

ONLINE APPENDIX

HOW DOES PEER PRESSURE AFFECT EDUCATIONAL INVESTMENTS?

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FIGURE A.I SECOND FORM

Student Questionnaire (2)

First name: _____

Last name: _____

Gender (please circle one): Female / Male

Ethnicity (please circle one):

 a. White b. Black c. Hispanic d. Asian e. Other

Do you plan to attend college after high school? (Please choose one option)

 a. Yes, four-year college

 b. Yes, two-year college/community college

 c. No

 d. Don't know

In general, how are your grades? (Please choose one option)

 a. Mostly A's

 b. Mostly A's and B's

 c. Mostly B's and C's

 d. Mostly C's and D's

 e. Mostly D's and F's

On a scale 1-5, how important do think it is to be popular in your school?
(1: not important ... 5: very important)

1 2 3 4 5

On a scale 1-5, how popular would you say you are in your school?
(1: not popular ... 5: very popular)

1 2 3 4 5

Hypothetically, which would you prefer? (Please circle one)

 a. 50 dollars now

 b. 75 dollars in six months

On a scale 1-5, how often do you think about your life when you are 40 years old?
(1: never ... 5: very often)

1 2 3 4 5

Do you ever skip/ditch school with your friends?

 a. Sometimes

 b. Never

Do most of your closest friends plan to graduate and go to a good college?

 a. Yes

 b. No

Which of the following defines you the best?

 a. I do what my friends do

 b. I do things my own way

(FIGURE CONTINUES ON NEXT PAGE)

FIGURE A.I SECOND FORM (CONTINUED) (ONLY USED IN THE FOURTH SCHOOL)

How much do you think is the regular price of the SAT prep course that was just offered to you free of charge? _____ dollars.

When you made your choice on whether to sign up for the SAT prep course, did you expect you might have another chance to sign up in the future? (Please pick one option)

- a. Yes
- b. No

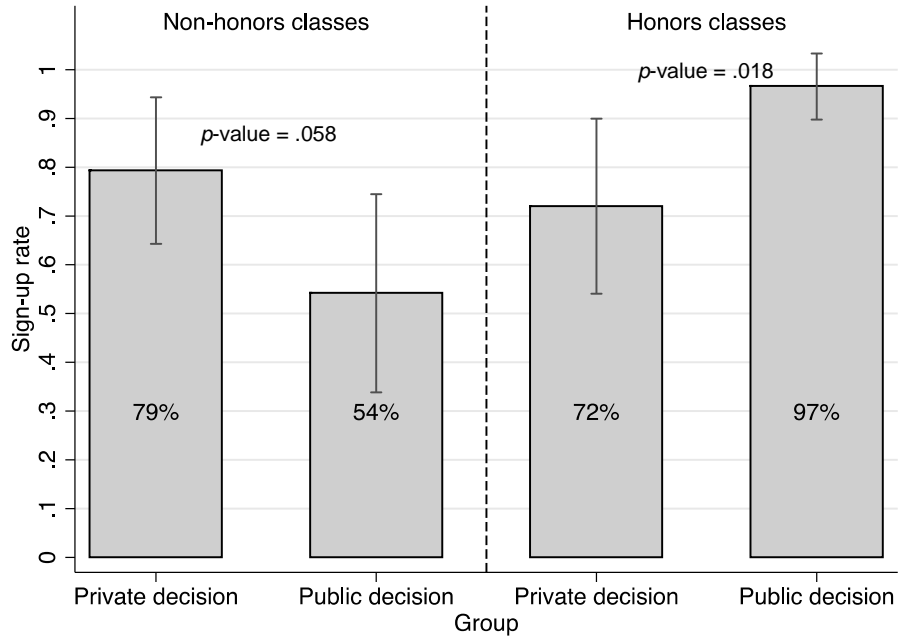
What % of your classmates do you think have already taken or plan to take an SAT prep course other than the one we offered today? _____%

Have you been listed as a Gifted/Talented student in your school? (Please pick one option)

- a. Yes
- b. No
- c. Don't know

TURN OVER FORM AND WAIT PATIENTLY

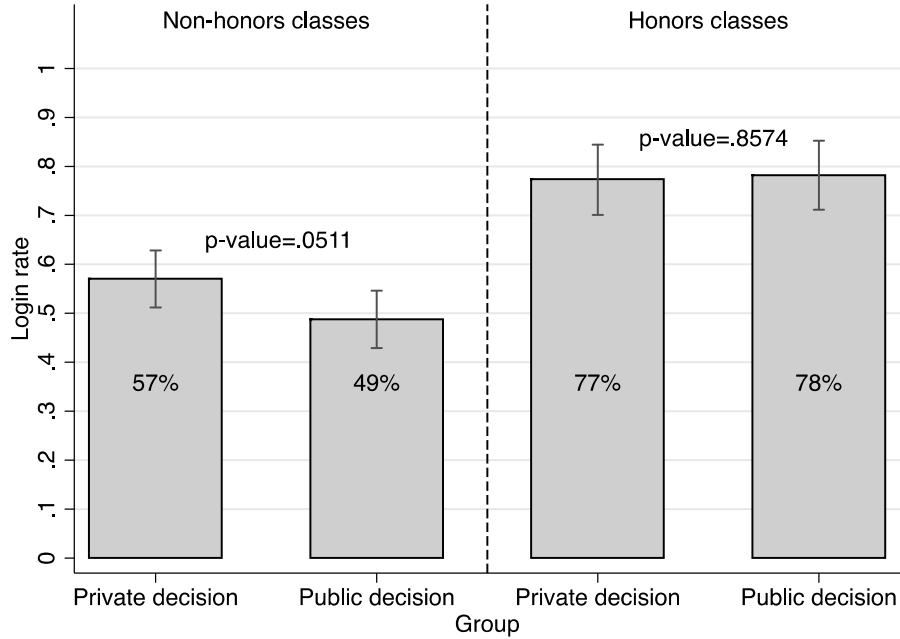
FIGURE A.II: SIGNUP RATES FOR PRIVATE VS. PUBLIC DECISIONS, NON-HONORS VS. HONORS CLASSES: STUDENTS TAKING TWO HONORS CLASSES



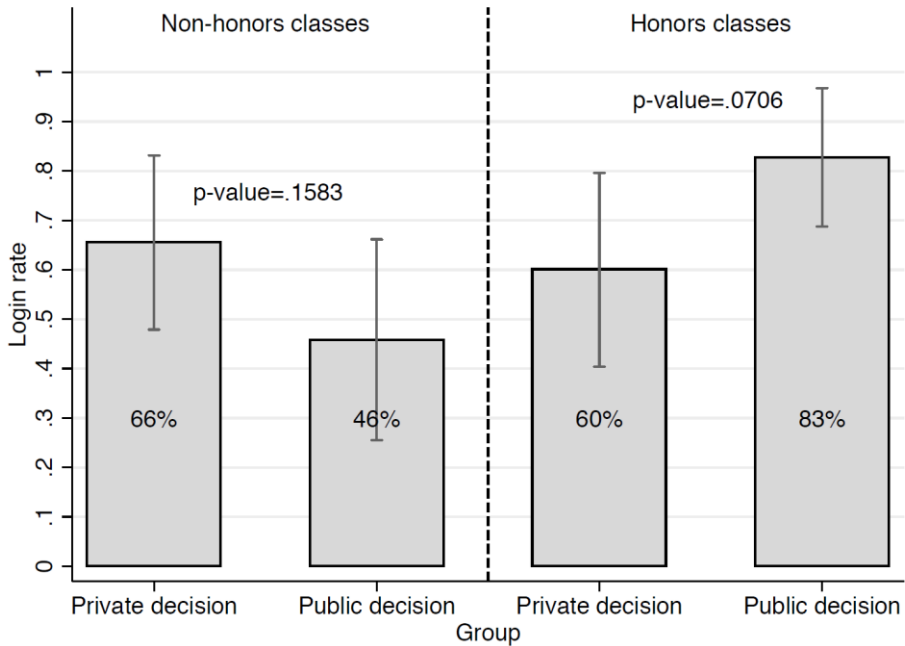
Notes: This figure presents the means and 95% confidence intervals of the signup rates for students in the private and public conditions, separately for honors and non-honors classes. In Panel A, there are 184 observations for non-honors classes and 159 observations for honors classes. For Panel B, there are 53 observations for non-honors classes and 54 for honors classes.

FIGURE A.III: LOGIN RATES

A. FULL SAMPLE



B. TWO-HONORS STUDENTS



Notes: These figures present means and 95% confidence intervals of the login rates under the private and public conditions, separately for honors and non-honors classes for the full sample (A) and the sample of 2-honors students (B). In Panel A, there are 560 observations for non-honors classes and 265 for honors classes. In Panel B, there are 53 observations for non-honors classes and 54 for honors classes.

APPENDIX TABLE A.I: EFFECTS OF POINTS AND LEADERBOARD SYSTEM: ONE WEEK BEFORE VS. AFTER

Dependent variable	Number of correct answers per day				
	(1)	(2)	(3)	(4)	(5)
Post-system change dummy	0.5316*** [0.175]	0.2393** [0.116]	-0.5036*** [0.185]	-1.0601*** [0.280]	-1.7972*** [0.394]
Mean of dep. var. before system change	2.74	1.36	2.57	3.67	5.20
Observations	30,296	11,779	7,350	6,497	4,670
R-squared	0.273	0.244	0.214	0.241	0.295
Sample:	FULL	QUARTILE 1	QUARTILE 2	QUARTILE 3	QUARTILE 4

Notes: This table presents OLS regressions of the number of correct answers per day on a dummy on whether the date is after the introduction of the points and leaderboard system. All columns restrict the analysis to the time window between one week before the introduction and one week after it. Column 1 presents the results for the entire sample. Columns 2-5 present results by quartile of the distribution of the total number of correct answers during the month prior to the introduction of the new system. All regressions include student fixed effects. Robust standard errors clustered by classroom in brackets. *** p<0.01, ** p<0.05, * p<0.1

APPENDIX TABLE A.II: EFFECTS OF POINTS AND LEADERBOARD SYSTEM: TWO WEEKS BEFORE VS. AFTER

Dependent variable	Number of correct answers per day				
	(1)	(2)	(3)	(4)	(5)
Post-system change dummy	0.5172*** [0.133]	0.2497** [0.098]	-0.4082*** [0.132]	-1.0904*** [0.215]	-1.8144*** [0.284]
Mean of dep. var. before system change	2.58	1.26	2.43	3.48	4.84
Observations	55,911	21,694	13,515	11,996	8,706
R-squared	0.216	0.193	0.182	0.201	0.202
Sample:	FULL	QUARTILE 1	QUARTILE 2	QUARTILE 3	QUARTILE 4

Notes: This table presents OLS regressions of the number of correct answers per day on a dummy on whether the date is after the introduction of the points and leaderboard system. All columns restrict the analysis to the time window between two weeks before the introduction and two weeks after it. Column 1 presents the results for the entire sample. Columns 2-5 present results by quartile of the distribution of the total number of correct answers during the month prior to the introduction of the new system. All regressions include student fixed effects. Robust standard errors clustered by classroom in brackets. *** p<0.01, ** p<0.05, * p<0.1

APPENDIX TABLE A.III: EFFECTS OF POINTS AND LEADERBOARD SYSTEM: WITH TIME TRENDS

Dependent variable	Number of correct answers per day				
	(1)	(2)	(3)	(4)	(5)
Post-system change dummy	-0.7344* [0.393]	-0.0413 [0.300]	-0.5413 [0.455]	-1.3048** [0.607]	-2.1681*** [0.792]
Mean of dep. var. before system change	2.57	1.27	2.43	3.47	4.81
Observations	95,342	37,171	22,978	20,427	14,766
R-squared	0.186	0.162	0.160	0.174	0.174
Sample:	FULL	QUARTILE 1	QUARTILE 2	QUARTILE 3	QUARTILE 4

Notes: This table presents OLS regressions of the number of correct answers per day on a dummy on whether the date is after the introduction of the points and leaderboard system, a linear time trend, and the interaction of the time trend with the post-system change dummy. All columns restrict the analysis to the time window between one month before the introduction and one month after it. Column 1 presents the results for the entire sample. Columns 2-5 present results by quartile of the distribution of the total number of correct answers during the month prior to the introduction of the new system. All regressions include student fixed effects. Robust standard errors clustered by classroom in brackets. *** p<0.01, ** p<0.05, * p<0.1

APPENDIX TABLE A.IV: EFFECTS OF POINTS AND LEADERBOARD SYSTEM:
PERCENT OF ANSWERS CORRECT PER DAY AND QUESTIONS ANSWERED OUTSIDE OF SCHOOL

Dependent variable	% of correct answers per day				
	(1)	(2)	(3)	(4)	(5)
Post-system change dummy	0.0116 [0.009]	0.0613*** [0.011]	0.0046 [0.011]	-0.0233** [0.010]	-0.0208* [0.011]
Mean of dep. var. before system change	0.51	0.41	0.51	0.56	0.63
Observations	30,194	10,358	7,227	7,178	5,431
R-squared	0.423	0.395	0.385	0.408	0.411
Sample:	FULL	QUARTILE 1	QUARTILE 2	QUARTILE 3	QUARTILE 4

Dependent variable	Number of correct answers per day (outside of school hours)				
	(1)	(2)	(3)	(4)	(5)
Post-system change dummy	-2.0764*** [0.635]	1.0853* [0.645]	-1.4812 [0.909]	-2.9761*** [0.761]	-5.0495*** [1.331]
Mean of dep. var. before system change	11.5131	6.8808	10.9128	13.0875	16.7472
Observations	16,002	5,580	3,741	3,769	2,912
R-squared	0.483	0.478	0.438	0.473	0.458
Sample:	FULL	QUARTILE 1	QUARTILE 2	QUARTILE 3	QUARTILE 4

Notes: The top panel presents OLS regressions of the percent of correct answers per day on a dummy on whether the date is after the introduction of the points and leaderboard system. The bottom panel presents OLS regressions of the number of correct answers per day on a dummy on whether the date is after the introduction of the points and leaderboard system, restricting to use outside of school hours. In all columns, we drop questions answered on weekdays between 7am and 4pm. All columns restrict the analysis to the time window between one month before the introduction and one month after it. Column 1 presents the results for the entire sample. Columns 2-5 present results by quartile of the within-classroom distribution of the total number of correct answers during the month prior to the introduction of the new system. All regressions include student fixed effects. Robust standard errors clustered by classroom in brackets. *** p<0.01, ** p<0.05, * p<0.1

APPENDIX TABLE A.V: BALANCE OF COVARIATES FOR SOME-HONORS STUDENTS

	Private condition [1]	Public condition [2]	<i>p</i> -value [1]=[2] [3]	Non- honors [4]	Honors [5]	<i>p</i> -value [4]=[5] [6]
PANEL A. STUDENTS TAKING 1-3 HONORS CLASSES						
Male	0.412 [0.494]	0.491 [0.501]	0.140	0.5 [0.501]	0.396 [0.491]	0.054
Age	16.694 [0.395]	16.708 [0.425]	0.745	16.748 [0.45]	16.647 [0.351]	0.022
Hispanic	0.964 [0.186]	0.977 [0.152]	0.505	0.961 [0.194]	0.981 [0.136]	0.268
GPA	2.676 [0.764]	2.666 [0.783]	0.904	2.461 [0.673]	2.914 [0.811]	0.000
# math/sciences honors	0.359 [0.539]	0.422 [0.592]	0.302	0.239 [0.499]	0.566 [0.590]	0.000
# social sciences honors	0.853 [0.417]	0.789 [0.48]	0.136	0.788 [0.423]	0.849 [0.48]	0.216
# of humanities honors	0.694 [0.653]	0.682 [0.568]	0.856	0.342 [0.509]	1.088 [0.455]	0.000
Observations	170	173		184	159	
PANEL B. STUDENTS TAKING 2 HONORS CLASSES						
Male	0.333 [0.476]	0.434 [0.50]	0.289	0.415 [0.498]	0.352 [0.482]	0.506
Age	16.648 [0.423]	16.703 [0.44]	0.519	16.731 [0.45]	16.617 [0.406]	0.177
Hispanic	0.944 [0.231]	0.981 [0.139]	0.327	0.942 [0.234]	0.981 [0.136]	0.300
GPA	2.756 [0.687]	2.582 [0.744]	0.212	2.765 [0.55]	2.576 [0.846]	0.173
# math/sciences honors	0.278 [0.452]	0.283 [0.5]	0.955	0.321 [0.510]	0.241 [0.432]	0.384
# social sciences honors	0.926 [0.47]	0.906 [0.491]	0.828	0.906 [0.30]	0.926 [0.61]	0.827
# of humanities honors	0.815 [0.517]	0.774 [0.466]	0.665	0.736 [0.56]	0.852 [0.408]	0.224
Observations	54	53		53	54	

Notes: Panel A. restricts the sample to students taking between 1 and 3 honors classes, Panel B. restricts to those taking 2 honors classes. Columns 1 and 2 report the mean level of each variable, with standard deviations in brackets, for the private and public conditions; column 3 reports the *p*-value of a test that the means are the same in both conditions. Columns 4 and 5 report the mean level of each variable, with standard errors in brackets, for non-honors and honors classes; column 6 reports the *p*-value of a test that the means are the same in both types of classes.