



# Food deserts in Metro Atlanta

Project 1 – Bootcamp Data Analytics

Amber Lee  
D'Aurelia Harvey  
Margarita Atehortua  
Mehdi Rahman  
Phillip Henson



# Goals of the presentation

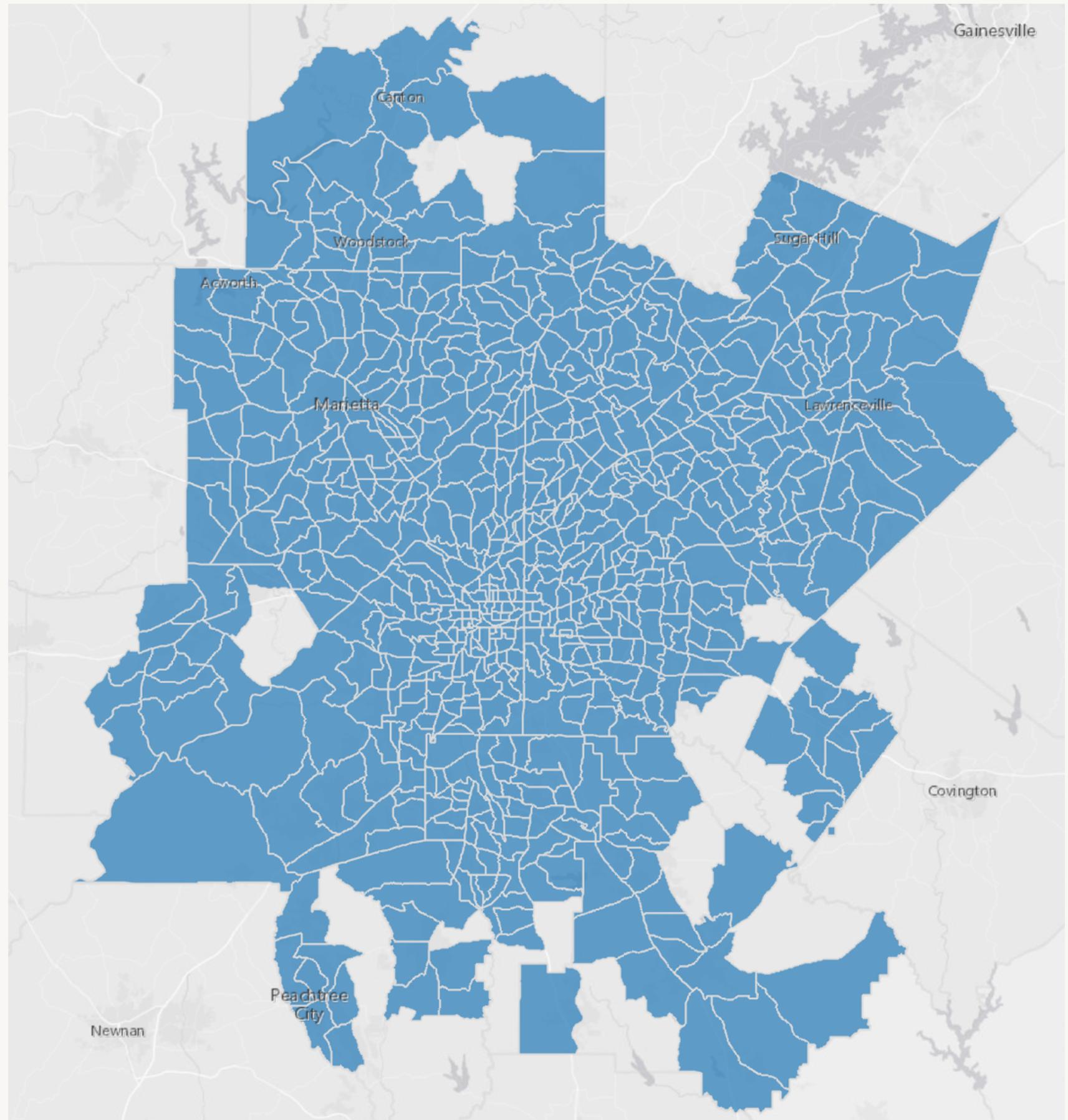
- Explain the relationship between low income and food deserts.
- Show which population is more affected by food deserts in Metro Atlanta.
- Present economic and social opportunities for supermarkets to access people in need in food deserts.



The number or share of residents with low levels of access to retail outlets selling healthy and affordable foods are defined as food deserts. This may contribute to poor diet, obesity, and other diet-related illness (USDA, 2011)

# Data exploration

- Data took from USDA.com
- Important parameters to consider:
  - Low-income: a poverty rate of 20 percent or greater, or a median family income at or below 80 percent of the statewide or metropolitan area median family income
  - Low-access: the population that lives more than 1 mile from a supermarket or large grocery store

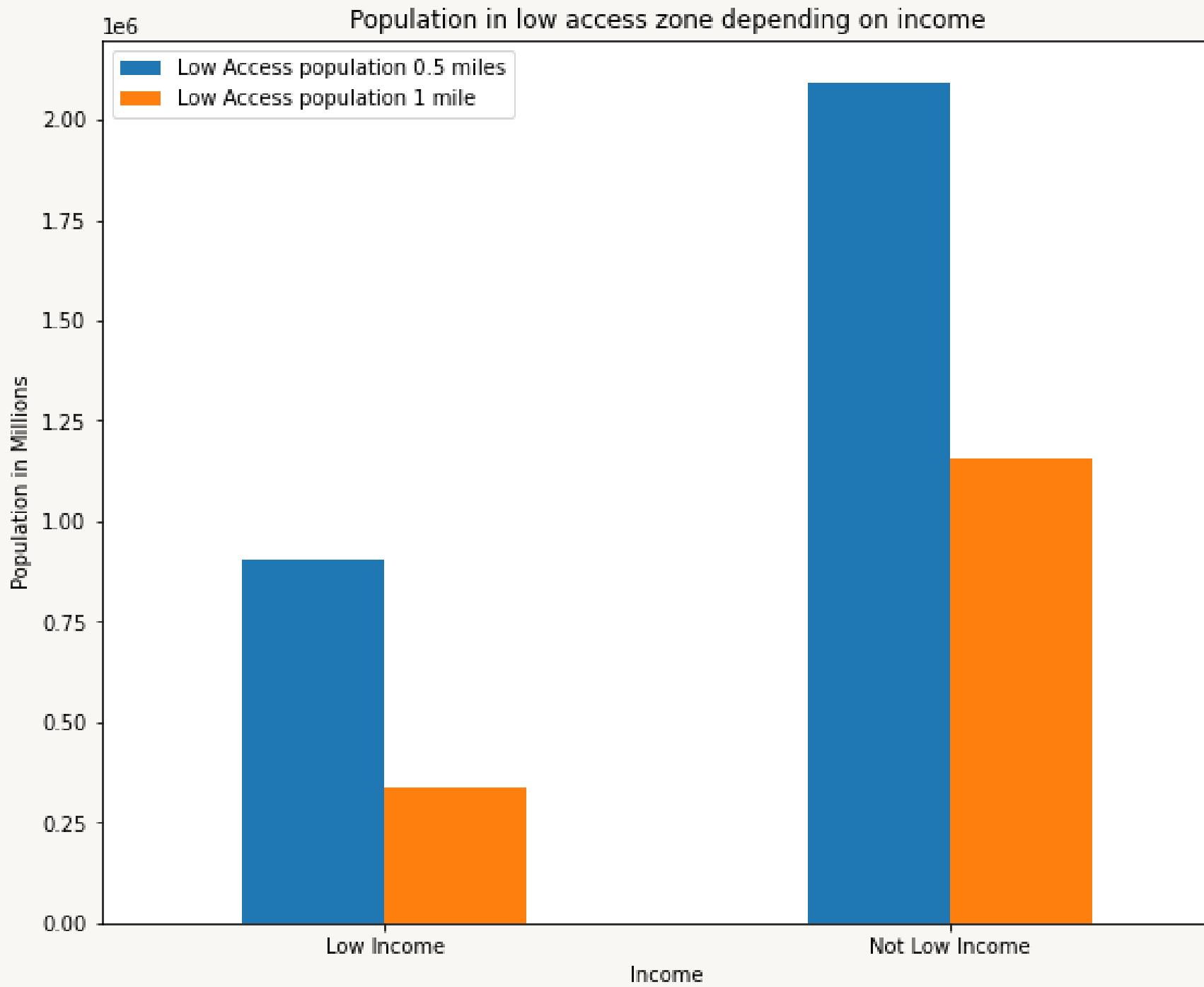




# Data manipulation

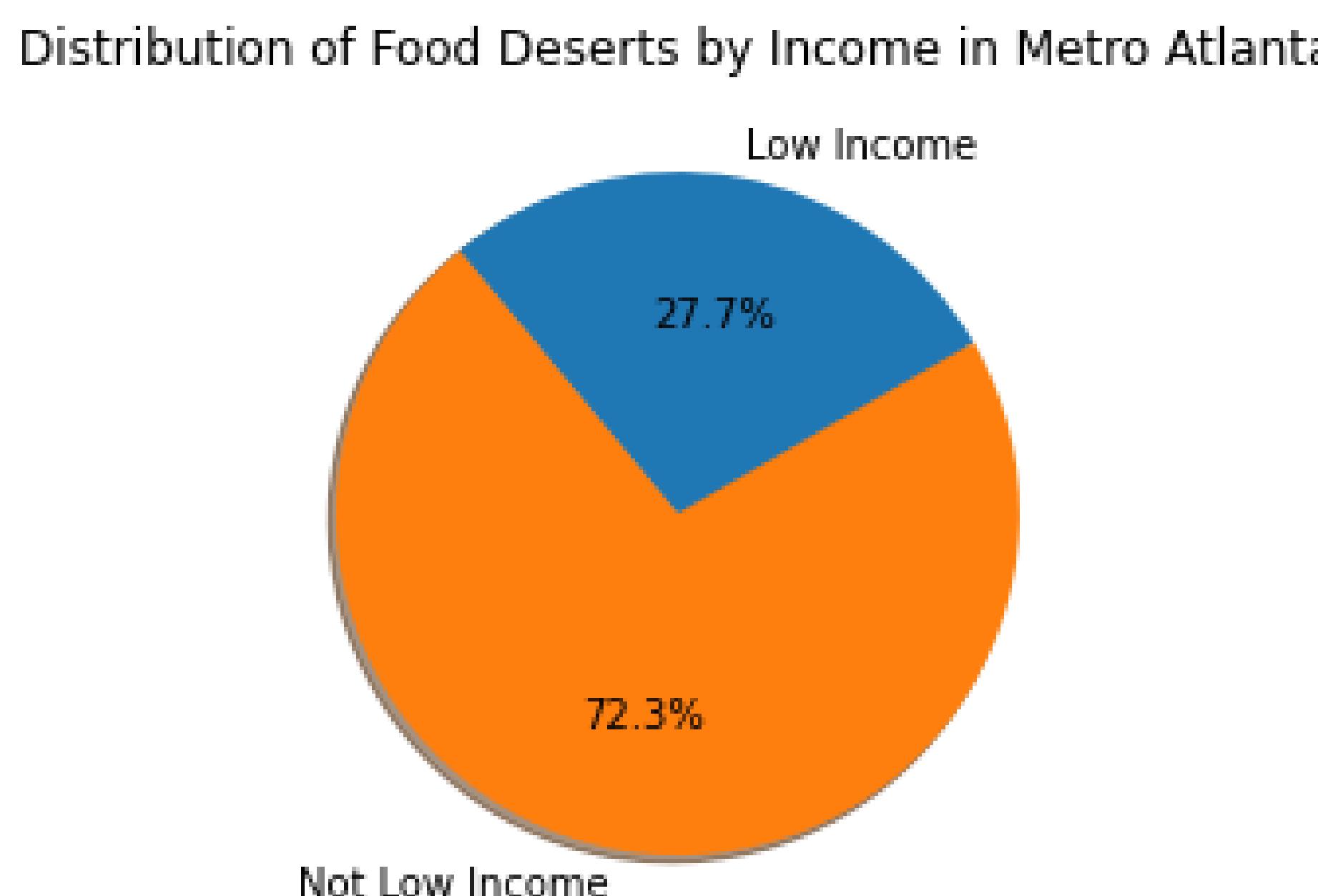
- Data cleaning
- Import CSV
- Create a data frame for each question
- Rename columns
- Considering data for urban zones only
- Changing column values in Income Level
- Give formatting to numbers
- Create plots for each question
- Find external information needed to answer questions

# How are food deserts related to areas of low income vs. higher income?



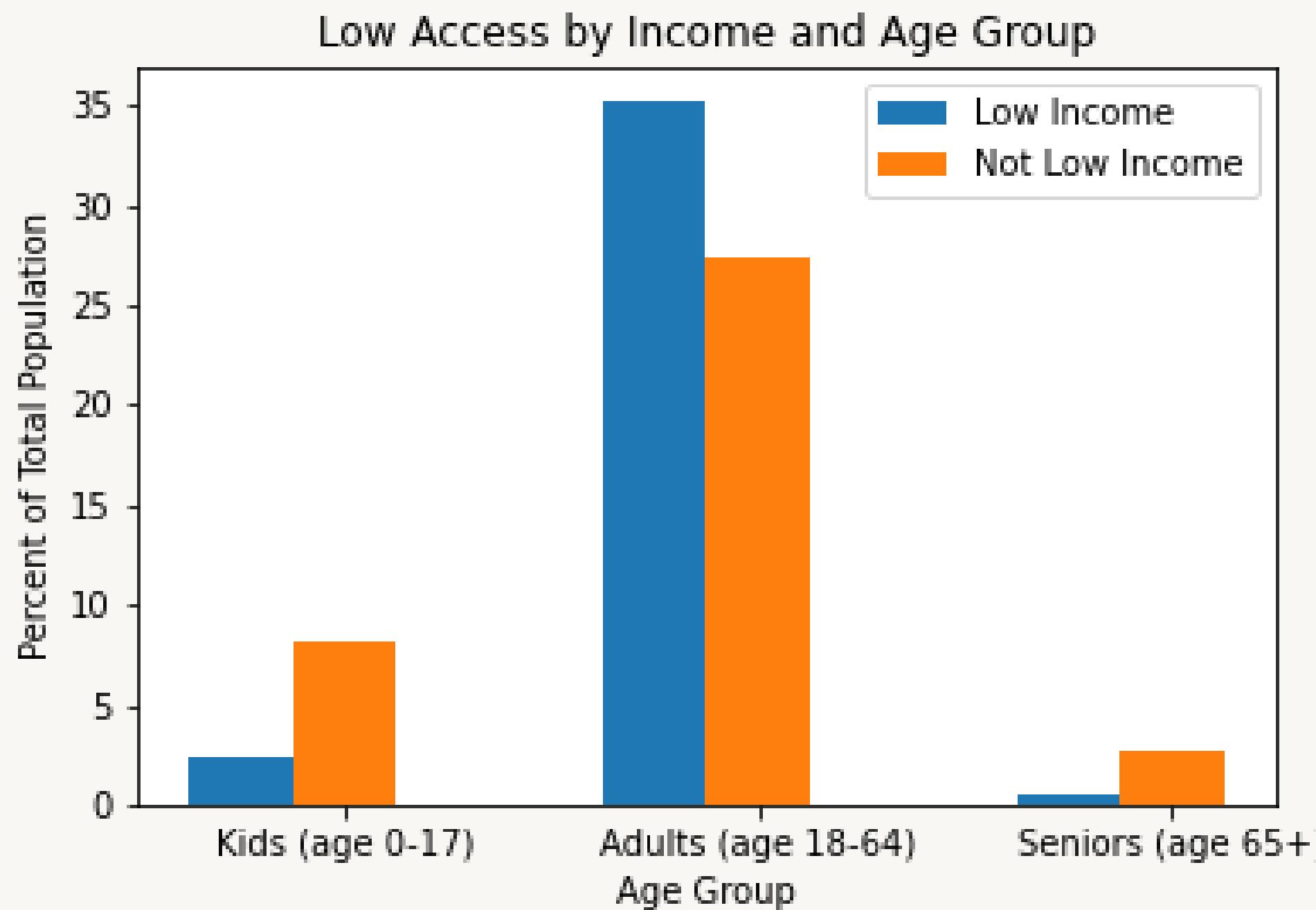
- There is more, not low-income population affected by food deserts than low income.
- More people have low access within 0.5 miles than 1 mile.

# How are food deserts related to areas of low income vs. higher income?



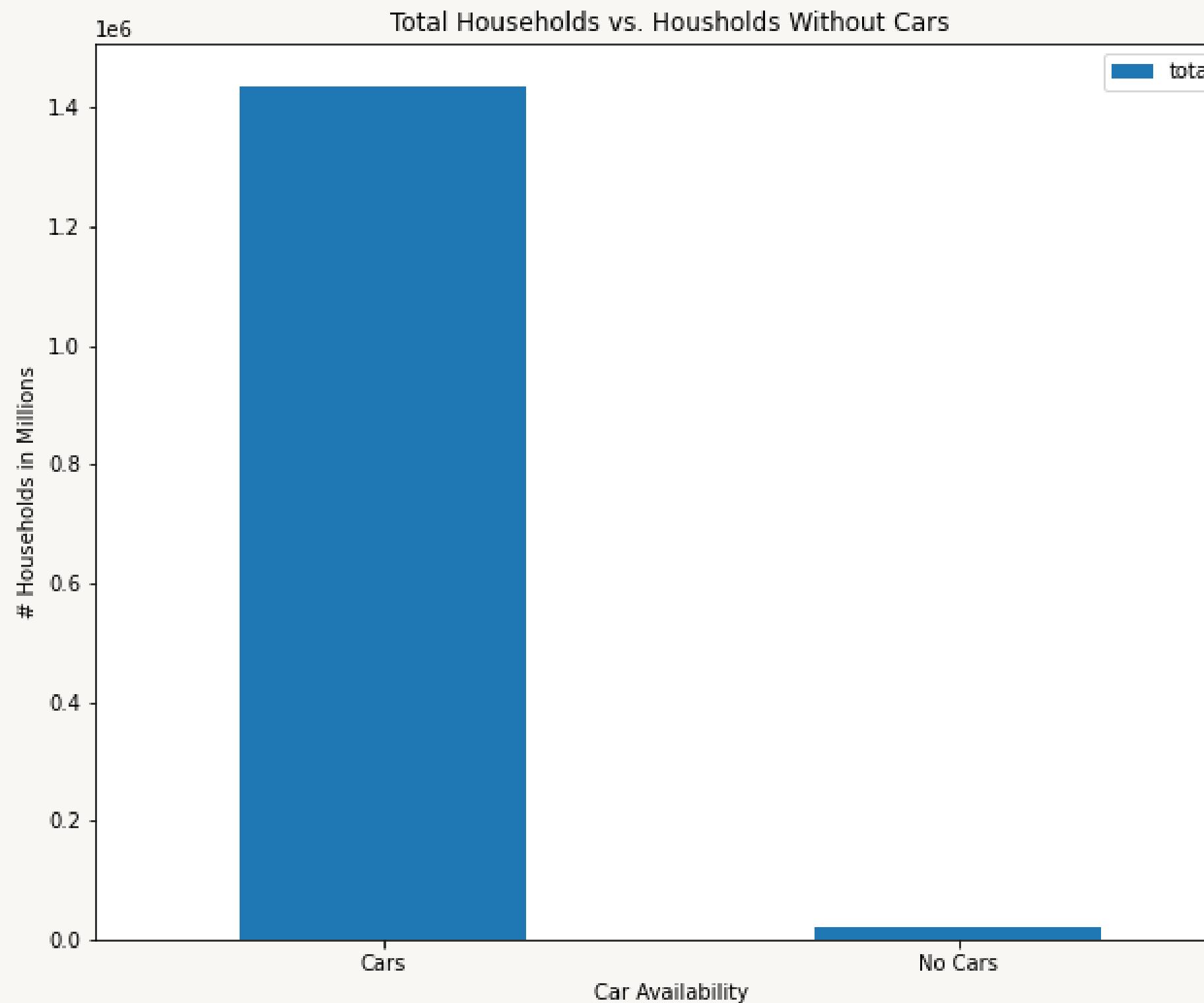
- 72.3% of the population within the food deserts in Metro Atlanta are people with not low income, meaning people with income above 80 percent of the metropolitan area median family income

# What demographic is more affected due to the food deserts?



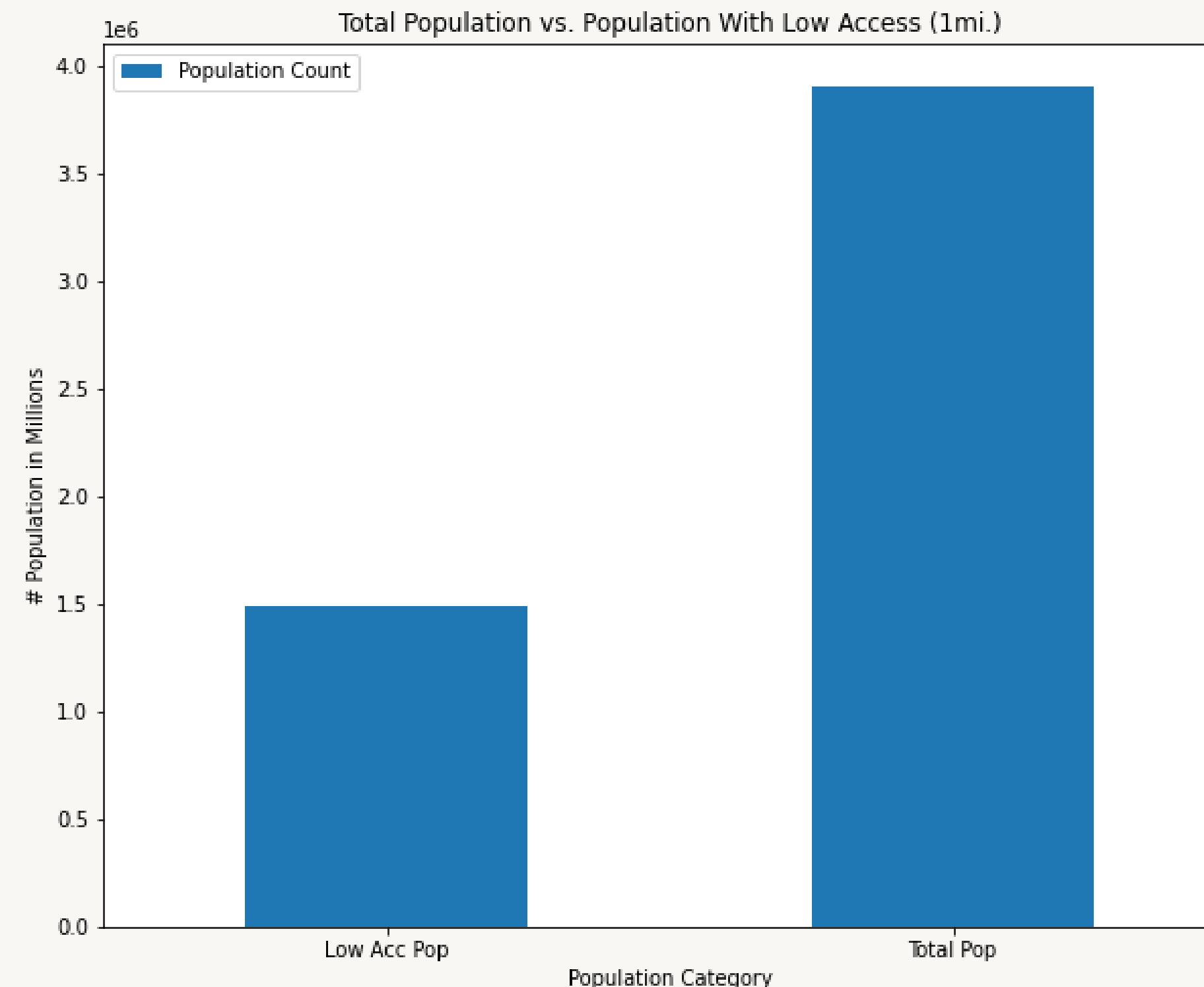
- Here we show the affects of food deserts of low access by income and age. So, no matter if you are an infant or a senior they are affected in someway.

# Are grocery store chains missing out on revenue by not having a presence in these areas?



- Out of the roughly 1.4M households, a fractional don't own a car.
- Opportunity for grocery stores to identify clusters of low-access households and develop stores in the underserved areas.

# Are grocery store chains missing out on revenue by not having a presence in these areas?



- 37% of people (1.5M) have low access to food in the Metro Atlanta area.
- Atlantans spent over \$8K annually on food (Bureau of Labor Statistics)
- An incentive for private businesses to claim revenue being left on the table.



# Conclusions

- There are more people with not low income with low access to food than low-income.
- The demographic that is more affected by the low access to food are adults between 18 to 64 years old with low income.
- Grocery stores are missing an opportunity to identify clusters of low-access households and develop stores in the underserved areas.

# References

Bureau of Labor Statistics. (2020). Consumer Expenditures for the Atlanta Metropolitan Area: 2018–19. Retrieved from [https://www.bls.gov/regions/southeast/news-release/2020/pdf/consumerexpenditures\\_atlanta\\_20201021.pdf](https://www.bls.gov/regions/southeast/news-release/2020/pdf/consumerexpenditures_atlanta_20201021.pdf). USDA. (2011). Mapping Food Deserts in the United States. Retrieved from <https://www.ers.usda.gov/amber-waves/2011/december/data-feature-mapping-food-deserts-in-the-us/>

