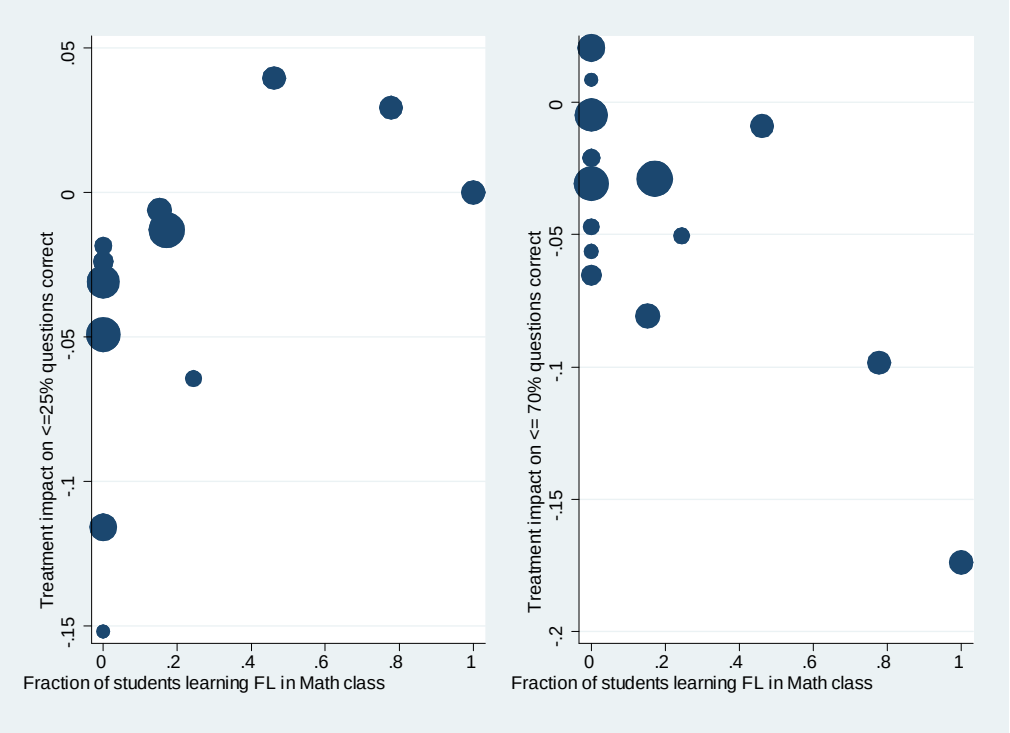
Online Appendix of "The Impact of High School Financial Education on Financial Knowledge and Choices: Evidence from a Randomized Trial in Spain"

Figure W1: The distribution of financial knowledge and the course in which the material was taught



Notes: The left (right) panel shows the relationship between strata-specific impacts of the course on the fraction of students answering correctly less than 25% (70%) of the questions correctly in the March test and the fraction of students in the strata receiving the course as part of Math. The strata-specific impacts are obtained by strata-specific regressions of the dependent variable on a dummy of treated and the student score at baseline. The information on the subject where the course was taken was elicited from surveys to teachers.

Table W1: Number of students and sample selection criteria

Panel A: 9th grade participants in the December 2014 test								
1. Total number of students registered in the school in December 2014						3,335		
2. Students that fully completed the test						2,932		
3. Students that left the test early						10		
4. Students that could not complete the test due to technical problems						108		
5. Students that did not attend the test						285		
6. Sample used in balancing tests in Table 3 (2+3+4)						3,050		
Panel B: 9th grade participants in the December 2014 and March 2015 tests								
		March test						
		1. Left school	**2. Completed**	3. Left early	4. Incomplete	5. Did not attend	6. Refused	Total
December test	1. Not in school in December	0	23	0	0	0	0	23
	2. Fully completed the test	14	**2,696**	1	37	182	2	2,932
	3. Left the test early	0	8	0	0	2	0	10
	4. Could not complete the test	1	94	0	1	12	0	108
	5. Did not attend the test	3	204	0	6	70	2	285
Total		18	3,025	1	44	266	4	3,358
Balanced sample in March 2015 (row 2 - information available in the pre-test; column 2 - information available in the post-test): 2,696.								

Table W2: The effect of the financial literacy program on normalized tests scores in the subsample without non-complaint schools

	Unbalanced panel		Balanced panel	
	No strata	Strata dummies	Strata dummies	Strata dummies†
	(1)	(2)	(3)	(4)
Panel A: Treated students vs controls (9th graders). March				
Treated	0.143**	0.166**	0.176**	0.190***
	(0.069)	(0.070)	(0.067)	(0.063)
R^2	0.30	0.32	0.36	0.36
Number of students (schools)	2942 (75)	2942 (75)	2621 (75)	2621 (75)
Panel B: Non-treated students in treated schools vs those in control schools (10th graders). March				
"Treated"	-0.081	-0.031	-0.074	-0.086
	(0.092)	(0.098)	(0.094)	(0.088)
R^2	0.28	0.30	0.34	0.34
Number of students (schools)	1514 (75)	1514 (75)	1317 (75)	1317 (75)
Panel C: Treated students vs controls (9th graders). June				
Treated	-0.089	-0.064	-0.059	-0.051
	(0.085)	(0.075)	(0.074)	(0.068)
R^2	0.27	0.30	0.34	0.34
Number of students (schools)	2607 (75)	2607 (75)	2330 (75)	2330 (75)

Notes: the dependent variable is the normalized score in the March 2015 (or June 2015) test. All models include as covariate the score in the December pre-test. Models (2) and (3) include strata dummies. †*Model (4) merges two strata where no school assigned to treatment accepted to participate. Estimation method: OLS. The standard errors (in parentheses) are corrected for heteroscedasticity and arbitrary correlation at the school level. * significant at 10%, ** significant at 5%, *** significant at 1%.*

Table W3: DID estimates of the effect of the financial literacy program on normalized tests scores

	Unbalanced panel		Balanced panel	
	No strata	Strata dummies	Strata dummies	Strata dummies†
	(1)	(2)	(3)	(4)
Panel A: Treated students vs controls (9th graders). March 2015				
Treated×After	0.158**	0.158**	0.157***	0.157***
	(0.063)	(0.062)	(0.059)	(0.059)
Fraction correct in pre-test	0.55	0.55	0.47	0.47
R^2	0.002	0.049	0.002	0.050
Number of students (schools)	5,907 (77)		5,468 (77)	
Panel B: Non-treated students in treated schools vs those in control schools (10th graders). March 2015				
"Treated"×After	-0.051	-0.056	-0.108	-0.108
	(0.084)	(0.084)	(0.077)	(0.078)
R^2	0.002	0.042	0.004	0.043
Number of students (schools)	2,966 (77)		2,732 (77)	

*Notes: the sample pools students in the December 2014 and March 2015 tests. Estimation method: Differences-in-Differences. The dependent variable is the normalized score in each test (the March score in the March sample and the pre-test in the December sample). Models 2 and 3 include strata dummies. †Model 4 merges two strata where no school assigned to treatment accepted to participate. Covariates also include the variable After (an indicator variable taking value 1 for the March sample) and the variable Treated (a dummy taking value 1 for students in treated schools). Standard errors (in parentheses) are clustered at the school level. * significant at 10%, ** significant at 5%, *** significant at 1%.*

Table W4: DID estimates of the effect of the financial literacy program on several outcomes

	Hypothetical saving choices: Earlier choice† (pooled)		Talks to parents about economics: Overall‡		Money for tasks at home/ work in family business	
	DID	+ individual fixed effects	DID	+ individual fixed effects	DID	+ individual fixed effects
	(1)	(2)	(3)	(4)	(5)	(6)
Treated×After	-0.031*	-0.032*	0.104**	0.111*	0.041**	0.041
	(0.017)	(0.019)	(0.043)	(0.061)	(0.020)	(0.029)
R^2	0.201	0.426	0.050	0.748	0.003	0.714
Number of choices†/students (schools)	16,157 (77)		5,468 (77)		5,468 (77)	

*Notes: the sample pools students in the December 2014 and March 2015 tests. Estimation method: Differences-in-Differences (odd-numbered columns) and Differences-in-Differences with a student specific fixed effect (even-numbered columns). The dependent variable is the outcome in each survey (the March answer in the March sample and the December answer in the December sample). †Earlier choice pools the four hypothetical choices and controls for three dummies that indicate the particular temporal choice. The variable treated measures to what extent those who received the course between January and March tend to choose to receive the hypothetical payment earlier, regardless of the time horizon and the interest rate. The number of cases is 16,157 stacked student-choice-surveys (=2,734 students*2 surveys*3 choices minus 19 cases of non response). The choice between 100€ today vs. 120 in six weeks was not included in the December survey and hence is not included for the DID specification. ‡Overall is a categorical variable, from 1 never to 5 every day. Covariates include strata dummies, the variable After (an indicator variable taking value 1 for the March sample) and the variable Treated (a dummy taking value 1 for students in treated schools). Standard errors (in parentheses) are clustered at the school level. * significant at 10%, ** significant at 5%, *** significant at 1%.*

Table W5: Balancing tests at baseline for the Madrid sample

	Control (301 10th graders)	Treatment (695 9th graders)	Difference
Variables used in the stratification:			
Public school	0.61	0.60	-0.019
Concerted/private	0.39	0.40	0.019
Demographic characteristics:			
Female	0.57	0.45	-0.115***
Foreign born	0.17	0.15	-0.027
Older than normal progression	0.28	0.23	-0.047
Expected age finish school	21.60	21.45	-0.155
Expect to finish at 18 or earlier	0.15	0.13	-0.015
Hypothetical preferences:			
Prefers 100 euro today to 120 in three weeks	0.27	0.25	-0.014
Prefers 100 euro today to 150 in three weeks	0.09	0.12	0.033
Prefers 100 euro today to 180 in three weeks	0.04	0.06	0.018
Sources of income:			
Family business/allowance home duties	0.30	0.32	0.028
Unconditional allowances	0.78	0.79	0.005
Occasional jobs	0.28	0.22	-0.060*
Talk to parents about economics:			
More than once a week	0.21	0.18	-0.027
Once a week	0.21	0.24	0.025
Less than once a week	0.35	0.33	-0.025
Never	0.23	0.26	0.027
Labor status of father:			
Self-employed	0.26	0.24	-0.020
Employee	0.61	0.63	0.023
Unemployed	0.10	0.08	-0.025
Does not work/other	0.04	0.06	0.021
Labor status of mother:			
Self-employed	0.16	0.15	-0.015
Employee	0.51	0.55	0.046
Unemployed	0.08	0.10	0.020
Does not work/other	0.25	0.20	-0.051

Source: information about demographics comes from the December survey to students. Information about grade repetition (date of birth) comes from school records.

*Notes: sample of 996 students from 20 schools in Madrid doing the incentivized saving task in June 2015 and present in the test of December 2014. Control group includes 10th graders. * significant at 10%, ** significant at 5%, *** significant at 1%.*