

Online Appendix: Discrimination in Ambient Air Pollution Monitoring?

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Here we present the estimates of the linear probability models (LPM) described in the main text. Table 1 shows cross-sectional LPM estimates from 2015. The outcome variable is an indicator for whether that grid cell contains an ambient pollution monitor; the z-score is calculated using the BEHR remote sensing estimates of NO₂; and demographic variables come from the 2007-2011 5-year block group-level American Community Survey. The first column includes all AQS monitors that monitored ozone, and columns (2)-(5) restricts the sample to SLAMS monitors. Robust standard errors are clustered at the air quality management district level.

Table 2 shows estimates of an LPM for new monitor sitings, described in Section III of the text. An observation is at the grid cell-by-year level using the BEHR remote sensing data. The sample consists of county-by-year combinations that received a new ambient pollution monitor. The outcome variable is an indicator for whether that grid cell received a new pollution monitor, and the sample covers the years 2005-2015. The z-score is calculated using BEHR remote sensing estimates; demographic variables come from the 2007-2011 5-year block group-level American Community Survey. The first three columns include all AQS monitors that monitored ozone, and columns (4)-(6) restricts the sample to new SLAMS monitors. We've suppressed fixed effect parameter estimates. Robust standard errors are clustered at the air quality management district level.

Table 1: Cross-Sectional LPM Estimates for All Monitor (2015)

	(1)	(2)	(3)	(4)	(5)
	Monitor Indicator	SLAMS Monitors	SLAMS Monitors	SLAMS Monitors	SLAMS Monitors
NO2 Zscore	0.00720*** (0.00144)	0.00634*** (0.00122)	-0.000281 (0.00140)	0.0118*** (0.00342)	0.0109*** (0.00402)
Attain*(NO2 Zscore)	-0.00508*** (0.00143)	-0.00466*** (0.00118)	0.000815 (0.00133)	-0.00989*** (0.00343)	-0.00915** (0.00400)
Median Household Income	-0.000117*** (0.0000276)	-0.000112*** (0.0000248)	-0.0000822*** (0.0000263)	-0.000163*** (0.0000439)	-0.000108*** (0.0000246)
Poverty Rate	0.000254*** (0.0000638)	0.000224*** (0.0000537)	0.000461*** (0.0000995)	0.000227*** (0.0000543)	0.000222*** (0.0000555)
Median Rent	0.00000919*** (0.00000151)	0.00000812*** (0.00000139)	0.00000801*** (0.00000138)	0.00000808*** (0.00000141)	0.00000805*** (0.00000136)
Total Population	-0.00124*** (0.000425)	-0.00136*** (0.000385)	-0.00145*** (0.000424)	-0.00150*** (0.000408)	-0.00137*** (0.000391)
Percent White	0.0000210 (0.0000231)	0.0000317 (0.0000203)	0.0000171 (0.0000239)	0.0000218 (0.0000232)	-0.0000139 (0.0000487)
Percent Black	0.000473*** (0.0000956)	0.000477*** (0.0000868)	0.000468*** (0.0000842)	0.000474*** (0.0000867)	0.000463*** (0.0000881)
Percent Asian	0.000660** (0.000276)	0.000690*** (0.000262)	0.000756*** (0.000260)	0.000777*** (0.000270)	0.000652** (0.000270)
Attain*(Pov Rate)			-0.000331*** (0.000107)		
NO2 Zscore*(Pov Rate)			0.000576*** (0.000182)		
Attain*NO2 Zscore*(Pov Rate)			-0.000495*** (0.000172)		
Attain*(Med Inc)				0.000124** (0.0000516)	
NO2 Zscore*(Med Inc)				-0.0000891** (0.0000392)	
Attain*NO2 Zscore*(Med Inc)				0.0000827** (0.0000417)	
Attain*(Pct White)					0.0000594 (0.0000517)
NO2 Zscore*(Pct White)					-0.0000573 (0.0000436)
Attain*NO2 Zscore*(Pct White)					0.0000570 (0.0000438)
Observations	132156	132156	132156	132156	132156

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 2: New Monitor AQS Monitor Sitings

	(1)	(2)	(3)	(4)	(5)	(6)
	New Monitor	New Monitor	New Monitor	New SLAMS Monitor	New SLAMS Monitor	New SLAMS Monitor
NO2 Zscore	0.00519*** (0.00121)	-0.0000692 (0.000471)	0.00792*** (0.00255)	0.00592*** (0.00122)	0.0000687 (0.000601)	0.00773*** (0.00225)
Attain*(NO2 Zscore)	-0.00323** (0.00151)	0.000771 (0.000577)	-0.00584** (0.00266)	-0.00581*** (0.00196)	0.00220** (0.00100)	-0.00720*** (0.00225)
Median Household Income	-0.0000658*** (0.0000236)		-0.0000410** (0.0000172)	-0.0000893*** (0.0000332)		-0.0000662*** (0.0000250)
Attain*(Med Inc)	0.0000672* (0.0000377)			0.0000689 (0.0000549)		
NO2 Zscore*(Med Inc)	-0.0000469** (0.0000179)			-0.0000555*** (0.0000138)		
Attain*NO2 Zscore*(Med Inc)	0.0000368 (0.0000230)			0.0000879*** (0.0000318)		
Total Population	-0.000107 (0.000139)	-0.00000684 (0.000144)	-0.0000742 (0.000151)	-0.000349** (0.000146)	-0.000291* (0.000168)	-0.000305** (0.000147)
Percent White	-0.0000222 (0.0000158)	-0.0000167 (0.0000121)	-0.0000665** (0.0000324)	-0.00000454 (0.0000191)	0.00000629 (0.0000170)	-0.0000442 (0.0000315)
Percent Black	0.000178** (0.0000797)	0.000179** (0.0000787)	0.000154* (0.0000804)	0.000432*** (0.000107)	0.000455*** (0.000106)	0.000411*** (0.000103)
Percent Asian	0.000172 (0.000114)	0.000136 (0.000104)	0.0000438 (0.000102)	0.000217 (0.000180)	0.000167 (0.000158)	0.0000966 (0.000157)
Poverty Rate		0.000162*** (0.0000524)			0.000141* (0.0000715)	
Attain*(Pov Rate)		-0.00000866 (0.0000856)			-0.0000206 (0.000102)	
NO2 Zscore*(Pov Rate)		0.000177*** (0.0000436)			0.000192*** (0.0000499)	
Attain*NO2 Zscore*(Pov Rate)		-0.0000115** (0.0000549)			-0.000225*** (0.0000637)	
Attain*(Pct White)			0.0000618* (0.0000333)			0.0000541 (0.0000408)
NO2 Zscore*(Pct White)			-0.0000737** (0.0000300)			-0.0000652** (0.0000281)
Attain*NO2 Zscore*(Pct White)			0.0000669** (0.0000309)			0.0000828*** (0.0000303)
Observations	111558	111558	111558	42922	42922	42922

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$