



How Does Financial Education in High School Affect the Subjective Financial Well-being of Adults?

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Summary

Using data from the FINRA Foundation's National Financial Capability Study, we show that 18- to 45-year-old adults who attended high school in states that required financial education before graduation show higher levels of subjective financial well-being. Subjective financial well-being, a relatively new measure, captures the extent to which people believe their financial situation provides them with financial security and the ability to achieve present and future goals.

The positive effects of financial education are not the same for everyone. While we find that financial education graduation requirements improve the subjective financial well-being of men, we see no such improvement for women despite evidence that required financial education improves women's objective financial situation, including their likelihood to have a checking or savings account.

We also find evidence of differential effects based on post-secondary educational attainment. Required financial education in high school increases subjective financial well-being for adults who subsequently attend at least some college. This finding is consistent with studies that show financial education requirements result in more responsible student loan borrowing.

For those who end their formal education with a high school diploma, however, state-required financial education reduces subjective financial well-being. This sample is more likely to report not having the

things they want in life because of money. We interpret our results as evidence that financial education forces people to develop a realistic sense of their financial situations. These results support placing an increased focus in high school personal finance curricula on content that helps students better manage limited incomes and expand their human capital as a possible approach to lessen inequalities across educational attainment.

Introduction

The COVID-19 pandemic highlighted the financial precarity of many families. In the face of a recession, people tapped into savings and reported rising financial stress as they struggled to make ends meet. Indeed, 88 percent of people surveyed in the U.S. in May 2020 said COVID-19 was putting stress on their personal finances, 51 percent reported a loss in employment income, and just over 26 percent said they either missed their last housing payment or had little confidence in making future rent or mortgage payments.²

While unexpected financial shocks of various sizes are always a risk for households, strategies to improve financial resilience can help adults process these financial shocks with less severe consequences. One way to improve the financial resilience of future generations is to require high school students to complete coursework in personal finance before graduation from school. This policy—typically implemented at the state level—has the potential to

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National Endowment for Financial Education/Harris Poll. 2020. COVID-19 Survey. April 14, 2020. <https://www.nefe.org/research/research-projects/consumer-poll/2020/covid-19-concerns-survey.aspx>

²U.S. Census Bureau. Household Pulse Survey. 2020. Data from Week 12 (July 16, 2020). <https://www.census.gov/data-tools/demo/hhp/#/?measures=JLR>

teach young adults how to improve their future financial situations, reduce financial mistakes, and limit future financial stress in the face of financial shocks.

Recent research shows the causal effects of state-mandated financial education graduation requirements in high school on a variety of financial behaviors. For example, studies show that financial education graduation requirements increase credit scores, lower rates of loan delinquency, reduce the use of costly payday loans, and improve student loan repayment.³ While these results are promising, no research has considered how personal finance coursework affects how recipients feel about their financial situation—that is, how it affects their subjective financial well-being.

The Consumer Financial Protection Bureau (CFPB) developed a five-item Financial Well-being Scale (FWBS) in 2016 that allows researchers to measure subjective financial well-being consistently.⁴ Based on extensive interviews with consumers, this scale includes:

- having control over day-to-day and month-to-month finances;
- having the capacity to absorb a financial shock;
- being on track to meet financial goals; and
- having the financial freedom to make the choices that allow a person to enjoy life.⁵

We use this scale to estimate the causal effect of state-mandated financial education in high school on subjective financial well-being.

³Brown, Meta, John Grigsby, Wilbert van der Klaauw, Jaya Wen, and Basit Zafar, 2016, “Financial Education and the Debt Behavior of the Young,” *Review of Financial Studies*, 29 (9): 2490–2522. Harvey, Melody, 2019, “Impact of Financial Education Mandates on Younger Consumers’ Use of Alternative Financial Services,” *Journal of Consumer Affairs*, 53 (3): 731–769. Mangrum, Daniel, 2019, Personal Finance Education Mandates and Student Loan Repayment, *Working paper*. Stoddard, Christiana, and Carly Urban, 2020, “The Effects of State-Mandated Financial Education on College Financing Behaviors,” *Journal of Money, Credit and Banking*, 52 (4): 747–776. Urban, Carly, Maximilian Schmeiser, J. Michael Collins, and Alexandra Brown, 2018, “The Effects of High School Personal Financial Education Policies on Financial Behavior,” *Economics of Education Review*, forthcoming.

⁴The original CFPB FWBS contains 10 items, but the CFPB also released five-item version of the scale that performs similarly. The NFCS includes the five-item version. For more details on this scale, see Consumer Financial Protection Bureau. (2015). Measuring Financial Well-being: A Guide to using the CFPB Financial Well-being Scale. Retrieved from https://files.consumerfinance.gov/f/201512_cfpb_financial-well-being-user-guide-scale.pdf

⁵For more details on this definition, see Consumer Financial Protection Bureau. (2015). Financial Well-being: The Goal of Financial Education. Retrieved from https://files.consumerfinance.gov/f/201501_cfpb_report_financial-well-being.pdf

⁶Urban, Carly, and Maximilian Schmeiser. 2015. State-Mandated Financial Education: A National Database of Graduation Requirements, 1970–2014. Database. <http://www.montana.edu/urban/financial-edu-database.html>

Methods

This study compares individuals who graduated from high school just before a financial education graduation requirement went into effect to those who graduated just after the implementation. It then does this same comparison across individuals who graduated from high school in a state with no financial education graduation requirement over the same period. This dual comparison allows us to estimate the differences in subjective financial well-being for people who likely graduated with financial education to those who did not have mandated financial education in high school, still controlling for a state’s baseline levels of subjective financial well-being. Additional details about the statistical model are contained in the [full report](#).

Data

This study uses the FINRA Investor Education Foundation’s 2018 National Financial Capability Study (NFCS), which includes the FWBS. The scale averages around 50 and can be close to 100, signaling high well-being, or as low as 20, signaling low well-being. The scale has been used in several nationally representative surveys and provides researchers with a new way to measure how people feel about their financial lives.

Financial Education Mandates

We began with an updated list of the state graduation requirements for high school graduating classes in recent years.⁶ As of May 2020, 32 states required personal finance instruction in high school coursework. Nevada and Kentucky added similar

graduation requirements that will go into effect in 2022 and 2024, respectively. Not all states are adding financial education, however. Florida's prior graduation requirement was repealed beginning with the graduating class of 2021, for example. The map below depicts the year each state implemented a graduation requirement for financial education. Most policies were implemented in the last 20 years. Only four states had graduation requirements in effect before 2000: Illinois, Michigan, New Hampshire, and New York.

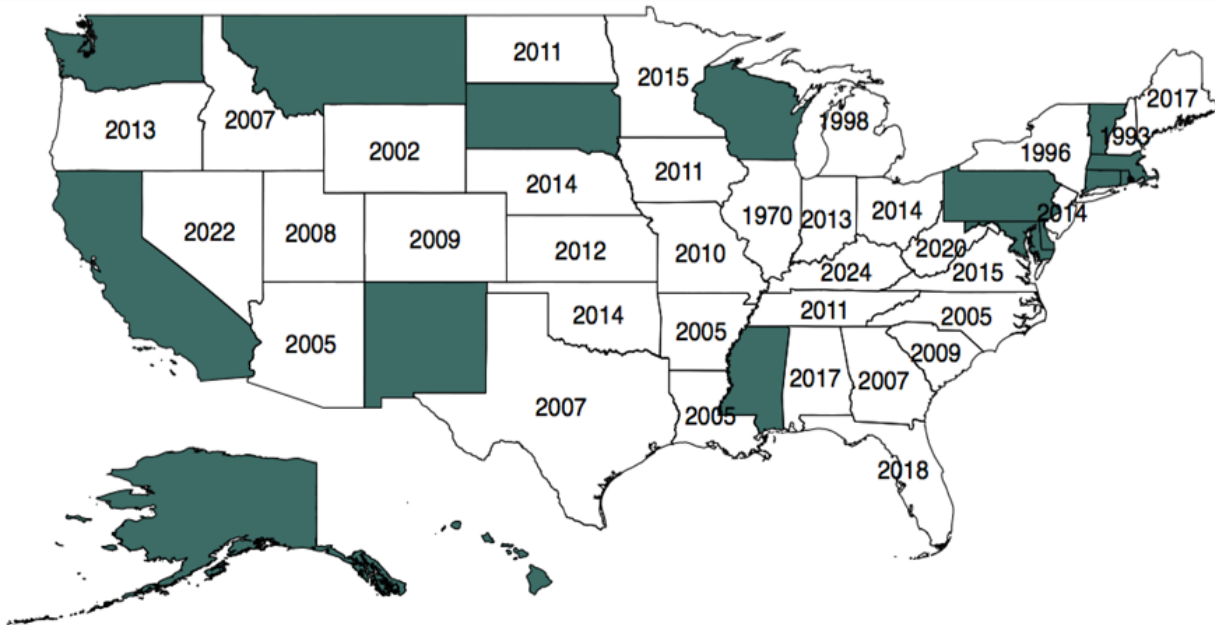


Figure 1: States with Financial Education Graduation Requirements in High School with First Graduating Class Year (green states have no financial education mandate)

While personal finance coursework varies greatly across schools, most required high school courses include the following content:

- comparing debt with different interest rates, including mortgages, auto loans, and student loans;
- understanding how credit scores are calculated and their importance;
- understanding how credit cards work and can accrue interest;
- understanding options for postsecondary education financing;

- examining how incomes fluctuate and how to insure against risk;
- comparing salaries across occupations; and,
- creating monthly budgets.

Sample

Our sample is nationally representative, covers all states, and includes all respondents between 18 and 45 years of age. We remove those who never complete high school, as they would not have been required to complete personal finance instruction. We focus our

results on 2018, because this is the only year the FWBS is available in the NFCS.⁸ Our final sample includes 12,228 individuals.

Findings

Figure 2 shows our estimates of the causal effects of financial education on FWBS scores, along with the margins of error.⁹ While the overall effect of state-mandated financial education on subjective financial well-being is positive, some groups benefit more than others. Men see the largest improvements in their FWBS scores. Men in states that required high school graduates to complete financial education scored

⁷Urban, Carly. 2020. Financial Education in High Schools Across America. Working paper. <http://www.montana.edu/urban/Report.pdf>

⁸ We additionally use a pseudo financial well-being scale in our full paper, with data from 2012, 2015, and 2018.

⁹The bars around the estimates in Figure 2 report 90% confidence intervals.

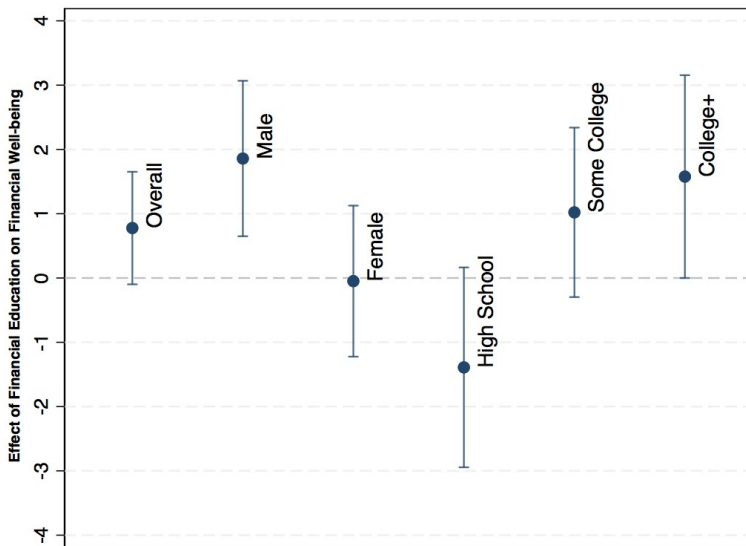


Figure 2: The Effect of Financial Education on Financial Well-being Overall, by Gender, and by Education

higher than men who graduated in a year and state where financial education was not required. Women, however, see no change in subjective financial well-being due to financial education. For women with some college or a four-year college degree,¹⁰ required financial education increases subjective financial well-being. Those who end their education with a high school diploma experience a negative effect of financial education on their subjective financial well-being.

Why are there different effects across subsamples of the population? Figure 3 summarizes which of the five FWBS questions financial education most affects for each subgroup. There are three findings.

Group	Because of financial education...
Men	<ul style="list-style-type: none"> less concerned money they have won't last. less likely to feel like they will never have the things they want in life because of their money situation. less likely to feel like their finances control their lives.
Women	<ul style="list-style-type: none"> none
High School Diploma Only	<ul style="list-style-type: none"> more likely to feel like they will never have the things they want in life because of their money situation.
Some College	<ul style="list-style-type: none"> more likely to say they have money left over at the end of the month.
College Degree or More	<ul style="list-style-type: none"> less likely to feel like they will never have the things they want in life because of their money situation. less concerned that the money they have or will save won't last.

Figure 3: Summary of Effects of Financial Education on Components of Subjective Financial Well-being

¹⁰The four-year degree category also includes those who have additional training beyond a bachelor's degree.

First, financial education causes men to have more optimistic pictures of their finances, while women's pictures of their finances are unchanged. After financial education, men are less concerned that the money they have will not last, less likely to feel like they will not have what they want in life because of money, and less likely to feel like their finances control them. Financial education does not change how women respond to any FWBS question.

Second, financial education improves subjective financial well-being for those who attend higher education. Those completing some college but not completing a four-year degree more frequently thought they have money remaining at the end of the month. Those with four-year college degrees who were required to complete financial education are less concerned that their money will not last and more confident they will have what they want in life.

Third, adults who have financial education but end their education with a high school diploma are more likely to agree with the statement that they will never have the things they want in life because of their money situation. Financial education could lead those with less education to perceive that their goals are less attainable. Given the income and wealth trajectories of adults with only high school education, this could better reflect the reality of their financial situation. Financial education may in fact make economically vulnerable people more aware of their precarious financial situation.

Discussion

Overall, these findings comport with prior studies showing that high school financial education state mandates improve credit scores, reduce delinquency rates, reduce payday borrowing, and reduce non-student debt for the overall population. Other studies show that financial education helps student loan borrowers make responsible student loan choices. Better managed student loans could also mean those with financial education have improved objective financial situations.

Women and adults with only a high school diploma do not appear to have higher subjective financial well-being due to financial education graduation requirements.

Does this mean that financial education altogether is failing women? There is evidence that women who have financial education are objectively better off. For example, we find that financial education increases the likelihood that women have a checking or savings account. Other research shows that state-mandated financial education reduces the use of alternative, high-cost financial services for both women and men.¹¹ Women's objective financial situations are improved, but their subjective financial well-being does not change. Financial education appears to benefit women in some respects, but women do not gain the optimistic subjective financial well-being that men do. It could be that men over-respond to financial education, taking a more optimistic view of their finances after being exposed to basic financial education. Women may have a less optimistic view, having more reservations about their subjective financial position after financial education.

Does financial education make those who end their formal education with a high school diploma worse off? We have some evidence that our high school diploma sample with financial education is more likely to have savings and rainy day funds. Recent work finds that financial education increases the likelihood of savings for young adults with only a high school diploma, suggesting an improvement in objective financial situation.¹² At the same time, our results

show that this sample becomes more pessimistic about their financial future. Taken together, the reduction in subjective financial well-being due to financial education may stem from a harsh dose of reality and a lack of desire to change goals after realizing some things are not financially feasible.

Conclusions

Young people transitioning into adulthood develop financial independence as they make decisions about borrowing for schooling or other large purchases, such as a car. Prior studies show that financial education helps young people better manage cash flows and pay bills on time, which should result in short-run improvements in personal subjective financial well-being. Our results show that required personal finance coursework in high school improves subjective financial well-being, though the improvements largely pertain to men and those who attend at least some college. Because these are two groups that already see benefits in the labor market and have the highest levels of financial literacy to begin with,¹³ policymakers and educators could consider shifting policy or curricula to better suit those who struggle.

The financial issues of non-college-going young adults warrant special attention. This group likely faces greater financial risks with fewer assets—factors that might suggest financial education would be more impactful. Because our results show that financial education may lower subjective financial well-being for individuals who do not attend college and leads to differentially worse subjective financial well-being than their peers without required high school financial education who also do not attend college, we find this suggests that current curricula may not be sufficiently tailored for this population. Financial education for this group may need to emphasize the realities of potential shocks, cover labor market returns to education, place greater emphasis on the importance of expanding one's human capital, and better prepare people for financial stresses. It may be advantageous for state-mandated financial education to focus more on topics that pertain to young adults who will not pursue higher education—topics such as credit use, managing

¹¹Harvey, Melody. 2019. "Impact of Financial Education Mandates on Younger Consumers' Use of Alternative Financial Services." *Journal of Consumer Affairs*, 53 (3): 731–769.

¹²Harvey, Melody. 2020. "Does State-Mandated High School Financial Education Affect Savings by Low-Income Households?" Working Paper.

¹³Bucher-Koenen, Tabea, et al. 2017. "How Financially Literate are Women? An Overview and New Insights." *Journal of Consumer Affairs*, 51 (2): 255–283.

budgets, juggling bills and expenses, costs associated with parenting and childcare, and paying taxes, as opposed to curricula on postsecondary education financing.

The fact that required financial education does not change subjective financial well-being for women is informative for research and policy. Women objectively face added risks in the labor market, as well as greater longevity. Hence, the measures of subjective financial well-being we use in this study may reflect the fact that women with financial education understand the reality of their context and are honest in their self-assessments. It is also possible men and women incorporate information differently as they develop a subjective sense of financial well-being. Men may be overconfident relative to women,¹⁴ in which case having higher subjective financial well-being may not be a positive outcome. For example, studies show women take fewer financial risks,¹⁵ which could be prudent but could also reduce their lifetime wealth. More research on gender differences in household finance could help expand our understanding of the interactions between financial education and gender. This research might also inform innovations in financial products and services to better serve women and other sub-populations.

The full report can be found at <https://cfs.wisc.edu/?p=8619>.

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¹⁴Barber, Brad M., and Terrance Odean. 2001. "Boys will be Boys: Gender, Overconfidence, and Common Stock Investment." *The Quarterly Journal of Economics*, 116(1): 261–292.

¹⁵Bannier, Christina E., and Milena Neubert. 2016. "Gender Differences in Financial Risk Taking: The Role of Financial Literacy and Risk Tolerance." *Economics Letters*, 145: 130–135.