Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.
**Figure 1.** Restricted Cubic Splines for Association Between Area Deprivation Index and Fecundability by Educational Attainment, Pregnancy Study Online (PRESTO) Participants

Graphs are plots of restricted cubic splines, where the observations are trimmed at the 1st and 99th percentiles. The reference value is 1 and the knots are located at 2, 4, 6, and 8 (black line=fecundability ratio, shaded grey area=95% confidence interval). Adjusted regressions contain covariates for age, daily multivitamin or folic acid intake, parity, intercourse frequency, last method of contraceptive use before attempting pregnancy, doing something to improve chances of conception (i.e., timing intercourse, charting menstrual cycles, ovulation predictor kit), and year of baseline enrollment. a) adjusted model restricted to participants who did not graduate from college (<16 years education); and b) adjusted model restricted to participants who are college graduates (≥16 years education).
**eFigure 2.** Restricted Cubic Splines for Association Between Area Deprivation Index and Fecundability by Household Income, Pregnancy Study Online (PRESTO) Participants

Graphs are plots of restricted cubic splines, where the observations are trimmed at the 1st and 99th percentiles. The reference value is 1 and the knots are located at 2, 4, 6, and 8 (black line=fecundability ratio, shaded grey area=95% confidence interval). Adjusted regressions contain covariates for age, daily multivitamin or folic acid intake, parity, intercourse frequency, last method of contraceptive use before attempting pregnancy, doing something to improve chances of conception (i.e., timing intercourse, charting menstrual cycles, ovulation predictor kit), and year of baseline enrollment. a) adjusted model for adjusted model restricted to participants with a household income <50,000 US dollars; and b) adjusted model restricted to participants with a household income ≥150,000 US dollars.
eTable 1. Associations Between the Area Deprivation Index and Fecundability, Pregnancy Study Online (PRESTO) Participants With Fewer Than 3 Cycles of Pregnancy Attempt Time at Enrollment

| Exposure | No. pregnancies | No. cycles | Model 1 | Model 2 |
|----------|-----------------|------------|---------|---------|
|          | FR | 95% CI | FR | 95% CI | FR | 95% CI |
| **National Area Deprivation Index Ranking** |
| Categorical Ranking | | | | | | |
| 1-10 (Least deprived) | 379 | 2,327 | REF | REF | REF | REF |
| 11-20 | 476 | 3,022 | 0.98 (0.87, 1.12) | 0.97 (0.86, 1.10) |
| 21-30 | 390 | 2,600 | 0.94 (0.82, 1.07) | 0.92 (0.80, 1.04) |
| 31-40 | 374 | 2,449 | 0.95 (0.83, 1.08) | 0.97 (0.85, 1.10) |
| 41-50 | 323 | 2,154 | 0.93 (0.81, 1.07) | 0.92 (0.84, 1.06) |
| 51-60 | 272 | 1,664 | 1.00 (0.86, 1.15) | 0.97 (0.84, 1.12) |
| 61-70 | 173 | 1,364 | 0.81 (0.68, 0.95) | 0.79 (0.66, 0.93) |
| 71-80 | 123 | 1,048 | 0.73 (0.60, 0.88) | 0.75 (0.62, 0.91) |
| 81-90 | 106 | 801 | 0.83 (0.68, 1.02) | 0.85 (0.70, 1.05) |
| 91-100 (Most deprived) | 92 | 651 | 0.86 (0.69, 1.07) | 0.88 (0.72, 1.10) |
| **Within-State Area Deprivation Index Ranking** |
| Categorical Ranking | | | | | | |
| 1 (Least deprived) | 384 | 2,359 | REF | REF | REF | REF |
| 2 | 439 | 2,754 | 1.01 (0.89, 1.14) | 1.01 (0.89, 1.14) |
| 3 | 408 | 2,544 | 1.01 (0.89, 1.15) | 1.01 (0.89, 1.15) |
| 4 | 324 | 2,180 | 0.94 (0.82, 1.08) | 0.94 (0.82, 1.08) |
| 5 | 277 | 1,883 | 0.94 (0.81, 1.08) | 0.94 (0.82, 1.08) |
| 6 | 218 | 1,595 | 0.86 (0.74, 1.01) | 0.88 (0.75, 1.02) |
| 7 | 205 | 1,465 | 0.89 (0.76, 1.04) | 0.94 (0.80, 1.09) |
| 8 | 196 | 1,293 | 0.97 (0.83, 1.13) | 0.99 (0.84, 1.16) |
| 9 | 153 | 1,083 | 0.90 (0.76, 1.07) | 0.92 (0.77, 1.10) |
| 10 (Most deprived) | 104 | 924 | 0.72 (0.58, 0.89) | 0.75 (0.60, 0.93) |

Model 1 is unadjusted. Model 2 is adjusted for age, daily multivitamin or folic acid intake, parity, intercourse frequency, last method of contraceptive use before attempting pregnancy, doing something to improve chances of conception, and year of baseline enrollment.
### eTable 2. Associations Between the Area Deprivation Index and Fecundability by Parity, Pregnancy Study Online (PRESTO) Participants

| Exposure |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------|---|---------------|---------------|---|---------------|---------------|---|---------------|---------------|---|---------------|---------------|---|---------------|
|  | No. pregnancies | No. cycles | Nulliparous |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Model 1 | Model 2 |  |  |  | Model 1 | Model 2 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| National Area Deprivation Index Ranking |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Categorical Ranking |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1-10 (Least deprived) | 344 | 2,423 | REF | REF | REF | REF | REF | 124 | 752 | REF | REF | REF | REF |
| 11-20 | 414 | 3,056 | 0.98 | (0.85, 1.11) | 0.94 | (0.82, 1.07) | 215 | 1,167 | 1.12 | (0.92, 1.36) | 1.08 | (0.89, 1.32) |
| 21-30 | 377 | 2,763 | 0.98 | (0.86, 1.13) | 0.95 | (0.83, 1.08) | 166 | 1,102 | 0.95 | (0.77, 1.17) | 0.88 | (0.71, 1.09) |
| 31-40 | 332 | 2,572 | 0.94 | (0.81, 1.08) | 0.91 | (0.79, 1.05) | 185 | 1,173 | 0.98 | (0.79, 1.20) | 0.94 | (0.76, 1.16) |
| 41-50 | 277 | 2,251 | 0.90 | (0.77, 1.04) | 0.87 | (0.75, 1.01) | 160 | 998 | 0.99 | (0.79, 1.23) | 0.91 | (0.73, 1.14) |
| 51-60 | 249 | 1,769 | 1.01 | (0.87, 1.18) | 0.97 | (0.83, 1.13) | 121 | 849 | 0.88 | (0.70, 1.11) | 0.81 | (0.64, 1.04) |
| 61-70 | 167 | 1,488 | 0.84 | (0.70, 1.00) | 0.80 | (0.67, 0.95) | 109 | 755 | 0.93 | (0.74, 1.18) | 0.89 | (0.69, 1.13) |
| 71-80 | 100 | 1,016 | 0.73 | (0.59, 0.90) | 0.72 | (0.58, 0.89) | 89 | 805 | 0.73 | (0.56, 0.94) | 0.69 | (0.53, 0.90) |
| 81-90 | 92 | 772 | 0.86 | (0.69, 1.07) | 0.86 | (0.69, 1.08) | 71 | 566 | 0.82 | (0.62, 1.07) | 0.81 | (0.61, 1.08) |
| 91-100 (Most deprived) | 74 | 735 | 0.76 | (0.64, 0.97) | 0.78 | (0.61, 1.00) | 59 | 415 | 0.86 | (0.63, 1.16) | 0.83 | (0.61, 1.13) |
| Within-State Area Deprivation Index Ranking |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Categorical Ranking |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1-10 (Least deprived) | 329 | 2,233 | REF | REF | REF | REF | REF | 154 | 930 | REF | REF | REF | REF |
| 11-20 | 395 | 2,968 | 0.93 | (0.81, 1.07) | 0.92 | (0.81, 1.06) | 189 | 1,100 | 1.13 | (0.93, 1.37) | 1.12 | (0.93, 1.37) |
| 21-30 | 368 | 2,758 | 0.93 | (0.81, 1.07) | 0.91 | (0.79, 1.05) | 178 | 1,031 | 1.11 | (0.91, 1.35) | 1.12 | (0.92, 1.37) |
| 31-40 | 289 | 2,069 | 0.95 | (0.82, 1.10) | 0.93 | (0.80, 1.08) | 164 | 1,089 | 0.98 | (0.80, 1.20) | 0.97 | (0.80, 1.19) |
| 41-50 | 267 | 2,085 | 0.93 | (0.80, 1.08) | 0.92 | (0.79, 1.07) | 136 | 824 | 1.01 | (0.82, 1.25) | 1.03 | (0.83, 1.27) |
| 51-60 | 209 | 1,766 | 0.85 | (0.72, 1.00) | 0.84 | (0.72, 0.99) | 102 | 830 | 0.83 | (0.66, 1.05) | 0.85 | (0.67, 1.07) |
| 61-70 | 177 | 1,477 | 0.85 | (0.72, 1.01) | 0.88 | (0.74, 1.04) | 111 | 885 | 0.84 | (0.67, 1.06) | 0.84 | (0.67, 1.06) |
| 71-80 | 181 | 1,407 | 0.91 | (0.77, 1.08) | 0.92 | (0.77, 1.09) | 103 | 692 | 1.00 | (0.79, 1.26) | 1.02 | (0.81, 1.29) |
| 81-90 | 119 | 1,092 | 0.78 | (0.64, 0.95) | 0.77 | (0.63, 0.94) | 91 | 654 | 0.94 | (0.74, 1.20) | 0.98 | (0.77, 1.26) |
| 91-100 (Most deprived) | 92 | 990 | 0.70 | (0.56, 0.87) | 0.73 | (0.58, 0.91) | 71 | 547 | 0.84 | (0.64, 1.11) | 0.91 | (0.77, 1.26) |

Model 1 is unadjusted. Model 2 is adjusted for age, daily multivitamin or folic acid intake, parity, intercourse frequency, last method of contraceptive use before attempting pregnancy, doing something to improve chances of conception, and year of baseline enrollment.
### eTable 3. Alternative Model Iterations for Associations Between Area Deprivation Index and Fecundability, Pregnancy Study Online (PRESTO)

| Exposure                       | No. pregnancies | No. cycles | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|-------------------------------|-----------------|------------|---------|---------|---------|---------|---------|
|                               | FR              | 95% CI     | FR      | 95% CI  | FR      | 95% CI  | FR      | 95% CI  | FR      | 95% CI  | FR      | 95% CI  |
| **National Area Deprivation Index** |                 |            |         |         |         |         |         |         |         |         |         |         |
| Categorical Ranking           |                 |            |         |         |         |         |         |         |         |         |         |         |
| 1-10 (Least deprived)         | 468             | 3,175      | REF     | REF     | 0.99   | 0.89, 1.10 | 0.98 | 0.88, 1.09 | 1.00 | 0.90, 1.12 | 1.00 | 0.90, 1.12 |
| 11-20                         | 629             | 4,223      | 1.03    | 0.92, 1.15 | 0.99 | 0.89, 1.10 | 0.98 | 0.88, 1.09 | 1.00 | 0.90, 1.12 | 1.00 | 0.90, 1.12 |
| 21-30                         | 543             | 3,865      | 0.98    | 0.87, 1.10 | 0.93 | 0.83, 1.04 | 0.92 | 0.82, 1.03 | 0.94 | 0.84, 1.06 | 0.95 | 0.85, 1.07 |
| 31-40                         | 543             | 3,745      | 0.96    | 0.86, 1.08 | 0.92 | 0.82, 1.04 | 0.91 | 0.81, 1.03 | 0.95 | 0.85, 1.07 | 0.96 | 0.86, 1.09 |
| 41-50                         | 437             | 3,249      | 0.94    | 0.83, 1.06 | 0.89 | 0.78, 1.00 | 0.88 | 0.78, 1.00 | 0.94 | 0.83, 1.06 | 0.96 | 0.84, 1.08 |
| 51-60                         | 370             | 2,618      | 0.98    | 0.86, 1.11 | 0.92 | 0.83, 1.04 | 0.91 | 0.80, 1.03 | 0.97 | 0.86, 1.11 | 1.00 | 0.88, 1.15 |
| 61-70                         | 276             | 2,243      | 0.89    | 0.77, 1.02 | 0.82 | 0.72, 0.95 | 0.82 | 0.71, 0.94 | 0.89 | 0.77, 1.03 | 0.92 | 0.80, 1.07 |
| 71-80                         | 189             | 1,821      | 0.75    | 0.64, 0.88 | 0.70 | 0.60, 0.82 | 0.70 | 0.59, 0.82 | 0.77 | 0.66, 0.91 | 0.80 | 0.68, 0.95 |
| 81-90                         | 163             | 1,338      | 0.86    | 0.73, 1.02 | 0.83 | 0.70, 0.98 | 0.83 | 0.70, 0.99 | 0.94 | 0.79, 1.12 | 0.98 | 0.82, 1.18 |
| 91-100 (Most deprived)        | 133             | 1,150      | 0.81    | 0.67, 0.98 | 0.79 | 0.66, 0.96 | 0.82 | 0.67, 0.99 | 0.92 | 0.76, 1.11 | 0.96 | 0.83, 1.16 |
| **Within-State Area Deprivation Index** |                 |            |         |         |         |         |         |         |         |         |         |         |
| Categorical Ranking           |                 |            |         |         |         |         |         |         |         |         |         |         |
| 1 (Least deprived)            | 483             | 3,163      | REF     | REF     | 0.99   | 0.88, 1.10 | 0.98 | 0.88, 1.10 | 0.98 | 0.88, 1.10 | 0.99 | 0.89, 1.11 | 1.00 | 0.89, 1.12 |
| 2                              | 584             | 4,068      | 0.99    | 0.88, 1.10 | 0.98 | 0.88, 1.10 | 0.98 | 0.87, 1.10 | 1.01 | 0.90, 1.13 | 1.02 | 0.91, 1.14 |
| 3                              | 546             | 3,789      | 0.98    | 0.87, 1.10 | 0.97 | 0.87, 1.09 | 0.98 | 0.87, 1.10 | 1.01 | 0.90, 1.13 | 1.02 | 0.91, 1.14 |
| 4                              | 453             | 3,158      | 0.96    | 0.86, 1.09 | 0.95 | 0.84, 1.07 | 0.95 | 0.84, 1.07 | 0.98 | 0.87, 1.11 | 1.00 | 0.88, 1.13 |
| 5                              | 403             | 2,909      | 0.95    | 0.84, 1.08 | 0.95 | 0.84, 1.07 | 0.95 | 0.84, 1.07 | 0.99 | 0.88, 1.12 | 1.01 | 0.89, 1.14 |
| 6                              | 311             | 2,596      | 0.84    | 0.74, 0.97 | 0.84 | 0.73, 0.96 | 0.84 | 0.74, 0.96 | 0.88 | 0.77, 1.01 | 0.90 | 0.79, 1.03 |
| 7                              | 288             | 2,374      | 0.85    | 0.74, 0.98 | 0.85 | 0.74, 0.98 | 0.85 | 0.74, 0.98 | 0.91 | 0.79, 1.04 | 0.93 | 0.81, 1.07 |
| 8                              | 284             | 2,099      | 0.95    | 0.82, 1.08 | 0.94 | 0.82, 1.08 | 0.95 | 0.83, 1.08 | 1.01 | 0.88, 1.16 | 1.05 | 0.91, 1.20 |
| 9                              | 210             | 1,746      | 0.85    | 0.73, 0.98 | 0.84 | 0.72, 0.98 | 0.85 | 0.73, 0.99 | 0.95 | 0.81, 1.10 | 0.97 | 0.83, 1.14 |
| 10 (Most deprived)            | 163             | 1,537      | 0.75    | 0.63, 0.90 | 0.77 | 0.65, 0.92 | 0.79 | 0.66, 0.94 | 0.87 | 0.73, 1.04 | 0.91 | 0.76, 1.08 |

Model 1: unadjusted. Model 2: age, daily multivitamin or folic acid intake, parity, intercourse frequency, last method of contraceptive use before attempting pregnancy, doing something to improve chances of conception (i.e., timing intercourse, charting menstrual cycles, ovulation predictor kit), and year of baseline enrollment. Model 3: Added race/ethnicity. Model 4: Added race/ethnicity and educational attainment. Model 5: Added race/ethnicity, educational attainment, and household income.

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