Personal Finance Guarantees do not Change High School Graduation Rates

Carly Urban*

Professor of Economics, Montana State University Research Fellow, Institute for Labor Economics (IZA)

July 11, 2022

Abstract

Personal finance instruction has expanded drastically in the last two decades. In 2000, not a single state required high school graduates to complete at least a semester of personal finance in exchange for their diploma. The graduating classes of 2022 in seven states (Alabama, Iowa Missouri, Mississippi, Tennessee, Utah, and Virginia) all completed one semester of personal finance, and the graduating class of 2023 in North Carolina will similarly complete a semester of personal finance. Research consistently shows that high school personal finance coursework improves credit and debt behaviors of young adults (Urban et al., 2020; Brown et al., 2016; Stoddard and Urban, 2020; Harvey, 2019; Mangrum, 2019). This study asks if requiring a semester of personal finance coursework for high school graduation—what is commonly referred to as a personal finance "guarantee"—reduces the likelihood to graduate from high school.

Using a method common in this literature that compares students just before and just after the requirement was in place across states that did and did not every have have a requirement, I tease out the causal effects of the personal finance guarantee on obtaining a high school diploma. The findings suggest that there is no change in high school graduation rates or the likelihood to be "on track" for high school graduation due to the addition of the requirement. Importantly, these effects are comparable for students among different backgrounds. There is also no effect statistically indistinguishable from zero for female students, Black students, and students from lower income households. I conclude that state policies requiring a personal finance course for high school graduation do not make it more difficult for students to graduate or put them behind for on-time high school graduation.

The full report can be found at: https://docs.iza.org/dp15402.pdf.

Data and Methods

The goal of this study is to determine the causal effect of personal finance guarantees on eventual high school graduation. To do this, I use a difference-in-difference design that compares students who are and are not subject to the new guarantee within the same state. I then make the same comparison across states that never had any personal finance requirements (the states in blue in Figure 1). I drop students in states with embedded requirements, where personal finance is not a standalone course but required within another subject (the states in white in Figure 1).² The states with policy changes during the sample period are in orange in Figure 1, and these are the states that went from not requiring to requiring at least a semester of personal finance education. This is a common method in the field, and variations of it have been used in all prior published work in this space (Urban et al., 2020; Brown et al., 2016; Stoddard and Urban, 2020; Harvey, 2019; Mangrum, 2019).

I use data from the Current Population Survey (CPS) March survey from 2000-2021, where the full sample includes 16- through 19-year-old respondents. The main dependent variable of interest will consider the individual's stage of educational attainment. First, I construct a variable that equals one if the individual has received their high school diploma and zero otherwise. This first variable is particularly relevant for the 19-year-old

^{*}This work was supported by a grant from Next Gen Personal Finance. At no point were the results or draft edited by anyone other than the author. Sambath Jayapregasham provided excellent research assistance.

¹Though Iowa allows a few other courses to meet the personal finance requirement, this still counts as a guarantee state, as nearly all schools use a personal finance class to meet the requirement. Three additional states have passed legislation in 2022: Florida, Georgia, and Michigan.

²In states with an embedded requirement, fewer than half of schools have at requirement in place (Urban, 2022). If I instead drop states with standalone personal finance course requirements and instead compare embedded mandate states to those without any financial education policies, the results remain consistent.

sample, though I also consider early graduation among 18-year-olds. I do not include GEDs, as this indicates less engagement with the school system and personal finance requirement.

Second, I develop a variable called "on-track," which captures whether or not the individual is progressing steadily towards high school graduation based on their age and expected grade. An 18-year-old is considered on-track if they are in the 12th grade or have received their diploma; a 17-year-old is considered on-track if they are in at least the 11th grade. This way, I can determine if the new graduation requirement inhibits progress towards one's diploma by over-burdening student time.

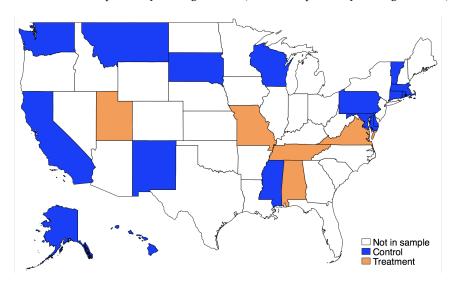
Third, I look at the demographic characteristics of the students to see if the effect of the guarantee varies by student background—harming potentially more vulnerable students but not necessarily all students on average. For this, I rely upon measures in the CPS. I extract student gender, student race, and total family income. I split race by two categories (white and Black) due to limitations in the sample size. I define a low income family to be those earning below the 25th percentile in the sample (\$27,301).

Sample sizes vary by age and are reported in Table 1.

Table 1: Sample sizes by age

Age	Sample Size
17	30,088
18	27,489
19	22,175

Figure 1: States with standalone personal finance guarantees, embedded personal finance guarantees, and no policy



Findings

Figure 2 reports the causal effect of personal finance guarantees on being on-time for high school graduation and eventual receipt of a high school diploma either early (March when one is 18) or at all (March when one is 19). I also report the margin of error (the 95% confidence interval) for each estimate. This error band allows one to determine if the overall effect is different from zero, as well as if it is different from the effect size for different groups of students.

The findings show that in not one of the models is the effect of personal finance guarantees different from zero. That means requiring at least one semester of personal finance coursework does not inhibit normal progress towards high school graduation, nor does it affect the receipt of a high school diploma. Importantly, personal finance guarantees do not harm students from disadvantaged backgrounds, including those from the lowest income families.

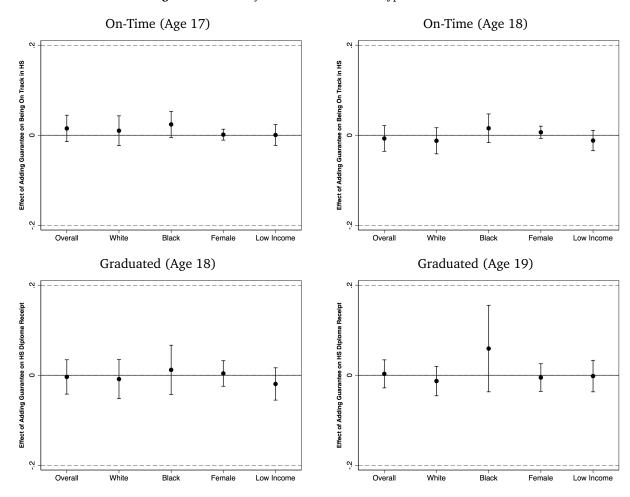


Figure 2: Fraction of Students in each course type 2021-2022 AY

Notes: Effect sizes reported along with 95 percent confidence intervals.

Conclusions

The findings presented show that requiring a semester of personal finance coursework in high school—when compared to states with no personal finance coursework in their standards—does not reduce graduation rates. In addition to not reducing graduation rates overall, these course requirements do not have different effects by race, gender, or family income.

Is it surprising that adding a graduation requirement does not reduce graduation rates? This finding is consistent with recent work showing that graduation rates did not suffer due to requirement to complete the Free Application for Federal Student Aid (FAFSA) prior to high school graduation in Louisiana (Deneault, 2022). Similarly, other work studying the expansion of math requirements shows no change in high school completion rates (Cortes, Goodman, and Nomi, 2015; Goodman, 2019). Thus, because many states are careful to either (1) remove content that has become obsolete from standards when the graduation requirement goes into effect or (2) not overburden students with total requirements, adding personal finance does not impose a large enough barrier to reduce graduation rates.

Bibliography

Brown, Meta et al. (2016). "Financial Education and the Debt Behavior of the Young". In: *Review of Financial Studies* 29.9.

Cortes, Kalena E, Joshua S Goodman, and Takako Nomi (2015). "Intensive Math Instruction and Educational Attainment: Long-Run Impacts of Double-Dose Algebra". In: *Journal of Human Resources* 50.1, pp. 108–158. Deneault, Christa (2022). "College Enrollment and Mandatory FAFSA Applications: Evidence from Louisiana". In: *American Economic Journal: Economic Policy* Forthcoming.

- Goodman, Joshua (2019). "The labor of division: Returns to compulsory high school math coursework". In: *Journal of Labor Economics* 37.4, pp. 1141–1182.
- Harvey, Melody (2019). "Impact of Financial Education Mandates on Younger Consumers? Use of Alternative Financial Services". In: *Journal of Consumer Affairs* 53 (3), pp. 731–769.
- Mangrum, Daniel (2019). "Personal Finance Education Mandates and Student Loan Repayment". In: *Working Paper*.
- Stoddard, Christiana and Carly Urban (2020). "The Effects of State Mandated Financial Education on College Financing Behaviors". In: *Journal of Money, Credit, and Banking* 52.4, pp. 747–776.
- Urban, Carly (2022). "Eight Takeaways on Access to Personal Finance in U.S. High Schools: 2021-2022 Academic Year". In: Working Paper. URL: \url{https://papers.carlyurban.com/HSReport_2022.pdf}.
- Urban, Carly et al. (2020). "The effects of high school personal financial education policies on financial behavior". In: *Economics of Education Review* 78.