Table 1: Test for variance among families and populations

Model: (rel\_growth\_rate^(1/3)) \* 100 ~ (1 | Population/Family) + Block

| Variable | Group | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| Relative growth rate: 2021 | Family:Population | 0.073 | 0.387 | 1.051 | 0.394 |
| Population | 0.000 | 0.000 | 0.000 | 0.5 |
| Residual |  | 36.471 | 98.949 |  |

Table 2: Assess how much variance is explained by urbanization

Urbanization = Distance to the City Center

Model: (rel\_growth\_rate^(1/3)) \* 100 ~ (1 | Population/Family) + Block + City\_dist

| Variable | Group | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| Relative growth rate: 2021 | Family:Population | 0.098 | 0.454 | 1.229 | 0.377 |
| Population | 0.000 | 0.000 | 0.000 | 0.5 |
| Residual |  | 36.472 | 98.771 |  |

Table 3: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Relative growth rate: 2021 | Block | 8.116 | **0.044\*** |
| Distance to City Center | 0.000 | 0.99 |

Table 4: Assess how much variance is explained by urbanization

Urbanization = Urbanization Score

Model: (rel\_growth\_rate^(1/3)) \* 100 ~ (1 | Population/Family) + Block + Urb\_score

| Variable | Group | Ï‡2 | Variance | PVE | p |
| --- | --- | --- | --- | --- | --- |
| Relative growth rate: 2021 | Family:Population | 0.101 | 0.459 | 1.243 | 0.3755 |
| Population | 0.000 | 0.000 | 0.000 | 0.5 |
| Residual |  | 36.458 | 98.757 |  |

Table 5: Quantify variance explained by urbanization

| Variable | Predictor | Ï‡2 | p |
| --- | --- | --- | --- |
| Relative growth rate: 2021 | Block | 8.066 | **0.045\*** |
| Urbanization Score | 0.151 | 0.697 |