

*Online Appendix:
Pollution at Schools and Children's Aerobic Capacity*

A Appendix Tables & Figures

Table A1: Physical fitness test: Summary statistics

	Fraction Not in HFZ								
	All	Female	Male	Hispanic	Black	White	Asian	Econ Dis.	Non-Dis.
Aerobic Capacity	0.412 (0.188)	0.453 (0.211)	0.362 (0.177)	0.433 (0.182)	0.445 (0.198)	0.320 (0.177)	0.263 (0.173)	0.446 (0.167)	0.320 (0.168)
Body Comp.	0.419 (0.143)	0.403 (0.166)	0.432 (0.149)	0.458 (0.133)	0.405 (0.151)	0.306 (0.139)	0.258 (0.140)	0.472 (0.127)	0.349 (0.146)
Flexibility	0.284 (0.175)	0.251 (0.186)	0.311 (0.182)	0.302 (0.179)	0.258 (0.180)	0.220 (0.162)	0.158 (0.146)	0.298 (0.179)	0.221 (0.164)
Ab. Strength	0.258 (0.197)	0.270 (0.209)	0.239 (0.187)	0.276 (0.202)	0.230 (0.187)	0.175 (0.155)	0.162 (0.156)	0.289 (0.203)	0.196 (0.168)
Trunk Ext. Strength	0.128 (0.156)	0.110 (0.145)	0.140 (0.162)	0.131 (0.158)	0.128 (0.148)	0.0976 (0.129)	0.111 (0.149)	0.135 (0.159)	0.107 (0.137)
Up. Body Strength	0.352 (0.188)	0.377 (0.215)	0.323 (0.174)	0.375 (0.193)	0.291 (0.169)	0.275 (0.166)	0.246 (0.167)	0.379 (0.187)	0.278 (0.167)
Students	157.6 (164.0)	80.25 (80.83)	83.32 (84.71)	112.6 (131.8)	34.67 (31.67)	58.38 (64.14)	40.39 (49.60)	115.5 (122.5)	70.95 (81.49)

Notes: The table shows the average fraction of students tested in each grade-school-year cell not in the Healthy Fitness Zone (HFZ) for each of the six physical fitness tests: aerobic capacity, body composition, flexibility, abdominal strength, trunk extensor strength, and upper body strength. Columns show the average fraction not in the HFZ for all students and by the following demographic groups: female, male, Hispanic, black, white, Asian, economically disadvantaged, and non-economically disadvantaged. The final row shows the average number of students in each grade-school-year cell for each demographic group, which is based on the number of students reporting measures for aerobic capacity. Standard deviations are shown in parentheses.

Table A2: Aerobic Capacity Fitnessgram Performance Standards

Age	Females			Males		
	NI- Health Risk	NI	HFZ	NI- Health Risk	NI	HFZ
10	≤37.3	37.4-40.1	≥40.2	≤37.3	37.4-40.1	≥40.2
11	≤37.3	37.4-40.1	≥40.2	≤37.3	37.4-40.1	≥40.2
12	≤37.0	37.1-40.0	≥40.1	≤37.6	37.7-40.2	≥40.3
13	≤36.6	36.7-39.6	≥39.7	≤38.6	38.7-41.0	≥41.1
14	≤36.3	36.4-39.3	≥39.4	≤39.6	39.7-42.4	≥42.5
15	≤36.0	36.1-39.0	≥39.1	≤40.6	40.7-43.5	≥43.6
16	≤35.8	35.9-38.8	≥38.9	≤41.0	41.1-44.0	≥44.1
17	≤35.7	35.8-38.7	≥38.8	≤41.2	41.3-44.1	≥44.2
17+	≤35.3	35.4-38.5	≥38.6	≤41.2	41.3-44.2	≥44.3

Source: California Department of Education (2013)

Notes: VO_2max reflects the maximum rate that oxygen can be taken up and utilized by the body during exercise. Calculation procedures are found in the Reference Guide on the California Physical Fitness Test (PFT) Resources Web page at <http://www.pftdata.org/resources.aspx>. VO_2max based on the one-mile run, 20m PACER, or Walk Test are shown for students in three categories by age and gender for the 2013-14 school year. “NI-Health Risk” indicates students not in the healthy fitness zone that are at a health risk. “NI” indicates students not in the healthy fitness zone. “HFZ” indicates students in the healthy fitness zone. VO_2max standards are not available for students ages 5 through 9. Grade 5 students age 9 with time or laps reported have a VO_2max calculated and are compared to the HFZ for students age 10. If a one-mile run time or PACER laps are reported for grade 5 students less than age 9, a VO_2max will not be calculated, but the student will be reported in the HFZ. For the Walk Test only, standards also are not available for students ages 10, 11, and 12.

Table A3: Sample selection

	All	Analysis sample
Not in HFZ for Aerobic Capacity	0.41 (0.19)	0.45 (0.19)
Grade	6.07 (1.51)	6.19 (1.59)
Number of Students per Grade	157.63 (164.01)	168.44 (168.99)
Unemployment Rate	9.40 (3.69)	9.27 (3.74)
Free/Reduced Price Lunch	0.68 (0.26)	0.74 (0.23)
Female	0.48 (0.08)	0.48 (0.09)
White	0.19 (0.23)	0.13 (0.19)
Black	0.07 (0.12)	0.06 (0.09)
Hispanic	0.64 (0.29)	0.71 (0.27)
Asian	0.08 (0.12)	0.07 (0.12)
Other	0.03 (0.05)	0.02 (0.04)
Number of schools	1,861	804

Notes: Observations are at the grade-school-year level. Column 1 shows average characteristics of schools in the full sample, while column 2 restricts to schools included in the analysis sample. The analysis sample removes schools with missing air pollution data (949 schools), missing weather data (70 schools) and schools with only one year of data (38 schools). Standard deviations are included in parentheses.

Table A4: Pollution: Summary statistics

	O3	NO2	PM25
	(1)	(2)	(3)
EPA's NAAQS	0.070 ppm	100 ppb	35 μ g/m ³
Averaging Time	8-hour	1-hour	24-hour
O3	0.0420 (0.00939)		
NO2		30.80 (13.47)	
PM2.5			11.19 (6.360)
0-25%	0.00908 (0.0841)	0.351 (0.433)	0.457 (0.446)
25-50%	0.209 (0.360)	0.543 (0.435)	0.394 (0.426)
50-75%	0.644 (0.409)	0.105 (0.267)	0.105 (0.263)
75-100%	0.125 (0.279)	0.00146 (0.0308)	0.0299 (0.148)
over 100%	0.0124 (0.0910)	0 (0)	0.0143 (0.0970)
Observations	5,788	5,788	5,788

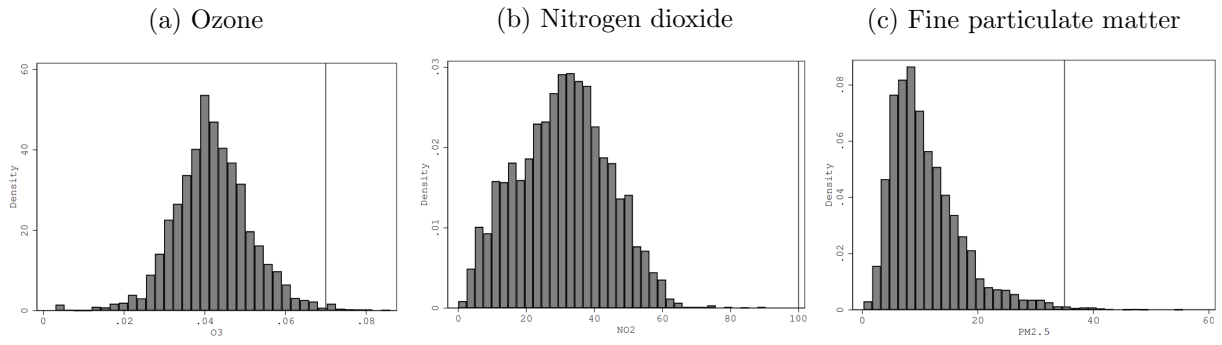
Notes: Table shows the Environmental Protection Agency's (EPA) National Ambient Air Quality Standards (NAAQS) for ozone (O3), nitrogen dioxide (NO2), and fine particulate matter (PM2.5). The table shows the mean and standard deviation for each pollutant, as well as the fraction of physical fitness testing days for each grade-school-year cell in the analysis sample that have pollution levels in each of the following bins, relative the NAAQS threshold: 0-25%, 25-50%, 50-75%, 75-100%, and above the threshold. Standard deviations are shown in parentheses.

Table A5: Pollution: Summary statistics, full sample

	O3	NO2	PM25
	(1)	(2)	(3)
EPA's NAAQS	0.070 ppm	100 ppb	35 μ g/m ³
Averaging Time	8-hour	1-hour	24-hour
O3	0.0426 (0.0100)		
NO2		31.21 (13.35)	
PM2.5			11.08 (6.373)
0-25%	0.0110 (0.0960)	0.341 (0.433)	0.464 (0.450)
25-50%	0.194 (0.358)	0.549 (0.443)	0.389 (0.429)
50-75%	0.639 (0.424)	0.109 (0.279)	0.105 (0.265)
75-100%	0.142 (0.306)	0.00124 (0.0284)	0.0291 (0.148)
over 100%	0.0147 (0.104)	0 (0)	0.0132 (0.0943)
Observations	9,581	9,075	6,870

Notes: Table shows the Environmental Protection Agency's (EPA) National Ambient Air Quality Standards (NAAQS) for ozone (O3), nitrogen dioxide (NO2), and fine particulate matter (PM2.5). The table shows the mean and standard deviation for each pollutant, as well as the fraction of physical fitness testing days for each grade-school-year cell in the full sample that have pollution levels in each of the following bins, relative the NAAQS threshold: 0-25%, 25-50%, 50-75%, 75-100%, and above the threshold. Standard deviations are shown in parentheses.

Figure A1: Distribution of mean pollution levels



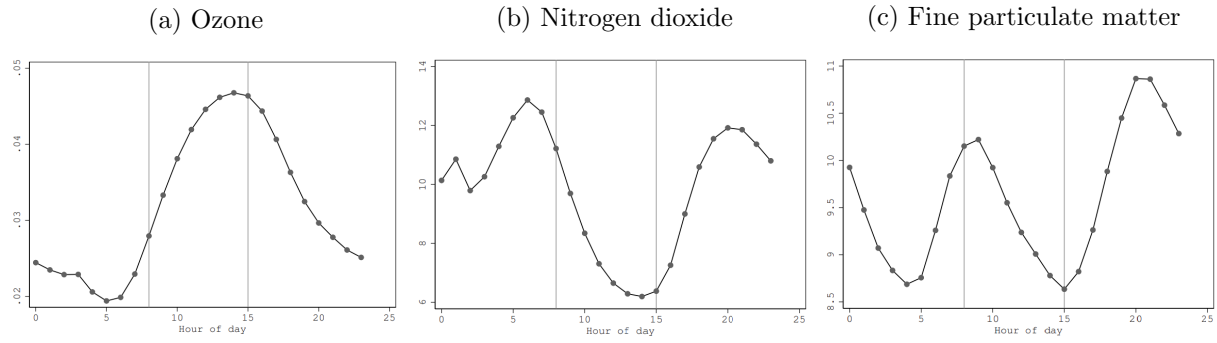
Notes: Figures show the distribution of the mean pollution levels for ozone (ppm), nitrogen dioxide (ppb), and fine particulate matter ($\mu\text{g}/\text{m}^3$). Vertical grey lines denote the EPA NAAQS threshold levels for each pollutant.

Table A6: Robustness to alternate measures of weather

	Fraction Not in HFZ			
	(1)	(2)	(3)	(4)
O3 25-50%	0.0423** (0.0178)	0.0419** (0.0179)	0.0401** (0.0185)	0.0408** (0.0179)
O3 50-75%	0.0379** (0.0183)	0.0374** (0.0184)	0.0367* (0.0191)	0.0348* (0.0187)
O3 75-100%	0.0526*** (0.0202)	0.0507** (0.0204)	0.0502** (0.0211)	0.0477** (0.0209)
O3 over 100%	0.0543** (0.0267)	0.0515* (0.0269)	0.0457* (0.0272)	0.0485* (0.0274)
NO2 25-50%	0.00171 (0.00638)	0.00186 (0.00639)	0.00118 (0.00649)	0.00236 (0.00647)
NO2 50-75%	0.00753 (0.00938)	0.00799 (0.00941)	0.00645 (0.00948)	0.00874 (0.00965)
NO2 75-100%	0.00601 (0.0579)	0.0144 (0.0596)	0.0205 (0.0631)	0.00927 (0.0583)
PM2.5 25-50%	-0.00440 (0.00583)	-0.00466 (0.00587)	-0.00457 (0.00574)	-0.00436 (0.00582)
PM2.5 50-75%	-0.00125 (0.00798)	-0.001000 (0.00799)	-0.000320 (0.00802)	-0.000526 (0.00791)
PM2.5 75-100%	0.000730 (0.0124)	-0.000238 (0.0124)	-0.00456 (0.0123)	0.00306 (0.0126)
PM2.5 over 100%	0.00985 (0.0194)	0.00992 (0.0194)	0.00491 (0.0193)	0.0122 (0.0192)
Observations	5,788	5,788	5,788	5,788
R-squared	0.617	0.617	0.621	0.617

Notes: The outcome is the fraction of students outside the “healthy fitness zone” (HFZ). All regressions include school fixed effects, year fixed effects, grade dummies, and controls for precipitation, humidity, and wind speed. In column 1, temperature controls include percent of test days that fall into 7 temperature bins in degrees Celsius: below 0, 0-5, 5-10, 10-15, 15-20, 20-25, and over 25. In column 2, temperature controls allow for finer bins at high temperatures by replacing the highest bin in column 1 with the following additional bins in degrees Celsius: 25-27, 27-29, 29-31, and over 31. Column 3 includes 34 bins of temperature where there is one bin for temperature below zero, one bin for each degree Celsius between 0 and 33 degrees, and one bin for temperatures above 33 degrees Celsius. Column 4 includes controls for average sunlight and the same temperature controls as column 1. Results are shown for for ozone (O3), nitrogen dioxide (NO2), and fine particulate matter (PM2.5). For each pollutant, the omitted category is 0-25% of the EPA threshold. Regressions are weighted by number of students. Standard errors clustered at the school level are in parentheses.

Figure A2: Hourly pollution concentrations



Notes: Ozone (ppm), Nitrogen dioxide (ppb), and Fine Particulate Matter ($\mu\text{g}/\text{m}^3$) by hour of the day for all monitors in California in 2017. Vertical grey lines denote the approximate start and end times for the school day, 8:00am and 3:00pm.

Table A7: Heterogeneous effects: Gender, race/ethnicity, and income

	All		Female	Male	Hispanic	Black	White	Asian	Econ	Non-Econ
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Panel A. Single Pollutant Model</i>										
O3 25-50%	0.0433** (0.0183)	0.0531** (0.0217)	0.0334* (0.0187)	0.0444** (0.0189)	-0.0162 (0.0581)	0.0123 (0.0495)	0.0271 (0.0462)	0.0451** (0.0205)	-0.0350 (0.0326)	
O3 50-75%	0.0390** (0.0187)	0.0496** (0.0224)	0.0285 (0.0191)	0.0433** (0.0195)	-0.0288 (0.0618)	-0.0139 (0.0494)	0.0390 (0.0473)	0.0371* (0.0211)	-0.0432 (0.0345)	
O3 75-100%	0.0536*** (0.0206)	0.0629** (0.0245)	0.0450** (0.0209)	0.0583*** (0.0215)	0.00740 (0.0666)	-0.00166 (0.0511)	0.0334 (0.0542)	0.0408* (0.0227)	-0.0482 (0.0351)	
O3 over 100%	0.0548** (0.0266)	0.0619* (0.0325)	0.0434* (0.0253)	0.0540* (0.0308)	0.0704 (0.0659)	-0.00200 (0.0572)	0.122** (0.0610)	0.0532* (0.0299)	-0.0427 (0.0436)	
<i>Panel B. Multi-pollutant Model</i>										
O3 25-50%	0.0423** (0.0178)	0.0525** (0.0209)	0.0321* (0.0186)	0.0445** (0.0183)	-0.0188 (0.0606)	0.0115 (0.0467)	0.0294 (0.0471)	0.0430** (0.0205)	-0.0265 (0.0350)	
O3 50-75%	0.0379** (0.0183)	0.0489** (0.0215)	0.0270 (0.0190)	0.0432** (0.0190)	-0.0316 (0.0643)	-0.0131 (0.0469)	0.0402 (0.0481)	0.0343 (0.0213)	-0.0320 (0.0371)	
O3 75-100%	0.0526*** (0.0202)	0.0624*** (0.0238)	0.0435** (0.0208)	0.0575*** (0.0212)	0.00619 (0.0682)	-0.000187 (0.0492)	0.0356 (0.0559)	0.0372 (0.0232)	-0.0354 (0.0380)	
O3 over 100%	0.0543** (0.0267)	0.0626* (0.0325)	0.0418 (0.0254)	0.0539* (0.0314)	0.0647 (0.0691)	-0.000710 (0.0553)	0.120* (0.0634)	0.0517* (0.0310)	-0.0320 (0.0464)	
Observations	5,788	5,496	5,576	5,543	1,383	2,072	894	4,380	2,001	
Schools	804	780	788	787	235	334	167	759	392	
R-squared	0.617	0.603	0.596	0.563	0.565	0.598	0.571	0.626	0.692	

Notes: For all regressions, the outcome is the fraction of students in a particular demographic group that are outside the “healthy fitness zone.” All regressions include school fixed effects, grade dummies, and weather controls. Weather controls include percent of test days that fall into 7 temperature bins, percent of test days with any precipitation, and average precipitation, humidity, and wind speed on test days. Panel A shows results for ozone from the single pollutant model in equation 2. Panel B shows results for ozone (O3) from the multi-pollutant model in equation 4, which includes controls for nitrogen dioxide (NO2), and fine particulate matter (PM2.5). For each pollutant, the omitted category is 0-25% of the EPA threshold. Regressions are weighted by number of students in the relevant demographic category for each grade-school-year cell. Standard errors clustered at the school level are in parentheses.

Table A8: Heterogeneous avoidance behavior: Testing after the scheduled test date

	% Test Late				
	(1)	(2)	(3)	(4)	(5)
O3 25-50%	-0.00459 (0.0293)	-0.00690 (0.0304)	-0.00517 (0.0293)	-0.00366 (0.0303)	-0.00441 (0.0292)
O3 50-75%	-0.0241 (0.0307)	-0.0254 (0.0317)	-0.0246 (0.0307)	-0.0246 (0.0316)	-0.0240 (0.0306)
O3 75-100%	-0.0468 (0.0321)	-0.0470 (0.0332)	-0.0471 (0.0322)	-0.0478 (0.0330)	-0.0471 (0.0321)
O3 over 100%	-0.0655 (0.0654)	0.190 (0.295)	-0.118 (0.202)	-0.0773 (0.0962)	-0.322 (0.214)
O3 over 100% × % Black		-0.728 (0.862)			
O3 over 100% × % Hispanic		-0.229 (0.369)			
O3 over 100% × % Asian		0.0599 (0.345)			
O3 over 100% × % Other		-2.742 (1.891)			
O3 over 100% × % Female			0.106 (0.403)		
O3 over 100% × % Econ. Dis.				0.0185 (0.0845)	
O3 over 100% × % Not in Body Comp. HFZ					0.561 (0.368)
NO2 25-50%	0.0242* (0.0138)	0.0228 (0.0138)	0.0242* (0.0138)	0.0250* (0.0138)	0.0234* (0.0138)
NO2 50-75%	0.0335 (0.0234)	0.0351 (0.0230)	0.0338 (0.0234)	0.0339 (0.0232)	0.0325 (0.0234)
NO2 75-100%	0.0175 (0.0567)	0.0139 (0.0573)	0.0180 (0.0568)	0.0199 (0.0562)	0.0155 (0.0557)
PM2.5 25-50%	0.00376 (0.0105)	0.00125 (0.0104)	0.00372 (0.0105)	0.00447 (0.0105)	0.00392 (0.0105)
PM2.5 50-75%	-0.00795 (0.0175)	-0.00762 (0.0173)	-0.00813 (0.0175)	-0.00586 (0.0174)	-0.00740 (0.0175)
PM2.5 75-100%	0.0437 (0.0279)	0.0406 (0.0275)	0.0435 (0.0279)	0.0449 (0.0282)	0.0466* (0.0280)
PM2.5 over 100%	-0.000393 (0.0346)	0.00456 (0.0339)	-0.000601 (0.0346)	0.00336 (0.0344)	0.00127 (0.0346)
Observations	4,588	4,588	4,588	4,588	4,588
R-squared	0.454	0.459	0.454	0.455	0.455

Notes: For all regressions, pollution is measured as pollution on the most common test date (i.e. the “scheduled” date) across all students in a grade-school-year cell. The outcome for all columns is the percent of students that take the test later than the most common test date. All regressions include school fixed effects, indicators for the year-month of the “scheduled” test, grade dummies, and weather controls. Weather controls include indicators for whether the temperature on the “scheduled” test date falls into one of 7 temperature bins, an indicator for any precipitation, and precipitation, humidity, and wind speed on the “scheduled” test date. Results are shown for for Ozone (O3), nitrogen dioxide (NO2), and fine particulate matter (PM2.5). For each pollutant, the omitted category is 0-25% of the EPA threshold. Regressions are weighted by number of students. Standard errors clustered at the school level are in parentheses.

Table A9: Robustness to alternate distances

	3km (1)	5km (2)	8km (3)	10km (4)
<i>Panel A.</i>				
O3	0.269 (0.974)	0.223 (0.668)	0.674** (0.299)	0.662*** (0.214)
NO2	0.00207* (0.00109)	0.000200 (0.000622)	6.66e-05 (0.000236)	-6.54e-06 (0.000183)
PM2.5	-0.000717 (0.00186)	0.00121 (0.000858)	0.000103 (0.000408)	0.000155 (0.000281)
<i>Panel B.</i>				
zO3	0.00266 (0.00963)	0.00218 (0.00653)	0.00676** (0.00300)	0.00667*** (0.00215)
zNO2	0.0274* (0.0145)	0.00287 (0.00890)	0.000889 (0.00314)	-8.47e-05 (0.00237)
zPM2.5	-0.00449 (0.0116)	0.00790 (0.00559)	0.000655 (0.00260)	0.000994 (0.00181)
<i>Panel C.</i>				
O3 25-50%	0.0884 (0.0838)	0.0724 (0.0714)	0.0423** (0.0178)	0.0233* (0.0133)
O3 50-75%	0.0641 (0.0867)	0.0543 (0.0765)	0.0379** (0.0183)	0.0192 (0.0132)
O3 75-100%	0.128 (0.0898)	0.0879 (0.0756)	0.0526*** (0.0202)	0.0329** (0.0146)
O3 over 100%	0.111 (0.162)	0.0917 (0.0916)	0.0543** (0.0267)	0.0125 (0.0189)
NO2 25-50%	-0.00679 (0.0296)	-0.0215 (0.0161)	0.00171 (0.00638)	0.0119** (0.00506)
NO2 50-75%	0.0117 (0.0424)	-0.0112 (0.0223)	0.00753 (0.00938)	0.00942 (0.00736)
NO2 75-100%		-0.390*** (0.0443)	0.00601 (0.0579)	0.0187 (0.0442)
PM2.5 25-50%	-0.0307 (0.0186)	-0.0209 (0.0133)	-0.00440 (0.00583)	-0.000870 (0.00423)
PM2.5 50-75%	0.00620 (0.0340)	-0.00125 (0.0163)	-0.00125 (0.00798)	-0.00154 (0.00578)
PM2.5 75-100%	-0.0330 (0.0637)	-0.0143 (0.0351)	0.000730 (0.0124)	0.000844 (0.00946)
PM2.5 over 100%	-0.0151 (0.108)	0.0835*** (0.0297)	0.00985 (0.0194)	0.0145 (0.0123)
Observations	422	1,336	5,788	9,683
R-squared	0.677	0.636	0.617	0.631

Notes: Each column shows results where pollution is based on a weighted average from monitors within the relevant distance. The outcome is the fraction of students outside the “healthy fitness zone” (HFZ). All regressions include school fixed effects, year fixed effects, grade dummies, and weather controls. Weather controls include percent of test days that fall into 7 temperature bins, percent of test days with any precipitation, and average precipitation, humidity, and wind speed on test days. Temperature and precipitation are calculated from grid squares with centroids within the relevant distance. Results are shown for for ozone (O3), nitrogen dioxide (NO2), and fine particulate matter (PM2.5). Panel A shows the level of each pollutant. Panel B shows the results for each pollutant after standardizing by the mean and standard deviation. Panel C shows the results for bins of pollution relative to the EPA threshold, where the omitted category for each pollutant is 0-25% of the EPA threshold. All regressions are weighted by number of students. Standard errors clustered at the school level are in parentheses.

Table A10: Robustness to alternate distances using nearest monitor

	3km (1)	5km (2)	8km (3)	10km (4)
<i>Panel A.</i>				
O3	0.261 (0.968)	0.219 (0.664)	0.661** (0.296)	0.653*** (0.209)
NO2	0.00206* (0.00110)	0.000219 (0.000595)	5.53e-05 (0.000236)	5.89e-06 (0.000177)
PM2.5	-0.000709 (0.00187)	0.00122 (0.000860)	0.000122 (0.000417)	0.000141 (0.000284)
<i>Panel B.</i>				
zO3	0.00259 (0.00959)	0.00214 (0.00650)	0.00666** (0.00299)	0.00663*** (0.00212)
zNO2	0.0272* (0.0145)	0.00314 (0.00854)	0.000742 (0.00317)	7.71e-05 (0.00232)
zPM2.5	-0.00444 (0.0117)	0.00791 (0.00558)	0.000775 (0.00265)	0.000911 (0.00183)
<i>Panel C.</i>				
O3 25-50%	0.0884 (0.0838)	0.0702 (0.0716)	0.0388** (0.0168)	0.0213* (0.0128)
O3 50-75%	0.0641 (0.0867)	0.0529 (0.0767)	0.0344** (0.0174)	0.0193 (0.0128)
O3 75-100%	0.128 (0.0898)	0.0829 (0.0758)	0.0491** (0.0194)	0.0323** (0.0143)
O3 over 100%	0.111 (0.162)	0.0884 (0.0918)	0.0465* (0.0265)	0.0117 (0.0194)
NO2 25-50%	-0.00678 (0.0295)	-0.0218 (0.0160)	-0.000108 (0.00739)	0.0129** (0.00547)
NO2 50-75%	0.0117 (0.0425)	-0.00608 (0.0217)	0.00589 (0.0100)	0.00964 (0.00750)
NO2 75-100%		-0.389*** (0.0447)	0.0184 (0.0574)	0.0203 (0.0417)
PM2.5 25-50%	-0.0307 (0.0186)	-0.0225* (0.0133)	-0.00490 (0.00587)	-0.00381 (0.00426)
PM2.5 50-75%	0.00618 (0.0340)	-0.00177 (0.0165)	-0.00326 (0.00807)	-0.00400 (0.00579)
PM2.5 75-100%	-0.0330 (0.0637)	-0.0122 (0.0353)	0.00360 (0.0126)	0.00456 (0.00904)
PM2.5 over 100%	-0.0151 (0.108)	0.0799*** (0.0294)	0.00943 (0.0196)	0.00403 (0.0133)
Observations	422	1,336	5,788	9,683
R-squared	0.677	0.636	0.617	0.631

Notes: Each column shows results where pollution is based on the nearest monitor within the relevant distance. The outcome is the fraction of students outside the “healthy fitness zone” (HFZ). All regressions include school fixed effects, year fixed effects, grade dummies, and weather controls. Weather controls include percent of test days that fall into 7 temperature bins, percent of test days with any precipitation, and average precipitation, humidity, and wind speed on test days. Temperature and precipitation are calculated from grid squares with centroids within the relevant distance. Results are shown for for ozone (O3), nitrogen dioxide (NO2), and fine particulate matter (PM2.5). Panel A shows the level of each pollutant. Panel B shows the results for each pollutant after standardizing by the mean and standard deviation. Panel C shows the results for bins of pollution relative to the EPA threshold, where the omitted category for each pollutant is 0-25% of the EPA threshold. All regressions are weighted by number of students. Standard errors clustered at the school level are in parentheses.