ONLINE APPENDIX TO: "AS THE WIND BLOWS: THE EFFECTS OF LONG-TERM EXPOSURE TO AIR POLLUTION ON MORTALITY"

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Appendix

Table A.1: Effects of Frequency Downwind for Different Age Cutoffs

Dependent Variable:	3-yr mortality rate for 70+ year olds from: All causes		3-yr mortality rate for 70+ year olds from: Cardio-respiratory		3-yr mortality rate for 65+ year olds from: All causes		3-yr mortality rate for 65+ year olds from: Cardio-respiratory		3-yr mortality rate for 50+ year olds from: All causes		3-yr mortality rate for 50+ year olds from: Cardio-respiratory	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Estimation method:	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS
Frequency downwind	0.041	0.048	0.032	0.032	0.028	0.033	0.026	0.022	0.003	0.005	0.002	0.000
	(0.016)	(0.021)	(0.012)	(0.016)	(0.012)	(0.016)	(0.009)	(0.012)	(0.007)	(0.009)	(0.005)	(0.006)
Effect of 1 SD change in freq downwind	0.005	0.006	0.004	0.004	0.004	0.004	0.003	0.003	0.000	0.001	0.000	0.000
Dependent variable mean	0.136	0.136	0.086	0.086	0.116	0.116	0.072	0.072	0.062	0.062	0.035	0.035
N	9,810	9,810	9,810	9,810	10,232	10,232	10,232	10,232	10,776	10,776	10,776	10,776

Notes: Each cell represents a separate regression of the dependent variable on the percent of time spent downwind of a major highway (OLS) or instrumented percent of time spent downwind of a major highway (2SLS). The observation is the Census Block, and the sample is limited to Census Blocks with centroids between a minimum of 50 meters and a maximum of 600 meters from major highways. The instruments are a set of seven indicator variables summarizing orientation to the nearest major highway. Parentheses contain spatial standard errors with a 3,200 meter bandwidth. All regressions include controls for distance to highway, weather station fixed effects, 800 meter highway segment fixed effects, share African-American, and share over ages 50, 55, 60, 65, 70, and 75.

Table A.2: Heterogeneity of Effects by Weighting

Dependent Variable:	3-year mortality rate for 75+ year olds from: All causes		Cardio-respiratory		N
	(1)	(2)	(3)	(4)	
Estimation method:	OLS	2SLS	OLS	2SLS	
Baseline estimate	0.064	0.066	0.044	0.036	9,027
	(0.018)	(0.024)	(0.014)	(0.019)	
Effect of 1 SD change in freq downwind	0.008	0.009	0.006	0.005	
Weights:					
Total population	0.064	0.053	0.057	0.043	9,027
	(0.017)	(0.031)	(0.015)	(0.026)	
Effect of 1 SD change in freq downwind	0.008	0.007	0.007	0.006	
Predicted population over 74	0.055	0.045	0.040	0.024	9,027
	(0.017)	(0.027)	(0.014)	(0.022)	
Effect of 1 SD change in freq downwind	0.007	0.006	0.005	0.003	
Actual population 50 to 74	0.055	0.045	0.040	0.024	8,997
	(0.017)	(0.026)	(0.014)	(0.022)	
Effect of 1 SD change in freq downwind	0.007	0.006	0.005	0.003	
Actual population over 74	0.043	0.043	0.026	0.017	9,027
	(0.013)	(0.022)	(0.012)	(0.020)	
Effect of 1 SD change in freq downwind	0.006	0.006	0.003	0.002	

Notes: Each cell represents a separate regression of the dependent variable on the percent of time spent downwind of a major highway (OLS) or instrumented percent of time spent downwind of a major highway (2SLS). The observation is the Census Block, and the sample is limited to Census Blocks with centroids between a minimum of 25/50/100 meters (50 m is the baseline) and a maximum of 400/600/800 meters from major highways (600 m is the baseline). The instruments are a set of seven indicator variables summarizing orientation to the nearest major highway. Parentheses contain spatial standard errors with a 3,200 meter bandwidth. All regressions include controls for distance to highway, weather station fixed effects, highway segment fixed effects, share African-American, and share over ages 50, 55, 60, 65, 70, and 75.