

# Financial Education in High Schools across America: Trends and Statistics\*

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## 1 Introduction

Research consistently documents the effects of requiring personal finance education in high schools on downstream outcomes (Urban et al., 2020; Harvey, 2019; Stoddard and Urban, 2020; Mangrum, 2022; Harvey and Urban, 2023). However, research on access to personal finance courses—particularly in the absence of state policy—remains limited. This project asks four main questions: Who has access to personal finance coursework in U.S. high schools? Who has this changed over time? How have state policies changed access and for whom? And finally, how are state policies implemented at the local level?

The questions are answerable using an ongoing data collection effort intended to spark additional research. The data are extracted from online course catalogs from over 10,000 U.S. high schools, and the data include a clear picture of most schools spanning the 2019-2020 through 2022-2023 academic years.

There are four main takeaways. First, 24 percent of high school students in the class of 2023 will complete a personal finance semester-long course in order to receive their diplomas. Another 17 percent of students will complete some personal finance content within another required class. Beyond that, 38 percent have access to a semester-long personal finance elective and 14 percent have access to an elective that incorporates personal finance content. Only six percent of students in the 2022-2023 academic year did not have access to any personal finance coursework in high school.

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Second, access has increased in the last three years. In the 2019-2020 academic year, 18 percent of students had to complete a standalone personal finance course to receive their diploma, and 13 percent of students had to complete some personal finance content with another required class. Most states increased access, though some states did reduce their access over the time period.

Third, state policies matter. In states with “guarantees,” where every student is required to take a personal finance standalone course prior to high school graduation, nearly every school complies with the policy. In states with embedded requirements, where every student is required to complete some personal finance content within a specific course or greater content area, only 39 percent of students are in schools where personal finance is required as a standalone course or within another course. Compliance is trickier with these policies. However, embedded requirements reduce equity in access compared to states without any policies. In states without any personal finance policies, students of color have the least access to personal finance.

Fourth, states that have recently implemented guarantees have rolled out in a variety of ways. I explain different examples of rollout and document the policy implementation specifically in Section 6.

## 2 Data Collection

The main data from this project come from hand-collected online course catalogs from 10,784 U.S. public high schools, including 19,263 hand-coded specific courses. In our panel data, we have 7,446 schools for which we have data in each sample year. These data are then supplemented with data on school characteristics. Each of these data sources are described below.

The first step in the process was downloading the master list of public schools from the most recent school year at the time of initial data collection (May 2023), which was the 2019-20 dataset from NCES.<sup>1</sup> Next, to ensure that all students had full access to the schools, I excluded all the “charter schools, technical schools, magnet schools, schools for the sensory impaired, alternative schools, online schools, early college schools, performing art schools etc.” I exclude schools where no course catalog can be found or where online course catalogs were locked at the time of access.

All school websites on the master list were hand-searched for a course catalog and graduation requirements. If a catalog was not current (and it was still the only one on the website as of January 2023), we assumed the standards have not changed and referenced the previous year for classes offered. If a class including financial literacy topics

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<sup>1</sup>These data can be found here: <https://nces.ed.gov/ccd/pubschuniv.asp>.

was discovered in the catalog, researchers then recorded the class name, description (when available), duration (when available), whether it was a standalone course or a class that embedded financial literacy topics into another class, and whether or not it was a graduation requirement.<sup>2</sup> The course was either labeled required or as a cluster, meaning it was one of many courses that could be taken to fill a graduation requirement. If a course catalog was found but a course with financial literacy content was not offered at the school, this is classified as having no offerings. At times, there were course catalogs that did not include financial literacy (or typical classes that include financial literacy) but referenced electives that were not listed. I labeled these schools as missing, as a clear distinction could not be made. If a standalone course in personal finance was listed in the course catalog but there was no further description of requirements, I coded it as an offering but not a requirement.

From this hand-collected dataset I create school-level financial education course offering standards. I assign each school its “maximum” standard using the following sequencing: Standalone requirement, embedded requirement, standalone offering, embedded offering, no requirements or offerings. I append the data across years, spanning the 2019-2020, 2020-2021, 2021-2022, and 2022-2023 academic years.

To determine the correlates of school course offerings, I collect supplementary data I then merge these data to the hand-collected high school-level data. I employ data from the U.S. Department of Education’s NCES Non-Fiscal School Survey.<sup>3</sup> Relevant to this study, these school-level data include: student-teacher ratios, the fraction of students eligible for free and reduced-price lunch, and student demographic characteristics (e.g., percentages by race). NCES data also include indicators for the geographic area each school is located in.<sup>4</sup> The data are categorized into 4 major groupings: city, suburban, town, and rural. For the analysis, I group town and rural into one category, as both represent more remote areas. I further obtain data from the American Community Survey (ACS) 2013-2017 5-Year Estimates at the ZIP code-level on the fraction of people living below the federal poverty line. I do this solely to show that the measure of free and reduced-price lunch correlates with area poverty.

### 3 Financial Education Access in 2023

Figure 1 displays student access to financial education coursework for the 2022-2023 academic year across the country. The categories are mutually exclusive for each school,

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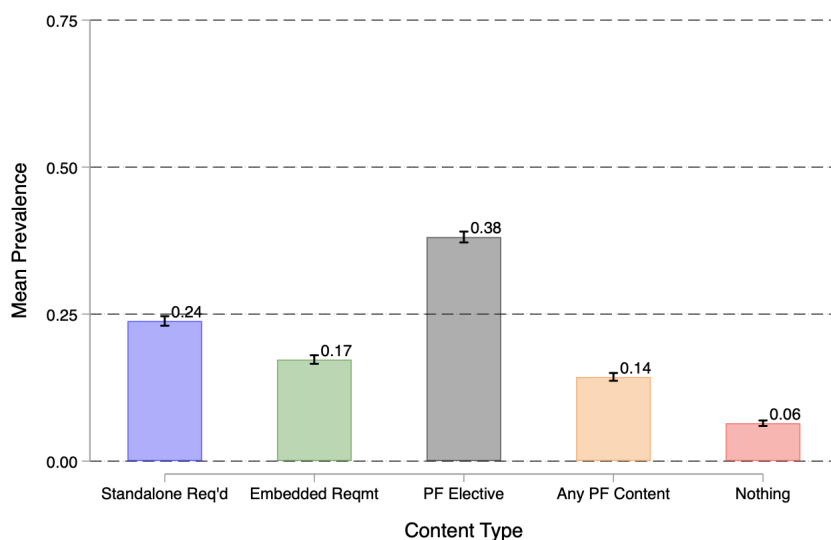
<sup>2</sup>I excluded special education courses and other courses with special requirements to get in. For example, ROTC courses and classes far along a career pathway with prerequisites not required for graduation.

<sup>3</sup>These data can be found here: <https://nces.ed.gov/ccd/pubschuniv.asp>. The 2018-2019 data are the most current version of the data available at the time of data gathering.

<sup>4</sup>These data are downloaded from the NCES.<sup>5</sup>

where the highest level of school access is recorded. Overall, 24 percent of students are in schools with a standalone personal finance course requirement. Another 17 percent of students are in schools where personal finance content is included in another required course (e.g., economics or social studies). Taken together, 41 percent of students are guaranteed to be exposed to some personal finance content prior to graduating high school. Many students go to schools without requirements: 38 percent of students are in schools with a standalone personal finance elective and 14 percent of students are in schools where there is an elective that contains—but is not focused on—personal finance. There are students who have no access to personal finance material in high school: six percent of students are in schools without a single class that contains personal finance content.

Figure 1: Financial Education Standards in the 2022-23 Academic Year



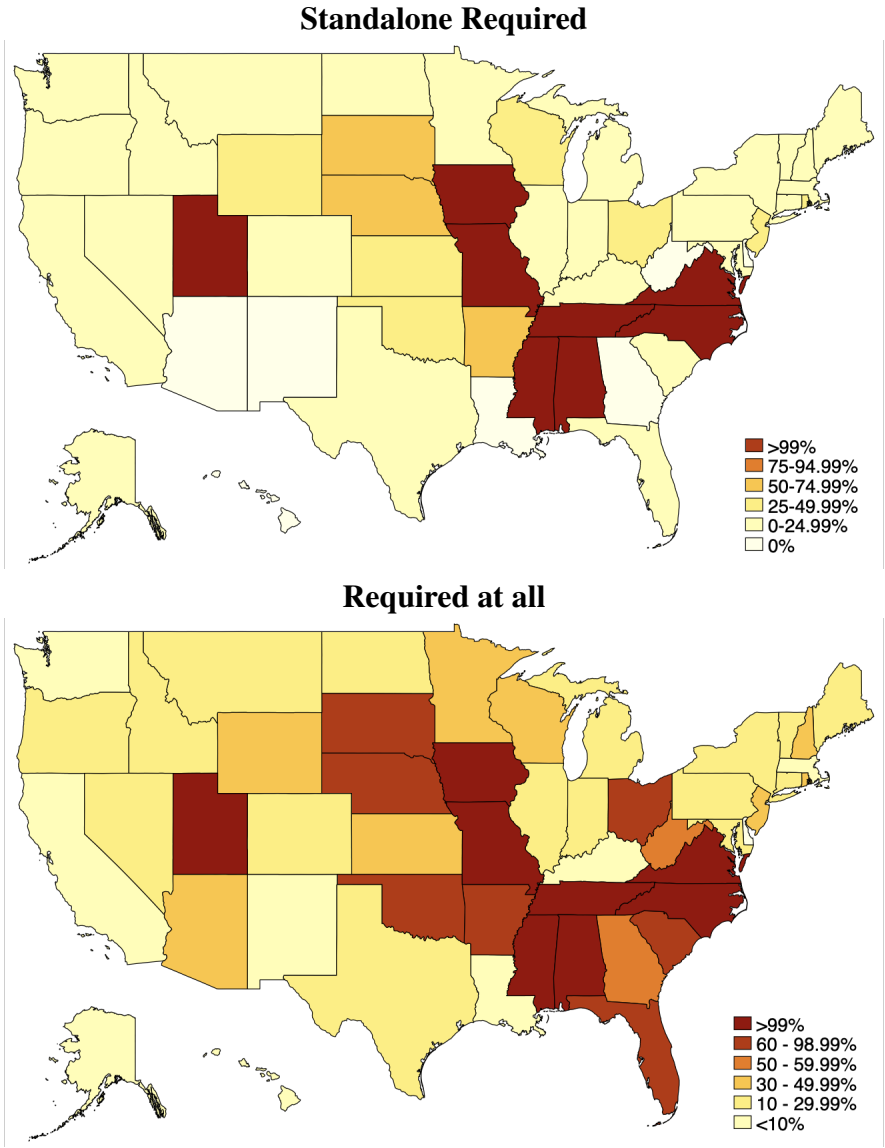
Notes: Each category is the maximum financial literacy standard in the school, making them mutually exclusive.

How does access vary geographically? I take these school-level data and aggregate them to the state-level. Specifically, I document the fraction of students that have access to a standalone course requirement and the fraction of students that have access to any requirement (standalone or embedded). The top and bottom panels of Figure 2 display these measures, respectively. The top panel immediately shows that state policies requiring every student complete a standalone personal finance course prior to high school graduation have nearly universal compliance (the states in dark red). Eight states (AZ, DC, DE, GA, HI, LA, NM, WV) do not have a single school where a standalone personal finance course

is required.

The second panel of Figure 2 show the fraction of students in schools with any personal finance content required for high school graduation. Even though some states require personal finance to be embedded within another course, the only states that have over 99 percent compliance are the ones with standalone course requirements. Seven states (AR, FL, NE, OH, OK, SC, SD) have between 60 and 99 percent of students in schools with personal finance requirements. Another two states (GA and WV) have between 50 and 59 percent of students in schools requiring personal finance in some way. Both Delaware and the District of Columbia do not have a single school with any personal finance coursework required, though these states are small and not all schools have online course catalog data, making the data less reliable.

Figure 2: Maps of Financial Education Requirements and Offerings Across America

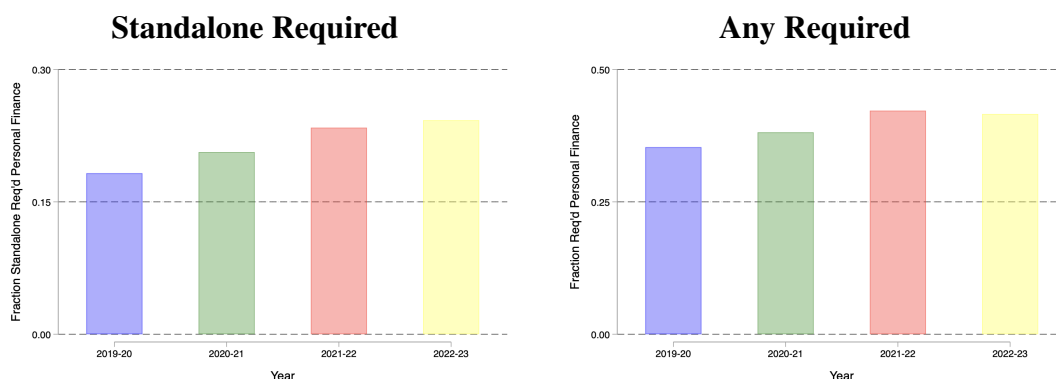


Notes: Each category is the maximum financial literacy standard in the school, making them mutually exclusive.

## 4 Changes over Time

I next turn to changes in course requirements over time, using data from 2019-2020 school year through the 2022-2023 school year. I hold the set of schools fixed to the 7,387 schools where we have online course catalog data for every year. Figure 3 shows that across all states, more students have access to personal finance coursework in 2023 than three years prior. In the 2019-2020 academic year, 18 percent of students were required to complete a standalone personal finance course prior to earning a high school diploma. In the 2022-2023 academic year, this figure increased to 24 percent. A similar trend exists when considering access to any requirement. In the 2019-2020 academic year, 35 percent of students were required to have personal finance content in their high school curriculum, and by the 2022-2023 academic year, this figure increased to 42 percent.

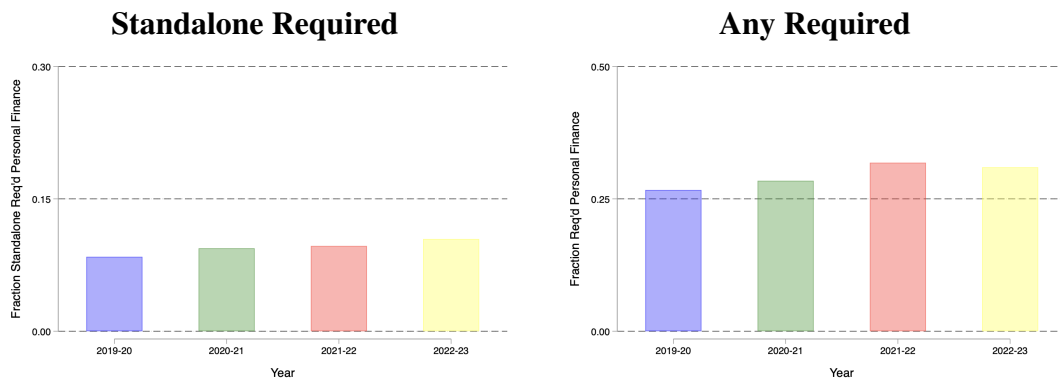
Figure 3: Financial Education Requirements over Time



Is this trend driven by the additional three states that added guarantees that all high school students have access to a standalone personal finance course over the time period? Figure 4 replicates the statistics in Figure 3 but excludes the states with guarantees. The fraction of students in schools with standalone course requirement outside of the seven “guarantee states” rose from 8.4 percent in 2019-2020 to 10.5 percent in 2022-2023. Further, 27 percent of students among this sample were in schools with any personal finance requirement in 2019-2020 and this number rose to 31 percent in 2022-2023. Thus, the increase in personal finance school policies was not exclusively due to changes in state policy.

I next map changes within state from 2019-2020 to 2022-2023 in Figure 5. Eight states (AR, IA, MS, NC, NE, RI, SD, WY) experienced large increases in the fraction of students in schools with standalone requirements over the time period. Mississippi, North Carolina, and Rhode Island fully implemented state policies in this period, and Nebraska

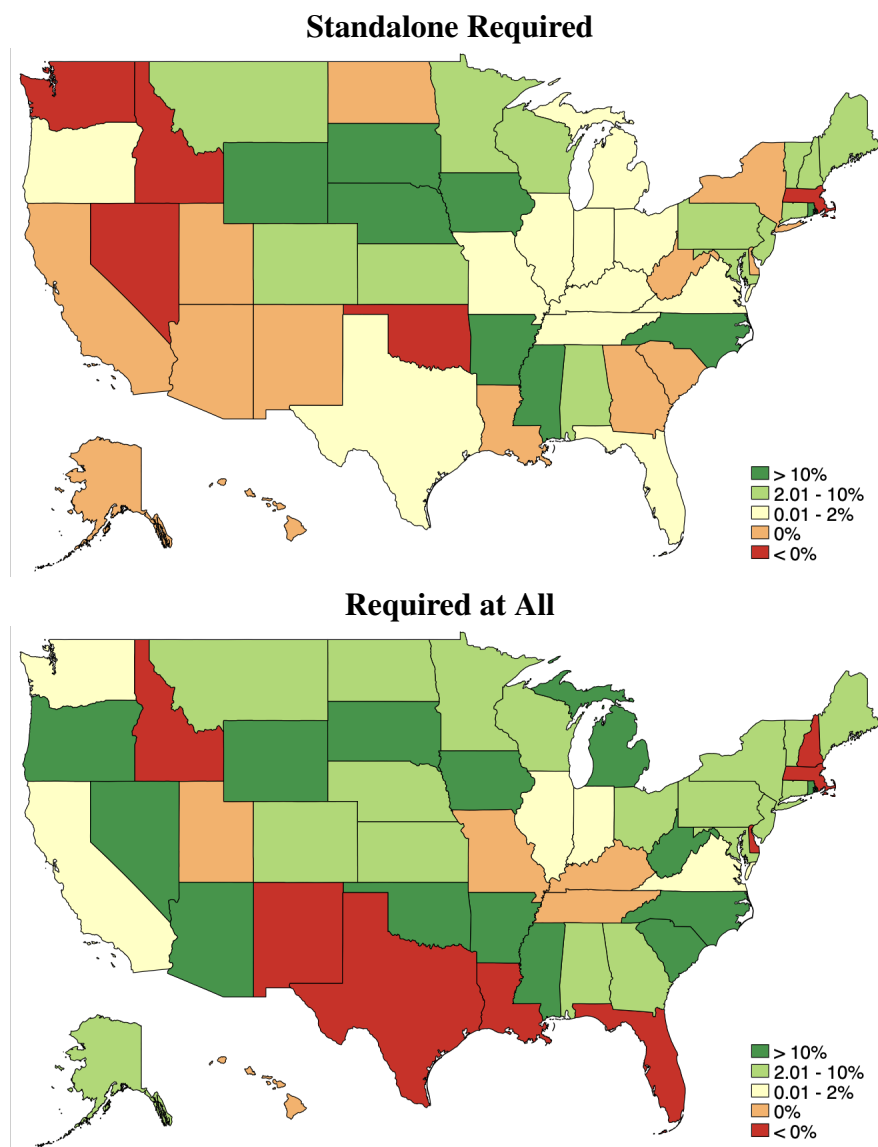
Figure 4: Financial Education Requirements over Time, excluding Required States



and Rhode Island are in the process of implementing state policies. Five states (ID, MA, NV, OK, WA) saw declines in the fraction of students in schools with standalone personal finance graduation requirements.

Most states saw increases in the fraction of students exposed to any personal finance requirement over the three year period, though nine states (DE, FL, ID, KY, LA, MA, NH, NM, TX) saw a decline in the fraction of students with any requirements.

Figure 5: Maps of Financial Education Requirement Changes



Notes: Each statistic represents the difference within state between 2022-2023 and 2019-2020 in the fraction of students in schools with standalone personal finance course requirements (top panel) and any personal finance content requirement (bottom panel).

## 5 State Policy

As previously stated, eight states require every student to complete a semester of personal finance prior to high school graduation (AL, IA, MO, MS, NC, TN, UT, VA). According to the course catalog data, nearly every school in these “guarantee states” has standalone personal finance requirements in place. Additional states require students to complete personal finance content within another course or content area. Figure 6 shows that within these states, 11 percent of students are in schools with standalone course requirements, and 28 percent of students are in schools where personal finance is embedded in another required class. In total, only 39 percent of students in these states have to complete personal finance, meaning that schools are not adhering to the state policy.

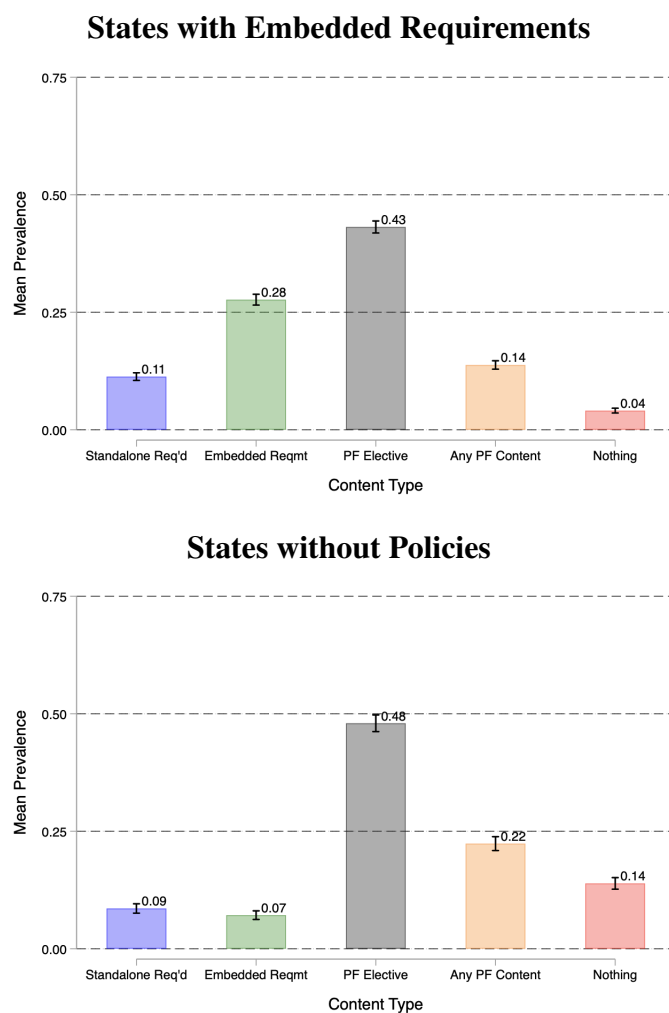
However, Figure 6 also shows that within states that have no personal finance-related policies, only 16 percent of students are required to complete personal finance content before graduating high school. Thus, embedded requirements do increase access to personal finance content, though not at the same level as standalone course requirements.

Table 1 next explores which schools are least likely to have personal finance required. These models account for differences in school poverty levels, measured by the fraction of students receiving free and reduced-price lunch, the fraction of non-White students, and the geographical location of the school.

The first four columns include only states that have no personal finance policies. Columns (1) and (2) show that schools with above median students of color are 13 and 14 percentage points less likely to be in a school with a personal finance standalone course requirement or a school where personal finance is required at all. While there is no difference in access based on school poverty levels after accounting for racial/ethnic differences, as well as geography, this is likely because rural students are more likely to have access to either school requirement than urban or suburban schools. I next refine the model to only make within state comparisons in Columns (3) and (4). This tells us if the differences are more likely to be cross states or within states. In these models, the lack of differences across school poverty remain, and the differences across rural and urban schools also remain. While schools with above median non-White populations still have less access, the magnitude of the association falls by a third.

Columns (5)-(8) predict access in states that require personal finance content to be integrated into another class or content area. Columns (5) and (6) are the cross-state comparisons. In states with embedded requirements, students in higher poverty schools have less access to standalone courses but greater access to any requirements. Columns (7) and (8) show that these differences disappear when we only make within state comparisons. Schools with above median proportions of non-White students are 3.5 percent less likely to have a standalone personal finance course requirement; this also does not hold up to

Figure 6: Financial Education Standards by State Policy in the 2022-23 Academic Year



Notes: Each category is the maximum financial literacy standard in the school, making them mutually exclusive.

within state comparisons (Column (7)). While students in rural areas are more likely to have access to standalone personal finance guarantees, the magnitude is less than half that in states with no policies.

Overall, embedded state policies reduce the inequities in access that exist when no state policy exists, though some inequities based on geographical area still remain.

Table 1: Predicting School Financial Literacy Policies

|                | States without policies |                        |                      |                        | States with embedded requirements |                        |                    |                        |
|----------------|-------------------------|------------------------|----------------------|------------------------|-----------------------------------|------------------------|--------------------|------------------------|
|                | (1)<br>PF<br>Req'd      | (2)<br>Req'd<br>At All | (3)<br>PF<br>Req'd   | (4)<br>Req'd<br>At All | (5)<br>PF<br>Req'd                | (6)<br>Req'd<br>At All | (7)<br>PF<br>Req'd | (8)<br>Req'd<br>At All |
| > 53%<br>FRPL  | 0.011<br>(0.011)        | 0.011<br>(0.014)       | 0.002<br>(0.011)     | -0.011<br>(0.015)      | -0.025***<br>(0.009)              | 0.023*<br>(0.014)      | 0.007<br>(0.009)   | 0.006<br>(0.016)       |
| < 69%<br>White | -0.130***<br>(0.012)    | -0.144***<br>(0.016)   | -0.041***<br>(0.015) | -0.075***<br>(0.020)   | -0.035***<br>(0.010)              | 0.013<br>(0.015)       | -0.001<br>(0.010)  | -0.007<br>(0.016)      |
| Urban          | -0.005<br>(0.012)       | 0.021<br>(0.016)       | -0.014<br>(0.012)    | 0.006<br>(0.015)       | -0.010<br>(0.011)                 | -0.060***<br>(0.016)   | 0.002<br>(0.010)   | -0.041***<br>(0.016)   |
| Rural          | 0.047***<br>(0.013)     | 0.069***<br>(0.017)    | 0.042***<br>(0.013)  | 0.068***<br>(0.017)    | 0.022**<br>(0.010)                | 0.001<br>(0.016)       | 0.020**<br>(0.009) | -0.004<br>(0.015)      |
| <i>N</i>       | 3064                    | 3064                   | 3064                 | 3064                   | 5730                              | 5730                   | 5730               | 5730                   |
| State FE       | NO                      | NO                     | YES                  | YES                    | NO                                | NO                     | YES                | YES                    |

Notes: Coefficient estimates reported with standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Each outcome variable equals one if the school had a standalone personal finance course requirement (odd columns) and any personal finance content required (even columns). Results for states without policies are depicted in the first four columns, and results for states with embedded requirements are in columns 5 through 8. > 53% FRPL equals one for schools that have over 53 percent of students receiving free or reduced price lunch; 53% is the median. < 69% White equals one for schools that have fewer than 69 percent of students that are White, non-Hispanic; this is median level and the dummy represents schools with greater fractions of non-White populations. Urban and rural are dummy variables (the excluded group is suburban). Data are from the 2022-2023 academic year. Columns (3), (4), (7), and (8) include state-level fixed effects.

## 6 Implementation Examples

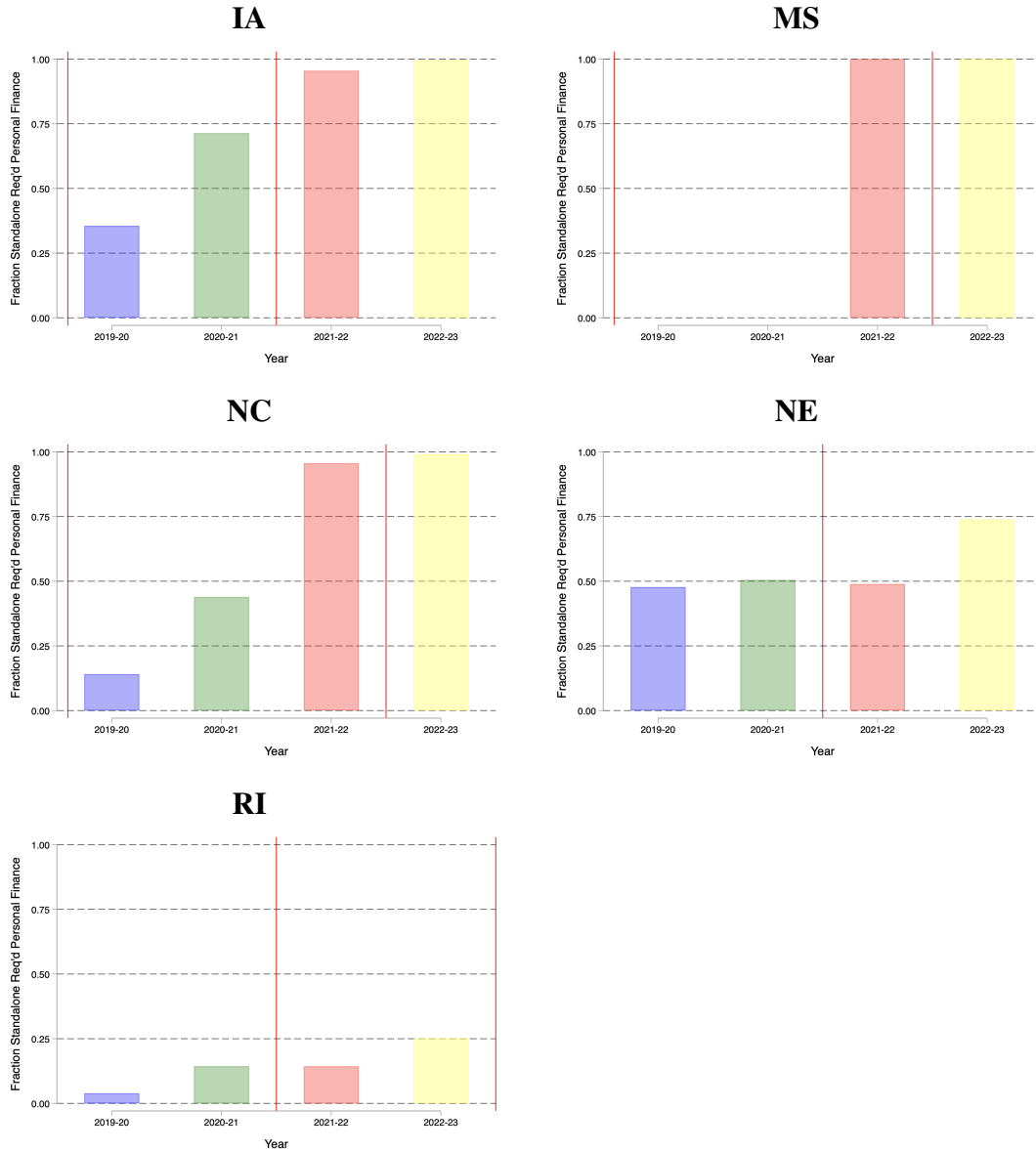
How are personal finance guarantees—requirements that students complete a full semester of personal finance prior to high school graduation—implemented? Understanding implementation is an important component of determining causal effects of state policies. Rarely do states go from zero to 100 in one year, though it is possible. Similarly, including years just before the requirement went into place may end up treating the control group in a way that understates effects. I explore five states that passed and began implementing these policies over the sample period. Three of these states fully implemented their guarantees (IA, MS, NC) and two are still in the implementation process (NE, RI).

Figure 7 shows the variation in implementation. In each plot, the first red vertical line represents the year the policy passed and the second one represents the first graduating class required to complete a full semester of personal finance. Both Iowa and North Carolina had over half of schools implementing in the year preceding the first graduating cohort's requirement. This suggested that the rollout was stepwise. However, Mississippi went from virtually no students to all students being subject to the requirement. The difference is likely that Mississippi did not change its policy through legislative efforts but through administrative rule in the department of education. Further, it put personal finance into half of a specific year-long class called College and Career Readiness. While students had access to this course prior to the requirement, not a single student was required to complete it prior to the state-determined first graduating cohort.

Nebraska and Rhode Island are currently in the process of implementing their recent graduation requirements that will go into effect in the next few years. While Nebraska has reached nearly 75 percent of students in schools with guarantees, Rhode Island has just surpassed 25 percent.

Taken together, these results suggest that there is not one specific model to implementing personal finance guarantees in high school.

Figure 7: State Guarantee Policy Transition Examples



Notes: The first line represents the year the policy was announced and the second line represents the year the first graduating class was required to complete a standalone personal finance. NE and RI requirements will begin with the graduating class of 2024.

## **7 Conclusions**

Financial education in U.S. high schools has expanded dramatically in the last four years. In addition to the number of states adding guarantees going from five to over 15 since 2019, schools are acting independently to increase access. In the 2022-2023 academic year, 2,633,919 students were enrolled in schools where a standalone personal finance course was required.

Continued research should use these data to look at how access to school-based financial education affects downstream outcomes. Ideally, pairing these data with state administrative academic data could shed light on who takes personal finance courses when they are offered but not required. Does this selection further disadvantage students from under-served backgrounds?

One other important avenue for future research would be to document access to low-cost financial services, such as banks and credit unions, in conjunction with personal finance courses. Students that have no access to important financial services may be limited in their ability to implement what they learn in financial literacy coursework.

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