**Supplemental Material**

**Title:** Neighborhood conditions and birth outcomes: understanding the role of perceived and extrinsic measures of neighborhood quality

**Authors:** Stephanie M. Eick1, Lara Cushing2, Dana E. Goin3, Amy M. Padula3, Aileen Andrae3, Erin DeMicco3, Tracey J. Woodruff3, Rachel Morello-Frosch3,4

**Affiliations:**

1Gangarosa Department of Environmental Health, Rollins School of Public Health, Emory University

2Department of Environmental Health Sciences, Fielding School of Public Health, University of California, Los Angeles

3Program on Reproductive Health and the Environment, Department of Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco

4Department of Environmental Science, Policy and Management and School of Public Health, University of California, Berkeley

Figure S1. Directed Acyclic Graph (DAG) for the association between neighborhood quality and adverse birth outcomes.



Note: Green indicates exposure, blue indicates outcome and covariates associated with outcome, red indicates covariate associated with both exposure and outcome.

Table S1. Summary of perceived neighborhood questions and their scoring.

|  |
| --- |
| *Collective Efficacy - Social Cohesion (1. Strongly disagree; 2: Somewhat disagree; 3: Neither agree nor disagree; 4: Somewhat agree; 5: Strongly agree)* |
| 1) | People around here are willing to help their neighbors. |
| 2) | This is a close-knit neighborhood. |
| 3) | People in this neighborhood can be trusted. |
| 4) | People in this neighborhood generally don't get along with each other. |
| 5) | People in this neighborhood don't share the same values. |
| *Collective Efficacy - Informal Social Control. Please tell me how likely it is that your neighbors could be counted on to intervene if: (1. Very unlikely; 2: Unlikely; 3: Neither likely nor unlikely; 4: Likely; 5: Very likely))* |
| 6) | Children were skipping school and hanging out on a street corner |
| 7) | Children were spray-painting graffiti on a local building |
| 8) | Children were showing disrespect to an adult |
| 9) | A fight broke out in front of their house |
| *Neighborhood Safety (1. Strongly disagree; 2: Somewhat disagree; 3: Neither agree nor disagree; 4: Somewhat agree; 5: Strongly agree)* |
| 10) | I feel safe in this neighborhood. |
| *Neighborhood Satisfaction (1. Strongly disagree; 2: Somewhat disagree; 3: Neither agree nor disagree; 4: Somewhat agree; 5: Strongly agree)* |
| 11) | I think this neighborhood is a good place for me to live. |
| 12) | I would move out of this neighborhood if I could. |
| *Physical Order (1. Strongly disagree; 2: Somewhat disagree; 3: Neither agree nor disagree; 4: Somewhat agree; 5: Strongly agree)* |
| 13) | There is a lot of loud noise from cars, motorcycles, music, neighbors, or airplanes in my neighborhood. |
| 14) | My neighborhood has a lot of vacant lots or vacant houses. |
| 15) | There is heavy car or truck traffic in this neighborhood. |
|  |
| **Low collective efficacy:** Average of questions 1 to 9 >= 4. |
| **Find neighborhood unsafe:** Question 10 >= 4. |
| **Dissatisfied with neighborhood:** Average of questions 11 and 12 >= 4. |
| **Disorderly neighborhood:** Average of questions 13 to 15 >= 4. |
| **Poor neighborhood quality:** Low collective efficacy OR unsafe OR dissatisfied OR disorderly |

Positively worded statements that were reverse coded so that higher scores on each scale indicate poorer perceived neighborhood quality.

Table S2. Distribution of perceived neighborhood measures across extrinsic neighborhood measures stratified by nativity and white versus person of color.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Overall****(N=817)** | **US Born (N=401)** | **Foreign Born****(N=313)** | **White****(N=309)** | **POC****(N=495)** | **Financial Strain – Yes (N=224)** | **Financial Strain – No (N=374)** |
|  | **N (%)** | **N (%)** | **N (%)** | **N (%)** | **N (%)** | **N (%)** | **N (%)** |
| **Extrinsic** |  |  |  |  |  |  |  |
| ICE Income |  |  |  |  |  |  |  |
| Low (Most Disadvantaged) | 273 (33 %) | 102 (25 %) | 131 (42 %) | 51 (17 %) | 219 (44 %) | 127 (57 %) | 59 (16 %) |
| Medium | 272 (33 %) | 130 (32 %) | 106 (34 %) | 98 (32 %) | 168 (34 %) | 67 (30 %) | 128 (34 %) |
| High (Least Disadvantaged) | 272 (33 %) | 169 (42 %) | 76 (24 %) | 160 (52 %) | 108 (22 %) | 30 (13 %) | 187 (50 %) |
| Missing | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |
| Area Deprivation Index |  |  |  |  |  |  |  |
| Low (Least Disadvantaged) | 349 (43 %) | 210 (52 %) | 102 (33 %) | 176 (57 %) | 169 (34 %) | 68 (30 %) | 204 (55 %) |
| Medium | 193 (24 %) | 66 (16 %) | 97 (31 %) | 59 (19 %) | 128 (26 %) | 53 (24 %) | 71 (19 %) |
| High (Most Disadvantaged) | 270 (33 %) | 123 (31 %) | 112 (36 %) | 70 (23 %) | 197 (40 %) | 103 (46 %) | 96 (26 %) |
| Missing | 5 (0.6%) | 2 (0.6%) | 2 (0.5%) | 4 (1.3%) | 1 (0.2%) | 0 (0%) | 3 (0.8%) |
| Urban Displacement |  |  |  |  |  |  |  |
| Exclusive | 234 (29 %) | 145 (36 %) | 66 (21 %) | 130 (42 %) | 102 (21 %) | 32 (14 %) | 151 (40 %) |
| Stable | 375 (46 %) | 171 (43 %) | 154 (49 %) | 138 (45 %) | 228 (46 %) | 93 (42 %) | 181 (48 %) |
| Ongoing Gentrification | 191 (23 %) | 77 (19 %) | 88 (28 %) | 33 (11 %) | 156 (32 %) | 97 (43 %) | 34 (9 %) |
| Missing | 17 (2.1%) | 8 (2.0%) | 5 (1.6%) | 8 (2.6%) | 9 (1.8%) | 2 (0.9%) | 8 (2.1%) |
| **Perceived**  |  |  |  |  |  |  |  |
| Poor Neighborhood Quality |  |  |  |  |  |  |  |
| Yes | 156 (19 %) | 71 (18 %) | 69 (22 %) | 38 (12 %) | 117 (24 %) | 78 (35 %) | 43 (11 %) |
| No | 515 (63 %) | 283 (71 %) | 190 (61 %) | 223 (72 %) | 287 (58 %) | 117 (52 %) | 290 (78 %) |
| Missing | 146 (17.9%) | 47 (11.7%) | 53 (16.9%) | 48 (15.5%) | 91 (18.4%) | 29 (12.9%) | 41 (11.0%) |
| Dissatisfied with Neighborhood |  |  |  |  |  |  |  |
| Yes | 98 (12 %) | 37 (9 %) | 49 (16 %) | 17 (6 %) | 80 (16 %) | 63 (28 %) | 17 (5 %) |
| No | 668 (82 %) | 360 (90 %) | 249 (80 %) | 287 (93 %) | 373 (75 %) | 161 (72 %) | 356 (95 %) |
| Missing | 51 (6.2%) | 4 (1.0%) | 15 (4.8%) | 5 (1.6%) | 42 (8.5%) | 0 (0%) | 1 (0.3%) |
| Disorderly Neighborhood |  |  |  |  |  |  |  |
| Yes | 48 (6 %) | 26 (6 %) | 17 (5 %) | 13 (4 %) | 35 (7 %) | 23 (10 %) | 11 (3 %) |
| No | 718 (88 %) | 371 (93 %) | 281 (90 %) | 290 (94 %) | 419 (85 %) | 201 (90 %) | 362 (97 %) |
| Missing | 51 (6.2%) | 4 (1.0%) | 15 (4.8%) | 6 (1.9%) | 41 (8.3%) | 0 (0%) | 1 (0.3%) |
| Unsafe Neighborhood |  |  |  |  |  |  |  |
| Yes | 110 (13 %) | 50 (12 %) | 47 (15 %) | 32 (10 %) | 78 (16 %) | 56 (25 %) | 30 (8 %) |
| No | 656 (80 %) | 346 (86 %) | 251 (80 %) | 272 (88 %) | 375 (76 %) | 168 (75 %) | 343 (92 %) |
| Missing | 51 (6.2%) | 5 (1.2%) | 15 (4.8%) | 5 (1.6%) | 42 (8.5%) | 0 (0%) | 1 (0.3%) |

Abbreviations: ICE, index of concentrations at the extremes; POC, persons of color.

Note: persons of color include Black, Hispanic, Asian/Pacific Islander, and Other/Multi-Racial. Perceived neighborhood quality is a composite measure of neighborhood dissatisfaction, disorderly neighborhood, unsafe neighborhood, and collective efficacy.

Table S3.Adjusted linear regression associations for the relationship between perceived and extrinsic neighborhood measures and birth outcomes additionally adjusted for financial strain.

|  |  |  |
| --- | --- | --- |
|  | **Gestational Age (weeks)** | **Birthweight Z-scores** |
|  | **Adjusted1** | **Adjusted1** |
|  | **N** | **Beta** | **95% CI** | **N** | **Beta** | **95% CI** |
| **Extrinsic** |  |  |  |  |  |  |
| ICE Income |  |  |  |  |  |  |
| Low (Most Disadvantaged) | 174 | -0.3 |  (-0.72, 0.12) | 173 | 0.2 |  (-0.01, 0.41) |
| Medium | 188 | -0.12 |  (-0.5, 0.25) | 187 | 0.03 |  (-0.15, 0.22) |
| High (Least Disadvantaged) | 209 | Ref | Ref | 207 | Ref | Ref |
| Area Deprivation Index |   |   |   |   |   |   |
| Low (Least Disadvantaged) | 262 | Ref | Ref | 258 | Ref | Ref |
| Medium | 116 | -0.4 |  (-0.8, 0) | 116 | -0.04 |  (-0.23, 0.16) |
| High (Most Disadvantaged) | 190 | -0.36 |  (-0.73, 0.01) | 190 | -0.05 |  (-0.25, 0.16) |
| Urban Displacement |   |   |   |   |   |   |
| Exclusive | 175 | Ref | Ref | 173 | Ref | Ref |
| Stable | 264 | 0.24 |  (-0.13, 0.6) | 263 | 0.04 |  (-0.14, 0.22) |
| Ongoing Gentrification | 122 | 0.07 |  (-0.42, 0.56) | 121 | 0.27 |  (0.02, 0.52) |
| **Perceived**  |  |  |  |  |  |  |
| Poor Neighborhood Quality |  |  |  |  |  |  |
| No | 392 | Ref | Ref | 391 | Ref | Ref |
| Yes | 113 | -0.11 | (-0.51, 0.29) | 111 | 0.15 | (-0.07, 0.38) |
| Dissatisfied with Neighborhood |   |   |   |   |   |   |
| No | 497 | Ref | Ref | 495 | Ref | Ref |
| Yes | 73 | 0.14 | (-0.36, 0.65) | 71 | 0.25 | (-0.01, 0.51) |
| Disorderly Neighborhood |   |   |   |   |   |   |
| No | 539 | Ref | Ref | 535 | Ref | Ref |
| Yes | 31 | 0.35 | (-0.35, 1.06) | 31 | 0.39 | (0.03, 0.75) |
| Unsafe Neighborhood |   |   |   |   |   |   |
| No | 489 | Ref | Ref | 486 | Ref | Ref |
| Yes | 81 | -0.07 | (-0.54, 0.4) | 80 | 0.06 | (-0.19, 0.3) |

Abbreviations: ICE, index of concentrations at the extremes; CI, confidence interval.

**1**Models adjusted for age, education, marital status, and financial strain.

Note: Perceived neighborhood quality is a composite measure of neighborhood dissatisfaction, disorderly neighborhood, unsafe neighborhood, and collective efficacy.

Table S4.Adjusted linear regression associations for the relationship between perceived and extrinsic neighborhood measures and birth outcomes stratified by white versus person of color.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Gestational Age** |  | **Birthweight Z Scores** |  |
|  | **White** | **POC** |  | **White** | **POC** |  |
|  | **N** | **Beta1** | **95% CI1** | **N** | **Beta1** | **95% CI1** | **p-interaction** | **N** | **Beta1** | **95% CI1** | **N** | **Beta1** | **95% CI1** | **p-interaction** |
| **Extrinsic** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ICE Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Low (Most Disadvantaged) | 45 | -0.52 |  (-1.06, 0.33) | 175 | 0.26 |  (-0.35, 0.87) | 0.09 | 44 | 0.12 |  (-0.19, 0.44) | 174 | 0.27 |  (0.02, 0.53) | 0.46 |
| Medium | 86 | -0.11 |  (-0.55, 0.09) | 144 | 0.3 |  (-0.28, 0.88) | 0.24 | 85 | 0.06 |  (-0.2, 0.31) | 143 | 0.12 |  (-0.11, 0.35) | 0.75 |
| High (Least Disadvantaged) | 147 | Ref | Ref | 95 | Ref | Ref |  | 147 | Ref | Ref | 93 | Ref | Ref |  |
| Area Deprivation Index |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Low (Least Disadvantaged) | 160 | Ref | Ref | 148 | Ref | Ref |  | 159 | Ref | Ref | 144 | Ref | Ref |  |
| Medium | 51 | -0.17 |  (-0.72, 0.15) | 101 | -0.41 |  (-0.88, 0.05) | 0.54 | 51 | -0.01 |  (-0.27, 0.16) | 101 | 0.04 |  (-0.19, 0.28) | 0.73 |
| High (Most Disadvantaged) | 64 | -0.26 |  (-0.67, 0.1) | 165 | -0.38 |  (-0.83, 0.08) | 0.53 | 63 | -0.13 |  (-0.43, 0.06) | 165 | 0.02 |  (-0.22, 0.27) | 0.44 |
| Urban Displacement |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Exclusive | 118 | Ref | Ref | 92 | Ref | Ref |  | 118 | Ref | Ref | 90 | Ref | Ref |  |
| Stable | 124 | 0.26 |  (-0.15, 0.66) | 190 | 0.55 |  (-0.03, 1.13) | 0.4 | 123 | 0.14 |  (-0.1, 0.38) | 189 | 0.06 |  (-0.17, 0.29) | 0.62 |
| Ongoing Gentrification | 29 | -0.26 |  (-0.82, 0.29) | 126 | 0.53 |  (-0.15, 1.2) | 0.19 | 28 | 0.21 |  (-0.21, 0.63) | 125 | 0.23 |  (-0.05, 0.51) | 0.85 |
| **Perceived**  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Poor Neighborhood Quality |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 202 | Ref | Ref | 265 | Ref | Ref | 0.22 | 201 | Ref | Ref | 264 | Ref | Ref | 0.53 |
| Yes | 33 | 0.26 | (-0.32, 0.84) | 105 | -0.22 | (-0.68, 0.23) |  | 33 | 0.29 | (-0.06, 0.63) | 103 | 0.14 | (-0.1, 0.38) |  |
| Dissatisfied with Neighborhood |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| No | 261 | Ref | Ref | 338 | Ref | Ref | 0.65 | 259 | Ref | Ref | 336 | Ref | Ref | 0.12 |
| Yes | 14 | 0.27 | (-0.6, 1.14) | 73 | 0.03 | (-0.51, 0.56) |  | 14 | 0.6 | (0.08, 1.12) | 71 | 0.14 | (-0.13, 0.4) |  |
| Disorderly Neighborhood |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| No | 264 | Ref | Ref | 379 | Ref | Ref | 0.44 | 262 | Ref | Ref | 375 | Ref | Ref | 0.07 |
| Yes | 11 | 0.73 | (-0.23, 1.69) | 32 | 0.32 | (-0.43, 1.07) |  | 11 | 0.66 | (0.08, 1.24) | 32 | 0.02 | (-0.35, 0.38) |  |
| Unsafe Neighborhood |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| No | 246 | Ref | Ref | 342 | Ref | Ref | 0.65 | 244 | Ref | Ref | 339 | Ref | Ref | 0.13 |
| Yes | 29 | 0.01 | (-0.61, 0.62) | 69 | -0.2 | (-0.74, 0.35) |  | 29 | 0.34 | (-0.03, 0.71) | 68 | -0.01 | (-0.28, 0.26) |  |

Abbreviations: ICE, index of concentrations at the extremes; CI, confidence interval; POC, persons of color.

**1**Models adjusted for age, education, and marital status.

Note: persons of color include Black, Hispanic, Asian/Pacific Islander, and Other/Multi-Racial. Perceived neighborhood quality is a composite measure of neighborhood dissatisfaction, disorderly neighborhood, unsafe neighborhood, and collective efficacy.

Table S5.Adjusted linear regression associations for the relationship between perceived and extrinsic neighborhood measures and birth outcomes stratified by nativity.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Gestational Age** |  | **Birthweight Z Scores** |  |
|  | **US Born** | **Foreign Born** |  | **US Born** | **Foreign Born** |  |
|  | **N** | **Beta1** | **95% CI1** | **N** | **Beta1** | **95% CI1** | **p-interaction** | **N** | **Beta1** | **95% CI1** | **N** | **Beta1** | **95% CI1** | **p-interaction** |
| **Extrinsic** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ICE Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Low (Most Disadvantaged) | 89 | -0.05 |  (-0.57, 0.47) | 117 | -0.19 |  (-0.84, 0.46) | 0.49 | 88 | 0.3 |  (0.02, 0.57) | 117 | 0.2 |  (-0.11, 0.51) | 0.64 |
| Medium | 125 | -0.09 |  (-0.52, 0.34) | 93 | 0.21 |  (-0.41, 0.83) | 0.31 | 124 | 0.1 |  (-0.13, 0.32) | 92 | 0.14 |  (-0.17, 0.44) | 0.55 |
| High (Least Disadvantaged) | 160 | Ref | Ref | 66 | Ref | Ref |  | 158 | Ref | Ref | 65 | Ref | Ref |  |
| Area Deprivation Index |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Low (Least Disadvantaged) | 201 | Ref | Ref | 88 | Ref | Ref |  | 197 | Ref | Ref | 86 | Ref | Ref |  |
| Medium | 59 | -0.49 |  (-1.04, 0.06) | 85 | -0.4 |  (-0.94, 0.13) | 0.82 | 59 | -0.01 |  (-0.25, 0.23) | 85 | 0.06 |  (-0.24, 0.35) | 0.51 |
| High (Most Disadvantaged) | 112 | -0.31 |  (-0.77, 0.16) | 102 | -0.34 |  (-0.81, 0.13) | 0.69 | 112 | 0 |  (-0.25, 0.25) | 102 | -0.02 |  (-0.34, 0.29) | 0.79 |
| Urban Displacement |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Exclusive | 137 | Ref | Ref | 57 | Ref | Ref |  | 135 | Ref | Ref | 56 | Ref | Ref |  |
| Stable | 163 | 0.2 |  (-0.22, 0.63) | 135 | 0.51 |  (-0.14, 1.15) | 0.35 | 162 | 0.11 |  (-0.1, 0.33) | 134 | 0.09 |  (-0.21, 0.39) | 0.77 |
| Ongoing Gentrification | 66 | 0.21 |  (-0.35, 0.77) | 80 | 0.26 |  (-0.5, 1.02) | 0.78 | 65 | 0.26 |  (-0.08, 0.6) | 80 | 0.3 |  (-0.05, 0.65) | 0.23 |
| **Perceived**  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Poor Neighborhood Quality |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 272 | Ref | Ref | 175 | Ref | Ref | 0.75 | 272 | Ref | Ref | 174 | Ref | Ref | 0.21 |
| Yes | 62 | -0.03 | (-0.51, 0.46) | 62 | -0.08 | (-0.63, 0.47) |  | 61 | 0.1 | (-0.18, 0.39) | 61 | 0.27 | (-0.05, 0.58) |  |
| Dissatisfied with Neighborhood |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| No | 340 | Ref | Ref | 230 | Ref | Ref | 0.58 | 337 | Ref | Ref | 229 | Ref | Ref | 0.81 |
| Yes | 32 | 0.21 | (-0.48, 0.91) | 44 | 0.06 | (-0.56, 0.67) |  | 31 | 0.28 | (-0.09, 0.66) | 43 | 0.22 | (-0.12, 0.56) |  |
| Disorderly Neighborhood |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| No | 349 | Ref | Ref | 257 | Ref | Ref | 0.88 | 345 | Ref | Ref | 255 | Ref | Ref | 0.89 |
| Yes | 23 | 0.33 | (-0.47, 1.12) | 17 | 0.34 | (-0.58, 1.25) |  | 23 | 0.3 | (-0.11, 0.72) | 17 | 0.16 | (-0.35, 0.67) |  |
| Unsafe Neighborhood |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| No | 328 | Ref | Ref | 232 | Ref | Ref | 0.38 | 325 | Ref | Ref | 230 | Ref | Ref | 0.9 |
| Yes | 44 | 0.1 | (-0.49, 0.69) | 42 | -0.32 | (-0.95, 0.3) |  | 43 | 0.15 | (-0.17, 0.46) | 42 | 0.07 | (-0.28, 0.41) |  |

Abbreviations: ICE, index of concentrations at the extremes; CI, confidence interval.

**1**Models adjusted for age, education, and marital status.

Note: Perceived neighborhood quality is a composite measure of neighborhood dissatisfaction, disorderly neighborhood, unsafe neighborhood, and collective efficacy.

Table S6.Adjusted linear regression associations for the relationship between perceived and extrinsic neighborhood measures and birth outcomes stratified by financial strain.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Gestational Age** |  | **Birthweight Z Scores** |  |
|  | **Financial Strain - Yes** | **Financial Strain - No** |  | **Financial Strain - Yes** | **Financial Strain - No** |  |
|  | **N** | **Beta1** | **95% CI1** | **N** | **Beta1** | **95% CI1** | **p-interaction** | **N** | **Beta1** | **95% CI1** | **N** | **Beta1** | **95% CI1** | **p-interaction** |
| **Extrinsic** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ICE Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Low (Most Disadvantaged) | 117 | 0.04 |  (-0.94, 1.02) | 57 | -0.27 |  (-0.78, 0.23) | 0.58 | 116 | 0.34 |  (-0.03, 0.72) | 57 | 0.12 |  (-0.15, 0.38) | 0.29 |
| Medium | 61 | 0.46 |  (-0.68, 1.6) | 127 | -0.29 |  (-0.68, 0.11) | 0.18 | 60 | 0.09 |  (-0.3, 0.48) | 127 | 0.04 |  (-0.17, 0.26) | 0.84 |
| High (Least Disadvantaged) | 26 | Ref | Ref | 183 | Ref | Ref |  | 26 | Ref | Ref | 181 | Ref | Ref |  |
| Area Deprivation Index |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Low (Least Disadvantaged) | 61 | Ref | Ref | 201 | Ref | Ref |  | 59 | Ref | Ref | 199 | Ref | Ref |  |
| Medium | 46 | -0.65 |  (-1.41, 0.11) | 70 | -0.35 |  (-0.81, 0.11) | 0.44 | 46 | -0.21 |  (-0.63, 0.22) | 70 | 0.04 |  (-0.17, 0.25) | 0.36 |
| High (Most Disadvantaged) | 97 | -0.57 |  (-1.21, 0.08) | 93 | -0.24 |  (-0.67, 0.2) | 0.4 | 97 | -0.05 |  (-0.44, 0.34) | 93 | -0.07 |  (-0.3, 0.17) | 0.82 |
| Urban Displacement |   |   |   |  |  |  |   |   |   |   |  |  |  |   |
| Exclusive | 27 | Ref | Ref | 148 | Ref | Ref |  | 27 | Ref | Ref | 146 | Ref | Ref |  |
| Stable | 85 | 0.41 |  (-0.77, 1.59) | 179 | 0.22 |  (-0.16, 0.6) | 1 | 84 | 0.27 |  (-0.07, 0.62) | 179 | 0.01 |  (-0.19, 0.21) | 0.42 |
| Ongoing Gentrification | 90 | 0.3 |  (-0.78, 1.38) | 32 | 0 |  (-0.54, 0.54) | 0.71 | 89 | 0.59 |  (0.22, 0.95) | 32 | 0.05 |  (-0.29, 0.39) | 0.06 |
| **Perceived**  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Poor Neighborhood Quality |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 108 | Ref | Ref | 284 | Ref | Ref | 0.82 | 108 | Ref | Ref | 283 | Ref | Ref | 0.17 |
| Yes | 71 | -0.13 | (-0.76, 0.49) | 42 | -0.07 | (-0.62, 0.49) |  | 69 | 0.31 | (-0.04, 0.65) | 42 | -0.03 | (-0.34, 0.27) |  |
| Dissatisfied with Neighborhood |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| No | 148 | Ref | Ref | 349 | Ref | Ref | 0.73 | 148 | Ref | Ref | 347 | Ref | Ref | 0.97 |
| Yes | 56 | 0.09 | (-0.61, 0.79) | 17 | 0.26 | (-0.59, 1.11) |  | 54 | 0.24 | (-0.1, 0.59) | 17 | 0.25 | (-0.21, 0.7) |  |
| Disorderly Neighborhood |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| No | 184 | Ref | Ref | 355 | Ref | Ref | 0.34 | 182 | Ref | Ref | 353 | Ref | Ref | 0.51 |
| Yes | 20 | 0.15 | (-0.9, 1.21) | 11 | 0.81 | (-0.24, 1.85) |  | 20 | 0.52 | (0.01, 1.03) | 11 | 0.24 | (-0.32, 0.8) |  |
| Unsafe Neighborhood |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| No | 152 | Ref | Ref | 337 | Ref | Ref | 0.28 | 150 | Ref | Ref | 336 | Ref | Ref | 0.69 |
| Yes | 52 | -0.24 | (-0.96, 0.47) | 29 | 0.23 | (-0.43, 0.89) |  | 52 | 0.11 | (-0.24, 0.46) | 28 | -0.01 | (-0.37, 0.36) |  |

Abbreviations: ICE, index of concentrations at the extremes; CI, confidence interval.

**1**Models adjusted for age, education, and marital status.

Note: Perceived neighborhood quality is a composite measure of neighborhood dissatisfaction, disorderly neighborhood, unsafe neighborhood, and collective efficacy.