|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Original** | | | | **Reproduction** | | | |
|  | **Coef.** | **T-stat** | **P-value** | **VIF** | **Coef.** | **T-stat** | **P-value** | **VIF** |
| Intercept | 0.0007 | 0.0397 | 0.96834 | – | 0.0006 | 0.034 | 0.973 | – |
| Income inequality | 0.2021 | 9.9015 | 0.0000 | 1.4657 | 0.1570 | 8.054 | 0.0000 | 1.4156 |
| Median household income | 0.2449 | 12.2474 | 0.0000 | 1.4066 | 0.2588 | 13.370 | 0.0000 | 1.3801 |
| Nurse practitioners | 0.1365 | 7.4003 | 0.0000 | 1.1963 | 0.1802 | 10.051 | 0.0000 | 1.1985 |
| Percent of black females | 0.1095 | 5.7726 | 0.0000 | 1.2667 | 0.1742 | 9.472 | 0.0000 | 1.2617 |

**Table 1.** Summary statistics of the OLS model for the original and replication studies: the original study looked at four predictor variables and COVID-19 incidence.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Original** | | | | **Reproduction** | | | |
|  | **Coef.** | **Std. Err** | **Z-score** | **P-value** | **Coef.** | **Std. Err** | **Z-score** | **P-value** |
| Intercept | -0.002 | 0.016 | -0.134 | 0.893 | -0.006 | 0.012 | -0.488 | 0.626 |
| Income inequality | 0.172 | 0.019 | 8.98 | 0.000 | 0.068 | 0.014 | 4.778 | 0.000 |
| Median household income | 0.183 | 0.019 | 9.58 | 0.000 | 0.106 | 0.015 | 7.251 | 0.000 |
| Nurse practitioners | 0.078 | 0.017 | 4.54 | 0.000 | 0.080 | 0.013 | 6.063 | 0.000 |
| Percent of black females | 0.064 | 0.018 | 3.57 | 0.000 | 0.077 | 0.014 | 5.517 | 0.000 |
| Rho | 0.0402 | 0.024 | 16.99 | 0.000 | 0.699 | 0.016 | 44.52 | 0.000 |

**Table 2**. Reproduction summary statistics of SLM in modeling COVID-19 counts, continental United States.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Original** | | | | **Reproduction** | | | |
|  | **Coef.** | **Std. Err** | **Z-score** | **P-value** | **Coef.** | **Std. Err** | **Z-score** | **P-value** |
| Intercept | -0.003 | 0.027 | -0.098 | 0.922 | -0.018 | 0.044 | -0.401 | 0.689 |
| Income inequality | 0.189 | 0.021 | 9.158 | 0.000 | 0.056 | 0.016 | 3.635 | 0.000 |
| Median household income | 0.237 | 0.023 | 10.396 | 0.000 | 0.176 | 0.200 | 8.831 | 0.000 |
| Nurse practitioners | 0.066 | 0.019 | 3.446 | 0.001 | 0.060 | 0.015 | 4.035 | 0.000 |
| Percent of black females | 0.123 | 0.0251 | 4.905 | 0.000 | 0.233 | 0.025 | 9.254 | 0.000 |
| Lambda | 0.415 | 0.024 | 17.099 | 0.000 | 0.729 | 0.015 | 47.324 | 0.000 |

**Table 3**. Reproduction summary statistics of SEM in modeling COVID-19 counts, continental United States.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Original** | | | **Reproduction** | | |
|  | **Adj. R2** | **AICc** | | **Adj. R2** | **AICc** | |
| OLS | 0.127 | | 8,304.98 | 0.167 | | 8,253.72 |
| SEM | 0.238 | | 8,063.53 | – | | 6,682.7 |
| SLM | 0.242 | | 8,045.70 | – | | 6,672.1 |
| GWR | 0.674 | | 6,134.19 | 0.644 | | 6,514.60 |
| MGWR | 0.681 | | 5,796;53 | 0.693 | | 5,696.73 |

|  |  |
| --- | --- |
| **Original** | **Reproduction** |
| **Household Income** | |
|  | **Map  Description automatically generated** |
| **Income Inequality** | |
|  | **Map  Description automatically generated** |
| **Original** | **Reproduction** |
| **Nurse Practitioner** | |
|  | **Map  Description automatically generated** |
| **Percent Black Female** | |
|  | **Map  Description automatically generated** |

Figure 2. GWR

|  |  |
| --- | --- |
| **Original** | **Reproduction** |
| **Household Income** | |
|  | **Map  Description automatically generated** |
| **Income Inequality** | |
|  | **Map  Description automatically generated** |
| **Original** | **Reproduction** |
| **Nurse Practitioner** | |
|  | **Map  Description automatically generated** |
| **Percent Black Female** | |
|  | **Map  Description automatically generated** |