## **ONLINE APPENDIX**

# Police Violence, Student Protests, and Educational Performance

Felipe González Mounu Prem

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### Figure A.1: Schools and students in the analysis

*Notes*: Panel (a) shows the location of all schools in the city we study with the schools in the estimating sample highlighted in green. The school of the student killed is shown as a black circle and the location of the shooting in a black triangle. We also marked the selected area (black hollow square) to study spatial spillovers. Panel (b) shows the location of students in the sample, highlighting the ones who were geographically exposed to the shooting (in blue) and the comparison group of students (in brown).



Figure A.2: School skipping is robustly related to the number of protesters

*Notes*: Own construction using data from police and organizer reports. These figures present the partial correlation between the percentage of high-school students skipping school and the total number of protesters (Panels A and B), and the partial correlation with student protesters (Panels C and D). The number of student protesters was calculated using online surveys and videos of rallies.



Figure A.3: Details about crowd count of high-school students

*Notes:* This figure presents the sketch of an image, where a crowd is identifiable in the front, and a non-identifiable crowd is located in the back. The classification of the image into identifiable and non-identifiable areas was done by a research assistant who was unaware of the goal of this exercise. We asked 450 college students to count the number of high-school students in the front of the image and with those responses we take the average across images within a protest and calculate the share of high-school students among protesters.



Figure A.4: School skipping and protesters

(c) School skipping and student protesters

*Notes*: Panel (a) shows that the average school skipping rate in protest days is 18.22 with a 95% confidence interval [16.14, 20.31] and the average in non-protest days are 11.23 and 11.72 the week before and the week after. The difference in means between protest and non-protest days is statistically significant with a *p*-value< 0.01. Panels (b) and (c) present the partial correlation between the percentage of high-school students skipping school and the total number of protesters, and student protesters respectively. The number of student protesters was calculated using online surveys and videos of rallies.



Figure A.5: Alternative matching strategies with additional covariates

*Notes*: Estimates of equation (1) using daily school attendance data from the 2011-2013 academic years. The *y*-axis measures the differential change in school skipping rates among schoolmates of the student killed when compared to a sample of students that were observationally identical before the event. Note that the vast majority of "Classmates" graduated in 2012 and thus we do not observe them in 2013. Matching #2 uses the baseline predetermined variables plus standardized test scores for students. Matching #3 uses baseline predetermined variables, plus standardized tests for students and terciles of reported family income. These alternative matching strategies deliver similar results at the cost of decreasing the number of students who were socially close to the student killed. Vertical lines denote 95 percent confidence intervals calculated using standard errors clustered at the school level.





*Notes*: Estimates of the parametric version of equation (1) with the corresponding 95% confidence interval. Each estimate comes from an estimation in which we drop one of the 12 protest days in 2011.



#### Figure A.7: Synthetic control estimates

*Notes*: Synthetic control estimates for the impact of the stray bullet on protest behavior. The unit of observation is a high-school student in the 2011-2013 period. Panel (a) and (c) construct the counterfactual for all schoolmates of the student killed and panels (b) and (d) for the subset of schoolmates who were enrolled in the same grade ("classmates"). In both of these cases we use high school students in the same city and school skipping on weekday protests within the school calendar before the event to construct the counterfactual. In panels (a) and (b), we implement the original method proposed by Abadie and Gardeazabal (2003) and Abadie et al. (2010). In panels (c) and (d), we implement the recent synthetic difference-in-differences estimator suggested by Arkhangelsky et al. (2021) which allows for unit level fixed effects and also puts more weights in similar periods before and after treatment. Note that the vast majority of "classmates" graduated in 2012 and thus we do not observe them in 2013. The gray area denotes the years 2012 and 2013.

			Estimate protester	ed number of rs in the rally		
Year	Month	Day	By police	By organizers	High-school students	Day of week
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2011	May	12	15,000	30,000	65%	Thursday
	June	1	20,000	35,000	58%	Wednesday
		16	80,000	100,000	51%	Thursday
		23	25,000	25,000	66%	Thursday
		30	80,000	200,000	51%	Thursday
	August	9	70,000	150,000	44%	Tuesday
		18	40,000	100,000	44%	Thursday
	September	14	6,000	30,000	65%	Wednesday
		22	60,000	180,000	41%	Thursday
		29	20,000	150,000	44%	Thursday
	October	19	25,000	200,000	44%	Wednesday
	November	18	5,000	40,000	58%	Friday
2012	April	25	50,000	80,000	50%	Wednesday
	May	16	20,000	100,000	55%	Wednesday
		28	40,000	150,000	44%	Thursday
2013	April	11	80,000	150,000	45%	Thursday
	June	13	45,000	100,000	43%	Thursday
		26	55,000	100,000	51%	Wednesday
	September	5	25,000	80,000	48%	Thursday
	October	17	18,000	50,000	36%	Thursday

Table A.1: Weekday protests within the school calendar, 2011-2013

*Notes*: Own construction using police records, organizer reports, and data from newspapers. Please note that our use of school attendance data prevents us from considering weekday protests in January, February, July, and December because of the summer and winter breaks. In column 6 we calculate the percentage of high-school students in each of these protests using a crowd-counting method in which college students responded online surveys to count the number of high school students in randomly selected images of protest videos.

	With valid home address	Without (or invalid) home address	Difference (1) - (2)
	(1)	(2)	(3)
Avg. school attendance until August 2011	0.91	0.88	0.03
	(0.10)	(0.15)	(0.002)
Avg. school attendance in 2010	0.93	0.91	0.02
	(0.08)	(0.14)	(0.002)
Indicator female	0.51	0.48	0.03
	(0.50)	(0.50)	(0.006)
Year of birth	1996.1	1996.1	0.07
	(1.0)	(1.2)	(0.015)
GPA in 2010	5.43	5.21	0.22
	(0.63)	(0.90)	(0.010)
Students	13,376	10,712	

Table A.2: Differences across students with and without a valid home address

*Notes*: Columns 1 and 2 present the mean and standard deviation in parenthesis. Column 3 presents the difference and the standard error in parenthesis.

	Dependent variable is:					
	Protesters (in thousands)		Log protesters		Log s prote	tudent esters
Panel A	(1)	(2)	(3)	(4)	(5)	(6)
Percentage of students skipping school	4.38	5.54	0.07	0.10	0.06	0.08
	(1.45)	(1.51)	(0.02)	(0.02)	(0.02)	(0.02)
R-squared	0.33	0.42	0.29	0.50	0.31	0.45
Average dependent variable	70.23	70.23	4.08	4.08	3.38	3.38
Panel B - Police reports						
Percentage of students skipping school	2.93	3.99	0.09	0.13	0.08	0.11
	(1.01)	(0.90)	(0.03)	(0.03)	(0.03)	(0.03)
R-squared	0.33	0.50	0.30	0.58	0.29	0.49
Average dependent variable	38.95	38.95	3.41	3.41	2.71	2.71
Panel C - Organizer reports						
Percentage of students skipping school	5.92	7.32	0.07	0.10	0.06	0.08
	(2.17)	(2.44)	(0.02)	(0.03)	(0.02)	(0.02)
Observations	20	20	20	20	20	20
R-squared	0.25	0.31	0.24	0.42	0.25	0.38
Year fixed effects	No	Yes	No	Yes	No	Yes
Average dependent variable	102.5	102.5	4.44	4.44	3.74	3.74

### Table A.3: School skipping and number of protesters

*Notes*: This table presents estimates of the empirical relationship between the number of protesters (dependent variable, *Y*) and the percentage of students 14-18 years old skipping school that day  $(X \in [0, 100])$ . The number of protesters comes from Table A.1. Robust standard errors in parentheses. All coefficients are statistically significant at the 5%.

Student exposed:	Schoolmates		Neighbor students (< 0.5 miles) compared to students who live.		
	All	Classmate	[0.5-3] miles	[1.5-3] miles	
	(1)	(2)	(3)	(4)	
Schoolmate × protest day 1 after the killing	-0.04	-0.04	-0.00	-0.02	
	(0.03)	(0.03)	(0.03)	(0.03)	
	[0.31]	[0.41]			
Schoolmate $\times$ protest day 2 after the killing	-0.08	-0.13	-0.02	-0.03	
	(0.02)	(0.03)	(0.04)	(0.04)	
	[0.28]	[0.28]			
Schoolmate $\times$ protest day 3 after the killing	-0.08	-0.12	-0.00	-0.01	
	(0.02)	(0.02)	(0.03)	(0.03)	
	[0.15]	[0.15]			
Schoolmate $\times$ protest day 4 after the killing	-0.13	-0.14	-0.00	0.00	
	(0.02)	(0.03)	(0.03)	(0.03)	
	[0.09]	[0.19]			
Schoolmate $\times$ protest day 5 after the killing	-0.00	-0.04	-0.04	-0.03	
	(0.01)	(0.02)	(0.02)	(0.02)	
	[0.59]	[0.41]			
Schoolmate $\times$ protest day 6 after the killing	0.01	0.02	-0.01	-0.01	
	(0.01)	(0.01)	(0.03)	(0.03)	
	[0.41]	[0.67]			
Schoolmate $\times$ protest day 7 after the killing	-0.04	-0.06	-0.03	-0.02	
	(0.01)	(0.01)	(0.03)	(0.03)	
	[0.24]	[0.23]			
Schoolmate $\times$ protest day 8 after the killing	-0.05	-0.06	-0.05	-0.06	
	(0.02)	(0.02)	(0.03)	(0.03)	
	[0.34]	[0.37]			
Schoolmate $\times$ protest day 9 after the killing	-0.05		0.01	0.01	
	(0.01)		(0.03)	(0.03)	
	[0.26]		0.02	0.01	
Schoolmate $\times$ protest day 10 after the killing	-0.04		-0.03	-0.01	
	(0.02)		(0.03)	(0.04)	
	[0.28]		0.01	0.02	
Schoolmate $\times$ protest day 11 after the killing	-0.03		-0.01	-0.02	
	(0.02)		(0.03)	(0.03)	
Schoolmate venetest day 12 often the killing	[0.47]		0.04	0.02	
Schoolinate xprotest day 12 after the kining	-0.02		-0.04	-0.03	
	(0.01)		(0.03)	(0.05)	
Schoolmate X protect day 12 after the killing	0.02		0.00	0.00	
Schoolinate × protest day 15 after the kning	(0.01)		-0.00	-0.00	
	[0.39]		(0.03)	(0.03)	
Observations	387,630	74,265	14,838	12,634	
Student fixed effects	Yes	Yes	Yes	Yes	
Cell-day fixed effects	Yes	Yes	Yes	Yes	
Students	22,549	5,025	757	644	
Avg. dependent variable	0.33	0.27	0.10	0.09	

# Table A.4: Main estimates using a dynamic specification

*Notes*: Each observation corresponds to a skipping school decision of a high-school student in a protest that took place on a weekday within the school calendar in the 2011-2013 period. Estimates of linear probability models. Standard errors are clustered at the school level and Fisher's exact p-values from randomization inference in square brackets.

	Daily	v data	Collapsed	by period
	2011-2012	2011-2013	2011-2012	2011-2013
Panel A	(1)	(2)	(3)	(4)
Schoolmate $\times$ After $\in$ 2011 [ $\alpha$ ]	-0.07 (0.01) [0.10]	-0.07 (0.01) [0.10]	-0.07 (0.01) [0.10]	-0.07 (0.01) [0.10]
Schoolmate × After $\in$ 2012-13 [ $\beta$ ]	0.04 (0.01) [0.30]	0.04 (0.01) [0.30]	0.04 (0.01) [0.30]	0.04 (0.01) [0.30]
Observations Students	323,085	387,630 22 549	62,597 22 549	62,598 22 549
Students Student fixed effects	Yes	Yes	Yes	Yes
Cell-day fixed effects	Yes	Yes	Yes	Yes
Average dependent variable	0.33	0.33	0.33	0.33
Exact <i>p</i> -value: $(\alpha + \beta) = 0$	0.35	0.29	0.35	0.30
Panel B				
Neighbor × After $\in$ 2011 [ $\alpha$ ]	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)
Neighbor × After $\in$ 2012-13 [ $\beta$ ]	-0.01 (0.02)	0.00 (0.02)	-0.01 (0.02)	0.00 (0.02)
Observations	9,579	13,245	1,905	1,905
Students	644	644	644	644
Student fixed effects	Yes	Yes	Yes	Yes
Cell-day fixed effects	Yes	Yes	Yes	Yes
Average dependent variable	0.11	0.11	0.11	0.11
<i>p</i> -value: $(\alpha + \beta) = 0$	0.09	0.27	0.09	0.26

Table A.5:	Protest	decisions	in the	short-	and long-run
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*Notes:* This table presents short- and long-run estimates of police violence on protest behavior. We present four specifications. Column 1 uses data from all protest days in 2011 and 2012. Column 2 uses data from all protest days in 2011-2013. Columns 3-4 mimic the previous ones but collapse the data by period (Bertrand et al., 2004). We consider a short-run (2011) and a long-run period (2012-2013). Note that there is mechanical attrition due to the graduation of the older students, e.g. in 2012 we do not observe the cohort of students in their senior year in 2011. In addition, there is non-random attrition related to high-school dropouts, making the long-run estimates arguably a lower bound. Lastly, there is 12-14% school switching but we always consider switchers to be part of the original group of students exposed to police violence. Each observation corresponds to a skipping school decision of a high-school student in a protest that took place on a weekday within the school calendar. Estimates of linear probability models. Standard errors are clustered at the school level and Fisher's exact *p*-values from randomization inference in square brackets.

The dependent variable is an indicator for school skipping in a weekday protest						
Panel A: Year 2011	All scho	olmates	Class	mates		
	(1)	(2)	(3)	(4)		
Schoolmate × After student killed	-0.08	-0.07	-0.09	-0.09		
	(0.03)	(0.01)	(0.03)	(0.02)		
Observations	239,172	239,172	54,924	54,924		
Students	19,931	19,931	4,577	4,577		
Student fixed effect	Yes	Yes	Yes	Yes		
Day fixed effects	Yes	No	Yes	No		
Cell-day fixed effects	No	Yes	No	Yes		
Average dependent variable	0.33	0.33	0.26	0.26		
Panel B: Years 2011-2013	Daily	/ data	Collapsed	by period		
	2011-2012	2011-2013	2011-2012	2011-2013		
Schoolmate $\times$ After student killed	-0.08	-0.08	-0.08	-0.08		
	(0.01)	(0.01)	(0.01)	(0.01)		
Schoolmate × After 2011	0.04	0.04	0.04	0.04		
	(0.01)	(0.01)	(0.01)	(0.01)		
Observations	227,226	266,241	43,840	43,840		
Students	15,951	15,951	15,951	15,951		
Student fixed effects	Yes	Yes	Yes	Yes		
Cell-day fixed effects	Yes	Yes	Yes	Yes		
Average dependent variable	0.32	0.32	0.32	0.32		

### **Table A.6:** Robustness of long-run results to dropouts

*Notes:* Each observation corresponds to a skipping school decision of a high-school student in a protest that took place on a weekday. Estimates of linear probability models. The estimation uses the sample of students who never dropout of school during the years we empirically examine. Standard errors are clustered at the school level.

Dependent variable: Indicator school skipping in weekday protest								
	Stud home	lents who /school c	o lived ne of student	Robustness of result to distance to La Moneda				
	ho	me	sch	nool	schoolmates	classmates		
	(1)	(2)	(3)	(4)	(5)	(6)		
Schoolmate × After student killed	-0.03 (0.03)	-0.03 (0.02)	0.05 (0.04)	0.05 (0.03)	-0.05 (0.02)	-0.10 (0.03)		
Observations	8,052	8,052	7,500	7,500	22,764	5,556		
Students	671	671	625	625	1,897	463		
Student fixed effects	Yes	Yes	Yes	Yes	Yes	Yes		
Day fixed effects	Yes	No	Yes	No	No	No		
Cell-day fixed effects	No	Yes	No	Yes	Yes	Yes		
Average dependent variable	0.10	0.10	0.15	0.15	0.29	0.18		

Table A.7: Distance to home/school of victim and distance to La Moneda

*Notes*: Each observation corresponds to a skipping school decision of a high-school student in a protest that took place on a weekday within the 2011 school calendar. Estimates of linear probability models. Columns 1-4 check for the impact of distance to the home and school of the victim and report a coefficient which is not statistically different from zero. Columns 5-6 show that the results are robust to including the distance to La Moneda palace as an additional covariate in the matching algorithm. Note that again the impact on the classmates is twice the size of the impact on schoolmates Standard errors are clustered at the school level.

Dependent variable: Indicator school skipping in weekday protest					
	(1)	(2)			
Schoolmate $\times$ After non-lethal police repression	0.05	0.05			
	(0.03)	(0.05)			
Observations	210,874	210,754			
Students	27,619	27,619			
Student fixed effects	Yes	Yes			
Day fixed effects	Yes	No			
Cell-day fixed effects	No	Yes			
Average dependent variable	0.47	0.47			

#### Table A.8: The impact of non-lethal police repression

*Notes*: To further improve our understanding of the shooting, we explored the impact of less severe police violence during protests held in August of 2012 using data from a social organization. An article in the New York Times describes their work as "small troops of observers in blue or white helmets, armed with notebooks, cameras, voice recorders and gas masks. They [...] monitor and record what happens when the police crack down on the protests." The victims were 14-18 years old students, their school is clearly identified, and there is photographic evidence of police violence (e.g. bruises, broken teeth). We use the same empirical strategy on the 3,500 schoolmates (grades are unknown) and the matching delivers a control group of 24,000 students. The results in this table show similar protest behavior after these less severe events. Each observation corresponds to a skipping school decision of a high-school student in a protest that took place on a weekday. Estimates of linear probability models. Standard errors are clustered at the school level.

	External cause (1)	Accident (2)	Homicide (3)
$1(\text{death 14-18 yrs old}) \times \text{After}$	-0.003 (0.016)	0.002 (0.008)	-0.001 (0.014)
Observations	564	564	564
County fixed effects	Yes	Yes	Yes
Day fixed effects	Yes	Yes	Yes
Counties	47	47	47
Avg. dependent variable	0.178	0.178	0.178
Counties with deaths	10	1	5

**Table A.9:** The impact of deaths of 14-18 yrs old on protest behavior *The dependent variable is the county average school skipping in a weekday protest* 

*Notes:* In this table we estimate the impact of deaths of 14-18 years old in August 2011 due to accidents or homicides unrelated to the police using data from the National Health Statistics (DEIS) and the causes of death using the International Classification of Deaths (ICD). Unfortunately, we cannot match these to a school, so we use county-level data. We focus on the the 47 counties in the three largest cities. The results show a precisely estimated zero impact of these deaths on the protest behavior of students. Each column presents estimates using a panel of counties located in the three largest cities – where half of the population lives – observed during 12 weekday protests in 2011. Standard errors are clustered at the county level.

		GPA			Dropout				
	2011	2012	2013	2011	2012	2013	Ever takes college exam (2011-2018)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Schoolmate	-0.07 (0.02)	0.01 (0.02)	-0.08 (0.02)	0.03 (0.01)	0.04 (0.00)	0.03 (0.01)	-0.28 (0.02)	-0.36 (0.03)	
Students Average dependent variable	4,106 5.17	2,691 5.21	1,428 5.35	4,106 0.04	2,691 0.03	1,428 0.03	4,126 0.83	4,126 0.83	
<i>p</i> -value MHT	0.36	0.16	0.36	0.03	0.03	0.19	0.01	0.01	
Cell fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Ventiles of past GPA fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Ventiles of Pr(closure) fixed effects	No	No	No	No	No	No	No	Yes	

 Table A.10: Robustness of educational results using more covariates in the matching

*Notes*: Each observation corresponds to the educational outcome of a student. Cross-sectional estimates that compare the educational performance of students exposed to police violence with a selected comparison group. This table uses an augmented matching that exploits the availability of standardized tests for a subsample of students. This exercise guarantees that we are comparing students with similar educational performance before the shooting. Standard errors are clustered at the school level. We also present *p*-values that control the family-wise error rate following Romano and Wolf (2005).

	Indicator	skipping school	Indicator	skipping test
Days around test day:	[-2,2]	[-4,4]	[-2,2]	[-4,4]
	(1)	(2)	(3)	(4)
Panel A				
Schoolmate $\times$ National test day	0.09	0.09	0.13	0.13
	(0.05)	(0.04)	(0.05)	(0.04)
	[0.12]	[0.12]	[0.08]	[0.08]
Observations	17,730	31,915	17,730	31,915
Students	3,551	3,551	3,551	3,551
Student fixed effects	Yes	Yes	Yes	Yes
Cell-day fixed effects	Yes Yes		Yes	Yes
Average of dependent variable	0.13	0.13	0.14	0.13
Panel B				
Neighbor $\times$ National test day	-0.03	-0.02	0.00	0.02
	(0.03)	(0.03)	(0.04)	(0.04)
Observations	1,868	3,360	1,868	3,360
Students	374	374	374	374
Student fixed effects	Yes Yes		Yes	Yes
Cell-day fixed effects	Yes Yes		Yes	Yes
Average of dependent variable	0.12	0.13	0.12	0.13

## Table A.11: Student-led boycott to the 2013 standardized test

*Notes*: Each observation corresponds to a skipping school (skipping test in columns 3-4) decision of a high-school student in a weekday around the day of a standardized test. Standard errors are clustered at the school level in parentheses and *p*-values from randomization inference in square brackets.

		GPA			Dropout				
	2011	2011 2012 2013		2011	2012	2013	Ever takes college exam (2011-2018)		
Panel A	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Schoolmate	-0.03	-0.12	-0.13	0.04	0.04	0.04	-0.28	-0.35	
	(0.02)	(0.02)	(0.02)	(0.00)	(0.00)	(0.00)	(0.02)	(0.01)	
Schoolmate $\times$ Same grade	-0.04	0.10	-0.39	-0.00	-0.02	-0.08	-0.05	-0.06	
	(0.02)	(0.02)	(0.04)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	
Students	22,108	18,033	13,221	22,108	18,033	13,221	22,442	22,442	
Average dependent variable	5.28	5.36	5.41	0.03	0.04	0.03	0.86	0.86	
Panel B									
Schoolmate	-0.05	-0.06	-0.06	0.04	0.05	0.04	-0.29	-0.37	
	(0.03)	(0.03)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)	(0.03)	
Schoolmate $\times$ Same grade	-0.04	0.13	-0.75	-0.03	-0.02	-0.11	0.02	0.01	
	(0.03)	(0.02)	(0.19)	(0.01)	(0.01)	(0.07)	(0.02)	(0.02)	
Students	4,106	2,691	1,428	4,106	2,691	1,428	4,126	4,126	
Average dependent variable	5.17	5.21	5.35	0.04	0.03	0.03	0.83	0.83	
Cell fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Ventiles of Pr(closure) fixed effects	No	No	No	No	No	No	No	Yes	

**Table A.12:** The impact on the educational performance of classmates

*Notes*: Each observation corresponds to the educational outcome of a student. Cross-sectional estimates that compare the educational performance of students exposed to police violence with a selected comparison group. Standard errors are clustered at the school level.

		le: llege exam			
Grade in 2011:	12th grade	11th grade	10th grade	9th grade	8th grade
	(1)	(2)	(3)	(4)	(5)
Schoolmate	-0.20 (0.03)	-0.34 (0.03)	-0.34 (0.03)	-0.31 (0.02)	-0.16 (0.02)
Students	3,947	5,007	4,555	4,660	4,273
Cell fixed effects	Yes	Yes	Yes	Yes	Yes
Ventiles past GPA fixed effects	Yes	Yes	Yes	Yes	Yes
Average dependent variable	0.89	0.88	0.83	0.83	0.84

### Table A.13: College exam results by grade of the schoolmates

*Notes:* Each observation corresponds to the educational outcome of a student. Cross-sectional estimates that compare the educational performance of students exposed to police violence with a selected comparison group. We identified if students took the college exam in any year before 2018. Standard errors are clustered at the school level.

		Combinations within baseline covariates												additional covariates					
	baseline	drops odd protest days	drops even protest days	drops covariate 1	drops covariate 2	drops covariate 3	drops covariate 4	drops covariate 5	drops covariate 6	drops covariate 7	drops covariate 8	drops covariate 9	all but protest days	only school grade	student test scores	household income	parents' involvement	low-income students	protests in 2006
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Table A.5																			
Short-run Long-run	-0.07 0.04	-0.10 0.03	-0.11 0.05	-0.06 0.05	-0.06 0.04	-0.08 0.04	-0.10 0.05	-0.08 0.04	-0.08 0.05	-0.07 0.04	-0.06 0.03	-0.07 0.04	-0.16 0.04	-0.17 0.03	-0.06 0.04	-0.06 0.05	-0.07 0.04	-0.12 0.08	-0.07 0.05
Table 2																			
Schoolmates	-0.08	-0.08	-0.09	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.07	-0.07	-0.08	-0.08	-0.08	-0.07	-0.07	-0.08	-0.12	-0.09
Classmates	-0.10	-0.10	-0.10	-0.10	-0.10	-0.11	-0.11	-0.10	-0.10	-0.10	-0.08	-0.11	-0.10	-0.09	-0.06	-0.06	-0.08	-0.14	-0.11
Table A.11																			
Boycott	0.09	0.06	0.05	0.08	0.07	0.07	0.05	0.13	0.09	0.07	0.07	0.07	0.05	0.04	0.03	0.03	0.03	0.12	0.08
Table 3																			
GPA	-0.04	-0.07	-0.06	-0.04	-0.04	-0.06	-0.06	-0.04	-0.04	-0.05	-0.07	-0.04	-0.08	-0.11	-0.03	-0.04	-0.05	-0.11	-0.09
Dropout	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.04	0.04	0.05
College	-0.37	-0.35	-0.36	-0.37	-0.36	-0.37	-0.36	-0.35	-0.37	-0.35	-0.37	-0.35	-0.35	-0.36	-0.34	-0.34	-0.36	-0.42	-0.37
N in control group	21,906	39,562	34,075	23,877	24,133	28,196	25,611	26,020	27,695	26,021	37,806	38,312	54,386	55,989	13,267	11,339	16,767	7,992	5,750

#### Table A.14: Robustness of results to alternative matching specifications

*Notes:* The estimated impacts of the police shooting (y-axis) are robust to 18 alternative specifications (specification 1 is the baseline result). These alternative specifications omit skipping indicators in even protest days before the shooting (specification 2), in odd protest days (3), each covariate separately (4-12), skipping in all protest days (13), and use grade as the only matching covariate (14). Specifications 15-19 add the following predetermined variables in the matching algorithm: student-level test scores (15), household income (16), parents' educational involvement (17), percentage of low-income students in the school (18), and a measure of school-level protest behavior in the 2006 student rallies (19). The "Short-run" and "Long-run" results in panel (a) correspond to the deterrence and reversal of deterrence after the shooting in 2011 and afterwards (2012-13). The "Boycott" results correspond to skipping a high-stakes standardized test as a way of protesting against the educational system.