DOI: 10.1289/EHP9307

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Supplemental Material

Sociodemographic Patterns of Exposure to Civil Aircraft Noise in the United States

Matthew C. Simon, Jaime E. Hart, Jonathan I. Levy, Trang VoPham, Andrew Malwitz, Daniel Nguyen, Matthew Bozigar, L. Adrienne Cupples, Peter James, Francine Laden, and Junenette L. Peters

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Table S2. Multivariable-adjusted odds ratio for block group exposure to day-night average sound level (DNL) \geq 45 dB(A) (86 airports with \geq 100 block groups within the buffer area) for a 10% increase in percent of block group with characteristic, in the main model controlling for all variables with adjustment for airport and in second model additionally adjusting for distance to airport.

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- **Table S8.** Multivariable-adjusted odds ratio for block group exposure to nighttime average sound level (LAeqN) \geq 45 dB(A) (54 airports with \geq 100 block groups within the buffer area) for a 10% increase in percent of block group with characteristic, in the main model controlling for all variables with adjustment for airport and in a second model additionally adjusting for distance to airport.
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Table S14. Univariable odds ratio for block group exposure to nighttime average sound level (LAeqN) \geq 55 dB(A) (10 airports with \geq 100 block groups within the buffer area) for a 10% increase in percent of block group with each characteristic. N=2,151 block groups (58 exposed).

Figure S1. Mean-difference plots for socially vulnerable groups: A) non-Hispanic Black, B) non-Hispanic Asian, C) Hispanic, D) non-Hispanic Other, E) no high school diploma or GED, F) high school diploma or GED only, G) annual household income \$25,000, H) annual household income \$25,000 to <\$50,000, and I) annual household income \$50,000 to <\$75,000. In plots A-I, each airport-specific relationship is represented by a point (nairport=86), where the x-axis is the mean of the percent socially vulnerable group for all block groups within the maximum extent and the y-axis is the mean difference between the percent exposed for the socially vulnerable group and the airport mean. Airports above the zero line were those found to have block groups with a *greater* percentage of socially vulnerable groups within the 45-dB(A) noise contour than the mean of all block groups around that airport (i.e., more exposed). Airports below the zero line were those found to have block groups with a *lower* percentage of socially vulnerable groups within the 45-dB(A) noise contour than the mean of all block groups around that airport (i.e., less exposed). Points along the zero line are airports where there is no difference in percent socially vulnerable groups within the DNL 45-dB(A) contour (i.e., exposed) relative to the airport mean. Dashed lines are the mean of the mean differences across all airports.

Figure S2. Mean-difference plots for socially vulnerable groups: A) non-Hispanic Black, B) non-Hispanic Asian, C) Hispanic, D) non-Hispanic Other, E) no high school diploma or GED, F) high school diploma or GED only, G) annual household income \$25,000, H) annual household income \$25,000 to <\$50,000, and I) annual household income \$50,000 to <\$75,000. In plots A-I, each airport-specific relationship is represented by a point (n_{airport}=14), where the x-axis is the mean of the percent socially vulnerable group for all block groups within the maximum extent and the y-axis is the mean difference between the percent exposed for the socially vulnerable group and the airport mean. Airports above the zero line were those found to have block groups with a *greater* percentage of socially vulnerable groups within the 65-dB(A) noise contour than the mean of all block groups around that airport (i.e., more exposed). Airports below the zero line were those found to have block groups with a *lower* percentage of socially vulnerable groups within the 65-dB(A) noise contour than the mean of all block groups around that airport (i.e., less exposed). Points along the zero line are airports where there is no difference in percent socially vulnerable groups within the DNL-65 dB(A) contour (i.e., exposed) relative to the airport mean. Dashed lines are the mean of the mean differences across all airports.