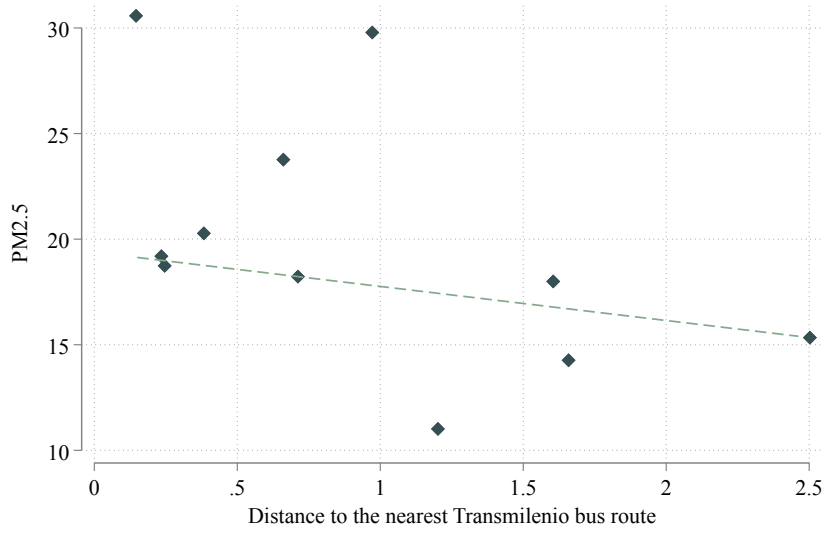
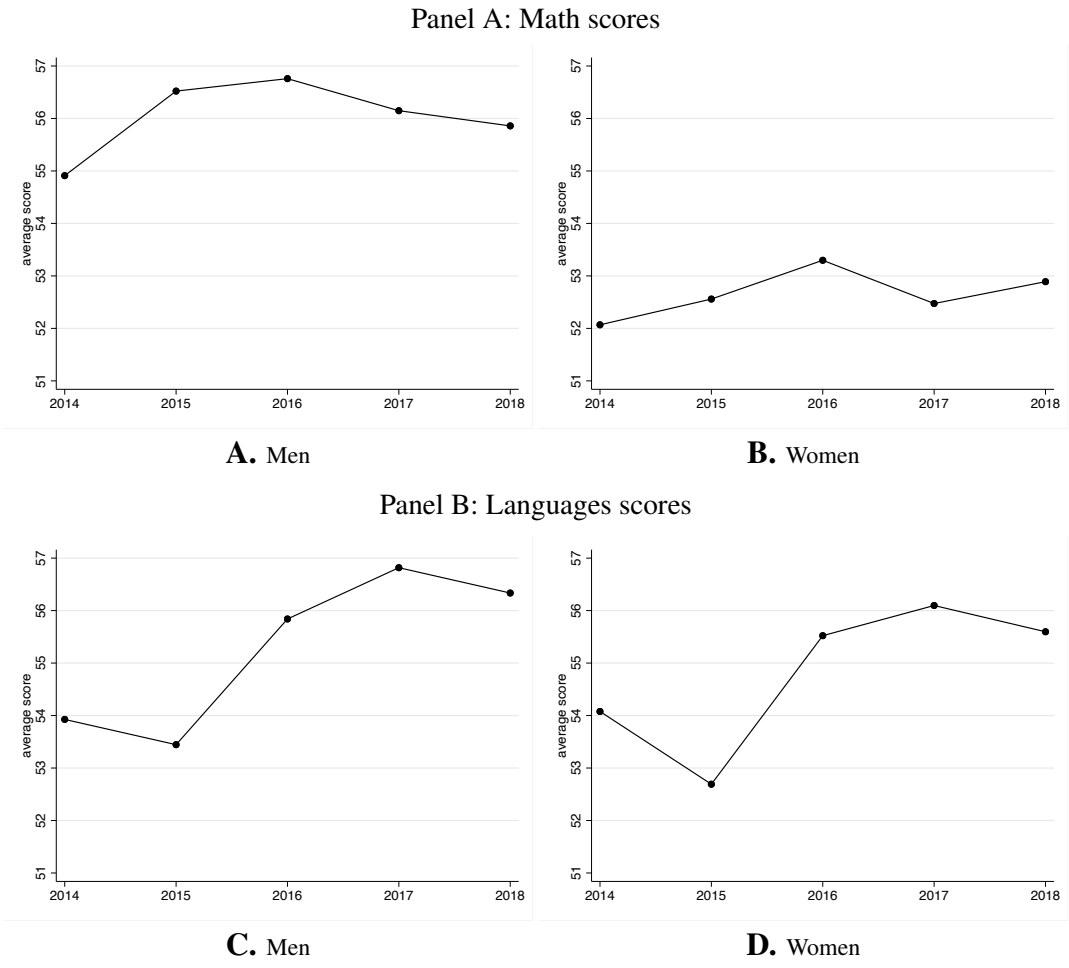
# ONLINE APPENDIX

FIGURE A-1. PM2.5 and Distance to Bus Stations




**Notes**: The figure illustrates the relationship between PM2.5 levels and the distance to the nearest Transmilenio bus route. This relationship is derived from a binned regression of daily PM2.5 levels on the distance to the routes.

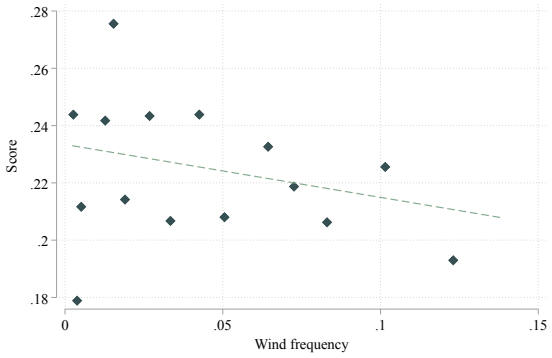
FIGURE A-2. Average Scores in Bogotá



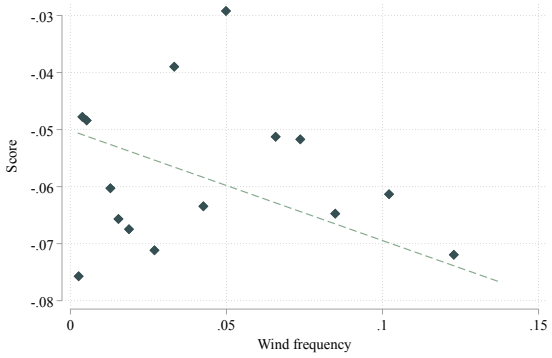

**Notes**: The figures show the relationship between wind frequency blowing to the school and various test scores. Panel A shows the math scores, Panel B shows the language scores, and Panel C shows the global scores. These relationships are derived from a binned regression of the rates on PM2.5 levels at the locality level.

FIGURE A-3. Wind frequency and test scores

Panel A: Math scores

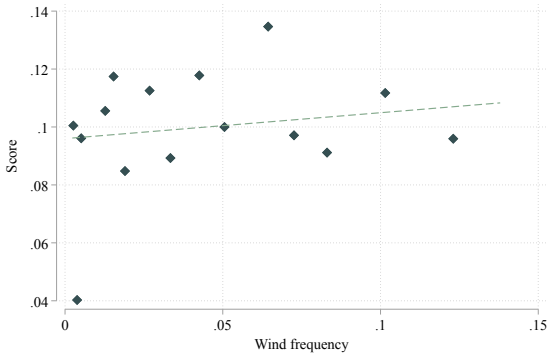



**A.** Men

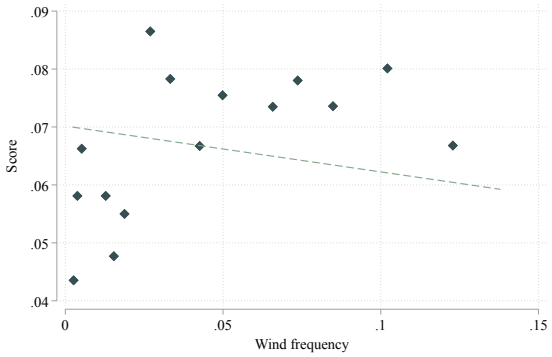



**B.** Women

Panel B: Languages scores

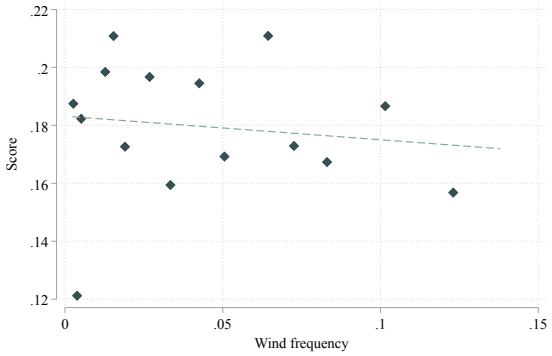



**C.** Men

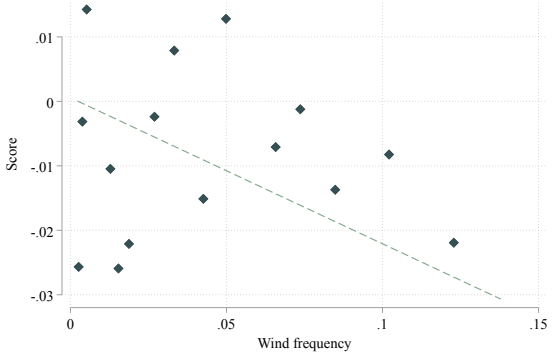



**D.** Women

Panel C: Global scores



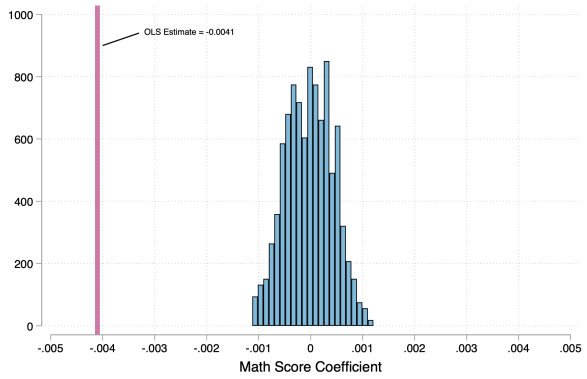

**E.** Men



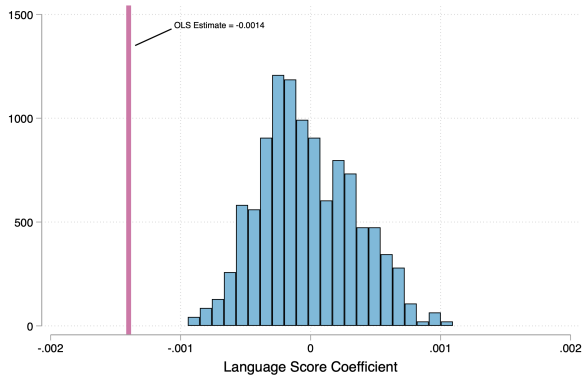

**F.** Women

**Notes**: The figures show the relationship between wind frequency blowing to the school and various test scores. Panel A shows the math scores, Panel B shows the language scores, and Panel C shows the global scores. These relationships are derived from a binned regression of the rates on PM2.5 levels at the locality level.

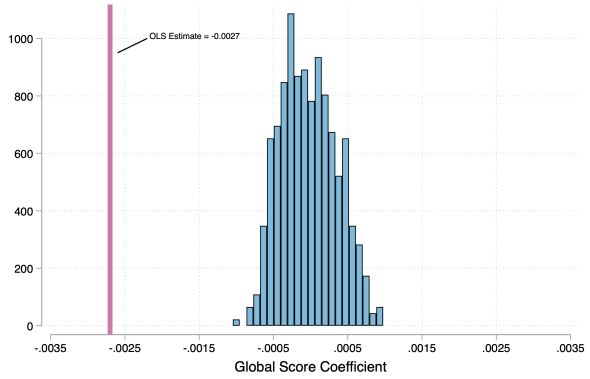
FIGURE A-4. Randomized pollution levels by station




**A.** Math Scores




**B.** Language Scores




**C.** Global Scores

**Notes**: The figures show the result of randomizing the pollution levels across stations and estimating the OLS specification for each test score. The distribution in blue represents the estimates after 500 iterations and the red vertical line corresponds to the baseline OLS coefficients reported in Table 2.

TABLE A-1. Air monitoring stations

| Station name | Latitude | Longitude | Zone | Open year |
|---|---|---|---|---|
| Guaymaral | 4.7837501 | -74.044144 | Sub urbana | 2005 |
| Usaquen | 4.71035 | -74.030418 | Urbana | 2000 |
| Suba | 4.76125 | -74.09346 | Sub urbana | 2000 |
| Las Ferias | 4.6907001 | -74.082481 | Urbana | 2004 |
| Centro de alto rendimiento | 4.6584702 | -74.083969 | Urbana | 2004 |
| MinAmbiente | 4.6254902 | -74.066978 | Urbana | 2000 |
| Puente Aranda | 4.6317701 | -74.117477 | Urbana | 2000 |
| Kennedy | 4.6250501 | -74.161331 | Urbana | 2005 |
| Carvajal-Sevillana | 4.59583 | -74.148499 | Urbana | 2000 |
| Tunal | 4.57623 | -74.130959 | Urbana | 2006 |
| San Cristobal | 4.5725498 | -74.083809 | Urbana | 2010 |

TABLE A-2. Main results: Effect PM2.5 day pollution and health outcomes
Wind share blowing to the house during the sunlight hours

| | PM25 | Respiratory disease | Allergy | Any disease | Emergency visit | Stop routine |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Panel A: *First-stage and reduced-form estimates* | | | | | |
| Wind share | 9.6164*** | 0.1488* | 0.0110 | −0.0933 | −0.1223 | −0.0256 |
| | (2.1925) | (0.0809) | (0.0656) | (0.0950) | (0.0812) | (0.0856) |
| R2 | 0.9420 | 0.1972 | 0.1959 | 0.1838 | 0.1675 | 0.1737 |
| Observations | 14720 | 14720 | 14720 | 14720 | 14720 | 14720 |
| | Panel B: *OLS estimates* | | | | | |
| PM2.5 | - - | −0.0003 | 0.0002 | −0.0001 | 0.0002 | −0.0000 |
| | | (0.0003) | (0.0003) | (0.0002) | (0.0003) | (0.0001) |
| R2 | | 0.1969 | 0.1959 | 0.1837) | 0.1673 | 0.1737) |
| Observations | | 14720 | 14720 | 14720 | 14720 | 14720 |
| | Panel C: *IV estimates* | | | | | |
| PM2.5 | - - | 0.0155* | 0.0011 | −0.0097 | −0.0127 | −0.0027 |
| | | (0.0093) | (0.0068) | (0.0102) | (0.0091) | (0.0089) |
| R2 | | -0.1887 | 0.0066 | -0.0451) | -0.0741 | -0.0009) |
| Observations | | 14720 | 14720 | 14720 | 14720 | 14720 |
| Kleibergen-Paap F | | 19.24 | 19.24 | 19.24 | 19.24 | 19.24 |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Sector FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Notes:** The sample consists of students attending secondary education below 18 years old who live within 1.86 km far from the TransMilenio route. The analysis controls for student age, gender, household head education, family stratum, household size, presence of the mother and the father at home, the presence of a computer in the house, dummy of no residency change in the previous years and school schedule interacted by year. The wind share represents the percentage of time during the year when wind speeds are below 1 mph, blowing from Transmilenio to the house during sunlight hours. In Panel C, the wind share is used as an instrument for a student's yearly average PM2.5 exposure. The outcome in column 2 is the report of having a diagnosis of any respiratory disease. In column 3, the outcome is the diagnosis of an allergy. In column 4, the outcome is equal to one if they report the diagnosis of any disease in the previous 30 months. In column 5, the outcome is equal to one if they report a visit to the emergency room. In column 6, the outcome is equal to one if they report stopping their routine due to an illness. Standard errors are clustered at the building-year level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE A-3. Effect PM2.5 day pollution and health outcomes
Heterogeneous effects

| | Respiratory disease (1) | Allergy (2) | Any disease (3) | Emergency visit (4) | Stop routine (5) |
|---|---|---|---|---|---|
| Panel A: *Gender* | | | | | |
| PM2.5 | 0.0158* | 0.0007 | −0.0095 | −0.0116 | −0.0024 |
| | (0.0092) | (0.0067) | (0.0099) | (0.0090) | (0.0086) |
| PM2.5 x Male | −0.0002 | 0.0005 | −0.0002 | −0.0011** | −0.0003 |
| | (0.0004) | (0.0004) | (0.0006) | (0.0005) | (0.0005) |
| R2 | -0.1910 | 0.0068 | -0.0422 | -0.0722 | 0.0009 |
| Observations | 14714 | 14714 | 14714 | 14714 | 14714 |
| Kleibergen-Paap F | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| Panel B: *Family stratum* | | | | | |
| PM2.5 | 0.0253* | −0.0027 | −0.0236 | −0.0224 | −0.0115 |
| | (0.0150) | (0.0109) | (0.0172) | (0.0157) | (0.0148) |
| PM2.5 x Medium | −0.0053 | 0.0052 | 0.0124** | 0.0067 | 0.0084* |
| | (0.0045) | (0.0036) | (0.0055) | (0.0057) | (0.0043) |
| PM2.5 x Poor | −0.0104 | 0.0037 | 0.0162* | 0.0111 | 0.0099 |
| | (0.0070) | (0.0056) | (0.0087) | (0.0084) | (0.0072) |
| R2 | -0.2555 | 0.0033 | -0.0641 | -0.0951 | -0.0098 |
| Observations | 14714 | 14714 | 14714 | 14714 | 14714 |
| Kleibergen-Paap F | 4.62 | 4.62 | 4.62 | 4.62 | 4.62 |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Sector FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ |

**Notes:** The sample consists of students attending secondary education below 18 years old who live within 1.86 km from the Trans-Milenio route. The analysis controls for student age, gender, household head education, family stratum, household size, presence of the mother and the father at home, the presence of a computer in the house, dummy of no residency change in the previous years, and school schedule interacted by year. The wind share represents the percentage of time during the year when wind speeds are below 1 mph, blowing from Transmilenio to the house at sunlight hours. In Panel A, we estimate the differential effect according to students' gender, and in Panel B, we estimate the differential effect according to the students' family stratum. The outcome in column 1 is the report of having a diagnosis of any respiratory disease. In column 2, the outcome is the diagnosis of an allergy. In column 3, the outcome is equal to one if they report the diagnosis of any disease in the previous 30 months. In column 4, the outcome is equal to one if they report a visit to the emergency room. In column 5, the outcome is equal to one if they report stopping their routine due to an illness. Standard errors are clustered at the building-year level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE A-4. Main results: Effect PM2.5 day pollution and health outcomes
Wind share blowing to the house during sunlight hours - Primary school

| | PM25 | Respiratory disease | Allergy | Any disease | Emergency visit | Stop routine |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Panel A: *First-stage and reduced-form estimates* | | | | | |
| Wind share | 9.1553*** | −0.0450 | −0.1030 | 0.1607 | −0.1141 | 0.1248 |
| | (2.3429) | (0.0692) | (0.0706) | (0.1139) | (0.1073) | (0.0761) |
| R2 | 0.9323 | 0.2527 | 0.2612 | 0.2485 | 0.2233 | 0.2278 |
| Observations | 11346 | 11346 | 11346 | 11346 | 11346 | 11346 |
| | Panel B: *OLS estimates* | | | | | |
| PM2.5 | - - | −0.0000 | −0.0000 | −0.0003 | 0.0003 | −0.0002 |
| | | (0.0003) | (0.0001) | (0.0002) | (0.0004) | (0.0002) |
| R2 | | 0.2527 | 0.2610 | 0.2482) | 0.2233 | 0.2276) |
| Observations | | 11346 | 11346 | 11346 | 11346 | 11346 |
| | Panel C: *IV estimates* | | | | | |
| PM2.5 | - - | −0.0049 | −0.0113 | 0.0175 | −0.0125 | 0.0136 |
| | | (0.0077) | (0.0082) | (0.0134) | (0.0123) | (0.0090) |
| R2 | | -0.0110 | -0.1096 | -0.1729) | -0.0635 | -0.1465) |
| Observations | | 11346 | 11346 | 11346 | 11346 | 11346 |
| Kleibergen-Paap F | | 15.27 | 15.27 | 15.27 | 15.27 | 15.27 |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Sector FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Notes:** The sample consists of students attending secondary education below 18 years old who live within 1.86 km from the Trans-Milenio route. The analysis controls for student age, gender, household head education, family stratum, household size, presence of the mother and the father at home, the presence of a computer in the house, dummy of no residency change in the previous years ,and school schedule interacted by year. The wind share represents the percentage of time during the year when wind speeds are below 1 mph, blowing from Transmilenio to the house at sunlight hours. In Panel A, we estimate the differential effect according to students' gender, and in Panel B, we estimate the differential effect according to the students' family stratum. The outcome in column 1 is the report of having a diagnosis of any respiratory disease. In column 2, the outcome is the diagnosis of an allergy. In column 3, the outcome is equal to one if they report the diagnosis of any disease in the previous 30 months. In column 4, the outcome is equal to one if they report a visit to the emergency room. In column 5, the outcome is equal to one if they report stopping their routine due to an illness. Standard errors are clustered at the building-year level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE A-5. Effect PM2.5 night pollution and exam scores
Wind share blowing to the school at night hours

| | (1) PM2.5 | (2) Math | (3) Lang. | (4) Global |
|---|---|---|---|---|
| | Panel A: *First-stage wind share 6:00pm - 11:00pm* | | | |
| Wind share | -1.435 | -0.264* | -0.045 | -0.191 |
| | (1.100) | (0.160) | (0.120) | (0.140) |
| R2 | 0.9962 | 0.3293 | 0.2432 | 0.3699 |
| Observations | 199699 | 199699 | 199699 | 199699 |
| | Panel B: *IV Wind share 6:00pm - 11:00pm* | | | |
| PM2.5 | – | 0.184 | 0.031 | 0.133 |
| | | (0.200) | (0.090) | (0.150) |
| R2 | | -0.0877 | 0.0216 | -0.0295 |
| Observations | | 199699 | 199699 | 199699 |
| Kleibergen-Paap F | | 1.69 | 1.69 | 1.69 |
| | Panel C: *First-stage wind share 12:00am - 5:00am* | | | |
| Wind share | -4.133*** | -0.238 | -0.060 | -0.169 |
| | (1.160) | (0.150) | (0.130) | (0.130) |
| R2 | 0.9910 | 0.3293 | 0.2432 | 0.3699 |
| Observations | 199699 | 199699 | 199699 | 199699 |
| | Panel D: *IV Wind share 12:00am - 5:00am* | | | |
| PM2.5 | – | 0.058 | 0.015 | 0.041 |
| | | (0.040) | (0.030) | (0.030) |
| R2 | | 0.0451 | 0.0245 | 0.0461 |
| Observations | | 199699 | 199699 | 199699 |
| Kleibergen-Paap F | | 12.64 | 12.64 | 12.64 |
| Controls | ✓ | ✓ | ✓ | ✓ |
| School FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| Municipality FE | ✓ | ✓ | ✓ | ✓ |

**Notes:** The sample consists of test-takers aged 15 to 18 from 2014-2018, who took the exam in the second half of the year and whose schools are within 1.86 km far from the TransMilenio route. The analysis controls for student age, gender, mother's education, family stratum, household size, and the presence of a computer in the house. In Panels An and B, the wind share used as an instrument is the percentage of time during the year when wind speeds are below 1 mph, blowing from TransMilenio to the schools between 6:00 pm and 11:00 pm. In Panels C and D, the wind share blowing from TransMilenio to the schools used as an instrument is measured between 12:00 am and 5:00 am. Standard errors are clustered at the school-year level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE A-6. Wind share and demographic characteristics

| | (1) Age | (2) Female | (3) Educ. Father | (4) Educ. Mother | (5) Stratum $\leq 3$ | (6) HH Size | (7) HH Computer |
|---|---|---|---|---|---|---|---|
| | | | | Panel A: *Wind share - Day* | | | |
| Wind share | 0.015 | 0.017 | -0.039 | -0.059 | 0.021 | -0.173 | 0.040 |
| | (0.060) | (0.040) | (0.030) | (0.040) | (0.020) | (0.120) | (0.030) |
| R2 | 0.0847 | 0.1107 | 0.2986 | 0.1780 | 0.4134 | 0.0908 | 0.1177 |
| Observations | 271555 | 271555 | 255142 | 267470 | 271555 | 271555 | 271555 |
| | | | | Panel B: *Wind share - Night* | | | |
| Wind share | 0.041 | 0.008 | -0.011 | 0.033 | 0.055 | -0.088 | 0.075 |
| | (0.090) | (0.060) | (0.050) | (0.060) | (0.040) | (0.210) | (0.050) |
| R2 | 0.0847 | 0.1107 | 0.2986 | 0.1780 | 0.4134 | 0.0908 | 0.1177 |
| Observations | 271555 | 271555 | 255142 | 267470 | 271555 | 271555 | 271555 |
| School FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Notes:** The sample consists of test-takers aged 15 to 18 from 2014-2018, who took the exam in the second half of the year and whose schools are within 1.86 km far from the TransMilenio route. The outcomes in each column are children's and houshold's socioeconomic characteristics such as age, female, indicators for parents education above high school, economic stratum below 3, household size above 4 members, and presence of a computer in the house. All specifications include the whole set of demographic characteristics as controls, except when that variable is the outcome. In Panel A, the wind share represents the percentage of time during the year when wind speeds are below 1 mph, blowing from TransMilenio to the schools during sunlight hours. In Panel B, the wind share is computed at night. Standard errors are clustered at the school-year level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE A-7. Effect PM2.5 day pollution and older test-takers

| | (1) Math | (2) Lang. | (3) Global |
|---|---|---|---|
| | Panel A: *IV Wind share - Day* | | |
| PM2.5 | 0.003 | 0.015* | 0.012 |
| | (0.010) | (0.010) | (0.010) |
| R2 | 0.1058 | 0.0524 | 0.0938 |
| Observations | 38997 | 38997 | 38997 |
| Kleibergen-Paap F | 39.98 | 39.98 | 39.98 |
| | Panel B: *IV Wind share - Night* | | |
| PM2.5 | 0.022 | 0.041 | 0.078 |
| | (0.070) | (0.090) | (0.080) |
| R2 | 0.1033 | 0.0470 | 0.0615 |
| Observations | 38997 | 38997 | 38997 |
| Kleibergen-Paap F | 3.21 | 3.21 | 3.21 |
| Controls | ✓ | ✓ | ✓ |
| School FE | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ |
| Municipality FE | ✓ | ✓ | ✓ |

**Notes:** The sample consists of test-takers aged 19 to 70 from 2014-2018, who took the exam in the second half of the year and whose schools are within 1.86 km far from the TransMilenio route. The analysis controls for student age, gender, mother's education, family stratum, household size, and the presence of a computer in the house. In Panel A, the wind share used as an instrument is the percentage of time during the year when wind speeds are below 1 mph, blowing from TransMilenio to the schools between 7:00 am and 6:00 pm. In Panel B, the wind share blowing from TransMilenio to the schools used as an instrument is measured between 7:00 pm and 11:00 pm. Standard errors are clustered at the school-year level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE A-8. Effect PM2.5 day pollution and exam scores
Wind share blowing to the school at sunlight hours without bus intensity

| | PM25 (1) | Math (2) | Lang. (3) | Global (4) |
|---|---|---|---|---|
| | Panel A: *First-stage and reduced-form estimates* | | | |
| Wind share | $64.3070^{***}$ | $-0.6124^{*}$ | $-0.2571$ | $-0.4839$ |
| | (6.3737) | (0.3370) | (0.2977) | (0.2991) |
| R2 | 0.9961 | 0.3161 | 0.2365 | 0.3575 |
| Observations | 271555 | 271555 | 271555 | 271555 |
| | Panel B: *OLS estimates* | | | |
| PM2.5 | - - | $-0.0040^{***}$ | $-0.0015$ | $-0.0028^{**}$ |
| | | (0.0010) | (0.0012) | (0.0011) |
| R2 | | 0.3162 | 0.2365 | 0.3575) |
| Observations | | 271555 | 271555 | 271555 |
| | Panel C: *IV estimates* | | | |
| PM2.5 | - - | $-0.0095^{*}$ | $-0.0040$ | $-0.0075$ |
| | | (0.0053) | (0.0046) | (0.0047) |
| R2 | | 0.0689 | 0.0304 | 0.0633) |
| Observations | | 271555 | 271555 | 271555 |
| Kleibergen-Paap F | | 101.79 | 101.79 | 101.79 |
| Controls | ✓ | ✓ | ✓ | ✓ |
| School FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| Municipality FE | ✓ | ✓ | ✓ | ✓ |

**Notes:** The sample consists of students aged 15 to 18 from 2014-2018 (Schedule A) who took the exam in the second half of the year and whose schools are within 1.86 km far from the TransMilenio route. The analysis controls for student age, gender, mother's education, family stratum, household size, and the presence of a computer in the house. The wind share represents the percentage of time during the year when wind speeds are below 1 mph, blowing from TransMilenio to the school at sunlight hours. In Panel C, the wind share is used as an instrument for a student's yearly average PM2.5 exposure. Standard errors are clustered at the school-year level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE A-9. PM2.5 pollution and exam scores
Wind share blowing to the school at sunlight hours from routes with no TransMilenio buses

| | PM25 (1) | Math (2) | Lang. (3) | Global (4) |
|---|---|---|---|---|
| | Panel A: *First-stage and reduced-form estimates* | | | |
| Wind share | 10.3600** | −0.0520 | 0.1452 | −0.1238 |
| | (4.6097) | (0.3874) | (0.3433) | (0.3615) |
| R2 | 0.9849 | 0.3435 | 0.2509 | 0.3830 |
| Observations | 166378 | 174842 | 174842 | 174842 |
| | Panel B: *OLS estimates* | | | |
| PM2.5 | - - | −0.0067*** | 0.0006 | −0.0011 |
| | | (0.0020) | (0.0022) | (0.0020) |
| R2 | | 0.3326 | 0.2452 | 0.3723) |
| Observations | | 166378 | 166378 | 166378 |
| | Panel C: *IV estimates* | | | |
| PM2.5 | - - | 0.0082 | −0.0013 | −0.0024 |
| | | (0.0377) | (0.0341) | (0.0354) |
| R2 | | 0.0723 | 0.0316 | 0.0657) |
| Observations | | 166378 | 166378 | 166378 |
| Kleibergen-Paap F | | 5.05 | 5.05 | 5.05 |
| Controls | ✓ | ✓ | ✓ | ✓ |
| School FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| Municipality FE | ✓ | ✓ | ✓ | ✓ |

**Notes:** The sample consists of students aged 15 to 18 from 2014-2018 (Schedule A) who took the exam in the second half of the year and whose schools are above 1.16 km from the nearest TransMilenio route and within 1.86 km from the nearest route without TransMilenio. The analysis controls for student age, gender, mother's education, family stratum, household size, and the presence of a computer in the house. The wind share represents the percentage of time during the year when wind speeds are below 1 mph, blowing from TransMilenio to the school during sunlight hours. In Panel C, the wind share is used as an instrument for a student's yearly average PM2.5 exposure. Standard errors are clustered at the school-year level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE A-10. Effect wind share blowing to the school at sunlight hours on PM2.5 Pollution

| | Year (1) | 5.5 Months (2) | 5 Months (3) | 4.5 Months (4) | 4 Months (5) | 3.5 Months (6) | 3 Months (7) | 2.5 Months (8) | 2 Months (9) |
|---|---|---|---|---|---|---|---|---|---|
| Wind share | 21.2317*** | 22.5326*** | 17.7762*** | 12.8579*** | 16.0349*** | 7.9797** | 11.2821** | 5.8216 | −3.2901 |
| | (2.8331) | (4.0107) | (4.0314) | (3.9085) | (3.9986) | (3.4868) | (4.8650) | (3.6106) | (2.3899) |
| R2 | 0.9961 | 0.9936 | 0.9933 | 0.9903 | 0.9911 | 0.9894 | 0.9832 | 0.9868 | 0.9907 |
| Observations | 271555 | 271555 | 271555 | 271555 | 271555 | 271555 | 271555 | 271555 | 271555 |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| School FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Notes:** The sample consists of students aged 15 to 18 from 2014-2018 (Schedule A) who took the exam in the second half of the year and whose schools are within 1.86 km far from the TransMilenio route. The analysis controls for student age, gender, mother's education, family stratum, household size, and the presence of a computer in the house. The wind share represents the percentage of time during each interval of time before the exam when wind speeds are below 1 mph, blowing from Transmilenio to the school at sunlight hours. Standard errors are clustered at the school-year level in parentheses. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.