenous effect could represent even more inequality than reported...(stay tuned for the next session)...

Urban (MSU) Financial Education April 21, 2023 26/28
Continuing research

- With expanded access to state administrative data, it will be possible to compare students’ high school access to personal finance to document causal effects.

- Free research idea: use school-level data to document causal effect of local financial policies on FAFSA applications (available at the school-level!).

- The data will continue to be updated for the foreseeable future.

- I encourage you to use the data!
  - **Course-level data:** [https://papers.carlyurban.com/completed_school_data_2023.xlsx](https://papers.carlyurban.com/completed_school_data_2023.xlsx)
  - **School-level data:** [https://papers.carlyurban.com/standards_panel_18_22_forposting.xlsx](https://papers.carlyurban.com/standards_panel_18_22_forposting.xlsx)

- and the state mandate data: [https://papers.carlyurban.com/Policies_Panel.xlsx](https://papers.carlyurban.com/Policies_Panel.xlsx)
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