General Methods

Linear regressions (standard entry) were conducted on the percent of confirmed cases of the novel coronavirus and the percent of deaths attributed to the novel coronavirus reported 30 days post state lockdown order using variables taken from the 2018 Social Vulnerability Index (SVI; Centers for Disease Control and Prevention, 2018). The percentages were calculated using 2014-2018 county-level population data taken from the SVI. Both the SVI variables and the coronavirus data were indexed at the county level. SVI variables that were used as predictors included county area in square miles, housing unit estimate, households estimate, persons below poverty estimate, civilian (age 16+) unemployed estimate, per capita income estimate, persons (age 25+) with no high school diploma estimate, persons aged 65 and older estimate, persons aged 17 and younger estimate, civilian noninstitutionalized population with a disability estimate, single parent household with children under 18 estimate, minority (all persons except white, non-Hispanic) estimate, persons (age 5+) who speak English "less than well" estimate, housing in structures with 10 or more units estimate, mobile homes estimate, at household level (occupied housing units), more people than rooms estimate, households with no vehicles available estimate, and persons in institutionalized group quarters estimate.

Confirmed coronavirus cases. A standard entry regression was conducted on the percent of confirmed coronavirus cases. This resulted in a significant model, $R = .94$, $R^2 = .88$, $F(18, 2{,}499) = 1019.356$, $p < 001$. Five variables failed to significantly contribute to the model, including county area in square miles, housing unit estimate, civilian noninstitutionalized population with a disability estimate, persons (age 5+) who speak English "less than well" estimate, and mobile homes estimate. Significant contributors (assessed via a series of *t* tests, which are omitted here; note that sr^2_{unique} refers to the squared proportion of variance uniquely

explained by each predictor variable) included households estimate (sr^2_{unique} = .009), persons below poverty estimate (sr^2_{unique} = .005), civilian (age 16+) unemployed estimate (sr^2_{unique} = .003), per capita income estimate (sr^2_{unique} = .0002), persons (age 25+) with no high school diploma estimate (sr^2_{unique} = .001), persons aged 65 and older estimate (sr^2_{unique} = .011), persons aged 17 and younger estimate (sr^2_{unique} = .044), single parent household with children under 18 estimate (sr^2_{unique} = .0003), minority (all persons except white, non-Hispanic) estimate (sr^2_{unique} = .010), housing in structures with 10 or more units estimate (sr^2_{unique} = .001), at household level (occupied housing units), more people than rooms estimate (sr^2_{unique} = .001), households with no vehicles available estimate (sr^2_{unique} = .119), and persons in institutionalized group quarters estimate (sr^2_{unique} = .003).

Confirmed coronavirus related deaths. A standard entry regression was conducted on the percent of deaths attributed to the coronavirus. This resulted in a significant model, R = .96, R^2 = .91, $F(18, 2{,}499) = 1424.357$, $p < 001$. Two variables failed to significantly contribute to the model, including county area in square miles and persons (age 25+) with no high school diploma estimate. Significant contributors (assessed via a series of t tests, which are omitted here) included housing unit estimate (sr^2_{unique} = .011), households estimate (sr^2_{unique} = .086), persons below poverty estimate (sr^2_{unique} = .033), civilian (age 16+) unemployed estimate (sr^2_{unique} = .041), per capita income estimate (sr^2_{unique} = .007), persons aged 65 and older estimate (sr^2_{unique} = .077), persons aged 17 and younger estimate (sr^2_{unique} = .320), civilian noninstitutionalized population with a disability estimate (sr^2_{unique} = .012), single parent household with children under 18 estimate (sr^2_{unique} = .013), minority (all persons except white, non-Hispanic) estimate (sr^2_{unique} = .053), persons (age 5+) who speak English “less than well” estimate (sr^2_{unique} = .021), housing in structures with 10 or more units estimate (sr^2_{unique} = .213), mobile homes estimate

(sr^2_{unique} = .016), at household level (occupied housing units), more people than rooms estimate (sr^2_{unique} = .016), households with no vehicles available estimate (sr^2_{unique} = .551), and persons in institutionalized group quarters estimate (sr^2_{unique} = .004).

References

Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry/Geospatial Research, Analysis, and Services Program. *Social Vulnerability Index [2018] Database*. data-and-tools-download.html. Accessed 2020.