Spillover Effects of Financial Education:
The Impact of School-Based Programs on Parents

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Abstract

This paper studies whether school-based financial education has spillover effects from children to parents. Leveraging data from a large-scale experiment with public high schools in Peru and credit bureau records on the parents of the youth targeted, this study measures the impact of providing personal finance lessons during secondary school on parental financial behavior. Financial education lessons in the school yield limited average spillover effects, but lead to sizable reverse intergenerational effects on parental financial behavior within disadvantaged households. Among parents from poorer households, the treatment reduces default probability by 26%, increases credit scores by 5%, and increases current debt levels by 40%.

Keywords: Financial Education, Youth, Spillovers, Financial Literacy, Credit records, Treatment Effects, Long-lasting impacts
JEL Codes: C93, D14, G53, O16

1   Introduction

Financial education has proven to be very effective to both increase financial knowledge and positively affect financial choices [Kaiser et al., 2022]. Virtually all governments that have developed a financial inclusion strategy have included financial education as a key component. However, the challenge of reaching vulnerable adult populations persists. On one hand, it is difficult for large-scale financial education programs to achieve high levels of take up [Bruhn et al., 2014]. Even those in greater need of the content may fail to attend in person or even online sessions due to competing uses of their time. On the other hand, national governments tend to face budget restrictions that limit the scope of their work. Even though financial education programs tend to be cost-effective [Kaiser et al., 2022], they still compete for resources with investments in other sectors such as education, health, or social protection.

This paper argues that investing in school-based financial education is a cost-effective way to reach adults. Leveraging data from a large-scale randomized experiment with public high schools in Peru [Frisancho, forthcoming], this study investigates whether financial education programs delivered in the classroom have spillover effects on parental financial behavior. Relying on credit bureau records on over 10,000 parents of the children in the experimental sample, this paper supports the presence of reverse intergenerational effects, particularly within poorer households.

The data used in this paper comes from an impact evaluation of a school-based financial program targeting grades nine through eleven. The experimental sample included almost 20,000 students in 300 schools from six regions of the country who were tested and surveyed twice during the 2016 academic year, before and after the delivery of the lessons. Parents were not directly targeted by the intervention and were thus not tested on their financial knowledge or surveyed on their financial habits. However, baseline survey records include the full name of the students' parent or guardian. These identifiers were provided to EQUIFAX, a private credit bureau, who used both first and last names to match parents with their credit records in October 2019. Credit bureau records provide information on credit access and delinquency for the parents of the children in the experimental sample more than three years after the intervention was launched.

Financial education lessons in school yield limited average spillover effects on parental financial behavior, but they lead to sizable reverse intergenerational effects within poorer households. On

average, parents of treated students significantly increase their current debt levels three years after the intervention took place, but this effect does not survive multiple hypothesis testing. The positive spillover effects are more salient and robust among parents from poorer households for whom the treatment reduces default probability by 26%, increases credit scores by 5%, and increases current debt levels by 40%.

Human capital accumulation models usually assume away that offspring's human capital may have spillover effects on parents or other adults in the home. While there is extensive literature on the intergenerational transmission of human capital from parents to children including Black et al. [2005]; Sacerdote [2005]; Oreopoulos and Page [2003]; Björklund and Salvanes [2011]; Carneiro et al. [2013], much less is known about a potential reverse link, where children's education or health status influence parental outcomes [Kuziemko, 2014; De Neve and Kawachic, 2017]. In the specific case of financial skills, there is only one other experimental paper that studies upward spillovers, also following a financial education program targeting high school students in Brazil [Bruhn et al., 2016]. The authors rely on parents' self-reported records collected through a survey a year after the treatment delivery and find meager impacts of school-based financial education on parental financial behavior.[1]

This study contributes to the scarce literature that studies the role of children in parental human capital accumulation. A couple of notable studies focus on quasi-experimental variation in education investments to measure the degree of upward intergenerational transmission of human capital. Lundborg and Majlesi [2018] relies on the variation introduced by a compulsory schooling reform in Sweden to study the causal effect of children's schooling on their parents' longevity. The authors do not find an average impact of children's education on their parents' longevity, but they identify heterogeneous effects by gender: female schooling increases the longevity of fathers, particularly in poorer households. In turn, Kuziemko [2014] shows that children's acquisition of human capital can also discourage adults living with them to make a similar investment. Exploiting variation in compliance with a school reform that replaced bilingual education with English immersion, the authors find that English instruction increased children's English proficiency, but reduced that of the adults living with them. This result suggests that adults lean on their children's English skills

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[1]It should be noted that the experiment in Brazil tried to directly target parents through an adult financial education workshop, but attendance levels were very low.

instead of trying to learn the language themselves.

Another strand of this literature focuses on the role of children in household choices. Dauphin et al. [2011] tests the predictions of the collective model using expenditures data in the UK and shows that adolescents living with their parents influence household consumption choices. This effect is stronger among children ages 16 to 21 and daughters, irrespective of their age. Belo et al. [2016] rely on instrumental variables to test if the provision of broadband to schools fosters household internet adoption in Portugal. The authors find that broadband use in schools led to a year-over-year increase of 3.5 percentage points in internet adoption in households with children.

This paper provides novel and experimental evidence on the intergenerational transmission of financial skills from high schoolers to their parents. This paper builds on Bruhn et al. [2016], the only other study providing experimental evidence on this field. First, this study tracks parents over a longer period of time, with over three years between the treatment delivery and the measurement of financial behavior. This longer term view gives more time to allow the newly acquired knowledge to be shared with the parents and have youth participate more actively in the household's financial choices. Second, this study focuses on credit bureau administrative records that overcome misreporting biases present in self-reported survey data. Third, the focus on credit behavior and repayment outcomes complement the results in Bruhn et al. [2016], who look at the probability of preparing a budget, the probability of saving, and the percent of income saved.

The remainder of this article is organized into four Sections. Section 2 presents the experimental design and describes the data sources, Section 3 presents the estimation strategy and the main results, and Section 4 concludes.

2 Experimental Design

2.1 The Intervention

Following the launch of Peru's National Financial Inclusion Strategy in 2015, the Ministry of Education (MINEDU), the Superintendency of Banks and Insurance (SBS), and the Center of Studies (CEFI) of the Peruvian Association of Banks joined forces to develop and implement a financial education program targeting high school students in grades 9 through 11. The program was implemented in full-day public high schools in urban areas in six regions of the country: Lima

and Callao, Arequipa, Piura, Junin, Puno, and San Martin.

The treatment consisted of the delivery of financial education lessons during the regular school day. Teachers of the course "History, Geography, and Economics" (HGE) were asked to deliver the lessons during their regular lecture time. The suggested number of hours required to cover all the lessons in the workbooks varied by grade: 16 hours in 9th grade, 24 hours in 10th grade, and 32 hours in 11th grade.

The implementation partners developed materials and activities to support teachers in the delivery of the lessons. First, they developed workbooks following a grade-specific curriculum and using a mix of case analysis, exercises, group activities, and homework. The 9th grade curriculum focused on the differences between needs and resources as well as on budgeting. Tenth graders focused on financial products and services and forward-looking choices, while 11th graders covered topics on becoming a responsible financial consumer and access to/usage of personal information in financial markets. Second, teachers were provided with a hard copy of a teaching guide covering all grades. Finally, teachers were encouraged to attend a 20-hour training offered over the course of five days. Training participants received transport subsidies, a full meal during each session of the training, and a completion certificate that counted towards the evaluation of their performance.

All intervention activities were conducted during 2016. Teachers' training workshops took place between mid-February and March. The delivery of the lessons occurred during the second semester of the 2016 academic year, August through December. Students were tested on their financial knowledge and surveyed twice, in May, November, and December. Credit bureau data on parents (or guardians) was requested from EQUIFAX, a private credit bureau in Peru, in October 2019.

After certain logistic restrictions were imposed by the implementation partners, there were 308 eligible public schools for the pilot. This sample was stratified by region and schools were paired by their similarity within each of the six strata.[2] The final experimental sample consisted of 150 matched pairs. Within each pair, schools were randomly assigned to either the control or the treatment group. Balancing tests of the randomization for students and parents are presented in Table A.1. In general, very few significant differences are detected across treatment and control groups.

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[2]See Frisancho [forthcoming] for more details on the pairing procedure.

2.2 Data and Measurement

Survey data were collected for students in the 300 schools in the experimental sample. Within each school, one classroom from each targeted grade was chosen at random. The main study sample is comprised of data from almost 20,000 students in 900 classrooms. The baseline survey collected basic information on socioeconomic characteristics of the household and parental supervision, in addition to a number of scales trying to measure soft skills, preferences, school engagement, and financial behavior. The information on household assets that was collected in the students' baseline survey was used to construct an asset index as a proxy of socioeconomic status (SES). Low (high) SES is defined as having an asset index below (above) the median in the sample of parents.

The baseline instrument also collected the first and last names of the student's parent or legal guardian.[3] While 17,784 students provided at least one identifier, 17,460 provided names as well as parental and maternal last names.[4] These identifiers were provided to EQUIFAX, who used them to match parents with their credit records in October 2019.

EQUIFAX collects credit information from all banks and most microfinance institutions operating in the country. Their records cover all individuals in Peru who have reached legal age, irrespective of previous access to credit from financial institutions or other creditors. EQUIFAX's records capture an individual's credit standing at the time of the search. This snapshot provides information on loan balances by repayment status of the loan (i.e., current and past due debt), source of the funds (i.e., type of lender), and type of loan (i.e., productive versus non-productive loans). Additionally, the data include a credit score prepared by the SBS in relation to financial obligations with banks and other formal lenders. The credit bureau's data also capture negative records corresponding to delinquency on non-credit related bills (e.g. cellphone, water, electricity, gas, etc.), taxes, or credit card balances. Negative signals from non-credit bills stay active in the bureau's database until either the pending balance has been paid off or five years have passed since the service provider has reported a late or missed payment. EQUIFAX records also contain basic demographic information such as sex, date of birth, civil status, and education level.

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[3]The final portion of the survey asked for basic information on the father or legal guardian (first names, last names, relationship with the student, phone number, and email address). The survey provided space to fill out the information of only one parent.

[4]The use of both paternal and maternal last names as well as first and second names reduces the number of duplicates. In Peru, it is thus very common to use all of these names and it is required when filling out official forms and legal paperwork.

The match rate between the baseline survey and EQUIFAX records is 76%, equivalent to 13300 parents. This is relatively successful if one keeps in mind that the matching algorithm was only based on text variables, first names, and last names. The main analysis sample in this paper follows Frisancho [forthcoming], who focuses on all students with records in the follow-up survey and exam. This translates into 11,090 parents/guardians from students coming from 296 high schools.

Relying on EQUIFAX's records, seven main outcomes are constructed. Three outcomes measure the impacts on the extensive margin of credit and repayment outcomes: the probability of having an outstanding loan; the probability of having a loan in arrears; and the probability of having arrears in a non-credit bill or a credit card statement. To capture the effects of the treatment on the intensive margin, three additional outcomes are measured: current and past due debt, conditional on having an outstanding loan; and past due debt in non-credit bills, conditional on being in arrears on a non-credit bill or a credit card statement. All debt variables are expressed using the inverse hyperbolic sine transformation. This is more convenient than using logarithmic transformation as the inverse hyperbolic sine is defined at zero. Finally, the impact of the treatment on credit scores is also measured. The effect on credit scores is measured without conditioning on having an outstanding loan since parents with inactive past loans may still have a score.

3   Results

3.1   Estimation Strategy

The impact of the financial education program on parents' credit behavior is measured as the difference across treatment arms, captured from an intention-to-treat (ITT), OLS regression:

$$y_{ijp} = \alpha + \beta T_{jp} + \delta X_{ijp} + \sum_p \theta_p d_{jp} + \epsilon_{ijp}$$

where y_{ijp} denotes credit behavior outcomes of parent i from a student in school j and pair p. The impact of the treatment is measured by β, the coefficient of the indicator of treatment status, T_{jp}, which is equal to one whenever the school was randomized into the treatment group and zero otherwise. All regressions include additional individual and background characteristics, X_{ijp}, as controls, and a set of dummies, d_{jp}, identifying the pair of schools matched. The Romano-Wolf

correction is implemented for each family of outcomes to deal with potential issues of simultaneous inference [Romano and Wolf, 2005].

3.2 Treatment Impacts

Data from the students' endline survey shows that 76% of the students talk to their parents about the household's finances and/or budget while 72% of them help their parents prepare a household budget (see last line in Table 1). The shares of students who participate in household finances are relatively higher among less advantaged households: in low SES households, 80% of the students talk to their parents about finances and 78% of them help with budgeting. In turn, these shares amount to 73% and 67%, respectively, among higher SES households.

Table 1: Treatment Impacts on Student Participation in Household Finances

	Talks to Parents				Helps Parents		
	All	Low SES	High SES		All	Low SES	High SES
	(1)	(2)	(3)		(4)	(5)	(6)
Treatment	0.012*	0.013	0.007		0.001	0.005	-0.005
	(0.007)	(0.009)	(0.009)		(0.007)	(0.009)	(0.011)
Number of Observations	13199	6255	6736		13138	6235	6691
Number of schools	296	294	295		296	294	295
Mean in Control	0.756	0.796	0.728		0.719	0.775	0.672

Note: Dependent variables are defined as indicator variables that are equal to one when the students self-reports that she talks to parents about household finances or helps them to prepare a household budget in the endline survey . Low (high) SES is defined as having an asset index below (above) the median in the sample of parents. Stars denote significance levels (* 10%; ** 5%; *** 1%) based on unadjusted p-values. Daggers denote significance levels based on the Romano-Wolf adjusted p-values († 10%, †† 5%, † † † 1%) resulting from 1,000 bootstrap replications. OLS estimates, standard errors clustered at the school level are reported in parentheses. All specifications include a set of dummy variables that correspond to the matched-pairs of schools and the following set of controls: grade, sex, currently working, received financial education lessons in the past, ratio of household members to bedrooms, asset index, high level of parental supervision, lives with both parents, and has dinner with parents each day of the week. The value of the dependent variable at baseline is also included as a control.

The treatment has a very limited impact on students' participation in household finances. There is a modest average effect on the probability of talking to parents about household finances equivalent to 1.2 percentage points (or 1.6%) and a null effect on the likelihood of helping parents with the construction of household budgets. This may be explained in part by the high baseline levels of the outcome variables.

These high baseline levels of interaction between students and parents suggest the potential of students to be bearers of financial knowledge. Even if the treatment does not increase their participation in household finances, the existing interactions may become richer and more useful

for the parents. If students increase their knowledge about personal finances due to the treatment, they may be able to transfer at least part of these gains to their parents. Indeed, Frisancho [forthcoming] shows that students experience significant financial literacy gains: relative to the control group, scores in the financial literacy exit exam increased by 0.16 SD in the treatment group. This additional financial knowledge may generate spillovers on parental financial behavior due to increased quality of the information exchanged with parents.

Table 2 shows that the treatment had limited average spillover effects. The financial education program did not lead to significant changes in parents' credit or repayment behavior on the extensive margin (see columns 1-3). Nevertheless, the treatment yields a significant increase in the size of current outstanding debt among those with outstanding loans (see column 5). Even though the effects on credit scores (column 4) and arrears (column 6) are quite noisy, the direction and magnitude of the coefficients support the existence of positive intergenerational effects. However, none of these results survive multiple hypothesis testing.

Table 2: Treatment Impacts on Parents' Credit and Delinquency Outcomes

	Pr(Debt)	Pr(Arrears)		Credit Score	Current Debt	Debt Arrears	
		Loans	Other			Loans	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treatment	-0.007	-0.005	-0.011	1.362	0.157**	-0.123	0.020
	(0.009)	(0.004)	(0.009)	(1.248)	(0.079)	(0.085)	(0.056)
Number of Observations	11090	11090	11090	5189	3880	3880	3876
Number of schools	296	296	296	295	295	295	295
Mean in Control	0.356	0.055	0.352	62.602	3.034	0.447	2.270

Note: Credit and default outcomes measured in October 2019. Debt amounts are measured in US dollars and expressed using the inverse hyperbolic sine transformation. Stars denote significance levels (* 10%; ** 5%; *** 1%) based on unadjusted p-values. Daggers denote significance levels based on the Romano-Wolf adjusted p-values († 10%, †† 5%, ††† 1%) resulting from 1,000 bootstrap replications. Correction for multiple testing implemented for two families of outcomes: (i) probability of having debt, probability of having loan arrears, probability of having arrears from other bills, and credit score; and (ii) current debt, debt arrears in loans, and debt arrears from non-credit obligations. OLS estimates, standard errors clustered at the school level are reported in parentheses. All specifications include a set of dummy variables that correspond to the matched-pairs of schools and the following set of controls: student's grade, household asset index, and sex, age, and education level of the parent.

Since Table 1 already showed us that students from households with a lower asset index are more likely to talk to their parents about household finances,[5] it is natural to test if there are differential spillover effects by SES. Table 3 repeats the main analysis, but for two separate samples

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[5]The difference in the share of students who talk to their parents about household finances at endline across SES is significant at 1%.

of parents from households with low and high SES, as measured by an asset index.

Table 3: Treatment Impacts on Parents' Credit and Delinquency Outcomes, by SES

	Pr(Debt)	Pr(Arrears)		Credit Score	Current Debt	Debt Arrears	
		Loans	Other			Loans	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A. Low SES							
Treatment	-0.012	-0.013**†	-0.019	3.357*	0.346**†	-0.210	-0.149
	(0.012)	(0.005)	(0.012)	(1.983)	(0.142)	(0.134)	(0.095)
Number of Observations	5443	5443	5443	2242	1704	1704	1498
Number of schools	292	292	292	273	258	258	277
Mean in Control	0.321	0.050	0.280	63.768	7.969	1.195	6.149
Panel B. High SES							
Treatment	-0.006	-0.002	-0.013	0.474	0.097	-0.122	0.011
	(0.012)	(0.006)	(0.013)	(1.570)	(0.116)	(0.124)	(0.070)
Number of Observations	5443	5443	5443	2859	2108	2108	2316
Number of schools	293	293	293	276	272	272	265
Mean in Control	0.393	0.060	0.424	61.759	8.579	1.208	6.641

Note: Credit and default outcomes measured in October 2019. Debt amounts are measured in US dollars and expressed using the inverse hyperbolic sine transformation. Low (high) SES is defined as having an asset index below (above) the median in the sample of parents. Stars denote significance levels (* 10%; ** 5%; *** 1%) based on unadjusted p-values. Daggers denote significance levels based on the Romano-Wolf adjusted p-values († 10%, †† 5%, ††† 1%) resulting from 1,000 bootstrap replications. Correction for multiple testing implemented for two families of outcomes: (i) probability of having debt, probability of having loan arrears, probability of having arrears from other bills, and credit score; and (ii) current debt, debt arrears in loans, and debt arrears from non-credit obligations. OLS estimates, standard errors clustered at the school level are reported in parentheses. All specifications include a set of dummy variables that correspond to the matched-pairs of schools and the following set of controls: student's grade, household asset index, and sex, age, and education level of the parent.

Contrasting the treatment impacts reported in Panel A and Panel B shows that average spillover effects were hiding important heterogeneity. The treatment led to a 26% reduction in the probability of default on loans among low SES households. Relative to their control counterparts, parents in the treatment group from low SES households also experienced an increase in their credit scores of 5%. Finally, this group also exhibits significant treatment impacts on the intensive margin: current debt levels significantly increased by 40%. There is also a considerable drop in the size of the portfolio in arrears, but this effect is too noisy to become significant. In turn, the spillover effects of financial education on parental credit behavior are almost muted in high SES households. While the direction of the effects is mostly aligned with those recorded among parents from low SES households, all coefficients are smaller and are not statistically significant.[6]

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[6]The Wald tests for the equality coefficients on the treatment dummy across SES are rejected for all variables, but this can be attributed to power issues, particularly in the case of debt outcomes.

The results presented here complement, and are aligned with, the evidence presented by Bruhn et al. [2016]. The authors find that, relative to their counterparts in the control group, parents of treated students were more likely to correctly answer financial knowledge questions related to interest rates and inflation. Moreover, they identify small impacts on financial behavior almost a year after the treatment delivery, both on the probability of saving and the probability of keeping a household monthly budget. Unfortunately, this study did not have further follow up surveys or administrative records that allow the authors to measure spillover effects after a longer period of time between the treatment delivery and the measurement of financial behavior. They also fail to measure financial behavior in relation to credit and repayment outcomes.

All in all, these results suggest that school-based financial education can have a multiplier effect on the adults surrounding the direct beneficiaries. The sizeable impacts on parents' credit behavior three years after the intervention took place confirm that there is an intergenerational transmission of knowledge within the household. Natural interaction of the parents with their teenage children seems to ease access to financial knowledge for parents of students in the treatment group. While this study was not able to measure the impact on the knowledge of parents, the treatment effects on parental financial literacy in Bruhn et al. [2016] suggest that adults are not leaning on their children to make choices, but that instead they are learning with them and applying this knowledge when making household financial choices.

The heterogeneous results by SES highlight the opportunity that school-based financial education programs provide when trying to reach vulnerable segments of the population. On one hand, poorer individuals usually have lower levels of financial literacy [Lusardi, 2015]. On the other hand, adults in poorer households are more likely to hold informal jobs and depend on variable revenue sources that imply high opportunity costs when directly targeting them as beneficiaries of financial education programs. Targeting their children provides a cost-effective mechanism to reach those facing relatively greater knowledge gaps.

Notice that the spillovers identified may be context specific, since a high share of high school students report that they either discuss household finances with their parents or directly contribute to the preparation of a family budget. Nevertheless, this is still a novel and valuable result since these spillover effects manifest in the absence of any direct guidance or instruction for students to share the content of the financial lessons with the adults in the household. This suggests that

school-based financial education programs that explicitly involve parents (either through homework or by providing them with useful material relying on the children as messengers) may be effective in providing financial knowledge and information to adults.

4   Conclusion

Since the 2008 financial crisis, the financial literacy agenda has become much more salient and has received increasing support from multilateral organizations, governments, and the private sector. While considerable progress has been made in providing financial education to children and youth in educational institutions, the challenge of reaching vulnerable adult populations persists. First, funding shortages limit both public and private large-scale initiatives. Second, capturing the interest of adults is quite complicated, as they may perceive low net returns due to high opportunity costs.

This paper puts forward an alternative way to reach adults, particularly the most vulnerable who are at a higher risk of making bad financial choices. Leveraging data from a large-scale experiment with public high schools in Peru and credit bureau records on over 10,000 parents of the targeted youth, this paper supports the presence of reverse intergenerational effects within poorer households. On average, parents from treated students significantly increase their current debt levels three years after the intervention took place, but this effect does not survive multiple hypothesis testing. The positive spillover effects are more salient and robust among parents from poorer households: among them, the treatment reduces default probability by 26%, increases credit scores by 5%, and increases current debt levels by 40%. These results highlight the opportunity that school-based financial education programs provide when trying to reach adults in vulnerable segments of the population in a cost-effective way.

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A Appendix

Table A.1: Balance check in the Endline Sample: Student characteristics

Variable	Control mean	T-C	N
Panel A. Students			
Male	0.499	0.009	19462
	(0.500)	(0.013)	
Age	15.656	0.015	18666
	[1.222]	[0.022]	
Works	0.402	−0.004	16778
	(0.490)	(0.011)	
Ratio of household members to bedrooms	1.849	−0.000	16567
	(0.996)	(0.018)	
Lives with both parents	0.598	0.007	16756
	(0.490)	(0.010)	
Asset index	−0.025	−0.033	16851
	(0.994)	(0.030)	
High level of parental supervision	0.760	0.013	15983
	(0.427)	(0.007)*	
Has dinner with parents 7 days a week	0.328	−0.004	16896
	(0.469)	(0.008)	
Truancy in the past 2 weeks	0.140	0.001	16431
	(0.347)	(0.006)	
Student engagement (scale) - Baseline	0.026	0.007	15224
	(0.881)	(0.015)	
No previous exposure to financial education	0.373	−0.018	15867
	(0.484)	(0.010)*	
Financial literacy raw score (0–15)	8.070	0.091	17038
	(2.919)	(0.082)	
GPA 2015 (0–20)	13.741	−0.043	17706
	(1.471)	(0.041)	
Financial autonomy (0–100)	40.873	0.483	16151
	(12.963)	(0.207)**	
Has a savings account	0.136	0.002	15883
	(0.343)	(0.005)	
Prepares a personal budget	0.564	−0.014	15202
	(0.496)	(0.007)*	
Talks to parents/tutors about family finance	0.711	−0.001	15425
	(0.453)	(0.006)	
Helps family with budgeting	0.683	0.006	15389
	(0.465)	(0.007)	
Panel B. Parents			
Male	0.620	−0.000	11090
	[0.485]	[0.012]	
Age	50.493	0.002	11090
	[10.909]	[0.164]	
Complete Secondary or higher	0.550	−0.000	10667
	[0.498]	[0.012]	

NOTE: Data from the baseline survey and exam for the sample of students present at the exit survey and exam. Test for joint covariates orthogonality $p-value = 0.5269$. Significance levels (* 10%; ** 5%; *** 1%) captured through OLS estimation accounting for clustered (school) standard errors. Standard errors (deviations) of coefficients (control means) are in parentheses.