**Rough Draft for Project (Rob Williams)**

**Q 7. Can we quantify the extent of low access areas (e.g., LILATracts\_1And10, LILATracts\_1And20) in the dataset?**

Yes, we’re able to quantify the low access areas within the dataset, food\_access\_research\_atlas.csv.

For example, we create a block of R code to filter-out the variable, low income and low access tract measured at 1 mile for urban areas and 10 miles for rural areas, LILATracts\_1And10, using the value, 1, to represent census tracts that had access and the value, 0, to represent census tracts that were not within the 1 mile to 10 miles range, non-access.

We also did the same methodology for access of low income and low access tract measured at 1 mile for urban areas and 20 miles for rural areas, LILATracts\_1And20, as well as non-access.

**What’s the percentage of census tracts fall into different categories of low access areas?**

For the variable, LILATracts\_1And10, we ran the R code to filter access and non-access for low income and low access tract measured at 1 mile for urban areas and 10 miles for rural areas, LILATracts\_1And10 and the results were the following:

* LILATracts\_1And10

Access census tract, 9,245, divided by total number of census tracts, 72,864 times .10 = 12.7%

Non-access census tract, 63,619, divided by total number of census tracts, 72,864 times .10 = 87.3%

* LILATracts\_1And20

Access census tract, 8,105, divided by total number of census tracts, 72,864 times .10 = 11.1%

Non-access census tract, 64759, divided by total number of census tracts, 72,864 times .10 = 88.9%

**Are the patterns in the prevalence of food deserts in these categories?**

* LILATracts\_1And10

**A graph with red and blue squares

Description automatically generated**

* LILATracts\_1And20

A graph with red and blue squares

Description automatically generated

**Q8. Can we identify actionable insights for policymakers and community organizations to address food deserts?**

**Government Policies & Non-government Programs**

*Government Policies*

In order to eradicate food apartheid and create a food system where everyone has equitable access to fresh produce, vegetables, and other healthful foods, government regulations must now be a major factor.

* *Supplemental Nutrition Assistance Program (SNAP)*

To help SNAP participants buy the food they need, the Close the Meal Gap Act (H.R. 3037/S.1336) would give households more relevant SNAP benefit amounts and amend the guidelines for calculating SNAP benefits with the Low-Cost Food Plan.

### *Nongovernmental Food Assistance Programs*

While food assistance programs are considered a temporary fix, without the support of charitable groups, non-profits, and neighborhood businesses, many families would go hungry.

* *Maryland Food Bank (MFB)*

The Maryland Food Bank's Strategic Plan (MFB 3.0) addresses food insecurity with three pillars of strategies: increasing food access, establishing pathways out of hunger, and organizing sustainability and growth. This makes the MFB 3.0 work smarter, more efficiently, and with renewed energy to end hunger for more Marylanders.

**Target Areas Issues & Resolutions**

*Areas with Issues*

Mississippi had the greatest percentage of food deserts in the US as of 2015; 31% of its census tracts were categorized as low-income and low-access. New Mexico and Arkansas came next, with 27 and 26 percent respectively, after Mississippi.

* *Other U.S. Locations*

There is food apartheid in many areas of the nation, including:

Chicago, Los Angeles, New York City

*Potential Resolutions*

In so-called "food deserts," farmers' markets, community gardens, and financial assistance for low-income families are some potential remedies for the problem of food insecurity.

* Farmers’ Markets, Arabbers, and Roadside Carts

Can give local farmers' markets the chance to sell communities fresh, high-quality seasonal produce that is farmed nearby, and can serve senior citizens who are unable to travel by providing food delivery services through mobile farmers' markets.

### Community Gardens

Urban areas can be transformed into community gardens, giving locals and volunteers the chance to cultivate low-cost, wholesome organic veggies for their families and the larger community.

### Federal Resources for Low-Income Households

Federal funds have the power to assist people escape poverty. One such is the Supplemental Nutrition Assistance Program (SNAP), also referred to as food stamps, which assists individuals who qualify in covering the cost of food.