Home Versus Nonhome Neighborhood

Quantifying Differences in Exposure to the Built Environment

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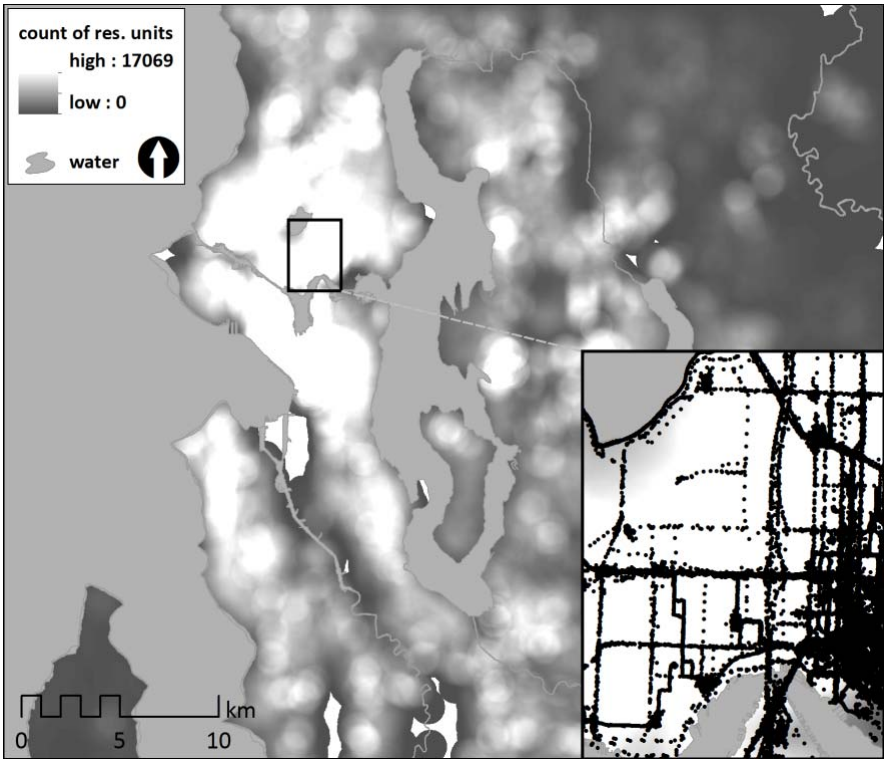
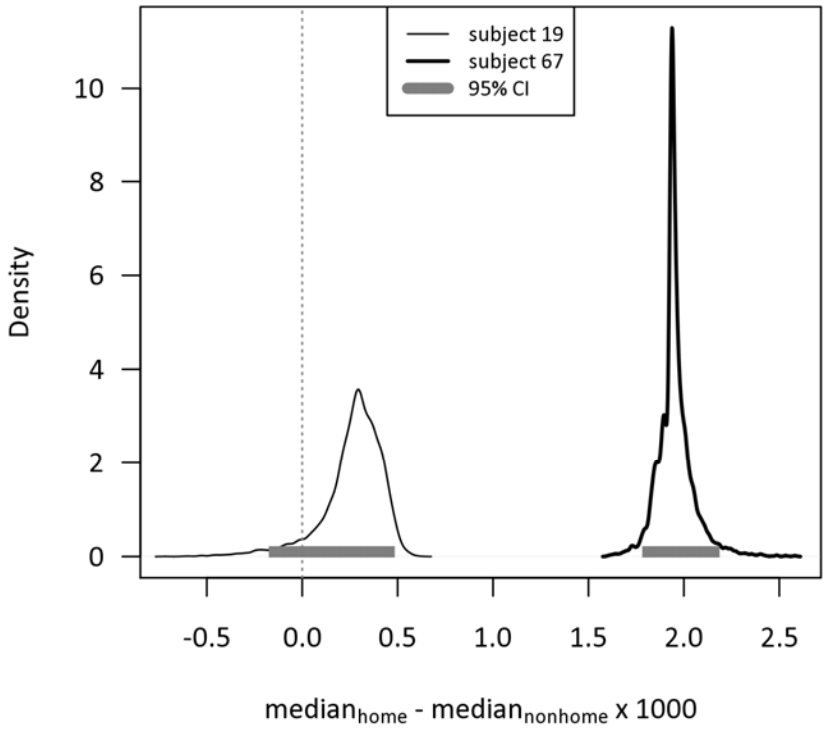
Appendix A

A SmartMap of residential unit counts with combined GPS tracks (inset)



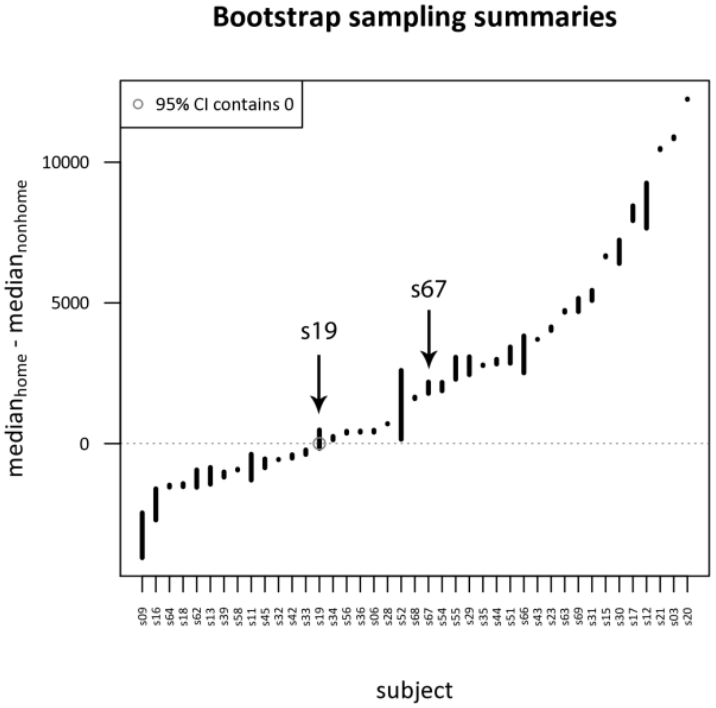
Appendix B

Density graph of difference of medians of residential unit counts between home and nonhome locations from the bootstrap samples for two subjects



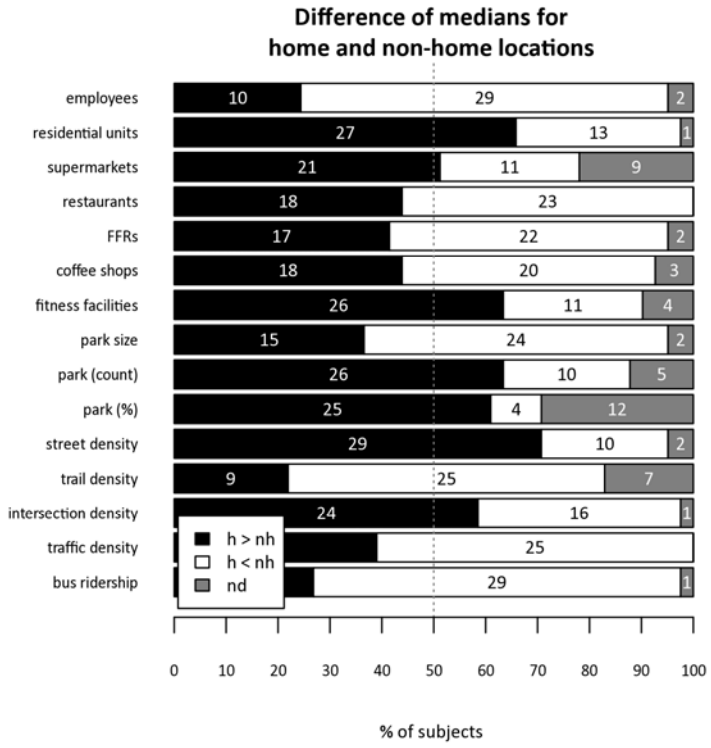
Appendix C

Set of CIs for all subjects regarding the difference in median values of residential unit counts of home locations and nonhome locations



Note: Vertical bars indicate the CI. CI>0 indicates higher density near home; CI<0 indicates lower density near home.

For each built environment variable, percentage of subjects whose median home built environment values were significantly higher, smaller, and not different for home and nonhome values



Note: Values printed on the bars are counts of subjects.
FFR, fast food restaurants; h, home; nd, no difference; nh, nonhome

Appendix D

One graph per SmartMap shows the set of CIs for all subjects regarding the difference in median values of the bootstrap sample of the measured variable for home and nonhome locations. Vertical bars indicate the 95% CI of that difference of medians. For each variable–subject CI bar, a CI straddling zero means there was no difference between home and nonhome locations. A CI >0 means the value of the variable was higher near home, and a CI <0 indicates the value was lower near home.

Variables with more CI bars <0 (e.g., employees) indicate overall lower values near home than away from home (i.e., there were generally lower counts of employees in near-home activity spaces). Conversely, variables with more CI bars >0 (e.g., residential units) indicate overall greater values near home.

Variables with slopes approaching 1 (e.g., intersection density [Figure D13]; traffic volume [Figure D14]; and bus ridership [Figure D15]) indicate consistent environmental variation among subjects. Variables with lower slope (e.g., employees [Figure D1]; percentage of area in park [Figure D10]) indicate existence of outliers who have either substantially greater value near home or away from home. For example, one subject has substantially lower counts of employees near home, and two subjects have substantially greater counts of employees near home.

Variables with few or no CI bars straddling zero (e.g., traditional restaurants [Figure D4], street density [Figure D11]) indicate fewer subjects with homogeneous environments across activity space for the respective variable. In contrast, variables with more CI bars straddling zero (e.g., supermarket/grocery stores [Figure]; fitness places [Figure D7]; percentage of area in park [Figure]) indicate more subjects with homogeneous environments across their respective activity spaces.

Variables with shorter CI bars (e.g., park size [Figure D8]) indicate relatively low intra-subject variation across each subject's activity space, whereas variables with longer CI bars indicate more intra-subject variation (e.g., trail density [Figure D12], bus ridership [Figure D15]).

Although there were a few variables with more homogeneity within participants' activity space (count of supermarkets and percentage of park area), in general there was substantial intersubject variability for different built environment variables. For this population living and working in the same region, this finding demonstrated differential patterns of movement through various environment types across subjects.

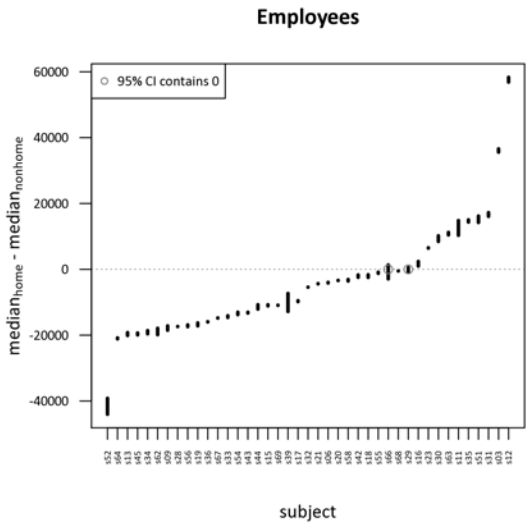


Figure D1. Count of employees in the bandwidth circle

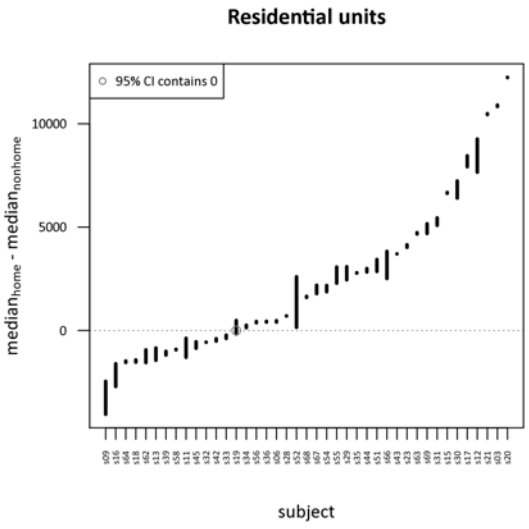


Figure D2. Count of residential units

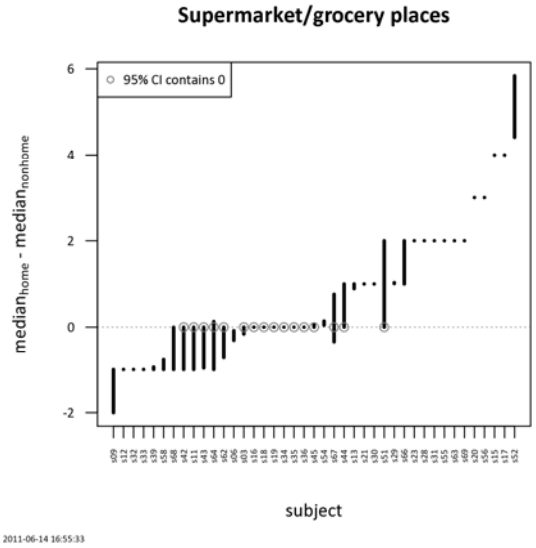


Figure D3. Count of supermarkets and grocery stores

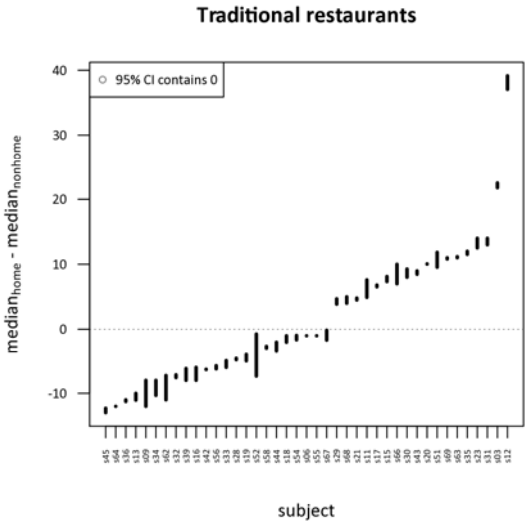


Figure D4. Count of traditional restaurants

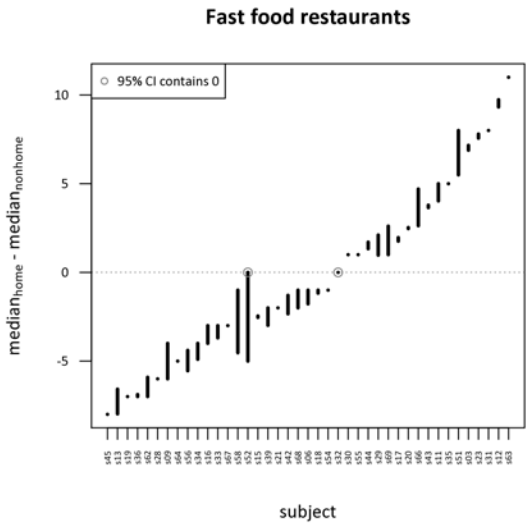


Figure D5. Count of fast food restaurants

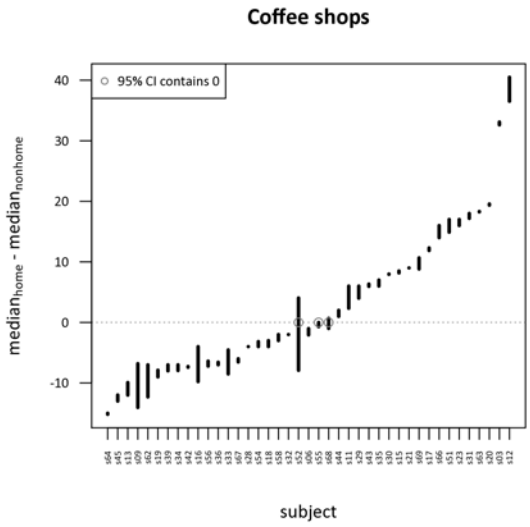


Figure D6. Count of coffee shops

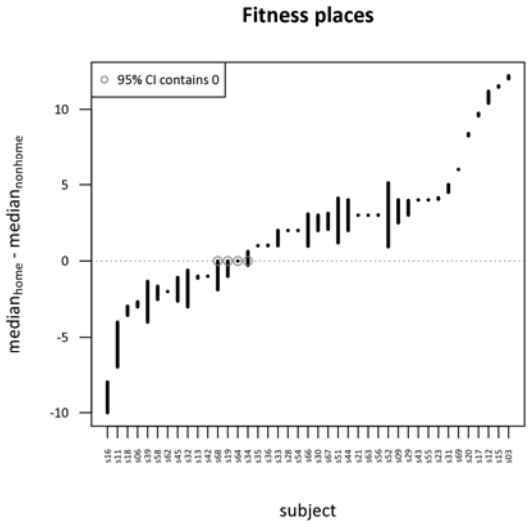


Figure D7. Count of fitness facilities

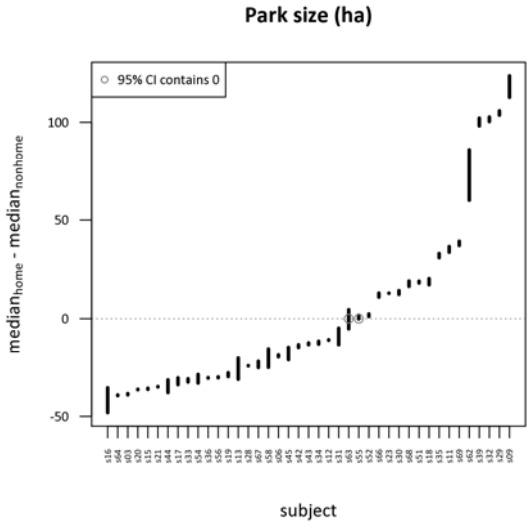


Figure D8. Size of parks overlapping the bandwidth circle

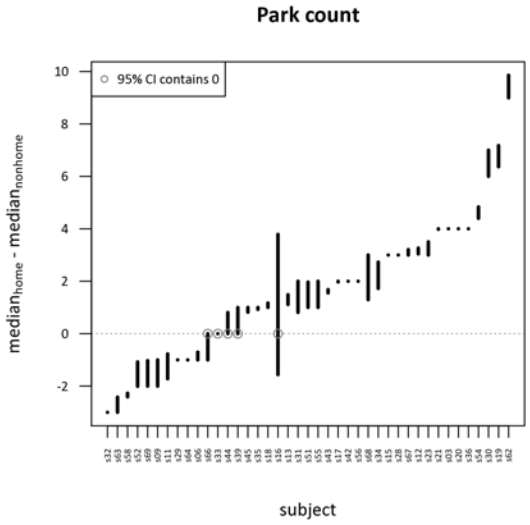


Figure D9. Count of parks

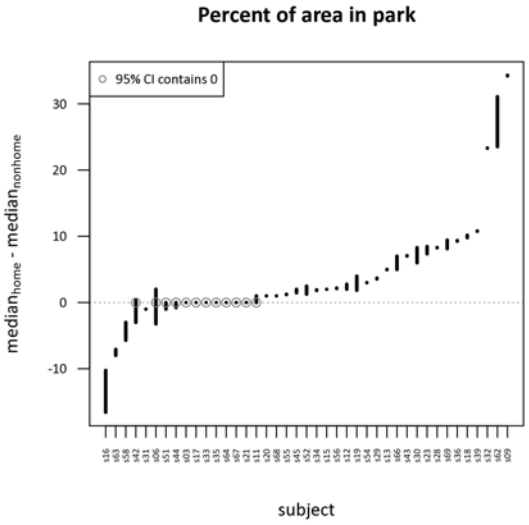


Figure D10. Percentage of bandwidth circle covered by park

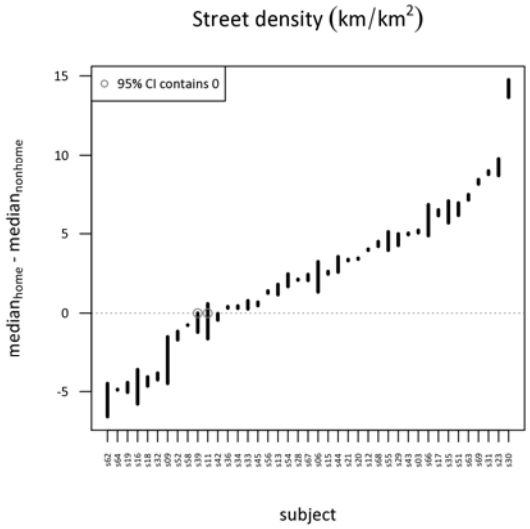


Figure D11. Density of streets in the bandwidth circle

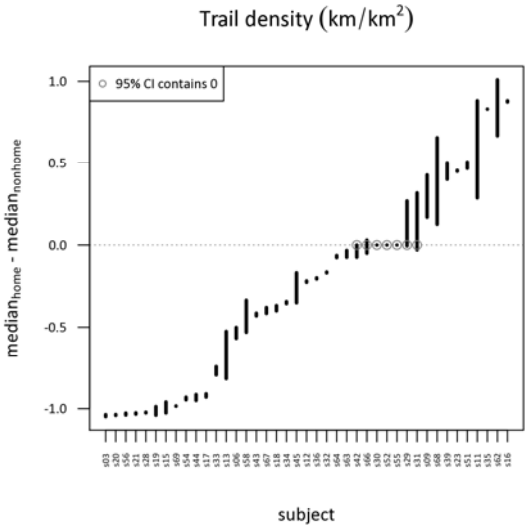


Figure D12. Density of trails

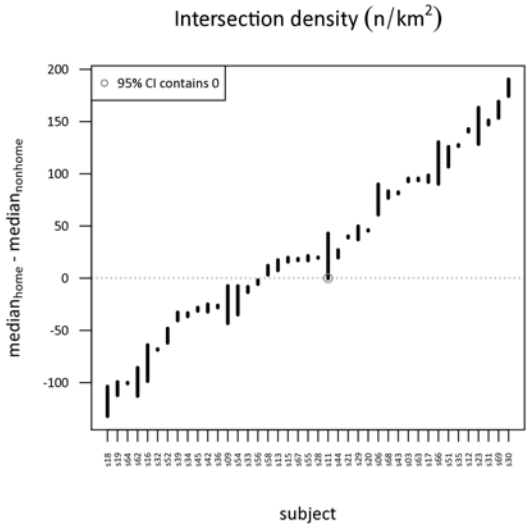


Figure D13. Density of street intersections

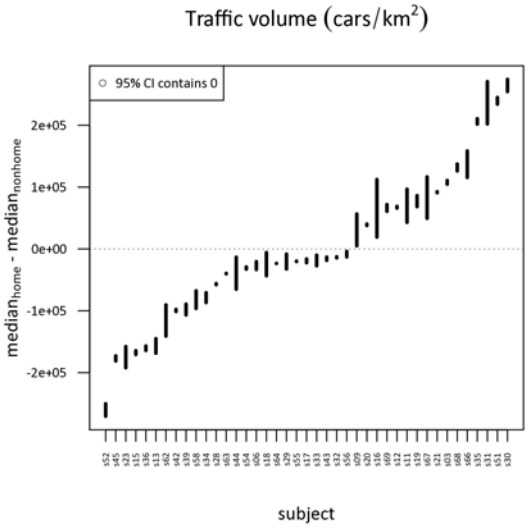


Figure D14. Traffic volume in the bandwidth circle

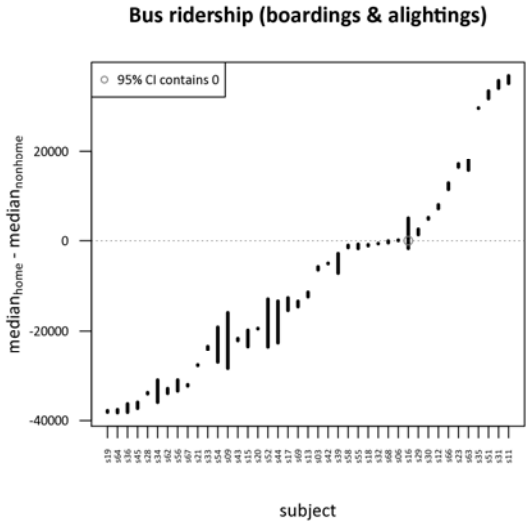


Figure D15. Bus ridership