COUNCIL FOR Economic Education

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Making the Case for the Need for Economic and Financial Literacy Education in the Classroom

Despite the recognition that economic and financial literacy is critical to succeed in modern society, study after study shows that many Americans continue to lack even a basic understanding of economic and financial concepts, and the consequences on Americans' financial state are dire. Yet there is hope for improvement in the future if we work to make economic and financial education a priority in our schools. At last count, only 20 states require students to take a high school economics course to graduate, and only 17 require a course in financial literacy (Council for Economic Education's 2016 *Survey of the States*). However, years of substantive and carefully-designed research show that 1) K-12 students can learn economic and financial concepts when taught by teachers who know economics and know how to teach it and 2) students exposed to economic and financial education are more likely to display positive financial behaviors. For example,

- Students exposed to mandated personal finance education exhibit meaningful improvements in credit outcomes. Three years following the implementation of mandates in Georgia, Idaho, and Texas, severe delinquency rates for those students receiving the education declined by 2% in Georgia, 2% in Idaho, and 6% in Texas, and credit scores increased by 2%, 3%, and 5% respectively.
- State financial curriculum mandates elevate the rates at which individuals save and accumulate wealth during their adult lives. Net-worth-to-earnings ratios of those exposed to mandates are more than 9 percentage points higher than the ratios of those who were not exposed.
- Students who have taken a class in personal finance are more likely to engage in financially responsible behaviors such as saving, budgeting, and investing: 93% of those who have taken a class save money vs. 84% of those who have not; 60% of those who have taken a class have a budget vs. 46% of those who have not; 32% of those who have taken a class have invested money vs. 17 % of those who have not.

In the pages that follow, we provide a summary of recent research that outlines the ongoing knowledge gap, demonstrates the effects of education on student knowledge and financial behavior, and discusses the implications for research and public policy initiatives geared toward improving economic and financial literacy education in the classroom. The research is numbered and organized chronologically with the most recent findings included first. To help with a topical search, we have also included a guide below.

Subject	**Corresponding Research**
The Problem of Economic and Financial Illiteracy	1, 2, 3, 5, 7, 8, 9, 10, 12, 13, 14, 16, 17, 19, 21
The Effect of Education on Student Knowledge	6, 11, 12, 16, 19, 20, 22, 23
The Effect of Education on Financial Behavior	4, 6, 7, 8, 14, 20, 24
Policy Recommendations	3, 5, 7, 8, 12, 15, 16, 18, 19, 20, 21, 22

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(1.) *An Analysis of Student Loan Debt in the United States*

Annamaria Lusardi, Carlo de Bassa Scheresberg, and Noemi Oggero, "Student Loan Debt in the US: An Analysis of the 2015 NFCS Data," Global Financial Literacy Excellence Center, November 2016, http://gflec.org/wp-content/uploads/2016/11/GFLEC-Brief-Student-loan-debt.pdf.

GFLEC's study of student loan debt in the United States found that many borrowers struggle to make their student loan payments and would do things differently if they could go through the process of taking out a student loan again. More than half of student loan holders (54%) did not try to figure out how much their future monthly payments would be before taking on their loans. A staggering 53% said that they would make a change if they could go through the process of taking out loans all over again. The results provide further evidence of the importance of improving individuals' financial capability, in particular in the areas of debt and debt management.

(2.) *An Assessment of Americans' Financial Capability*

FINRA Financial Education Foundation, *Financial Capability in the United States 2016*, July 2016,

http://www.usfinancialcapability.org/downloads/NFCS_2015_Report_Natl_Findings.pdf.

FINRA's most recent *National Financial Capability Study* shows that the level of financial literacy among Americans has declined from 2012, the last time the survey was administered. Only 14% of respondents are able to answer five fundamental financial literacy questions correctly. Moreover, only 37% of people answered at least 4 of the questions correctly, down from 39% in 2012 and 42% in 2009. Respondents who answered that they were offered financial education in school, regardless of whether they participated, also tended to answer more questions correctly, although those that participated in financial education do better than those who were offered but did not participate in financial education. The report cautions, however, that these findings do not necessarily imply a causal relationship between financial education and financial literacy, given that there is no control for other potential contributing factors.

(3.) *Teachers' Perspective on Financial Education*

"Bridging the Financial Literacy Gap: Empowering Teachers to Support the Next Generation," PwC, March 2016, http://www.pwc.com/us/en/about-us/corporate-responsibility/assets/pwc-financial-education-report.pdf.

PwC surveyed K-12 educators nationwide to understand their perspective on financial education. Educators increasingly view financial education as a responsibility that schools should take on, starting in earlier grades. Currently, however, educators believe that the resources available for teaching the subject are inadequate. Key findings include:

- Only 31% of teachers feel "completely comfortable" teaching financial education.
- 92% of K-12 educators believe financial education should be taught in schools, but only 12% do so.
- 67% of K-12 teachers believe financial education should start in elementary school, but only 21% of teachers indicate that their school actual does so.

The authors conclude that more systemic support of financial education and financial educators is necessary to "bridge the gap between educators' support for financial education and the current lack of resources."

(4.) *The Effects of State-Mandated Financial Education on the Credit Behavior of Young Adults*

Carly Urban, Maximilian Schmeiser, J. Michael Collins, and Alexandra Brown, "State Financial Education Mandates: It's All in the Implementation," FINRA Investor Education Foundation, 2015, https://files.ctctcdn.com/e5db0b81101/f5b36cd4-69bd-4f05-b539-cf73a91c2d73.pdf.

The working paper version (Federal Reserve Board Working Paper 2014-68), which includes additional details regarding the authors' empirical methods and findings, can be found here: http://www.federalreserve.gov/pubs/feds/2014/201468/201468abs.html.

The authors looked at three states that implement a financial literacy mandate and compared credit scores and delinquency rates of young adults both before and after the mandate was instituted. They found that "young people who are in school after the implementation of a financial education requirement have higher credit scores and lower relative delinquency than those in control states." Further, the authors found that credit scores became higher as more years passed from initial implementation of the mandate, which "likely reflects teachers' ongoing learning and tailoring of the content and approach so as to be more effective for their students."

(5.) *An Assessment of Global Financial Literacy*

Leora Klapper, Annamaria Lusardi, Peter van Oudheusden, "Financial Literacy Around the World: Insights from the Standard & Poor's Ratings Services Global Financial Literacy Survey," McGraw Hill Financial, 2015, http://media.mhfi.com/documents/2015-Finlit_paper_17_F3_SINGLES.pdf.

In a survey of 150,000 adults in 148 target countries, Standards & Poor's Ratings Services tested individuals' knowledge of four basic financial concepts: numeracy, interest compounding, inflation, and risk diversification. The survey found that worldwide only 1-in-3 adults are financially literate, and there are big variations among countries and groups. The United States ranks 14th in financial literacy, behind Singapore and the Czech Republic. Financial literacy is higher among men, the wealthy, the well-educated, and those who use financial services. The authors conclude that policymakers should provide specific financial literacy training to vulnerable groups.

(6.) *The Effects of Financial Education on Elementary School Students' Knowledge, Behavior, and Attitudes*

Michael Batty, J. Michael Collins, and Elizabeth Odders-White, "Experimental Evidence on the Effects of Financial Education on Elementary School Students' Knowledge, Behavior, and Attitudes," *The Journal of Consumer Affairs* 2015, 49(1), 69-96, http://onlinelibrary.wiley.com/doi/10.1111/joca.12058/abstract.

This article evaluates the effects of a classroom financial education program based on CEE's *Financial Fitness for Life* that was randomly assigned to fourth- and fifth-grade classrooms. The program resulted in a large, statistically significant improvement in financial knowledge among the treatment group, and knowledge gains were retained a year later. Additionally, financial education had a positive impact on spending attitudes and behaviors like having a bank account and savings levels. According to the authors, "These results show that younger students can learn financial topics and that learning is associated with improved attitudes and behaviors which, if sustained, may result in increased financial capability later in life."

(7.) *An Assessment of College Students' Financial Behavior and Preparation*

"Money Matters on Campus: How College Students Behave Financially and Plan for the Future," Higher One and EverFi, 2015, http://moneymattersoncampus.org/.

Seeking to understand what factors most influence financial capability and how to best support the next generation of adults in achieving their financial goals, investigators surveyed 42,000 college students from across the country. The data suggest that "financial experience among incoming college students has increased, but that there has not been a concurrent increase in basic finance management skills or fiscal planning." Students report feeling less prepared to manage their money than any other challenge related to college life, and risky behaviors are still pervasive among college students. However, respondents who completed a high school course on personal finance management were 10% more likely to report being prepared to manage money. The report notes that significant progress has been made in the development and encouragement of financial literacy education but that more work needs to be done to promote financial literacy education at scale.

(8.) *Overview and New Insights Into the Financial Literacy Gender Gap*

Tabea Bucher-Koenen, Annamaria Lusardi, Rob Alessie, and Maarten van Rooij, "How Financially Literate Are Women? An Overview and New Insights," Global Financial Literacy Excellence Center Working Paper Series, December 2014, http://gflec.org/wp-content/uploads/2015/08/WP-2014-7-How-Financially-Literate-Are-Women.pdf.

After analyzing financial literacy surveys around the world, the authors found that gender gaps are large and strikingly similar across countries. The gender gap persists even after taking into account marital status, education, income, and other socioeconomic characteristics. They also find that financial literacy can be linked to behavior (i.e., those who are more financially literate are more likely to plan for retirement, to invest in the stock market and pay attention to fees, and to borrow at low costs) and greater financial well-being. The authors conclude that "enhancing the financial knowledge of women and equipping them with the tools to make sound financial decisions should be a top priority for policymakers."

(9.) *Students' Financial Literacy in a Global Context: The Results of PISA's First Financial Literacy Assessment*

OECD, "Country Note – United States," *PISA 2012 Results: Students and Money: Financial Literacy Skills for the 21st Century (Volume VI),* Programme for International Student Assessment (PISA), July 2014, http://www.oecd.org/unitedstates/PISA-2012-results-finlit-usa.pdf.

According to PISA's first financial literacy assessment, American teenagers fall in the middle of the pack globally, performing around the average of the 18 countries that participated – just behind Latvia and just ahead of Russia. More than one in six students surveyed in the United States lack the financial knowledge and skills needed for the demands of today's world, failing to meet the baseline level of proficiency.

(10.) *The State of Millennials' Personal Finances*

"2014 Wells Fargo Millennial Study," June 2014, https://www08.wellsfargomedia.com/assets/pdf/commercial/retirement-employee-benefits/perspectives/2014-millennial-study-report.pdf.

Summary findings also available at the following URL: https://www08.wellsfargomedia.com/assets/pdf/commercial/retirement-employee-benefits/perspectives/2014-millennial-study-summary.pdf.

More than 1,600 Millennials between the ages of 22 and 33 were surveyed to assess their behaviors, attitudes and satisfaction related to debt, saving, investing, and retirement. Debt concerns weigh heavily on the group: four in ten Millennials say they are overwhelmed with debt, and more than half of Millennials say they are living paycheck to paycheck and unable to save for the future.

(11.) *The Positive Effects of a Well-Designed Personal Finance Course Taught by Properly Trained Teachers*

Carlos J. Asarta, Andrew T. Hill, and Bonnie T. Meszaros, "The Features and Effectiveness of the *Keys to Financial Success* Curriculum," *International Review of Economics Education* 2014, 16(A), 39-50, doi:10.1016/j.iree.2014.07.002.

This article reviews the effects of a successful high school personal finance curriculum, *Keys to Financial Success*, which is offered by a consortium of partners in Delaware, Pennsylvania, and New Jersey, and is available to teachers from the Federal Reserve Bank of Philadelphia. After training teachers in the curriculum and implementing the one-semester *Keys* course, students exhibited a 61% average knowledge improvement. The curriculum was also most effective in improving the personal finance knowledge of students in the areas where the students needed the most help. As the authors note, their findings "lend support for the growing body of research that shows that a well-designed personal finance curriculum, properly implemented by trained teachers, can increase students' achievement in personal finance."

(12.) *A Review of Evidence Supporting the Importance of Financial Literacy*

Annamaria Lusardi and Olivia S. Mitchell, "The Economic Importance of Financial Literacy: Theory and Evidence," *Journal of Economic Literature* 2014, 52(1), 5-44, http://dx.doi.org/10.1257/jel.52.1.5.

This paper reviews empirical evidence that "low levels of financial knowledge are pervasive" both domestically and internationally, discusses research linking financial literacy with several economic behaviors, reviews the costs of financial ignorance, and assesses the effects of intervention programs, many of which work well at enhancing financial literacy. According to the authors, "there is reason to believe that mandating personal finance education may, in fact, be effective in increasing student knowledge…" Lusardi and Mitchell suggest that several key tasks remain to better understand and remedy the problem of financial illiteracy, concluding that "While the costs of raising financial literacy are likely to be substantial, so too are the costs of being liquidity-constrained, overindebted, and poor."

(13.) *The Financial Capability of Young Adults*

Gary R. Mottolla, "The Financial Capability of Young Adults—A Generational View," FINRA Investor Education Foundation, March 2014, http://www.usfinancialcapability.org/downloads/FinancialCapabilityofYoungAdults.pdf.

In an examination of data from the FINRA Investor Education Foundation's *National Financial Capability Study*, Mottola found that "millennials are struggling financially. In particular, they exhibit a number of problematic financial behaviors, display low levels of financial literacy and express concerns about their debt." Specific findings include that, among millennials:

- Only 24% can answer four or five questions correctly on a five-question financial literacy quiz
- 67% have no rainy day funds, 60% aren't saving for retirement, and 43% use costly non-bank borrowing methods
- 46% are concerned that they have too much debt, and 55% of those with student loans are concerned that they may not be able to pay off their debt

Millennials are under a fair amount of financial strain and may not be fully prepared for many of the financial challenges they face given their low level of financial literacy.

(14.) *High School Seniors' Financial Knowledge Affects Their Financial Responsibility*

"High School Seniors' Financial Knowledge and Outlook: A Discover Pathway to Financial Survey," Discover, 2014, http://www.pathwaytofinancialsuccess.org/wp-content/uploads/2014/04/Pathway-Financial-Knowledge-and-Outlook-Survey-Key-Findings.pdf.

According to this survey of 1,200 randomly-selected high school seniors, students ranked personal finance as the most important subject they needed to learn in school for their future success, but less than 1/3 have taken a personal finance course in school. The results of the survey substantiated students' assessment of the importance of personal finance education, showing that students who have taken a class in personal finance are more likely to engage in financially responsible behaviors such as saving, budgeting, and investing:

- 93% of those who have taken a class save money vs. 84% of those who have not
- 60% of those who have taken a class have a budget vs. 46% of those who have not
- 32% of those who have taken a class have invested money vs. 17 % of those who have not

(15.) *CFPB's Policy Recommendations for Advancing K-12 Financial Education*

"Transforming the Financial Lives of a Generation of Young Americans: Policy Recommendations for Advancing K-12 Financial Education," Consumer Financial Protection Bureau, April 2013, http://files.consumerfinance.gov/f/201304_cfpb_OFE-Policy-White-Paper-Final.pdf.

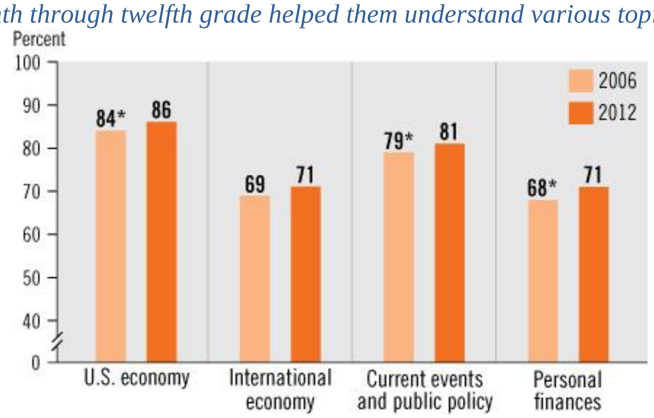
The Consumer Financial Protection Bureau proposes five essential strategies for advancing financial education for young Americans – (1.) Teach financial education early and consistently through the K-12 years; (2.) Introduce financial education concepts into standardized tests; (3.) Create innovative hands-on learning opportunities throughout the K-12 years to practice money management; (4.) Create consistent opportunities and incentives for teacher training in financial education; and (5.) Encourage parents to discuss money management topics at home.

(16.) *The Nation's Report Card on the State of 12th-Graders' Economic Literacy*

U.S. Department of Education, National Center for Education Statistics, *The Nation's Report Card: Economics 2012*, April 2013, http://nces.ed.gov/nationsreportcard/pubs/main2012/2013453.aspx.

According to the most recent National Assessment of Educational Progress (NAEP) economics assessment, the percentage of students performing at or above a *Basic* level has improved slightly since the last test was administered in 2006. However, still only 43% of students tested at or above *Proficient*, which is the level defined as representing competency over the subject matter. There are also significant achievement gaps based on race, gender, and family characteristics, with white students scoring higher than other racial/ethnic groups, male students scoring higher than their female peers, and students who reported higher levels of parental education scoring higher than those who reported lower levels. With regard to policy implications, student assessments substantiate empirical findings that economics-related courses help improve economics knowledge, with more than two-thirds of twelfth-graders agreeing that their coursework helped them understand various economics topics.

Percentage of students assessed in twelfth-grade NAEP economics who agreed that economics-related courses taken from ninth through twelfth grade helped them understand various topics: 2006 and 2012



* Significantly different ($p < .05$) from 2012.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2006 and 2012 Economics Assessments.

(17.) *A Survey of Girls' Financial Literacy*

"Having It All: Girls and Financial Literacy," A Report from the Girl Scout Research Institute, April 2013, http://www.girlscouts.org/research/pdf/GSRI_having_it_all_report.pdf.

The Girl Scout Research Institute conducted a nationwide survey with over 1,000 girls ages 8−17 and their parents to better understand girls' level of financial literacy and their confidence about, attitudes towards, and experiences with money. According to the survey, girls need and want financial literacy skills to help them achieve their dreams, with 90% saying it is important for them to learn how to manage money. However, just 12% of girls surveyed feel "very confident" making financial decisions.

(18.) *President's Advisory Council on Financial Capability's Recommendations for Improving Americans' Financial Understanding*

President's Advisory Council on Financial Capability, "Final Report," January 29, 2013. http://www.treasury.gov/resource-center/financial-education/Documents/PACFC%20final%20report%20revised%2022513%20%288%29_R.pdf.

In its final report, the President's Advisory Council on Financial Capability suggested four major recommendations for improving Americans' understanding of financial matters: (1.) that the federal government should encourage and support the introduction of financial literacy into homes and communities using accessible tools and into schools by integrating critical personal finance competencies into the teaching of the Common Core State Standards for English and math; (2.) that the federal government encourage employers to improve the financial capability of their employees and support that effort by promoting and disseminating "Financial Capability at Work," a resource guide for employers; (3.) that the President and the Secretary of the Treasury encourage the creation of councils at the state, local and tribal level to help improve the financial capability of citizens; and (4.) that the federal government should establish an online clearinghouse for research in the field of financial education and behavioral economics that is informed by rigorous research standards.

(19.) *The State of Financial Illiteracy Among the Young*

Annamaria Lusardi, Olivia S. Mitchell, and Vilsa Curto, "Financial Literacy among the Young," *The Journal of Consumer Affairs* 2010, 44(2), 358-380, http://www.councilforeconed.org/wp/wp-content/uploads/2011/11/Financial-Literacy-for-Young-Lusardi.pdf.

In their examination of financial literacy among the young, Lusardi, Mitchell, and Curto found that financial literacy was "severely lacking among young adults" with only 27% knowledgeable about inflation and risk diversification and able to do simple interest rate calculations. However, there were significant differences according to sociodemographic, family, and peer characteristics. For example, according to their analysis of respondents' responses to three financial literacy questions, women were less likely to respond correctly to each of the three questions than men; whites were more likely than black and Hispanic respondents to answer all three questions correctly; and those whose mothers had some college education had higher correct response rates than those whose mothers graduated from high school. Considering the policy implications of their research, the authors conclude that "Several findings in this paper support financial education in high school."

(20.) *Students from States with Required Finance Courses Exhibit Positive Financial Behaviors*

Michael S. Gutter, Zeynep Copur, Selena Garrison, "Financial Capabilities of College Students from States with Varying Financial Education Policies," National Endowment for Financial Education, December 2009, http://www.nefe.org/what-we-provide/primary-research/financial-education-mandates-report.aspx.

Dr. Michael Gutter of the University of Florida surveyed 15,797 students at 15 geographically diverse college campuses across the United States to assess their financial knowledge, financial dispositions, and financial behaviors. 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

Given these findings, the authors conclude that states without standards should consider adopting standards as a minimum. Because requiring a course was the only policy to be positively related to the likelihood of students engaging in positive financial practices, they suggest that the ideal situation is for states to adopt standards that require courses and assessment.

(21.) *The Need for a Greater Focus on Teacher Training*

Wendy L. Way and Karen Holden, "Teachers' Background and Capacity to Teach Personal Finance: Results of a National Study," National Endowment for Financial Education, March 2009, http://www.nefe.org/what-we-provide/primary-research/grant-studies-teachers-preparedness-and-money-man.aspx.

In a two-year national study, researchers set out to discover more about the needs and characteristics of the teachers who are called upon to deliver personal finance education in the classroom. The study found that teachers recognize the need for financial education, but that few teachers currently are teaching financial literacy and teachers do not feel prepared to teach personal finance. Key findings include:

- 89 percent of teachers agree or strongly agree that students should take a financial literacy course or pass a test for high school graduation
- Only 29.7 percent of teachers are teaching financial education in any way— in existing classes or special classes on finance topics
- 63.8 percent of teachers feel unqualified to utilize their state's financial literacy standards
- Only 37 percent of K–12 teachers had taken a college course in personal finance
- Only 11.6 percent of K–12 teachers had taken a workshop on teaching personal finance
- Less than 20 percent of teachers reported feeling very competent to teach any of the six personal finance topics surveyed

The authors conclude that there is a great need to expand personal finance educational opportunities for teachers.

(22.) *A Review of Research in Economic Education and the Results of a National Survey of High School Economics Teachers*

J.R. Clark, Mark C. Schug, and Ashley S. Harrison, "Recent Trends and New Evidence in Economics and Finance Education," *Journal of Economics and Finance Education* 2009, 8(2), 1-10, http://www.economics-finance.org/jefe/econ/ClarkSchugHarrisonpaper.pdf.

This paper reviews research in economic education and highlights the results of a national survey of social studies and economics teachers. When asked why economics should be included in the school curriculum, 87% of economics teachers emphasized that economics enables students to better understand important current economic affairs, and 80% of economics teachers agreed that economics helps students become well adjusted, productive members of society. Overall, the authors conclude that young people can learn economics and learn best when they are taught by knowledgeable teachers using well-developed curriculum materials. They suggest that in order to accommodate more state requirements, state bureaucracies should increase teacher training and curriculum standards.

(23.) *What Works: A Review of Research on Outcomes and Effective Program Delivery in Precollege Economic Education*
Michael Watts, "What Works: A Review of Research on Outcomes and Effective Program Delivery in Precollege Economic Education," The United States Department of Education Office of Innovation and Improvement and the Council for Economic Education, 2005, http://www.councilforeconed.org/wp/wp-content/uploads/2011/11/What-Works-Michael-Watts.pdf.
In this extensive review of specialized studies in the field of economic education, Watts finds that most research is "broadly supportive of precollege education, in suggesting that even young students can understand basic concepts that may help people make better decisions as consumers, workers, and citizens." Further, "A separate secondary course in economics seems likely to be the single most important way to increase students' level of economic understanding." According to Watts' review of the available literature, students can and do learn economics when their teachers understand the content, are trained in teaching economics, and use high-quality educational materials in the classroom.

(24.) *The Long-Term Effects of High School Financial Curriculum Mandates on Adult Financial Decision-Making*
B. Douglas Bernheim, Daniel M. Garrett, and Dean M. Maki, "Education and Saving: The Long-Term Effects of High School Financial Curriculum Mandates," *Journal of Public Economics* 2001, 80(3), 435-465, doi:10.1016/S0047-2727(00)00120-1.
The authors set out to determine whether state mandates for high school instruction on topics related to household financial decision-making have had any effect on adult financial decision-making. They found that individuals who had state-mandated financial education in high school had higher reported rates of savings and higher net worth in adulthood.