

Evidence of Financial Education’s Impact on Financial Behaviors

To demonstrate FinEd’s impact on:	Cite this study:
Entrepreneurial activity	Knowledge creates value: the role of financial literacy in entrepreneurial behavior (2024)
Student loan repayment	PF Ed Mandates & Student Loan Repayment (2022)
Domestic violence prevention	Can Financial Literacy Reduce Domestic Violence? (2022)
Financial knowledge and behaviors	Financial Ed Matters: Testing Effectiveness of FinEd Across 76 RCTs (2021)
Likelihood & frequency of payday borrowing	Does State-Mandated Financial Education Affect High-Cost Borrowing? (2019)
A wide variety of financial decisions	A review of youth FinEd: Effects and Evidence (2019)
Credit behaviors	The Effects of K-12 FinEd Mandates on Postsecondary Ed Outcomes (2018)
Financial knowledge and behaviors	Does Financial Ed Impact Financial Literacy and Behavior, and if so, when? (2017)
Retirement Savings	Retirement Savings with School-Based FinEd (2016)
Wealth gaps & inequality	Optimal Financial Knowledge & Wealth Inequality (2013)
Parents’ financial behaviors (“trickle up”)	The impact of high school FinEd: experimental evidence from Brazil (2013)
Investment portfolio diversification	Financial Literacy & Portfolio Diversification (2010)

Evidence-Based Advocacy & Implementation Resources

If I Need:	Here’s an Evidence-Based Policy Paper
to share best practices in implementation	Best Practices Implementing Financial Education in High Schools (2022)
To show the \$100,000 lifetime benefit of a required personal finance course	Investing in Tomorrow: Lifetime Value of Financial Education in High School (2024)

to show personal finance graduation requirements do not reduce grad rates	Does State-Mandated Financial Education Reduce High School Graduation Rates? (2022)
to show in states with “embedded” PF requirements only 39% of students actually receive PF instruction	HS Financial Education in the United States: Importance of Setting Policy (2024)
to show in-person FinEd outperforms online	Digital vs. in-person financial ed: What works? (2022)
survey data from over 5,000 young adults	Financial Literacy Subject Survey (2017)
a comprehensive strategy to impart personal financial management skills in school	Transforming the Financial Lives of a Generation of Young Americans (2013)
to show standalone FinEd courses are more effective than embedding	Financial Capabilities of College Students from States with Varying FinEd Policies (2010)

Evidence that Financial Education Improves Behavioral Outcomes

Knowledge creates value: the role of financial literacy in entrepreneurial behavior

This paper studied data from the China Household Finance Survey spanning the years 2015 and 2017 and “findings suggest that financial literacy exerts immediate, persistent, and evolving positive effects on households’ engagement in entrepreneurial activities and their proclivity toward entrepreneurship.”

- Xu, S. and Jiang, K. (2024). Knowledge creates value: the role of financial literacy in entrepreneurial behavior. *Humanities and Social Sciences Communications* 11: 679. [online] Available at: <https://www.nature.com/articles/s41599-024-03201-3>

The Effects of K-12 Financial Education Mandates on Student Postsecondary Education Outcomes

Research from the National Endowment for Financial Education. Financial education mandates have positive impacts on student borrowing behaviors across all income groups. States with personal finance graduation requirements have students with a higher incidence of applying for financial aid, a lower incidence of borrowing from private student lenders, a higher incidence of receiving grants and federal aid, and a lower likelihood of carrying credit card balances.

- Executive Summary: https://www.nefe.org/_images/research/Effects-of-K-12-Financial-Education-Mandates/Better-Borrowing-Report-MSU-Executive-Summary.pdf
- Stoddard, C. and Urban, C. (2018). *The Effects of K-12 Financial Education Mandates on Student Postsecondary Education Outcomes*. NEFE.org. [online] Available at:

<https://www.nefe.org/images/research/Effects-of-K-12-Financial-Education-Mandates/Effect-State-Mandated-Fin-Ed-June25-2018.pdf>

Does Financial Education Impact Financial Literacy and Financial Behavior, and If So, When?

Most earlier studies of financial education rely on outdated financial education requirements. Kaiser and Menkhoff show significant positive effects of financial education on both financial literacy (knowledge) and financial behavior. This meta-analysis corrects an often cited meta-analysis from Fernandes et. al. (2014), adding additional interventions and a more rigorous statistical methodology to make its conclusions. Compelling, rigorously critiqued evidence of the need for “just in time” financial education for high school students.

- Kaiser, T. & Menkhoff, L. (2017). *Does Financial Education Impact Financial Literacy and Financial Behavior, and If So, When?* worldbank.org. [online] Available at: <http://documents.worldbank.org/curated/en/144551502300810101/pdf/WPS8161.pdf>

Financial Education Matters: Testing the Effectiveness of Financial Education Across 76 Randomized Experiments

We study the rapidly growing literature on the causal effects of financial education programs in a meta-analysis of 76 randomized experiments with a total sample size of over 160,000 individuals. The evidence shows that financial education programs have, on average, positive causal treatment effects on financial knowledge and downstream financial behaviors. Treatment effects are economically meaningful in size, similar to those realized by educational interventions in other domains, and are at least three times as large as the average effect documented in earlier work. These results are robust to the method used, restricting the sample to papers published in top economics journals, including only studies with adequate power, and accounting for publication selection bias in the literature. We conclude with a discussion of the cost-effectiveness of financial education interventions.

- Kaiser, T., Lusardi, A., Menkhoff, L., and Urban, C. *Financial Education Matters: Testing the Effectiveness of Financial Education Across 76 Randomized Experiments*. FINRA Foundation. 2022. Available online: https://www.finrafoundation.org/sites/finrafoundation/files/Financial-Education-Matters-Testing-Effectiveness-Financial-Education_1.pdf

Does State-Mandated Financial Education Affect High-Cost Borrowing? (UPDATED 2019)

“...young adults who were required to take personal finance courses in high school were significantly less likely to borrow payday loans than their peers who were not. These effects do not significantly differ by race/ethnicity or gender, suggesting that financial education may be useful regardless of demographics.”

- Harvey, M. (2019) *Does State-Mandated Financial Education Affect High-Cost Borrowing?* FINRA Foundation. [online] Available at: https://www.finrafoundation.org/sites/finrafoundation/files/Does-State-Mandated-Financial-Education-Affect-High-Cost-Borrowing_0_0_0.pdf

Retirement Savings with School-Based Financial Education

Students' financial literacy performance is significantly associated with their schools' and teachers' characteristics, both positive and negative. Students who attend a school with adequate teaching materials and competent teachers — those who demonstrate control over their classroom and try to actively engage with students — are more likely to perform at the two highest levels on the PISA financial literacy test.

→ Executive Summary:

<https://www.nefe.org/images/research/Enhancing-Retirement-Savings-with-School-Based-Fin-Education/Enhancing-Retirement-Savings-with-School-Based-Fin-Education-Executive-Summary.pdf>

→ Lusardi, D. and Scheresberg, C. (2016). *Retirement Savings with School-Based Financial Education* | NEFE. [online] Nefe.org. Available at: <http://nefe.org/What-We-Provide/Primary-Research/Enhancing-Retirement-Savings-with-School-Based-Financial-Education>.

Optimal Financial Knowledge and Wealth Inequality

Financial literacy plays a key role in explaining inequality. Different levels of financial knowledge early in life have important implications for how much people will save. Adding financial knowledge to life cycle models permits a more accurate rendering of a world where consumers must cope with complex financial markets and must save so as to provide for their own retirement.

→ Lusardi, A., Michaud, P. and Mitchell, O. (2013). *Optimal Financial Knowledge and Wealth Inequality*. [online] NBER. Available at: <http://www.nber.org/papers/w18669>

The impact of high school financial education: experimental evidence from Brazil

A financial education program in Brazil improved financial knowledge, savings, and financial planning for high school students and their parents.

→ Zia, B., Legovini, A., Bruhn, M., de Souza Leao, L. and Marchetti, R. (2013). *The impact of high school financial education: experimental evidence from Brazil*. [online] Documents.worldbank.org. Available at: <http://documents.worldbank.org/curated/en/753501468015879809/The-impact-of-high-school-financial-education-experimental-evidence-from-Brazil>

Financial Literacy & Portfolio Diversification

This study used a 2005 survey of Portuguese investors to examine how financial literacy impacted portfolio diversification. Results indicated that education and financial knowledge, as well as the investors' information sources, positively affected diversification, and therefore moderated investing risk.

→ Abreu, Margarida (2010). Financial Literacy & Portfolio Diversification. Quantitative Finance [online] Available at: https://www.researchgate.net/publication/227351484_Financial_Literacy_and_Portfolio_Diversification

Personal Finance Education Mandates & Student Loan Repayment

“Students with higher-income parents respond by adjusting borrowing, reducing median balances by 7%. By contrast, first-generation and low-income borrowers bound by mandates did not significantly adjust borrowing, but were nonetheless more likely to pay down balances.”

- Mangrum, Daniel (2022). *Personal Finance Education Mandates & Student Loan Repayment*. [online] danielmangrum.com. Available at:
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3349384

Can financial literacy reduce domestic violence?

“Yes. Using data on more than 3.7 million intimate partner violence (IPV) incidents between 1994 and 2016, and exploiting the staggered introduction of state-mandated personal finance high school graduation requirements across U.S. states for identification, we show that improvements in women's financial literacy can significantly reduce the rates of violence against women perpetrated by their male partners. We conservatively estimate a reduction in violence by between 3% and 11%. Our evidence points to financial literacy deterring financial abuse, thereby empowering women to leave abusive relationships earlier or by preventing the first incident from ever occurring.”

- Ngo, Phong & Puente-Moncayo, Diego (2022). *Can Financial Literacy Reduce Domestic Violence?* [online] Available at:
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3809469

Evidence-Based Policy & Implementation Resources

Transforming the Financial Lives of a Generation of Young Americans POLICY RECOMMENDATIONS FOR ADVANCING K-12 FINANCIAL EDUCATION

What we propose here is a comprehensive strategy to impart personal financial management skills to young people while they are in school. Recommendation 1: Introduce key financial education concepts early and continue to build on that foundation consistently throughout the K-12 school years. In addition, CFPB encourages states to make a stand-alone financial education course a graduation requirement for high school students. Recommendation 2: Include personal financial management questions in standardized tests. Recommendation 3: Provide opportunities throughout the K-12 years to practice money management through innovative, hands-on learning opportunities. Recommendation 4: Create consistent opportunities and incentives for teachers to take financial education training with the express intention of teaching financial management to their students

Consumer Financial Protection Bureau. (2013). *Transforming the Financial Lives of a Generation of Young Americans POLICY RECOMMENDATIONS FOR ADVANCING K-12 FINANCIAL EDUCATION*. [online] consumerfinance.gov. Available at:
http://files.consumerfinance.gov/f/201304_cfpb_OFE-Policy-White-Paper-Final.pdf

Does State-Mandated Financial Education Reduce High School Graduation Rates?

Comparing students in states with and without standalone personal finance course requirements before and after the requirements went into place, there is no evidence that these requirements reduced graduation rates overall, by race, by gender, or by family income. Existing research quantifies improvements in debt and credit behaviors, and these findings suggest there are not simultaneous adverse effects overall or for at-risk students.

Urban, Carly, Does State-Mandated Financial Education Reduce High School Graduation Rates? IZA Discussion Paper No. 15402, Available at SSRN:

<https://ssrn.com/abstract=4154045> or <http://dx.doi.org/10.2139/ssrn.4154045>

Financial Capabilities of College Students from States with Varying Financial Education Policies

Well-educated students exhibit positive financial behaviors. After analyzing data from 15,797 college students, Gutter found that students from states where a financial education course was required had the highest reported financial knowledge and were more likely to display positive financial behaviors and dispositions. Compared to other students, these young adults were: More likely to save; Less likely to max out their credit cards; Less likely to make late credit card payments; More likely to pay off credit cards in full each month; Less likely to be compulsive buyers; More likely to be willing to take average financial risk

→ Executive Summary

https://www.nefe.org/_images/research/Financial-Education-Mandates-Report/Financial-Education-Mandates-Report-Executive-Summary.pdf

→ Gutter, M., Copur, Z. and Garrison, S. (2010). *Financial Capabilities of College Students from States with Varying Financial Education Policies*. [online] NEFE.org. Available at:

https://www.nefe.org/_images/research/Financial-Education-Mandates-Report/Financial-Education-Mandates-Report-Final-Report.pdf

High school financial education courses in the United States: What is the importance of setting state policies?

State-level embedded course requirement mandates do not result in full compliance. While this lack of compliance could be because course catalog descriptions do not detail financial literacy instruction in all schools, it could also be because state departments of education have trouble auditing embedded course mandates. In our estimate, only 43% within states that have embedded course mandates have either a standalone or embedded course requirement.

→ Oldham Luedke, Allison and Urban, Carly (2024). *High school financial education courses in the United States: What is the importance of setting state policies?* Cambridge University Press. Journal of Financial Wellbeing. [online] Available at:

<https://www.cambridge.org/core/journals/journal-of-financial-literacy-and-wellbeing/article/high-school-financial-education-courses-in-the-united-states-what-is-the-importance-of-setting-state-policies/ABD577136362C0289884C41676341271>

Financial Literacy Subject Survey

Between July 15th and 17th, 2017 the National Financial Educators Council asked 5,123 young adults, "What high school-level course would benefit your life the most?" Respondents chose money management more often than math, science, and social studies:

- 49.97% selected "Money Management (Personal Finance)"
- 18.25% selected "Mathematics (Algebra, Geometry)"
- 14.43% selected "Social Studies (History, Government)"
- 17.35% selected "Science (Biology, Chemistry)"

State by state results are available: [NFEC Survey: "Should High Schools Require Financial Literacy?"](#)

NFEC. (2017). *Financial Literacy Subject Survey*. [online] Available at:
<https://www.financialeducatorsCouncil.org/Financial-literacy-subject-survey/>

A review of youth financial education: Effects and Evidence

"This report reviews current research and reporting in the field, and is intended to inform policymakers, practitioners, financial educators, and researchers of the current state of rigorous evidence on financial education in schools"... "This report features studies that (1) evaluate youth financial education programs in schools, (2) have a causal interpretation evidenced by a randomized controlled trial, natural experiment setting, or a valid pre-post study design, and (3) have been published in peer-reviewed academic journals or as reviewed working papers. Note that the studies predominantly relate to school based programs, as this is the context in which most youth financial education research has occurred."

- "Well-implemented state financial education mandates led to a clear improvement in financial behaviors."
- "Many U.S. financial education programs improve financial knowledge for students, though effect sizes vary based on the population served, amount of instruction time, and topics covered."
- "Other countries have used more widespread randomized controlled trials to study the effects of programs as they embed and expand them broadly. Those studies also provide useful information."
- Consumer Financial Protection Bureau. (2019). *A review of youth financial education: Effects and Evidence*. [online] consumerfinance.gov. Available at:
https://files.consumerfinance.gov/f/documents/cfpb_youth-financial-education_lit-review.pdf

Investing in Tomorrow: Lifetime Value of Financial Education in High School

This comprehensive report from consultancy Tyton Partners covers "the various outcomes that come with early-on financial education, how the average per-student lifetime benefit is approximately \$100,000," and "what's required from schools, providers, and state and local agencies."

- Bryant, G. and Lin, N. (2024). Investing in Tomorrow: Lifetime Value of Financial Education in High School. Tyton Partners K-12 [online] Available at: <https://tytonpartners.com/investing-in-tomorrow-2024/>

Digital vs. in-person financial education: What works best for Generation Z?

“Nowadays, financial literacy is one of the most important skills that can be acquired by a tech-savvy Generation Z student. In order to understand what format of financial education works best for Generation Z, we set up an experiment that involved implementing a financial education program called “Futuro Sicuro” with a sample of 650 High School students in Italy. The program allowed us to gather data from two treatments at the class level, namely 1) a traditional financial education simplified program with the presence of a financial advisor, and 2) a digital financial education program using web-based applications based on learning-by-playing concepts. The two treatments were associated with different costs but showed similar effects: three weeks after their conclusion, we find that both courses did increase actual financial knowledge and the results also aligned with participants’ realistic assessments of their own financial skills. A follow-up study also reveals the persistence of these effects three months later for the traditional course.”

- Sconti, Allesia (2022). *Digital vs. in-person financial education: What works best for Generation Z?* [online] Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0167268121005096#!>

Best Practices Implementing Financial Education in High Schools

“...breaks the implementation into eight stages: (0) building a coalition, (1) crafting and passing either legislation or administrative rule change, (2) constructing an implementation plan, (3) funding, (4) teacher professional development, (5) developing standards and selecting course resources, (6) teacher endorsement models, and (7) auditing and creating a feedback loop for continuous improvement.”

- Urban, Carly (2022). *Best Practices Implementing Financial Education in High Schools* [online] Available at: <https://papers.carlyurban.com/MTBestPracticesReportFINAL.pdf>