

I analyzed the links between income, food insecurity and obesity using state-level data from the U.S. Census Bureau and CDC. The study proposes that food insecurity partially mediates (explains) the relationship between income and obesity.

I performed data cleaning and scaling, followed by regression (bivariate and multivariate) and correlation analysis, and transformed data in order to perform a chi squared test. I visualized data in graphs.

The statistical analyses all produced the following results:

- Income and obesity: insignificant, negative association; weak (correlation and regression analyses)
- Obesity and food insecurity: significant positive association; moderate
- Food insecurity and income: insignificant, negative association; very weak

Analysis did not support the partial mediation hypothesis. The association between income and food insecurity supported in past studies was not supported when analyzed through state averages, raising interesting questions about potential mediation by rurality and transportation access. The failure to account data does not account for income disparities, which may obscure the relationship.