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INVESTING IN TOMORROW

LIFETIME VALUE OF FINANCIAL EDUCATION IN HIGH SCHOOL

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STATEMENT OF INDEPENDENCE

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INTRODUCTION

The purpose of public education is threefold: to develop a productive workforce, to create an informed citizenry, and to enable social mobility. Yet, as of March 2023, fewer than one in four students (23.6 percent) graduated high school with one of the most fundamental competencies needed for success in the real world: personal finance.[1] This preparation gap raises serious questions about our students' readiness to navigate the complexities of financial independence and success as they embark on their life journeys.

There is a growing body of research that demonstrates how increased financial literacy leads to sound financial decisions that build wealth in the long run. Despite a growing number of statewide policy initiatives, access to quality personal finance education remains staggeringly unequal, perpetuating disparities in financial literacy and long-term financial outcomes. The imperative for state and local leaders in education policy is to bridge this opportunity gap to empower students to make informed financial decisions that reverberate throughout their lives.

THE GOLD STANDARD: COMPREHENSIVE, STATEWIDE PERSONAL FINANCE EDUCATION

Acknowledged by leaders in the field—such as Next Gen Personal Finance (NGPF) and the National Endowment for Financial Education (NEFE)—the gold standard in personal finance education is a statewide requirement for a standalone, semester-long course before high school graduation. This holistic approach encompasses crucial skills such as budgeting, debt management, investing, credit literacy, psychology of money, and future financial planning.

Standardized financial literacy measures developed by Dr. Annamaria Lusardi and Dr. Olivia Mitchell reveal concerningly low levels of financial knowledge across the US adult population and, importantly, that these measures correlate strongly with financial behaviors and outcomes.[2] The Financial Industry Regulation Authority (FINRA) reports that 66 percent of Americans are deemed financially illiterate.[3] This deficiency in financial knowledge has real and damaging consequences. Individuals lacking financial literacy are unprepared to manage real-world finances and often find themselves burdened with debt due to poor spending decisions or the absence of financial planning, ultimately leading to a cascade of negative outcomes.[4]

1. Next Gen Personal Finance. "NGPF's 2023 State of Financial Education Report." Next Gen Personal Finance, March 2023, *https://d3f7q2msm2165u.cloudfront.net/aaa-content/user/files/Files/NGPF_AnnualReport_2023.pdf*
2. Lusardi, Annamaria, and Olivia S. Mitchell. "The Economic Importance of Financial Literacy: Theory and Evidence." Journal of Economic Literature, vol. 52, no. 1, Mar. 2014, pp. 5–44, *https://doi.org/10.1257/jel.52.1.5*.
3. "Financial Literacy." Corporate Finance Institute, 15 Oct. 2023, *corporatefinanceinstitute.com/resources/management/financial-literacy/*.
4. Gibson, Philip, Janine Sam, and Yuanshan Cheng. "The Value of Financial Education During Multiple Life Stages." Journal of Financial Counseling and Planning, vol. 33, 2021/03/22, pp. JFCP-20-00017. DOI: 10.1891/JFCP-20-00017. *https://files.eric.ed.gov/fulltext/EJ1347081.pdf*.

THE TRANSFORMATIVE POWER OF PERSONAL FINANCE EDUCATION

Amidst this challenge, a growing body of research is documenting the transformative impact of personal finance education. Studies consistently highlight the positive compounding effects across various outcomes, including retirement savings, debt behavior, and credit scores. While the implementation of statewide requirements for financial education is relatively recent, the correlation is undeniable: a robust personal finance education significantly improves financial decision-making, setting the stage for a lifetime of fiscal responsibility and success.[5]

Investment in financial education has a societal impact. By equipping our students with the knowledge and skills to navigate the intricacies of personal finance, education has the potential to pave the way for a more financially literate, empowered, and resilient society. The question now is not whether states and districts can afford to invest in personal finance education but, rather, can they afford not to?

The purpose of this paper is to articulate an evidence-based case for the benefits of financial education at scale. State and local policymakers and education leaders can use this resource for case-making and coalition-building as they seek to increase access to financial education.

EXECUTIVE SUMMARY

Our work draws upon rigorous academic studies to quantify the enduring advantages stemming from high school personal finance education. Grounded in a foundation of published research, our analysis relies on studies that underscore statistically significant correlations between personal finance education and heightened financial literacy. When effectively implemented, requiring personal finance education in high school curricula positively influences students' financial behavior, yielding improved credit scores and unlocking a cascade of advantages. Categorized into areas such as reduced credit/debt costs, lower insurance costs, and increased retirement assets, these benefits accrue over a student's lifetime.

In recent years, major progress has been made in integrating standalone personal finance courses into high school curricula across various states and districts. As of December 2023, 25 US states (accounting for over half of all US high school students) have adopted a personal finance education requirement, and many school district leaders are making sure high-quality financial education is provided in an increasingly crowded curriculum standards and accountability environment. However, persistent challenges with ensuring high-quality implementation underscore the need for increased support, particularly in comprehensive teacher training and the establishment of curricular standards. To truly cultivate a generation of financially capable and resilient individuals, there is a critical call for universal recognition of equitable access to high-quality personal finance education. Addressing these challenges will not only enhance the effectiveness of existing programs but also contribute to the development of learners prepared for the complexities of the modern financial landscape.

5. A collection of relevant research studies can be found in Appendix: Research Index.

LIFELONG BENEFITS OF PERSONAL FINANCE EDUCATION

Figure 1:

Illustrative student financial lifecycle

Most steps in this journey are interactive processes rather than the pit stops reflected above; financial literacy influences financial behavior throughout all major life decisions and events.

Along the road to adulthood, students encounter a series of financial decisions, whether explicit ones, such as purchasing a car or home, or ones with implicit financial implications, like starting a family. Their behavior throughout the life journey shapes the wealth accumulated over time and retained at the end.

Inputs from previous studies conducted by leading researchers on personal finance education and financial literacy—Drs. Annamaria Lusardi, Carly Urban, Olivia Mitchell, Christiana Stoddard, Meta Brown, Daniel Mangrum, and many others not listed—present the following evidence base: high school personal finance education, when implemented effectively, improves students' financial behavior, which improves their credit scores and therefore unlocks a cascading set of additional benefits throughout individuals' lives.

While the potential benefits may be far more expansive, the studies included in our research are verified scholarly reports that demonstrate quantifiable benefits—in dollars—on financial outcomes. The benefits quantified in this research—which are likely not exhaustive of all potential personal finance education benefits—are as follows:

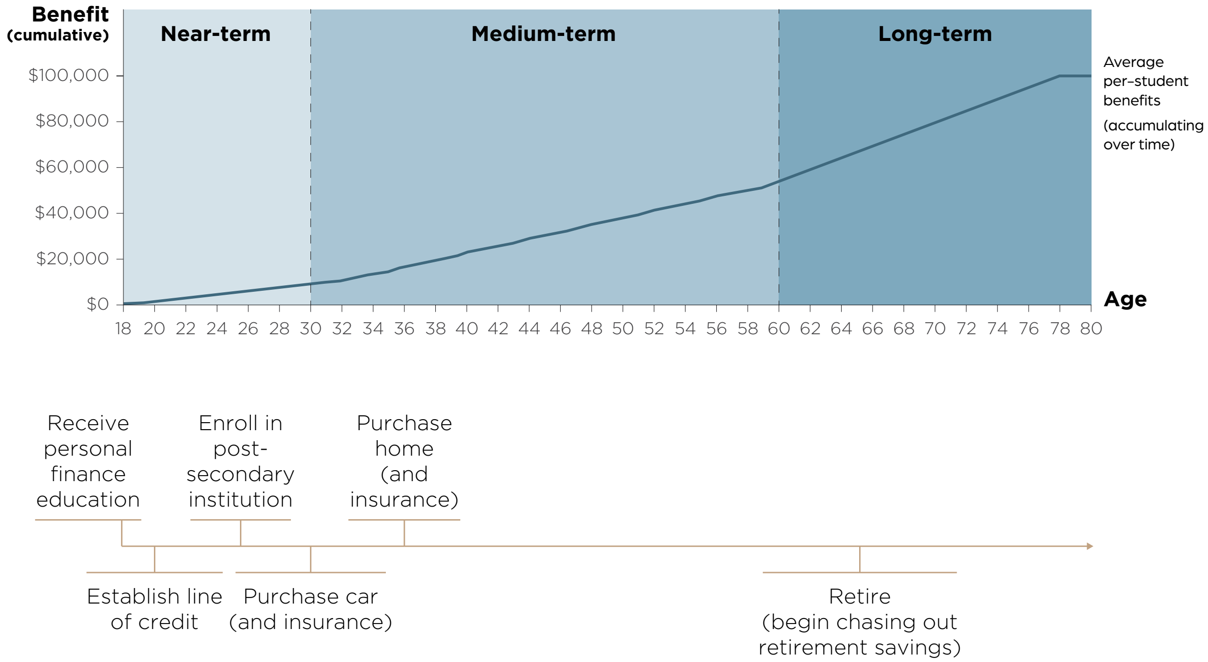
- **Reduced credit/debt costs** (i.e., interest savings on credit card debt due to better repayment habits and improved APR)
- **Reduced student loan costs** (i.e., greater consideration of debt in post-secondary decision-making, understanding of types of loans/funding available, and improved repayment rate)
- **Reduced insurance costs** (i.e., the cost savings of having a better insurance rate due to an improved credit score)
- **Reduced borrowing costs** (i.e., savings on home and auto loans due to purchasing/repayment behavior and an improved credit score's influence on APRs)
- **Larger retirement funds/assets** (i.e., earlier retirement and/or financial planning's impact on eventual wealth at retirement)

These impacts are realized cumulatively across one's life, though the benefits vary in the timing of return. For example, reduced credit/debt costs and student loan costs come into play as soon as one establishes a line of credit and when one is considering post-secondary paths, respectively, which is typically during or directly after one completes a personal finance course in high school. On the other hand, reduced insurance and borrowing costs may not take effect until one's 30s, and retirement wealth—while accumulating over a lifetime—is not realized until relatively late in life.

Leveraging the scholarship of those previously mentioned researchers, data from the US Department of Education, and data about financial outcomes and metrics that vary by state, we estimated the measurable benefit of receiving personal finance education in high school over students' lifetimes. While our analysis recognizes that not all will participate in each step of the potential financial journey where personal finance education's impact is most pronounced—not attending college or buying a home, for example—average values in each state based on participation rates in those activities nonetheless build up to a massive return in the average per-student lifetime benefit.

Figure 2:

Anticipated cumulative personal finance education benefits received over time on a per-student basis



Illustrative time series of quantifiable personal finance education benefits

NEAR-TERM BENEFITS: AGES 18 TO 30

The investment in personal finance education begins paying off very soon after course completion. Our model assumes that two benefits will begin realizing in the near term, or ages 18 to 30: reduced credit/debt costs (i.e., interest savings on credit card(s)) and reduced student loan costs (i.e., lower relative college debt for the same sticker price). While home ownership, car purchases, and retirement come further down the road, we estimate that these two benefits alone result in a cumulative **~$8K in benefits per student by age 30.**

These benefits are largely the result of improved credit card debt and related interest on it. Based on prior studies of personal finance courses' impact on credit scores, our calculation assumes those taking a course will accrue an additional ~30 credit score points on average and that half of those proficient post-course (35 percent proficiency assumed) will improve their credit card repayment rates (considering improved credit card payment and spending behavior is a standard learning pillar of most personal finance education courses).[6]

On a relative basis, post-secondary debt benefits are more limited, driven down primarily by not all people attending college or taking out loans for it, and nearly everyone using credit cards for spending. The decreased post-secondary debt calculation factors in state-specific post-secondary participation and debt rates and does not assume that personal finance education will alter which college one attends or the amount of debt they will take out, making for a highly conservative estimate.

6. Assumption derived from the work of Urban, Carly, et al. "The Effects of High School Personal Financial Education Policies on Financial Behavior." Economics of Education Review, vol. 78, 2020, pp. 101786, *https://doi.org/10.1016/j.econedurev.2018.03.006.*

MEDIUM-TERM BENEFITS: AGES 30 TO 60

As the student enters early- to mid-life, they will be faced with another round of major financial decisions, including purchasing cars, homes, and insurance to protect those assets. Factoring in these new benefits, we estimate **~$40K in per-student benefit accrued from ages 30 to 60**, with that value skewing up or down depending on state-by-state home/car ownership, home/car costs, down payment, APR, insurance rate averages, and other relevant dynamics.[7]

LONG-TERM BENEFITS: AGES 60 TO 80+

Factoring credit card debt/interest, considering home and auto benefits (loans and insurance), and now bringing in one's retirement assets, benefits grow even further later in one's life. After being taught about compounding interest and the benefits of savings for retirement over 40 years prior in their personal finance education course and then carrying those learnings and habits forward throughout their lives, students can finally begin drawing from their retirement savings. Our benefits here assume that financial education leads to improved rates of financial literacy (35 percent post-course proficiency assumed), which leads to improved rates of financial planning, which may contribute to 2–3X greater wealth at retirement.[8] If just over one-third of all students who take a personal finance education course end up proficient and proficiency translates to just a ~5 percent greater likelihood of financial planning, we see ~$20K in average per-student retirement savings benefits averaged across all states.[9]

Splitting those retirement savings benefits across one's retirement and adding in the other benefits one would receive during that period (e.g., their credit card, auto loan, and insurance benefits continue even if their home mortgage is already paid off), we calculate **~$50K in benefits accrued from ages 60 to 80**.[10]

7. This value considers one's credit card debt/interest accumulation, home and auto borrowing cost, and home and auto insurance cost benefits exclusively from ages 30 to 60.
8. Lusardi and Mitchell, 2019, 2011
9. Mitchell and Lusardi, 2015
10. Assuming benefits are not received until liquid (i.e., retirement fund increasing is not an accrued benefit until the retirement fund is cashed out), and assuming a life expectancy of 80 given current values and scaling up based on historical trajectories, benefits would be higher in a longer life scenario (i.e., additional time to accrue benefits).

Figure 3:

Illustrative process of adjusting full potential benefits to behavior-based student averages

Receive personal finance education

Benefit	Full potential benefit		Adjustment factor(s)		Result
Reduced credit/debt costs	**~$83K** Average projected per-student benefit on credit card interest/debt if all receive repayment rate benefit in MN (i.e., prereductions)	X	Estimated percent proficient who improve repayment rate	=	**~$24K**
Post-secondary debt benefits	**~$6.6K** Average projected per-student benefit on postsecondary loan interest in MN, prereductions	X	Likelihood of attaining bachelor's degree or above in MN X Percentage of students graduating with debt in MN X Percentage of students taking out private loans in MN	=	**~$67**
Reduced borrowing costs, home loans	**~$54K** Average projected per-student home mortgage savings in MN, prereductions	X	Homeownership rate in MN	=	**~$39K**
Reduced borrowing costs, auto loans	**~$850** Average per-car benefit in MN, pre-lifetime calculation	X	Car ownership rate in MN X Average number of cars purchased in a lifetime in MN	=	**~$8.5K**
Reduced insurance costs (home and auto)	**~$150** Average annual home and auto insurance savings due to increased credit score, pre-lifetime calculation	X	Car ownership rate in MN / Homeownership rate in MN X Years of car ownership / Years of home ownership	=	**~$8K**
Retirement savings benefits	**~$1.1M** Average post-benefit wealth at retirement in MN if all receive benefits (i.e., prereductions)	X	Likelihood of receiving benefit as a result of proficiency X Expected rate of those proficient in financial literacy postcourse	=	**~$20K**

Values on the right-hand side of equations are the benefits reported out in this paper (i.e., scaled down for average impact rather than if all were to receive the value).

Sum: ~$100K aggregate lifetime value for average student in MN

Benefits in Minnesota (MN) used as examples given AY'24–'25 PF education requirement rollout

COSTS

In sum, the five core benefits previously discussed stack up to a potential ~$100K average lifetime benefit for each student across different states. This $100K value has been diluted down for those who do not enroll in a post-secondary institution, accumulate debt, purchase a home, and/or do not end up proficient in their financial knowledge post-course. In spite of these reductions, the average benefits each student would receive is immense, but with an expected benefit so large, some may ask, "What's the catch?"

In short, there may not be one. **Next Gen Personal Finance**, **University of Arizona Take Charge Today**, **FoolProof Academy**, and **Council for Economic Education**, among others, offer free, high-quality personal finance education content, with some providers also supporting teacher professional development, teacher stipends, and administrative costs. In addition, net-new teacher costs on a semester-long course basis are more limited when teachers are reallocated from other courses rather than exclusively new hires (e.g., if personal finance education replaces another course). Conservatively, assuming that (1) only half of all teachers for personal finance education are net-new hires and the rest are reallocated and (2) the school takes advantage of free curriculum resources available to them, and factoring in some administrative costs, the average state would spend $150–$350 on personal finance education on a per-student basis. In the few states that would require print curriculum for personal finance education rather than exclusively free online materials (e.g., Florida), those costs would increase by ~$45 per student.

These costs are far lower than those of other high-ROI education interventions (e.g., universal Pre–K, mandated student-to-teacher ratios). Stacked up against the estimated ~$100K in lifetime benefits each student accrues, implementing a standalone personal finance graduation requirement would also benefit local and regional economies through wealth creation and reduction in the societal expenses associated with excessive debt, personal bankruptcy, and/or foreclosures.

While the individual student benefit is tracked through this work, there are also ripple effects not documented here that others have investigated. A study out of Peru notes that financial education for students has sizable effects on parental financial behavior within disadvantaged households,[11] and other studies have also investigated the financial well-being benefits that teachers themselves receive from preparing to teach and then leading financial education courses.[12][13] In sum, the benefits cited in this paper focus on the direct impact on students and are likely an underestimation of the total potential benefit of personal finance education.

11. Frisancho, Veronica. "Spillover Effects of Financial Education: The Impact of School-Based Programs on Parents." Journal of Financial Literacy and Wellbeing, vol. 1, 2023, pp. 1-16. doi:10.1017/flw.2023.2.
12. Frisancho, Veronica. "Is School-Based Financial Education Effective? Immediate and Long-Lasting Impacts on High School Students." The Economic Journal, vol. 133, no. 651, 2023, pp. 1147-1180. Oxford University Press, doi:10.1093/ej/ueac084.
13. Urban, Carly. "How Confident Are Potential Personal Finance Teachers?", 1 Mar. 2021, *papers.carlyurban.com/TeacherSurvey_3.01.2021.pdf*.

THE MOMENTUM OF MANDATORY PERSONAL FINANCE EDUCATION

In recognition of the imperative to prepare students for the challenges of the real world, more and more states and districts across the nation are taking decisive steps to mandate personal finance education requirements in high schools. Over the course of the last four years, from 2019 to 2023, the number of states requiring a standalone personal finance course for high school students has more than quadrupled from six to 25. This progress is shaped by the efforts of committed educators who champion the cause of financial education in high schools, as well as various advocacy groups and thought leaders. The shift represents a collective acknowledgment of the pivotal role that financial education plays in shaping the future success of individuals as well as a strategic investment in the resilience of the next generation. Case studies at the end of this publication (link to section) profile the progress and highlight the importance of high-quality implementation at the state and local levels.

NARRATIVE CASE STUDIES ON PAGES 14 AND 15

HIGH-QUALITY IMPLEMENTATION CONSIDERATIONS

Despite the marginal financial investment that is required to guarantee personal finance education in high school, implementing effective personal finance education requires intentional planning and a systematic approach. A number of research studies, such as those by Lusardi and Mitchell (2014), highlight the complexity of integrating financial education into existing curricula. While the number of training resources available to educators has increased over the years, there is a need for standardized, evidence-based frameworks to guide the development of personal finance courses. To address these challenges, recent studies underscore the importance of investing in teacher training, developing standardized curriculum guidelines, and advocating for the integration of personal finance education at scale.[14] Only through a comprehensive and focused approach can we pave the way for a generation of more financially literate and empowered learners.

14. OECD, 2017

CONCLUSION

The undeniable correlation between financial education and students' overall well-being underscores the need for a holistic approach that equips students for the intricate financial decisions that lie ahead. Educators, as the linchpin in this transformative process, should be empowered through efficacious professional development initiatives and high-quality resources. There is an opportunity for lawmakers to champion a paradigm shift by endorsing statewide mandates for standalone, semester-long personal finance courses. In addition to setting a rigorous approach to educational excellence, this also addresses the critical issue of equitable access to essential financial knowledge. By investing in access to quality personal finance education for all high school students, state and local leaders are sowing the seeds for a financially astute generation capable of navigating life's financial complexities with confidence and competence.

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Finally, we want to express appreciation for the education leaders and researchers who took the time to thoughtfully share their experiences and expertise with us to enable learning and improvement. Special thanks to Dr. Annamaria Lusardi, Dr. Carly Urban, and Dr. Billy Hensley for their thought partnership at the initiation of this effort.

EXAMPLES ARE NOT ENDORSEMENTS

APPENDIX: IMPLEMENTATION SPOTLIGHT

STATE-LEVEL CASE STUDY: MISSISSIPPI

Implementation timeline:
Mandate passed in 2020, implementation spanned 2021–2022

By the numbers:
321 schools and ~32,000 students benefitting each year

INTRODUCTION

Personal finance was gaining attention in K–12 public education in the early 2010s, and Mississippi was no exception. A task force comprising several partners—including the Mississippi Council for Economic Education (MCEE)—coalesced around the idea of a personal finance education requirement. Despite initial interest, there was pushback from the Department of Education due to concerns about the already full course load assigned to students.

MCEE took the decision in stride and forged ahead in creating a teacher training program for personal finance, which launched in partnership with the Federal Reserve Banks of St. Louis and Atlanta. Regardless of whether personal finance continued as a standalone elective or was taught through content in an economics curriculum, MCEE wanted teachers to feel supported with training. This strategic move anticipated the evolving landscape. A few years later, the state's focus shifted, and the Board of Education passed a mandate for a college and career readiness (CCR) course to be taken by all high school students, beginning with the Class of 2022. The course is one year long, with one semester of content focused on personal finance. MCEE was tapped to write the personal finance framework and was well poised to succeed, given the groundwork laid over previous years.

A FOCUS ON TEACHER TRAINING

Perhaps unique to Mississippi, it was the state's Board of Education, not the legislature, that enacted the mandate. As part of the requirement guidelines, the state allowed any licensed teacher, regardless of their subject expertise, to teach CCR. Recognizing the importance of consistency in education, MCEE took the initiative to create a master teacher course specific to the newly enacted mandate. The rationale was clear: every student deserved a high-quality education, and this training program would ensure just that. The 75-hour training program had the intended effect. Pre- and post-tests showed that not only did teachers' financial knowledge increase, but, even more critically, so did their confidence in their ability to teach the content with fidelity.

Financial support for the implementation came from various sources, including the Governor's Emergency Education Relief Fund (GEER), Next Gen Personal Finance, and regional banks. Since no new teachers were hired, these funds were utilized to upskill existing educators. Over 200 teachers underwent the master teacher training program, leaving with a certification and a valuable endorsement for college and career readiness attached to their license.

COORDINATED AND SWIFT IMPLEMENTATION

The success of Mississippi's mandate hinged on effective planning and proactive stakeholder alignment. Collaboration across the Department of Education, MCEE, regional banks, and curriculum providers paved the way for an efficient process. Early ramp-up by the Department of Education allowed for a gradual, voluntary phase-in of the course before the requirement deadline. Teacher training could therefore be completed in waves, which eased operational burdens. Ultimately, the robustness of the teacher training, made possible by cross-organization partnerships, was the driving lever of success.

Mississippi's path to personal finance education via a college and career readiness mandate underscores the importance of partnership, strategic planning, and flexibility. It is critical that stakeholders from different organizations be brought into conversations to build buy-in early, and a champion is essential to propel the initiative forward. MCEE's intentional and comprehensive teacher-training program demonstrates the necessity of investing time and resources in preparing educators. Above all, Mississippi leaders successfully navigated a process of change while keeping students' best educational interests at the forefront of the mission.

DISTRICT-LEVEL CASE STUDY: PRINCE GEORGE'S COUNTY

Implementation timeline:
Mandate passed in 2020, implementation spanned 2021–2024

By the numbers:
28 schools and ~10,000 students benefitting each year

INTRODUCTION

In a state where personal finance education is not mandated, a Maryland school district took the initiative to transform it from an elective to a high school graduation requirement. Susan Bistransin, a Prince George's County teacher, had long advocated for her personal finance course to be a requirement that would equip all students with essential financial skills. Her persistence and collaboration with other key stakeholders paid off; the resolution passed in 2020, and a three-year implementation began the following year. The Class of 2024 will be the district's first cohort of students graduating with the requirement, meaning this year, nearly 10,000 students across 28 high schools will head into the real world better equipped to navigate critical life decisions.

BOTTOM-UP ADVOCACY

The premise of the mandate initiative was rooted in a simple but compelling argument: financial literacy is a universal need. A school board member's commitment to the cause and a student's skillful grassroots campaign were critical to its successful passing; these two were brought together by Ms. Bistransin and drafted the resolution. Subsequently, the student, who was president of the county's student government association, spent four months building an advocacy movement. He enlisted current students from every single school in the district to testify that they wanted this course added to their schedule. Students, armed with research and real-life examples, spoke about the relevance of financial education in their lives. They came prepared with stories that they knew would align with the school board members' interests. Tying the impact back to imminent and tangible scenarios—such as managing a college scholarship—resonated strongly with decision-makers. District staff presented school board members with the operational facts around implementation, citing teacher compensation as the primary cost incurred. The biggest pushback centered around concerns of adding another graduation requirement, but ultimately, "student voice is an incredibly powerful force."

COST-EFFECTIVE IMPLEMENTATION

The mandate passed unanimously as a standalone, one-semester course for students to complete in 10th grade. Ms. Bistransin was hired as a district-level personal finance coordinator through an NGPF-funded grant, elevating the importance of allocating designated personnel at the administrative office to ensure successful implementation. Teachers enjoy autonomy in drawing on their choice of free curriculum from three reputable partners: NGPF, EVERFI, and the University of Arizona Take Charge Today, which have been crosswalked against Maryland standards. Embracing a dynamic, fully online curriculum is cost-effective and ensures the content stays up to date and aligned with state standards. Recognizing the importance of preparing teachers with the knowledge and skills required to teach the course with fidelity, curriculum providers offer free professional development sessions accompanied by district-provided stipends for participating teachers. The availability of quality, free curriculum and professional development resources kept implementation costs minimal, with core spending on the hiring of one or two teachers per school.

LONG-LASTING IMPACT

The heart of the district's personal finance class lies in project-based learning. Students engage in simulations of real-life financial scenarios, including budgeting and career planning, and learn about the fundamental role of credit in our society. The impact of the course is far-reaching. Teachers cite the savings-related lessons as the most powerful in creating immediate positive change for students. For working students, they learn in real time how to handle their taxes. There is also a ripple effect as students carry the information home to their families.

The Prince George's Class of 2024 will join the growing number of students across the country who will leave high school with tangible skills to help them navigate the complex financial world. The availability of free resources makes the initiative feasible, with the primary cost driven by additional teacher hiring, a worthwhile investment for the invaluable skills imparted. For local policymakers and educators, this district's journey serves as an exemplary blueprint for implementing a graduation requirement that is not yet required by the state.

APPENDIX: RESEARCH INDEX

The Research Index provides a compilation of relevant research in personal finance education. These studies document a variety of impacts with a range of causal or correlative effects. Inclusion of a paper in this index is not an endorsement of it; rather, the index serves as a resource for learning more about the breadth of research that has been done in the field.

Studies used in calculating the return on investment are denoted by bold lettering in the table below.

Impact category	Benefit category	Authors	Year	Publication title	Study population	Link to research
Credit	Credit limit and rate	Brown et al.	2016	Financial Education and the Debt Behavior of the Young	High school students	*https://academic.oup.com/rfs/article-abstract/29/9/2490/2583656*
		Urban et al.	**2020**	**The effects of high school personal financial education policies on financial behavior**	**High school students**	***https://doi.org/10.1016/j.econedurev.2018.03.006***
	Credit rewards	Urban et al.	2020	The effects of high school personal financial education policies on financial behavior	High school students	*https://doi.org/10.1016/j.econedurev.2018.03.006*
	Reduced borrowing and insurance costs	**Urban et al.**	**2020**	**The effects of high school personal financial education policies on financial behavior**	**High school students**	***https://doi.org/10.1016/j.econedurev.2018.03.006***
Debt avoidance	Auto loans	Brown et al.	2016	Financial Education and the Debt Behavior of the Young	High school students	*https://academic.oup.com/rfs/article-abstract/29/9/2490/2583656*
		Urban et al.	2020	The effects of high school personal financial education policies on financial behavior	High school students	*https://doi.org/10.1016/j.econedurev.2018.03.006*
	Credit/debt repayment and/or balance	Brown et al.	2016	Financial Education and the Debt Behavior of the Young	High school students	*https://academic.oup.com/rfs/article-abstract/29/9/2490/2583656*
		Urban et al.	2020	The effects of high school personal financial education policies on financial behavior	High school students	*https://doi.org/10.1016/j.econedurev.2018.03.006*
	Homeowner loans	Brown et al.	2016	Financial Education and the Debt Behavior of the Young	High school students	*https://academic.oup.com/rfs/article-abstract/29/9/2490/2583656*

Debt avoidance	Homeowner loans	Urban et al.	2020	The effects of high school personal financial education policies on financial behavior	High school students	https://doi.org/10.1016/j.econedurev.2018.03.006
	Student loans	Brown et al.	2016	Financial Education and the Debt Behavior of the Young	High school students	https://academic.oup.com/rfs/article-abstract/29/9/2490/2583656
		Mangrum	**2022**	**Personal finance education mandates and student loan repayment**	**High school students**	**https://doi.org/10.1016/j.jfineco.2022.06.006**
		Stoddard and Urban	2019	The Effects of State-Mandated Financial Education on College Financing Behaviors	High school students	https://onlinelibrary.wiley.com/doi/epdf/10.1111/jmcb.12624
Savings	Investment payoff/payout	Alshebami and Aldhyani	2022	The Interplay of Social Influence, Financial Literacy, and Saving Behaviour among Saudi Youth and the Moderating Effect of Self-Control	College students; international	https://www.mdpi.com/2071-1050/14/14/8780
		Gilenko and Chernova	2021	Saving behavior and financial literacy of Russian high school students: an application of a copula-based bivariate probit-regression approach	High school students; international	https://doi.org/10.1016/j.childyouth.2021.106122
	Retirement funds	Harvey and Urban	2023	Does financial education affect retirement savings?	High school students	https://doi.org/10.1016/j.jeoa.2023.100446
		Mitchell and Lusardi	**2015**	**Financial Literacy and Economic Outcomes: Evidence and Policy Implications**	**Adults; international**	**https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5445906/pdf/nihms857740.pdf**
Other	College choice	Stoddard and Urban	2019	The effects of state-mandated financial education on college financing behaviors	High school students	https://onlinelibrary.wiley.com/doi/epdf/10.1111/jmcb.12624
	Emergency savings	Babiarz and Robb	2014	Financial Literacy and Emergency Saving	Multiple age brackets	https://www.researchgate.net/publication/260526717_Financial_Literacy_and_Emergency_Saving
	Investment	Khan, Rabbani, and Kadoya	2020	Is Financial Literacy Associated with Investment in Financial Markets in the United States?	Adults	https://www.mdpi.com/2071-1050/12/18/7370

Other	Knowledge to action	Britt et al.	2015	Financial Stress and Financial Counseling: Helping College Students	College students	*https://files.eric.ed.gov/fulltext/EJ1088924.pdf*
		Kaiser et al.	2020	Financial education affects financial knowledge and downstream behaviors	Multiple age brackets	*https://doi.org/10.1016/j.jfineco.2022.06.006*
	Knowledge decay	Angrisani et al.	2023	The evolution of financial literacy over time and its predictive power for financial outcomes: evidence from longitudinal data	Adults	*https://doi.org/10.1017/S1474747222000154*
		Buten and Lambrecht	2022	The case for applied financial education	College students	*https://www.budgetchallenge.com/Portals/0/Documents/The_Case_for_Applied_Financial_Literacy_Education.pdf*
	Overall impact	Cole, Paulson and Shastry	2015	High School Curriculum and Financial Outcomes: The Impact of Mandated Personal Finance and Mathematics Courses	High school students	*https://jhr.uwpress.org/content/51/3/656*
		Fernandes, Lynch, and Netemeyer	2014	Financial Literacy, Financial Education, and Downstream Financial Behaviors	Multiple age brackets	*https://www.jstor.org/stable/42919641*
		Gibson, Sam and Cheng	2022	The Value of Financial Education during Multiple Life Stages	Multiple age brackets	*https://eric.ed.gov/?id=EJ1347081*
		Kaiser and Menkhoff	2020	Financial education in schools: a meta analysis of experimental studies	High school students	*https://www.sciencedirect.com/science/article/abs/pii/S0272775718306940*
		Lusardi and Messy	2023	The importance of financial literacy and its impact on wellbeing	Multiple age brackets	*https://doi.org/10.1017/flw.2023.8*
		Lusardi and Mitchell	**2014**	**The Economic Importance of Financial Literacy: Theory and Evidence**	**Multiple age brackets**	***https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5450829/pdf/nihms857731.pdf***

APPENDIX: ESTIMATED LEARNER BENEFIT BY STATE

Please note: Estimation of total lifetime benefit per student is a function of economic inputs that vary from state to state and have been gathered from widely available public sources. It should not be interpreted as an evaluative ranking of states. We estimate the return on investment, recognizing that economic conditions (e.g., cost of living) vary state by state.

State	Estimated total lifetime benefit per student	# of high school students (2021–2022 school year)	Statewide requirement status at time of publication (Jan. 2024)	First graduating class with mandate
Alabama	~$93K	~220K students	Yes	2013
Alaska	~$106K	~38K students	No	N/A
Arizona	~$111K	~365K students	No	N/A
Arkansas	~$92K	~146K students	No	N/A
California	~$127K	~2M students	No	N/A
Colorado	~$116K	~280K students	No	N/A
Connecticut	~$86K	~163K students	Yes	2027
Delaware	~$116K	~44K students	No	N/A
Florida	~$118K	~874K students	Yes	2027
Georgia	~$107K	~538K students	Yes	2028
Hawaii	~$122K	~52K students	No	N/A
Idaho	~$93K	~97K students	No	N/A
Illinois	~$93K	~603K students	No	N/A
Indiana	~$91K	~324K students	Yes	2028
Iowa	~$83K	~154K students	Yes	2023
Kansas	~$91K	~146K students	Yes	2027
Kentucky	~$102K	~200K students	No	N/A
Louisiana	~$98K	~200K students	Yes	2027
Maine	~$88K	~56K students	No	N/A
Maryland	~$129K	~271K students	No	N/A
Massachusetts	~$107K	~293K students	No	N/A
Michigan	~$99K	~461K students	Yes	2027
Minnesota	~$100K	~280K students	Yes	2028
Mississippi	~$97K	~131K students	Yes	2022
Missouri	~$97K	~271K students	Yes	2006
Montana	~$91K	~45K students	No	N/A
Nebraska	~$81K	~98K students	Yes	2024
Nevada	~$124K	~151K students	No	N/A
New Hampshire	~$97K	~55K students	Yes	2027
New Jersey	~$109K	~426K students	No	N/A
New Mexico	~$106K	~101K students	No	N/A
New York	~$107K	~801K students	No	N/A
North Carolina	~$105K	~471K students	Yes	2019

North Dakota	~$83K	~33K students	No	N/A
Ohio	~$86K	~536K students	Yes	2028
Oklahoma	~$90K	~200K students	No	N/A
Oregon	~$105K	~182K students	Yes	2027
Pennsylvania	~$88K	~549K students	Yes	2030
Rhode Island	~$92K	~45K students	Yes	2024
South Carolina	~$102K	~235K students	Yes	2028
South Dakota	~$86K	~42K students	No	N/A
Tennessee	~$97K	~298K students	Yes	2013
Texas	~$98K	~1.6M students	No	N/A
Utah	~$95K	~211K students	Yes	2008
Vermont	~$94K	~25K students	No	N/A
Virginia	~$113K	~396K students	Yes	2015
Washington	~$111K	~345K students	No	N/A
West Virginia	~$94K	~77K students	Yes	2028
Wisconsin	~$83K	~263K students	Yes	2028
Wyoming	~$95K	~29K students	No	N/A
Washington D.C.	~$128K	~20K students	No	N/A

Note: State-by-state differences are primarily driven by variances in home-ownership rates, costs of homes, insurance costs, APRs, and average credit scores within states.

ABOUT

Tyton Partners is the leading provider of investment banking and strategy consulting services to the global knowledge and information services sector. With offices in New York City and Boston, the firm has an experienced team of bankers and consultants who deliver a unique spectrum of services from mergers and acquisitions and capital markets access to strategy development that helps companies, organizations, and investors navigate the complexities of the education, media, and information markets. Tyton Partners leverages a deep foundation of transactional and advisory experience and an unparalleled level of global relationships to make its clients' aspirations a reality and to catalyze innovation in the sector. Learn more at ***tytonpartners.com***.