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Impact of Exposure to State Financial Education Mandates on Financial Resilience in Adulthood: Findings from the National Financial Capability Study

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ABSTRACT

Financial literacy matters for financial well-being; however, findings on whether adolescent exposure to financial education is associated with financial resilience in adulthood remain mixed. This study examines the impact of exposure to state-mandated high school personal finance education on financial resilience in adulthood. The sample consists of respondents from Tennessee, Utah, Missouri, and Virginia, from five waves of the National Financial Capability Study (2012–2024). We used a difference-in-differences approach to examine the effect of personal finance mandates, while controlling for differences across states and years, demographic characteristics, and survey weights. We found that exposure to the mandate was associated with a 0.374-point lower score on the four-point financial-resilience measure ($p < 0.001$), indicating greater self-reported confidence in covering an unexpected $2,000 expense. The results remain similar across different models, treatment definitions, sample restrictions, weighting schemes, and other robustness checks. A placebo test finds no statistically significant association between exposure and resilience before the mandate. These findings suggest that exposure to a state-mandated financial education while attending high school is associated with modest but meaningful improvements in financial resilience in immediate adulthood. Given the nonexperimental research design and the inclusion of only four states, the findings should be interpreted as associations rather than causal relationships.

INTRODUCTION

Financial stress is a significant concern among U.S. households, as rising living costs and economic uncertainty put pressure on household finances (Friedline *et al.*, 2021). These challenges arise due to the broader context of substantial economic inequality and wealth concentration in the United States. The share of total U.S. household wealth held by the wealthiest 1% reached an all-time high of 32.5% in the second quarter of 2026, and it continues to rise (Board of Governors of the Federal Reserve System, 2026). According to World Population Review (2026), the Gini index for the United States is 41.8. In The World Bank classifies countries with a Gini index greater than 40 as having high income inequality, providing a benchmark for assessing income disparities across countries (Haddad et al., 2024). These disparities provide important context for examining household financial vulnerability, as households with less assets and savings may struggle to manage unexpected expenses or income loss.

Financial literacy is receiving more attention as a critical skill for reducing financial stress and efficiently managing financial life. Individuals with higher financial literacy make better saving and investment decisions. However, lower levels of financial literacy are associated with greater income inequality and lower financial well-being (Lusardi & Mitchell, 2014; Thosiac, 2024). Yet financial literacy levels remain very low in the United States. Lusardi and Streeter (2023) found that only 28.5% of adults provided correct answers to basic financial literacy questions related to Interest Rates, Inflation, and Investment Risk Diversification. They also report that approximately 68% of U.S. adults never received financial education in their lives.

In response, national efforts to promote financial literacy are expanding, as indicated by the increasing number of U.S. states that have adopted policies requiring high school students to take a personal finance course to graduate (Council for Economic Education [CEE], 2024). As of 2026, 30 U.S. states have adopted policies requiring high school students to complete a standalone personal finance course to graduate. Of these states, 11 had fully implemented while 19 were still in the process of implementation (Next Gen Personal Finance [NGPF], 2026). The underlying policy rationale is that exposure to financial education during high school may equip students with the knowledge and skills needed to make informed financial decisions, manage personal finances effectively, use credit responsibly, develop saving habits, and avoid excessive debt. However, whether these mandates exposure translate into measurable improvements in financial resilience in near adulthood remains an empirical question.

Prior research provides mixed evidence on the effectiveness of such compulsory financial education policies. Bernheim, Garrett, and Maki (2001), using U.S. state-level data, reported that high school financial education mandates are associated with higher saving rates

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and greater subsequent asset accumulation. Cole, Paulson, and Shastry (2016), however, found no significant effect of financial education, although additional mathematics requirements were associated with improvements in several financial resilience outcomes. Brown *et al.* (2016) found that state-mandated financial education was associated with small improvements in young adults' credit scores. Similarly, Urban *et al.* (2020) found that exposure to state-mandated financial education was associated with better loan repayment outcomes, although effects varied across states. Recent reviews also show that the effects of financial education vary depending on the context and the financial outcome being measured (Kaiser *et al.*, 2022; Burke *et al.*, 2023).

This study adds to the literature by examining the association between exposure to state-mandated personal finance education during high school and financial resilience in early adulthood using data from four early mandate-adopting states (Utah, Missouri, Tennessee, and Virginia). These states adopted a statewide high school graduation requirement for personal finance education at clearly defined times, with the first affected graduating classes in Utah in 2008, Missouri in 2010, Tennessee in 2013, and Virginia in 2015 (Collins & Urban, 2025). Furthermore, these states provide a relatively long post-mandate observation period, allowing for the examination of longer-term associations between exposure to personal finance education mandates and financial resilience in adulthood. The early implementation of these policies and the availability of National Financial Capability Study (NFCS) data through 2024 make it possible to examine their relationship with financial outcomes over time.

Using a difference-in-differences approach that controls state and year differences, NFCS survey weights, and individual characteristics as control variables, we found that high school mandate exposure is associated with a 0.374-point improvement in financial resilience on a 4-point scale ($p < 0.001$). Mandate exposure is also associated with a 10-percentage-point higher probability of having an emergency fund ($p < 0.001$). These results remain similar across states over time, alternative treatment definitions, sample composition, alternative outcome models, weighting schemes, and restricting the sample to high school graduates. This study contributes to the literature by examining the relationship between high school financial education mandates and financial resilience and preparedness in adulthood.

LITERATURE REVIEW

Financial Literacy and Economic Outcomes

A growing body of research links higher financial literacy with improved financial habits and stronger financial well-being (Mitchell & Lusardi, 2015). Lower financial literacy, in contrast, has been associated with greater debt burdens, lower saving, and higher financial stress (Anghel & Pochea, 2025; Mitchell & Lusardi, 2015). These associations have been documented across demographic groups and countries, including college students (Lone & Bhat, 2022; Rodríguez-Correa *et al.*, 2025). Given these associations, researchers have placed growing emphasis on examining whether financial education can improve financial literacy, financial behavior, and financial well-being. Although earlier studies reported mixed effects of financial literacy on financial behaviors (Wagner & Walstad, 2019), recent studies indicate that structured financial education can enhance financial knowledge and, to a smaller degree, improve financial behaviors, especially when taught in high school (Frisancho, 2023). Similarly, Kaiser *et al.* (2022) found that financial education leads to substantial gains in financial knowledge and moderate improvements in financial behaviors. This existing body of research provides a basis for examining whether exposure to financial education during high school is also associated with longer-term financial resilience.

State Financial Education Mandates

An increasing number of U.S. states have adopted policies mandating personal finance education as a high school graduation requirement (Next Gen Personal Finance [NGPF], 2026). Mandate designs vary substantially across states, including whether financial education is embedded within another subject or provided through a standalone course, and the required number of instructional hours (ExcelinEd, 2025). The year of adoption also differs substantially across states, with some states implementing requirements as early as 2008 (Utah) and others introducing these requirements more recently (Next Gen Personal Finance [NGPF], 2026). This variation in timing has allowed us to examine associations between exposure to mandatory financial education policies and subsequent financial knowledge and behavior in adulthood (Baloria & Bastiaansen, 2024). The findings can provide empirical evidence to other states to make decisions on adoption of such financial mandate policies.

Contribution of This Study

Although research on mandatory financial education has expanded, several gaps remain. First, much of the literature has focused on outcomes observed over a relatively brief period, including financial behaviors among college students and young adults, payday-loan use, student borrowing, and credit decisions (Stoddard & Urban, 2018; Kroger, 2023; Lee *et al.*, 2024; Harvey, 2019). Less is known about whether receiving financial education in high school is associated with financial resilience later in adulthood. Second, existing studies differ in their data sources, policy designs, study populations, and outcome measures, making it unclear whether these findings extend to broader measures of financial preparedness. Burke *et al.* (2023), for example, examined state financial education mandates in relation to subjective financial well-being but did not directly assess financial resilience, defined here as the ability to respond to an unexpected financial shock. This study addresses these gaps. By examining the impact of financial mandate exposure on both emergency-fund ownership and self-reported financial resilience.

MATERIALS & METHODS

Data Source

We use publicly available data from the NFCS, a survey conducted by the FINRA Foundation on U.S. adults (FINRA Investor Education Foundation, n.d.). The survey was conducted in 2009, 2012, 2015, 2018, 2021, and 2024, with approximately 25,000 participants surveyed in each wave. It collects information on financial skills and the capacity to cope with financial hardship, along with respondents' state of residence, etc. This allows us to compare state financial education policies with financial outcomes. We use data from 2012, 2015, 2018, 2021, and 2024, excluding 2009 because it does not provide enough variables for our analysis.

Sample

The analytical sample consists of respondents from four states (Utah, Tennessee, Missouri, and Virginia). The first cohorts required to graduate under these mandates were in 2008 in Utah, 2010 in Missouri, 2013 in Tennessee, and 2015 in Virginia. We selected these states because they were among the earliest to implement the mandates. After limiting the sample to these four states and excluding observations with missing values for the outcome, treatment, or control variables, the final analytical sample includes 8,826 respondents. Of the 8,826 respondents in the final sample, 965 (10.9%) are classified as exposed to a state-mandated requirement and 7,861 as unexposed. Nearly all respondents in the analytical sample completed high school: 97.0% report a high school diploma or higher (97.2% among the control group and 97.1% among the treated group), in line with the assumption that respondents graduated from high school.

Key Variables

Dependent Variables

i. Primary dependent variable: Financial Resilience

The main outcome of interest is financial resilience, measured using the NFCS question:

"How confident are you that you could come up with $2,000 if an unexpected need arises over the next month?"

Responses are coded as:

1 = "I am certain I could come up with the $2,000"

2 = "I could probably come up with $2,000"

3 = "I could probably not come up with $2,000"

4 = "I am certain I could not come up with $2,000"

Lower code values indicate stronger financial resilience. Responses coded as "Don't know" or "Prefer not to say" are omitted from the analysis due to missing data.

ii. Secondary dependent variable: Emergency Fund Ownership

As a secondary outcome, we examine whether respondents report having an emergency fund sufficient to cover three months of expenses. We code the measure as 1 for respondents who answer "Yes" and 0 for those who answer "No." This outcome provides an additional behavioral indicator of financial preparedness.

Treatment Variable: Mandate Exposure

Our treatment variable was respondents' exposure to the mandate during their high school studies. The treatment variable measures whether a respondent's estimated 12th-grade year took place during or after the first graduating class exposed to the financial education mandate in the respondent's state. Because the NFCS reports age in categories (18–24, 25–34, 35–44, 45–54, 55–64, and 65+), we use the central value of each age group (21, 30, 40, 50, 60, and 70) to approximate age, following the general practice of using interval midpoints to represent interval observations (Centers for Disease Control and Prevention [CDC], 2012). We estimate birth year as survey year minus midpoint age and then calculate the estimated 12th-grade year as birth year plus 18. This assumption aligns with the typical U.S. educational progression, in which students generally graduate from high school around age 18, although the exact age varies with school-entry dates and individual circumstances (Ohio Department of Education and Workforce, n.d.). We classified a respondent as treated if the estimated 12th-grade year is at or after the year the state mandate took effect and as untreated otherwise. For example, a respondent born in 1992 in Missouri is assigned a 12th-grade year of 2010 and is therefore classified as treated because 2010 corresponds to Missouri's first affected graduating class exposed to the high school financial education mandate. A respondent born in 1991 is assigned a 12th-grade year of 2009 and is classified as not treated. Because age is reported by category, treatment status is susceptible to potential measurement error. This limitation is considered in the interpretation of the findings.

Control Variables

The regression models control for demographic and socioeconomic factors that may be associated with financial resilience:

- Age: age-group midpoint (21, 30, 40, 50, 60, or 70)
- Gender: male or female
- Extra unnecessary space Education: college graduate versus not a college graduate
- Ethnicity: White non-Hispanic versus non-White
- Income: household income above $50,000 versus $50,000 or less
- Marital status: married versus not married
- Employment: employed versus not employed
- Investments: ownership of investments versus no investment ownership

These control variables are included to remove their potential impact on the outcome variable and measure the sole association of mandate exposure on financial resilience.

Research Design

We used a difference-in-differences (DiD) design to estimate the Relationship between state-level financial

literacy education and financial resilience. Within the DiD framework, we compared changes in financial resilience over time between two groups: individuals exposed to the mandate during high school (treated) and individuals not exposed to the mandate (control). State fixed effects account for existing differences between states that remain constant over time, allowing the analysis to focus on how financial education policies are related to financial outcomes.

Empirical Strategy

The main model is

$Y_ist = \beta_0 + \beta_1 Treated_is + \gamma C_it + \alpha_s + \delta_t + \varepsilon_ist$...(1)

Where:

- Y_ist = financial resilience of individual i in state s in survey year t
- $Treated_is$ = 1 if the individual i's 12th-grade year is on or after the mandate took effect in state s, otherwise 0
- C_it = control variables (age, gender, education, ethnicity, income, marital status, employment, and investment ownership)
- δ_t = year fixed effects
- α_s = state fixed effects

The coefficient of interest is β_1. Because lower values of the resilience variable indicate greater resilience, a negative β_1 indicates that exposure to the mandate is associated with higher levels of financial resilience. The model is estimated based on ordinary least squares (OLS). All models were weighted using the NFCS national sampling weights (wgt_n2) to enhance the representativeness of the estimates for the U.S. adult population. Our analysis includes four states, so the results should be interpreted with caution because the small number of states may limit the reliability of statistical inference. All models were estimated in R using the fixest package. Given the small number of states (four), cluster-robust standard errors may be unreliable (Cameron & Miller, 2015). Therefore, we report heteroskedasticity-robust standard errors, while acknowledging that they may not fully account for within-state correlations. We also estimate the models without survey weights to assess whether the results differ from those of the main analysis.

Robustness Checks

The following robustness checks were conducted:

- **Alternative treatment timing (Grades 10 and 11 instead of Grade 12)**

Our main model assumes that the financial education course was introduced when students were in 12th grade. to assess the sensitivity of our results to this assumption we also estimate the model using 11th-grade and 10th-grade years as alternative mandate coverage years. If the results are similar across these models, this suggests that our findings are not based on the assumption that the this suggests that our findings are robust to alternative assumptions about the grade level at which the mandate applies.

- **State-specific linear time trends**

A key assumption of the difference-in-differences design is the parallel trends assumption (without the mandate, treated and control states would have had similar trends in financial resilience over time). This might not hold, as states differ in many ways: some undergo quicker economic growth; others see distinct shifts in population characteristics, and still others adopt other policies that could increase financial resilience. If we do not account for these differences in trends, we may wrongly infer that the mandate led to the observed changes when they may result from other variation among states. To address this, we allow each state to follow its own pattern over time. This means that financial resilience trends may vary across states, both before and after the mandate. By controlling for trends unique to each state, we can distinguish the effect of the mandate on financial resilience from other changes occurring within each state. This makes our results more reliable because impact is less likely to be driven by differences in state-level trends over time.

- **Binary resilience outcome**

As an alternative outcome specification, we fit a weighted logistic regression model in which resilience equals 1 for respondents reporting that they were likely or able to cover a $2,000 emergency expense (J20 = 1 or 2) and 0 otherwise (J20 = 3 or 4). A statistically significant treatment estimate from this model further reinforces the primary finding.

- **Placebo test using a fake 3-year pre-mandate period**

One of the main assumptions of the difference-in-differences method is that, without the mandate, the treatment and control groups would likely have followed similar trends over time. In other words, before the mandate was introduced, financial resilience was expected to change similarly in both groups. To check this assumption, we conduct a placebo test by pretending that the mandate commenced three years earlier than it actually did. We then examine whether this fake mandate is related to changes in financial resilience. If the placebo variable is not statistically significant, it suggests no meaningful divergence in trends between the treated and control groups before the actual mandate. This supports the parallel trends assumption and increases our confidence that the changes observed after the mandate are associated with the mandate. However, if the placebo variable is statistically significant, it would suggest that the two groups (treated and control) were already following different trends before the mandate. In that case, it would be more difficult to conclude that the mandate directly influenced financial resilience.

The placebo model is specified as:

$Y_it = \beta_0 + \beta_1 Placebo_is + \gamma C_it + \alpha_s + \delta_t + \varepsilon_ist$…(2)

Where:

Y_it = financial resilience of respondent i in state s in survey year t

$Placebo_it$ = 1 if respondent i's 12th-grade year falls within the 3-year period prior to the mandate year; 0 otherwise

C_it = control variables (age, ethnicity, gender, education,

income, employment, marital status, investment ownership)
α_s = state fixed effects
δ_t = year fixed effects

• **Second outcome: emergency fund ownership**

As a second outcome, we examine whether exposure to the mandate is linked to emergency-fund ownership. The NFCS measure equals 1 if respondents report having sufficient emergency fund to cover three months of expenses, and 0 otherwise. We estimate the same specification as the main model, using the same treatment definition, controls, state and year fixed effects, survey weights, and heteroskedasticity-robust standard errors.

• **Drop 2024 wave**

Because the 2024 NFCS wave was collected after the COVID-19 pandemic and may indicate unusual financial circumstances, we re-estimate the main model after excluding the 2024 wave. This check evaluates whether the latest survey wave drives the main association. If the estimate remains similar to the baseline, this suggests that the main finding remains robust to the inclusion of the 2024 wave.

• **Unweighted estimation**

Our main specification uses the NFCS national survey weights (wgt_n2). To assess whether the estimated association depends on the weighting scheme, we also estimate the main model without weights. If the weighted and unweighted estimates are similar, this suggests that the main finding is not driven by the weighting choice.

• **Restricting the sample to high school graduates**

Because the study's baseline assumption is that respondents have a high school education. We re-estimate the main model after limiting the sample to respondents who reported completing high school or higher (97.0% of the analytical sample).

Heterogeneity Analysis

We also examine whether the association between mandate exposure and financial resilience varies by ethnicity and gender using treatment-by-group interaction terms. These analyses use the same controls, survey weights, state and year fixed effects, and heteroskedasticity-robust standard errors as the main model.

Financial Literacy Analysis

We examine financial literacy as a potential pathway connecting mandate exposure and financial resilience. This analysis is limited to the 3,644 respondents (41.3% of the sample) with complete responses to all five financial literacy questions. The financial literacy score sums correct answers to five NFCS questions covering interest rates, bond prices, inflation, risk diversification, and mortgage rates (range 0–5).

First, we estimate financial literacy as an outcome using the same treatment definition, state and year fixed effects, survey weights, individual-level controls, and heteroskedasticity-robust standard errors as in the main model. We then add financial literacy to the financial resilience model to investigate whether the estimated association between mandate exposure and resilience becomes weaker after controlling for financial literacy. If the relationship weakens, this may suggest that financial literacy partially accounts for the observed association between financial education mandates and financial resilience. However, this analysis does not establish a cause-and-effect relationship or formally test whether financial literacy mediates the relationship between mandates and resilience.

RESULTS AND DISCUSSION

Summary Statistics

Table 1 presents descriptive statistics for the analytical sample. The sample includes 8,826 responses from the 2012, 2015, 2018, 2021, and 2024 NFCS waves, drawn from four states (Tennessee, Utah, Missouri, and Virginia). Of these, 965 respondents (10.9%) are treated; that is, their 12th-grade year occurred in or after the year the mandate was implemented in their state, and 7,861 are not treated. The average financial resilience score is 2.08 on a 1–4 scale, where lower values correspond to higher levels of financial resilience.

Primary Outcome: Financial Resilience.

Exposure to a state financial education mandate was

Table 1: Summary Statistics

Variable	Value
Observations	8,826
Treated	965 (10.9%)
Mean Financial Resilience (1–4)	2.08
Female	51.9%
College Graduate	36.6%(BA+)
Income > $50,000	55.3%
Employed	55.8%
Married	56.4%
Has Investments	36.6%

Note: College graduate refers to respondents reporting a bachelor's degree or higher. Individuals holding only a bachelor's degree (excluding graduate or professional degrees) represent 12.5% of the sample.

associated with a higher level of financial resilience. The estimated coefficient was −0.374 (SE = 0.049, p < 0.001). The strength of the relationship was larger than that associated with college graduation (−0.235) and employment (−0.104) (Table 2).

Table 2: Effect of Mandate Exposure on Self-reported Financial Resilience

Variable	Coefficient	SE	p-value
Treated	−0.374	0.049	< 0.001
Female	0.126	0.024	< 0.001
Age	−0.012	0.001	< 0.001
Non-White	0.134	0.031	< 0.001
College Graduate	−0.235	0.026	< 0.001
Income grater then $50K	−0.635	0.029	< 0.001
Employed	−0.104	0.026	< 0.001
Married	−0.156	0.027	< 0.001
Has Investments	−0.542	0.026	< 0.001
Observations	8,826		
R^2	0.284		

Note: Because lower values of the resilience variable indicate greater resilience, a negative β_1 indicates higher levels of financial resilience.

Secondary Outcome: Emergency Fund Ownership

Mandate exposure is also found to be positively associated with emergency-fund ownership. The estimated coefficient was 0.100 (SE = 0.023, p < 0.001), reflecting an estimated 10-percentage-point higher chance of reporting sufficient emergency savings. The magnitude was similar to the relationship with college graduation (0.099) (Table 3).

Table 3 : Effect of Mandate Exposure on Emergency-Fund Ownership

Variable	Coefficient	SE	p-value
Treated	0.100	0.023	< 0.001
Female	−0.029	0.011	0.007
Age	0.004	0.0004	< 0.001
Non-White	−0.014	0.014	0.288
College Graduate	0.099	0.012	< 0.001
Income is greater than $50K	0.178	0.013	< 0.001
Employed	−0.018	0.012	0.127
Married	0.040	0.012	< 0.001
Has Investments	0.301	0.012	< 0.001
Observations	8,620		
Adjusted R^2	0.220		

Notes: N = 8,620; 206 observations (2.3%) with missing values on the emergency-fund measure were omitted. Emergency fund ownership is coded as 1 if respondents report having enough savings to cover three months of expenses and 0 otherwise.

Robustness Checks

We conducted several robustness checks to examine whether the primary association varied with treatment timing, state-specific trends, outcome specification, sample composition, weighting scheme, or placebo assignment. Table 4 presents the estimates.

Interpretation

The main association is consistent across all model specifications.

- Grade 11 and Grade 10 treatment definitions give coefficients of -0.363 and -0.362, relative to the baseline estimate of -0.374 for for grade 12. The similarity of these estimates suggests that the main association remains consistent across grade levels used to define mandate exposure.
- Allowing for state-specific linear trend over time produces an estimate of -0.381, which remains close to the baseline coefficient. This consistency suggests that the observed relationship is unlikely to be explained solely by differences in linear time trends across states.
- The binary-outcome logit specification also indicates

Table 4: Robustness Checks

Specification	Treated Coefficient	SE	p-value
Baseline (Grade 12)	−0.374	0.049	< 0.001
Grade 11 treated	−0.363	0.049	< 0.001
Grade 10 treated	−0.362	0.051	< 0.001
State-specific trends	−0.381	0.049	< 0.001
Drop 2024 wave	−0.320	0.058	< 0.001
Logit (binary resilience)	0.712	0.117	< 0.001
Placebo (3-yr pre)	0.008	0.058	0.892
Unweighted OLS	−0.355	0.044	< 0.001
High school graduates only	−0.368	0.049	< 0.001

Notes: All models include the full set of control variables, along with state and year fixed effects. Heteroskedasticity-robust standard errors are reported for all models. NFCS national weights are applied except for the unweighted model specification. The Drop 2024 wave specification excludes data collected in the 2024 NFCS wave (N = 7,014). The unweighted specification uses the same analytical sample as the baseline model (N = 8,826) but omits survey weights. For the logit model, the dependent variable takes a binary form (0 = low resilience, defined as J20 response 3 or 4; 1 = high resilience, defined as J20 response 1 or 2). Lower values of the OLS dependent variable reflect a higher level of financial resilience. The HS-graduates-only specification restricts the analysis to respondents reporting a high school diploma or a higher educational qualification (N = 8,575).

a statistically significant positive relation between mandate exposure and high resilience (β = 0.712, SE = 0.117, p < 0.001). Because the logit coefficient is positive and the binary outcome is coded as high resilience = 1, the result is consistent in direction with the OLS model.

• The placebo estimate was modest in magnitude and not statistically significant (β = 0.008, SE = 0.058, p = 0.892). The results reveal no statistically significant association during the designated pre-mandate placebo period.

• Excluding the 2024 wave yields an estimate of -0.320 (SE = 0.058, p < 0.001), which is similar in sign, magnitude, and statistical significance relative to the baseline estimate of −0.374. This suggests that the main association is not driven by the 2024 wave alone.

• The unweighted specification produces a coefficient of -0.355 (SE = 0.044, p < 0.001), which is close to the weighted baseline estimate of -0.374. This suggests that the main association remains robust to the choice of survey weights.

• Restricting the sample to high school graduates yields an estimate of -0.368 (SE = 0.049, p < 0.001), which closely matches the baseline estimate of -0.374. This suggests that the main association is unaffected by variation in high school completion.

Overall, the estimated relationship between mandate exposure and financial resilience remains stable across alternative treatment definitions, state-specific trends, sample composition, weighting schemes, and outcome specifications.

Heterogeneity Analysis

We found no statistically significant evidence that the link between mandate exposure and financial resilience differed by ethnicity or gender. The ethnicity × treatment effect was -0.081 (p = 0.295), while the gender × treatment effect was −0.086 (p = 0.131), indicating no statistically significant differences by ethnicity and gender.

Financial Literacy Analysis

We examined financial literacy as a possible explanation for how mandate exposure affects financial resilience. When financial literacy was added as an additional control variable in the analysis, the estimated association between mandate exposure and resilience reduced from -0.374 in the main model to -0.311 (SE = 0.077, p < 0.001). The decrease in the estimated coefficient suggests that financial literacy may partly explain the relationship between mandate exposure and financial resilience. However, the results do not prove that financial literacy causes the relationship between mandate exposure and financial resilience. Other factors, such as improved saving habits and financial decision-making, may also help explain this relationship.

Discussion

Summary of Findings

This study reveals that exposure to state financial education mandates during high school is associated with greater financial resilience in near adulthood. Using data from four early mandate-adopting states (Utah, Tennessee, Missouri, and Virginia), the study finds that mandate exposure is linked with a 0.374-point improvement in financial resilience on a 4-point scale (p < 0.001). It is also associated with a 10-percentage-point higher chance of having an emergency fund (p < 0.001), supporting the main finding using a behavioral financial outcome. The main association remains similar across state-specific trends, alternative treatment definitions, sample composition, alternative outcome specifications, weighting schemes, and a limited to high school graduates. The placebo test is not statistically significant, providing

no evidence of a pre-mandate association between financial resilience and the financial education mandate. This further gives us confidence in our main finding that financial mandate exposure is associated with financial resilience.

Policy Implications

The consistency of our main finding across multiple models and outcome variables suggests that the financial education may have long-term importance for household financial preparedness.

Comparison with Previous Research

The findings are consistent with studies reporting positive associations between financial education mandates and subsequent financial resilience, including better credit management (Brown *et al.*, 2016; Urban *et al.*, 2020). They differ from Cole, Paulson, and Shastry (2016), who revealed limited effects on financial resilience. Differences across studies may be due to variation in mandate design, outcomes, populations, and exposure periods.

Limitations

Several limitations should be considered while interpreting the study. First, the analysis includes only four states, which limits generalizability and statistical power. Second, age in the NFCS data is reported in groups rather than as exact ages. Using age-group midpoints may lead to error in the estimated birth year and treatment years. Third, treatment timing is based on the respondent's year of completing 12th grade and may not perfectly capture the grade in which the course was received, although results are similar when Grades 10 and 11 are used to define exposure. Fourth, although the emergency-fund analysis gives a complementary behavioral measure, the outcomes were self-reported. Fifth, the 2024 NFCS wave was collected after the COVID-19 pandemic; excluding it produced similar results to including it, suggesting the main association is not driven by post-pandemic conditions. However, longer-run stability remains to be confirmed as new waves become available. Finally, because the analysis uses observational survey data, the estimates should be interpreted as relations between variables rather than one causing another.

Future Research

Future research should examine additional states and longer periods as data become available, use more precise measures of age and educational exposure, and test whether the observed relationships persist as exposed groups become older.

CONCLUSION

This study examined the relation between exposure to state financial education mandates and the ability to manage financial challenges in adulthood using five waves of the National Financial Capability Study (2012–2024). Among respondents who lived in four states that adopted mandates earlier (Utah, Missouri, Tennessee, and Virginia), exposure to financial education during high school was associated with a 0.374-point improvement in financial resilience in their near adulthood on a 4-point scale ($p < 0.001$). Furthermore, exposure to a state-mandated financial education requirement was associated with a 10-percentage-point higher probability of reporting sufficient emergency savings to cover three months of expenses ($p < 0.001$). These associations were robust across state-specific trends, alternative treatment definitions, sample composition, alternative outcome specifications, weighting schemes, and a sample restriction to high school graduates. Overall, the findings suggest that state financial education mandates may be related to modest but meaningful improvements in financial resilience and financial preparedness in near adulthood. However, the analysis is limited by the observational nature of the data and the small number of states; therefore, the findings should not be interpreted as a cause-and-effect relationship. Future research using additional states, more precise measures of age and education exposure year, and longer follow-up periods could provide stronger evidence on the long-term effects of financial education mandates.

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