Mapping Food Deserts in New York State

Looking at Grocery Stores in New York State

Grocery stores in New York State are clustered around urban areas, but are also more prevalent in higher income areas. Case studies of the New York City metropolitan area and the Buffalo and Rochester metropolitan area show this. These metropolitan areas were chosen for their large size and high population and stand as a good comparison to the rest of the more rural state.

What are Food Deserts?

Food deserts are a major problem in both urban and rural primarily low-socioeconomic communities in the United States. A food desert is defined by the USDA as “as parts of the country vapid of fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas… largely due to a lack of grocery stores, farmers’ markets, and healthy food providers.” (USDA) This creates significant public health problems for the United States. For this analysis, food deserts are defined as census tracts that do not contain any grocery stores and are not within a one mile radius of a grocery store.

Results & Conclusions

The yellow census tracts are the food deserts found by the analysis. The pink census tracts are the food deserts found in tracts below the New York State household median income at $62,765. The red census tracts are the food deserts found to be in tracts below the poverty line, where median household income is below $20,420. This was the federal poverty level for a three person household in 2017 (the average household size in New York State was 2.63 in 2017). Five red zones were found, primarily in low population rural areas, but with the exception of one on Staten Island. All colored tracts represent areas that are in need of a grocery store. These pink zones represents areas with higher need for a grocery store and the red zones represent the places in the most dire need a grocery store.

Limitations

Some census tracts were not included in this analysis because their income data could not be located. These areas can be seen as the grey census tracts in the maps and it is unknown whether they may contain unknown food deserts. Additionally, income data was used from 2016 while the poverty and below-median income parameters were from 2017 data, indicating the potential for slight discrepancies. Furthermore, grocery stores have very low incentives to bring new locations to sparsely populated, impoverished areas, because it is unlikely that their businesses will be able to generate a profit by doing so. Therefore in order to make the most of the results of this analysis, further research into policy and program adjustments to actually bring grocery stores to these areas in severe need is necessary.

References


Map Data Sources: ArcGIS Online, US Census Bureau.
Projection: GCS_WGS_1984

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December 2018
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