# Heritability by Subgroup

## Joe Rodger's BG Team

### December 2, 2011

Gen2 Link Version: 2011V28.
Subjects were 19+ years old. Implicit ambiguous sibs were assigned R=0.375. Z-Scores are restricted to +/-2.5.
Counts reflect the double entry.

| Subgroup | $N$ | $h^2$ | $c^2$ | $e^2$ | $\bar{X}$ | $\sigma$ | $\sigma^3$ | $N_{.25}$ | $N_{.375}$ | $N_{.5}$ | $N_{.75}$ | $N_{Mz}$ | $r_{.25}$ | $r_{.375}$ | $r_{.5}$ | $r_{Mz}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 6908 | 0.70 | 0.04 | 0.26 | -0.03 | 0.96 | 0.00 | 2158 | 0 | 4722 | 0 | 28 | 0.22 | | 0.39 | 0.94 |
| FF | 1724 | 0.70 | 0.10 | 0.20 | -0.05 | 0.96 | 0.12 | 566 | 0 | 1148 | 0 | 10 | 0.28 | | 0.44 | 0.95 |
| MF | 3430 | 0.73 | 0.02 | 0.25 | -0.01 | 0.96 | -0.04 | 1090 | 0 | 2340 | 0 | 0 | 0.21 | | 0.39 | |
| MM | 1754 | 0.73 | -0.02 | 0.29 | -0.07 | 0.94 | -0.03 | 502 | 0 | 1234 | 0 | 18 | 0.18 | | 0.33 | 0.94 |
| Hispanic | 1742 | 0.18 | 0.30 | 0.52 | -0.37 | 0.93 | 0.26 | 402 | 0 | 1338 | 0 | 2 | 0.35 | | 0.38 | -1.00 |
| Black | 2816 | 0.67 | -0.04 | 0.36 | -0.03 | 0.95 | 0.04 | 1346 | 0 | 1460 | 0 | 10 | 0.14 | | 0.29 | 0.88 |
| NBNH | 2350 | 0.54 | 0.10 | 0.36 | 0.21 | 0.91 | -0.18 | 410 | 0 | 1924 | 0 | 16 | 0.25 | | 0.37 | 0.95 |
| Hisp FF | 400 | -0.01 | 0.47 | 0.54 | -0.42 | 0.90 | 0.40 | 108 | 0 | 292 | 0 | 0 | 0.47 | | 0.46 | |
| Hisp MF | 838 | 0.24 | 0.25 | 0.51 | -0.33 | 0.97 | 0.23 | 196 | 0 | 642 | 0 | 0 | 0.31 | | 0.37 | |
| Hisp MM | 504 | 0.35 | 0.18 | 0.47 | -0.39 | 0.89 | 0.16 | 98 | 0 | 404 | 0 | 2 | 0.31 | | 0.34 | -1.00 |
| Black FF | 754 | 0.43 | 0.09 | 0.48 | -0.00 | 0.96 | 0.16 | 374 | 0 | 376 | 0 | 4 | 0.21 | | 0.29 | 0.80 |
| Black MF | 1408 | 0.83 | -0.07 | 0.24 | -0.02 | 0.96 | 0.01 | 678 | 0 | 730 | 0 | 0 | 0.13 | | 0.34 | |
| Black MM | 654 | 0.79 | -0.18 | 0.39 | -0.09 | 0.92 | -0.07 | 294 | 0 | 354 | 0 | 6 | 0.04 | | 0.18 | 0.89 |
| NBNH FF | 570 | 0.98 | -0.02 | 0.04 | 0.15 | 0.94 | -0.13 | 84 | 0 | 480 | 0 | 6 | 0.23 | | 0.47 | 0.97 |
| NBNH MF | 1184 | 0.48 | 0.10 | 0.42 | 0.23 | 0.89 | -0.21 | 216 | 0 | 968 | 0 | 0 | 0.22 | | 0.34 | |
| NBNH MM | 596 | 0.20 | 0.22 | 0.58 | 0.21 | 0.92 | -0.17 | 110 | 0 | 476 | 0 | 10 | 0.32 | | 0.30 | 0.94 |

Table 1: Height Heritability

# 1 Total Sample
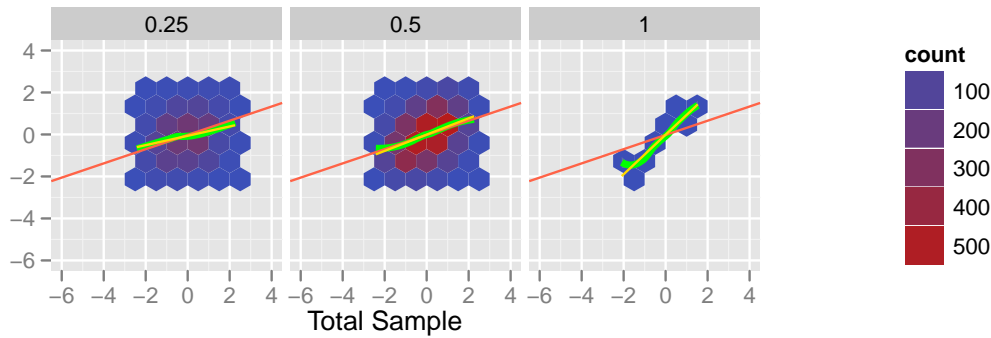


Plot Explanation: Each row of graphs isolates a subgroup.
Each cell in a row isolates a unique value of R; this is displayed in the gray header above each cell.
Axis and hexbin sizes are constants across all rows.
The orange line is the LS regression for the row (repeated in each cell).
The yellow line is the LS regression for the cell.
The green line is the loess for each cell. It's bandwidth is not constant across allrows.
The hexbin density color is not constant across rows.
Relevant portions of the table are repeated on each page.

# 2 By Gender

| Subgroup | $h^2$ | $c^2$ | $e^2$ | $N_{.25}$ | $N_{.375}$ | $N_{.5}$ | $N_{.75}$ | $N_{Mz}$ | $r_{.25}$ | $r_{.375}$ | $r_{.5}$ | $r_{Mz}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 0.70 | 0.04 | 0.26 | 2158 | 0 | 4722 | 0 | 28 | 0.22 | | 0.39 | 0.94 |
| FF | 0.70 | 0.10 | 0.20 | 566 | 0 | 1148 | 0 | 10 | 0.28 | | 0.44 | 0.95 |
| MF | 0.73 | 0.02 | 0.25 | 1090 | 0 | 2340 | 0 | 0 | 0.21 | | 0.39 | |
| MM | 0.73 | -0.02 | 0.29 | 502 | 0 | 1234 | 0 | 18 | 0.18 | | 0.33 | 0.94 |
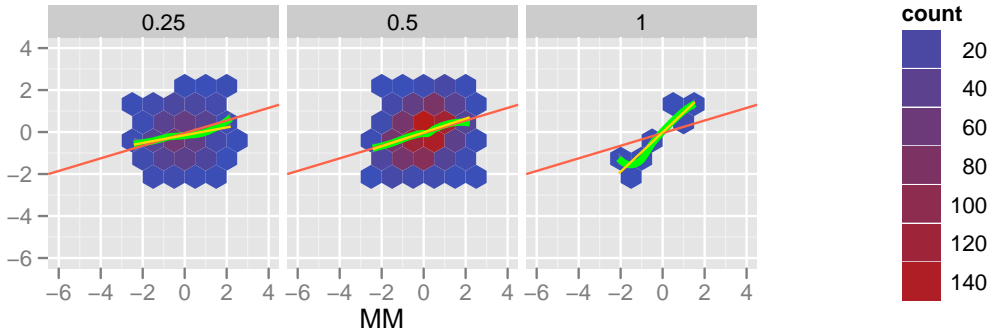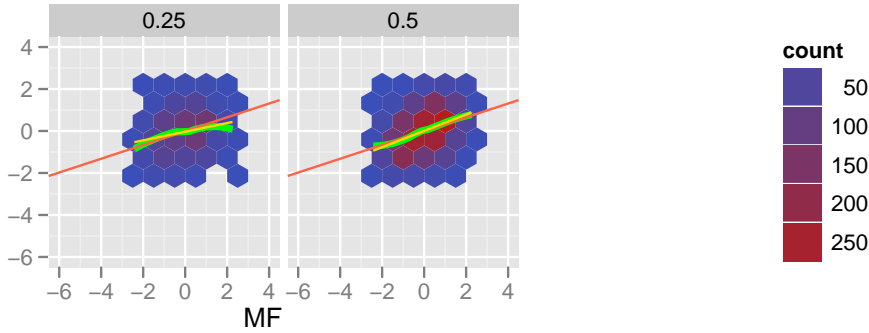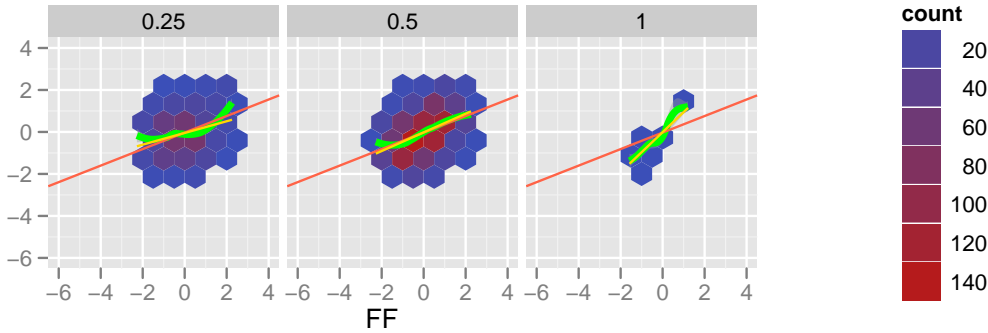
# 3 By Race

| Subgroup | $h^2$ | $c^2$ | $e^2$ | $N_{.25}$ | $N_{.375}$ | $N_{.5}$ | $N_{.75}$ | $N_{Mz}$ | $r_{.25}$ | $r_{.375}$ | $r_{.5}$ | $r_{Mz}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 0.70 | 0.04 | 0.26 | 2158 | 0 | 4722 | 0 | 28 | 0.22 | | 0.39 | 0.94 |
| Hispanic | 0.18 | 0.30 | 0.52 | 402 | 0 | 1338 | 0 | 2 | 0.35 | | 0.38 | -1.00 |
| Black | 0.67 | -0.04 | 0.36 | 1346 | 0 | 1460 | 0 | 10 | 0.14 | | 0.29 | 0.88 |
| NBNH | 0.54 | 0.10 | 0.36 | 410 | 0 | 1924 | 0 | 16 | 0.25 | | 0.37 | 0.95 |
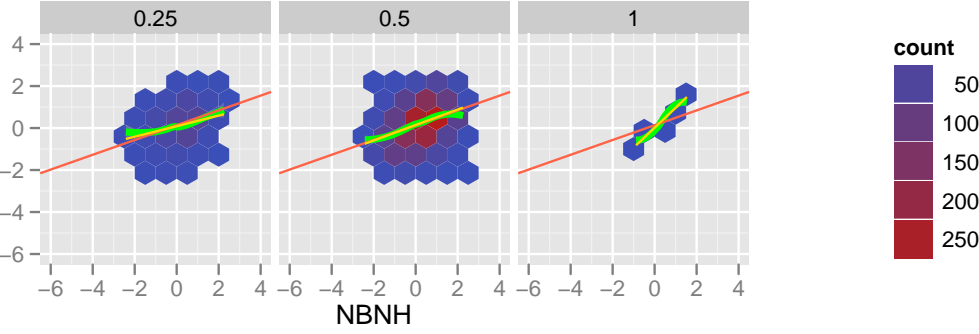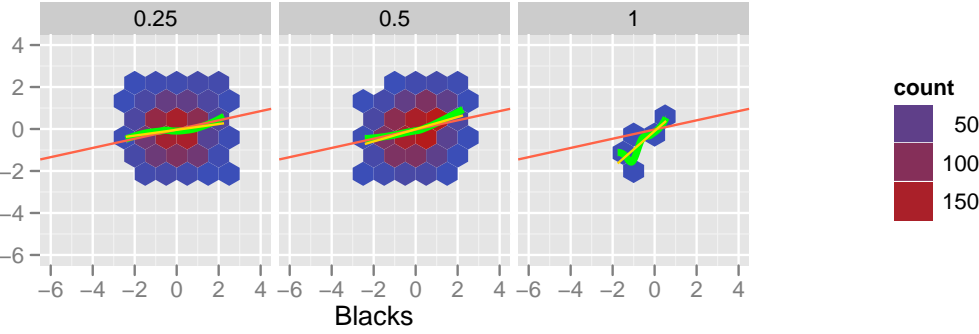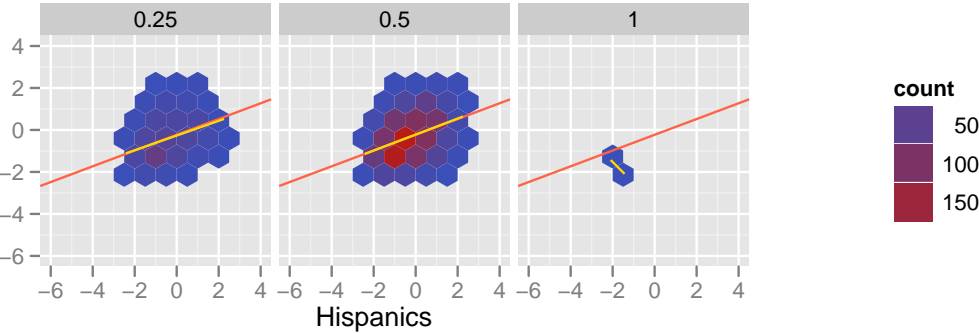
# 4  By Gender for Hispanics

| Subgroup | $h^2$ | $c^2$ | $e^2$ | $N_{.25}$ | $N_{.375}$ | $N_{.5}$ | $N_{.75}$ | $N_{Mz}$ | $r_{.25}$ | $r_{.375}$ | $r_{.5}$ | $r_{Mz}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 0.70 | 0.04 | 0.26 | 2158 | 0 | 4722 | 0 | 28 | 0.22 | | 0.39 | 0.94 |
| Hispanic | 0.18 | 0.30 | 0.52 | 402 | 0 | 1338 | 0 | 2 | 0.35 | | 0.38 | -1.00 |
| Hisp FF | -0.01 | 0.47 | 0.54 | 108 | 0 | 292 | 0 | 0 | 0.47 | | 0.46 | |
| Hisp MF | 0.24 | 0.25 | 0.51 | 196 | 0 | 642 | 0 | 0 | 0.31 | | 0.37 | |
| Hisp MM | 0.35 | 0.18 | 0.47 | 98 | 0 | 404 | 0 | 2 | 0.31 | | 0.34 | -1.00 |
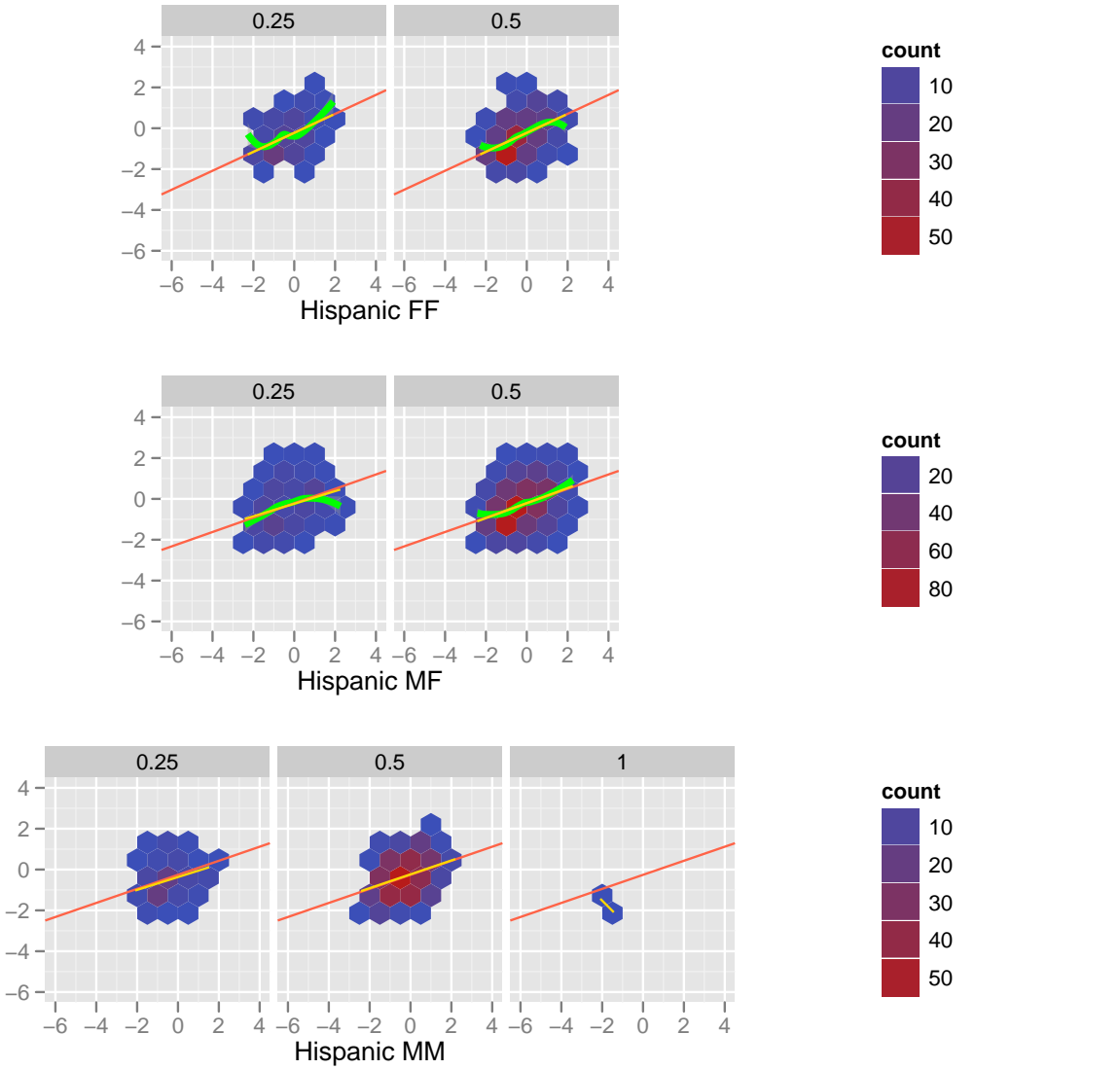
# 5 By Gender for Blacks

| Subgroup | $h^2$ | $c^2$ | $e^2$ | $N_{.25}$ | $N_{.375}$ | $N_{.5}$ | $N_{.75}$ | $N_{Mz}$ | $r_{.25}$ | $r_{.375}$ | $r_{.5}$ | $r_{Mz}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 0.70 | 0.04 | 0.26 | 2158 | 0 | 4722 | 0 | 28 | 0.22 | | 0.39 | 0.94 |
| Black | 0.67 | -0.04 | 0.36 | 1346 | 0 | 1460 | 0 | 10 | 0.14 | | 0.29 | 0.88 |
| Black FF | 0.43 | 0.09 | 0.48 | 374 | 0 | 376 | 0 | 4 | 0.21 | | 0.29 | 0.80 |
| Black MF | 0.83 | -0.07 | 0.24 | 678 | 0 | 730 | 0 | 0 | 0.13 | | 0.34 | |
| Black MM | 0.79 | -0.18 | 0.39 | 294 | 0 | 354 | 0 | 6 | 0.04 | | 0.18 | 0.89 |



Black FF



Black MF



Black MM
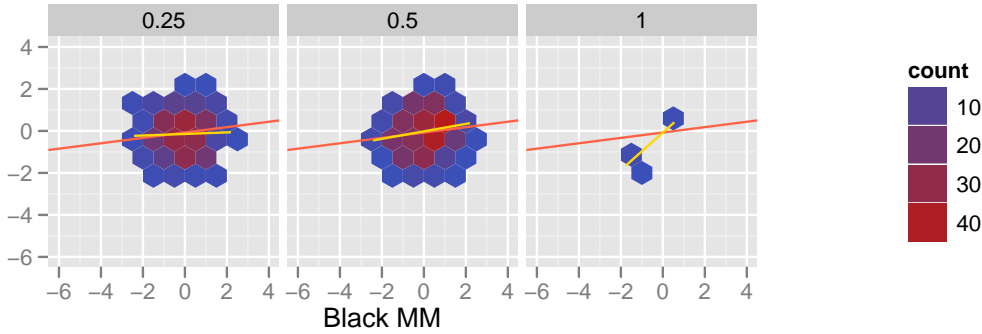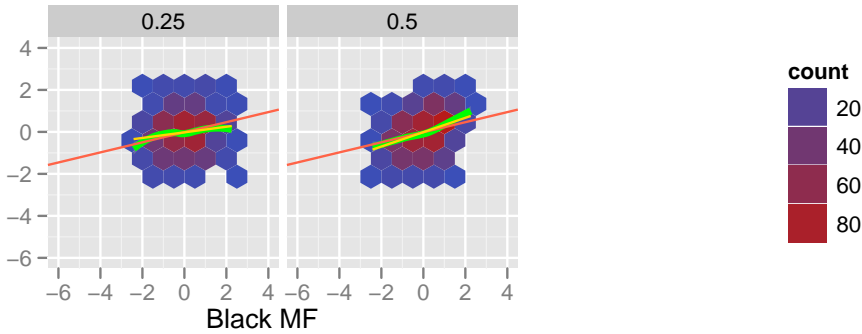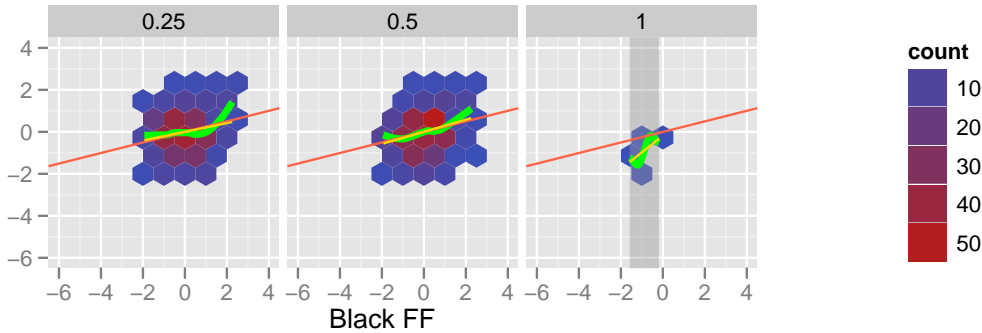
# 6   By Gender for NBNHs

| Subgroup | $h^2$ | $c^2$ | $e^2$ | $N_{.25}$ | $N_{.375}$ | $N_{.5}$ | $N_{.75}$ | $N_{Mz}$ | $r_{.25}$ | $r_{.375}$ | $r_{.5}$ | $r_{Mz}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 0.70 | 0.04 | 0.26 | 2158 | 0 | 4722 | 0 | 28 | 0.22 | | 0.39 | 0.94 |
| NBNH | 0.54 | 0.10 | 0.36 | 410 | 0 | 1924 | 0 | 16 | 0.25 | | 0.37 | 0.95 |
| NBNH FF | 0.98 | -0.02 | 0.04 | 84 | 0 | 480 | 0 | 6 | 0.23 | | 0.47 | 0.97 |
| NBNH MF | 0.48 | 0.10 | 0.42 | 216 | 0 | 968 | 0 | 0 | 0.22 | | 0.34 | |
| NBNH MM | 0.20 | 0.22 | 0.58 | 110 | 0 | 476 | 0 | 10 | 0.32 | | 0.30 | 0.94 |