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Supplemental Material

Disparities in Air Pollution Exposure in the United States by Race/Ethnicity and Income, 1990–2010

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Figures and Tables Summary

Figure S1. Population weighted exposure distribution in year-2010 for seven demographic attributes: race-ethnicity, household income, income poverty ratio, age, language, mobility, and travel time to work. For each boxplot, the lowest bound is the 10th percentile value; the box ranges from 25th to 75th percentile and the middle line in the box is the median value; the highest bound is the 90th percentile value. The red point in each boxplot is the population-weighted average for the group. Race-ethnicity includes four groups: non-Hispanic white, non-Hispanic black, Hispanic, and non-Hispanic Asian. Household annual income had 16 categories (in U.S. dollars: <10k, 10k-15k, 15k-20k, 20k-25k, 25k-30k, 30k-35k, 35k-40k, 40k-45k, 45k-50k, 50k-60k, 60k-75k, 75k-100k, 100k-125k, 125k-150k, 150k-200k, >200k). Ratio of income to poverty level were analyzed at five ranges: smaller than 0.5; 0.5-1; 1-1.5; 1.5-2; larger than 2. Age has 4 categories: younger than 5 years old; 5-17 years old; 18-65 years old; older than 65. Language data are by household language for 14-year and over. Total of 9 different household languages were analyzed: English only; Spanish and no 14+ speaks English only or “very well”; Spanish and at least one 14+ speaks English only or “very well”; Other Indo-European language and no 14+ speaks English only or “very well”; Other Indo-European language and at least one 14+ speaks English only or “very well”. Asian and Pacific Island language and no 14+ speaks English only or “very well”; Asian and Pacific Island language and at least one 14+ speaks English only or “very well”. Other language and no 14+ speaks English only or “very well”; Other language and at least one 14+ speaks English only or “very well”. Mobility contained the geographical mobility in the past year for people who currently reside in a Metropolitan Statistical Areas (MSA) data of six different status: same house as 1 year ago; different house but the same MSA; different house and different MSA; different house and moved from micropolitan statistical areas; different house and not moved from MSA or micropolitan statistical areas; abroad 1 year ago. Travel time covers workers 16 year and over in 7 levels: less than 10 minutes; 10-20 minutes; 20-30 minutes; 30-40 minutes; 40-60 minutes; 60-90 minutes; more than 90 minutes; people who work at home are excluded.

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