Obesity vs Restaurant and Income

Capstone Project

Why Understanding Obesity

• Obesity has become a threat to our civilization

• Obesity is physically and mentally harmful

• Obesity puts pressure on individuals and the government

• Obesity results from different factors

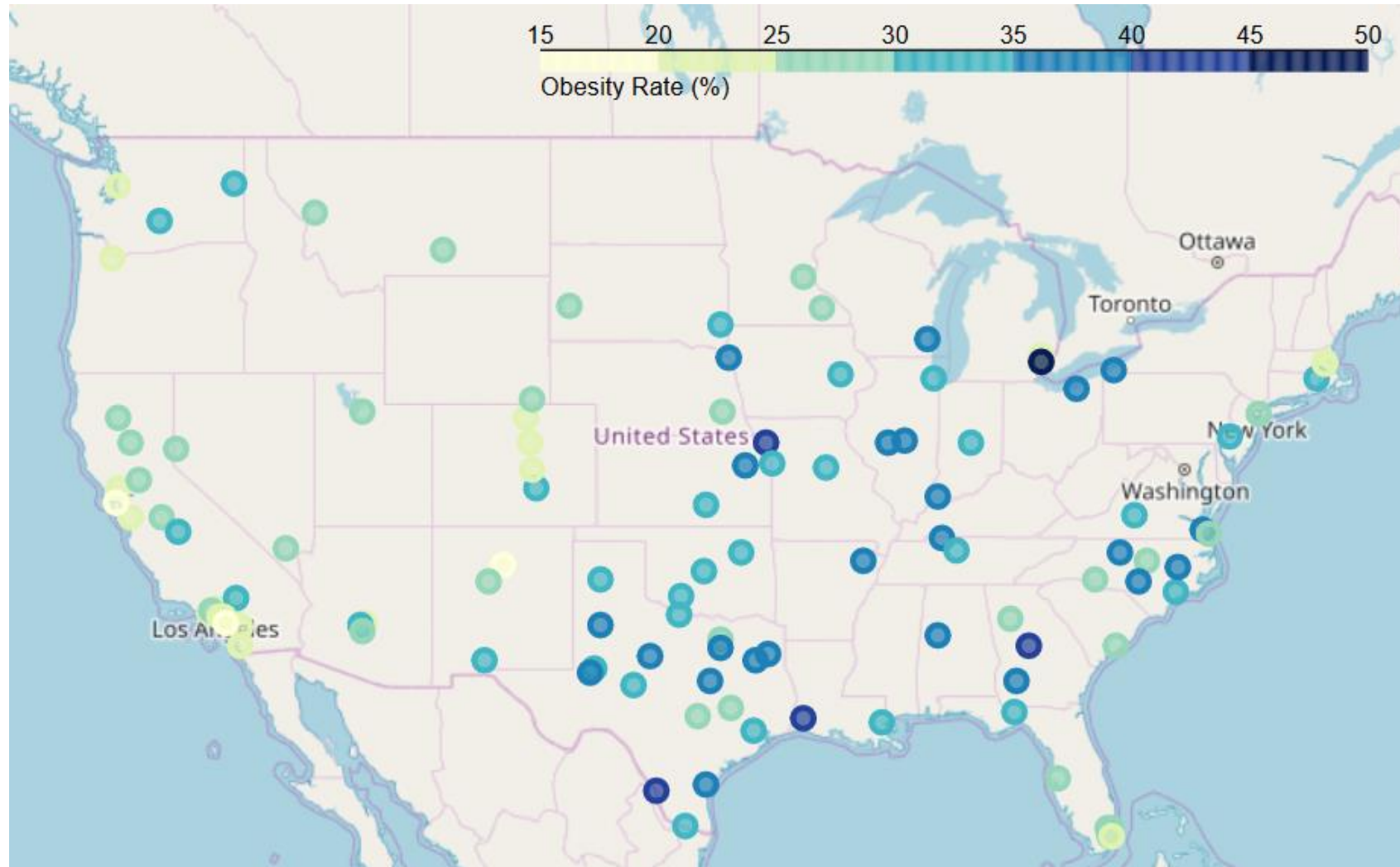• Obesity is what the people, society, and government care about

Data Acquisition

- Obesity among adults of the cities
  - https://catalog.data.gov/dataset/500-cities-city-level-data-gis-friendly-format-845f9

- Most Checked-in food venues
  - Foursquare API

- Annual personal income of the counties
  - https://www.bea.gov/data/income-saving/personal-income-county-metro-and-other-areas

- County name and cities
  - https://simplemaps.com/data/us-cities
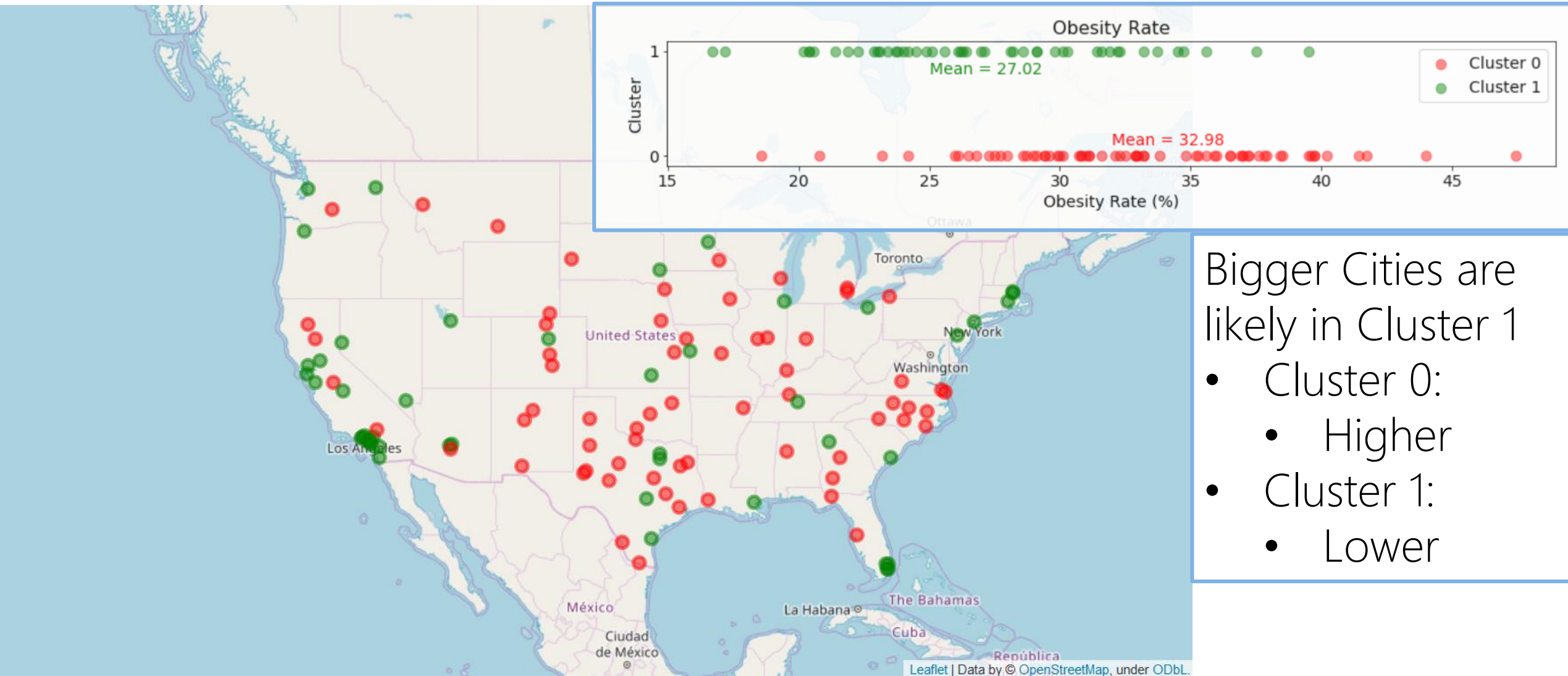
Data Cleaning

- Obesity among adults of the cities
  - Remain only the obesity rate and relevant location data
- Most Checked-in food venues
  - Clear the categories that is less than 20 venues
  - Clear the cities that has less than 30 venues
- Annual personal income of the counties
  - Replace the state name with abbreviation and merge with county name
- County name and cities
  - Remain only the county name and location data

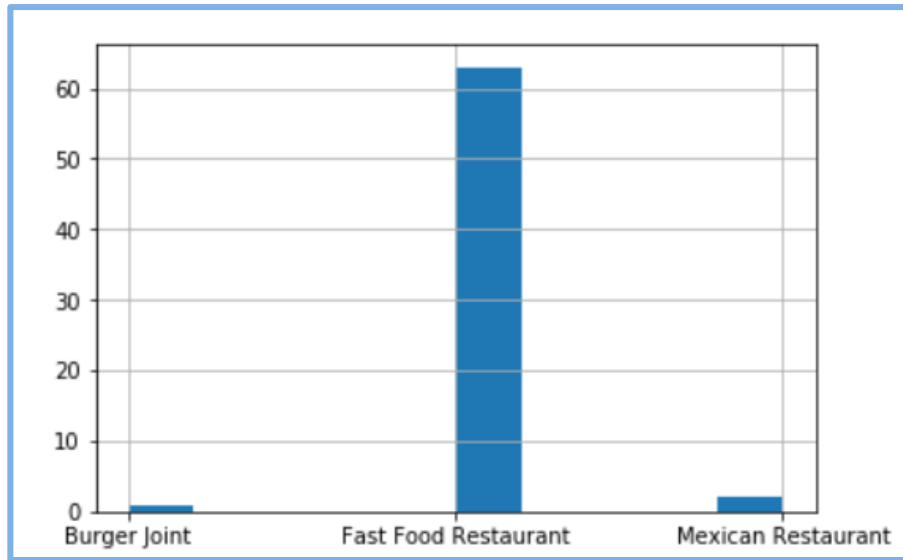# Obesity Rate and Cities

Obesity and Clusters
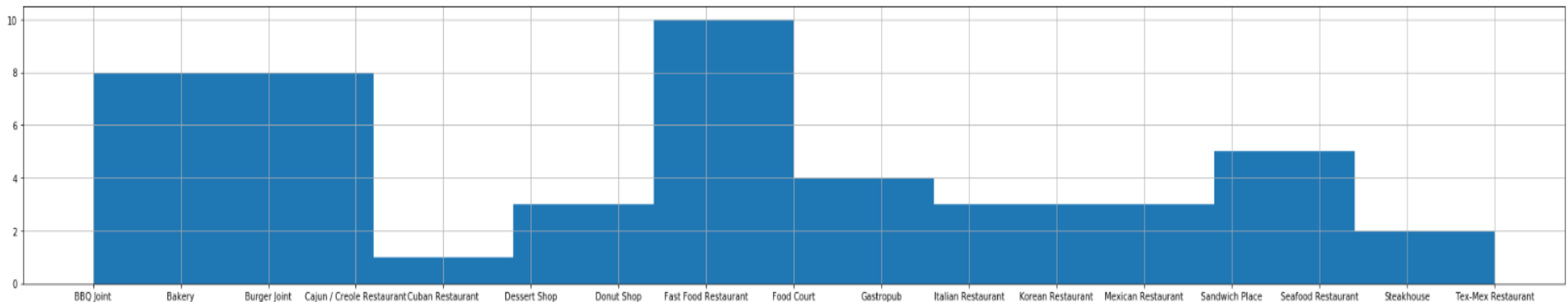

Bigger Cities are likely in Cluster 1
- Cluster 0:
  - Higher
- Cluster 1:
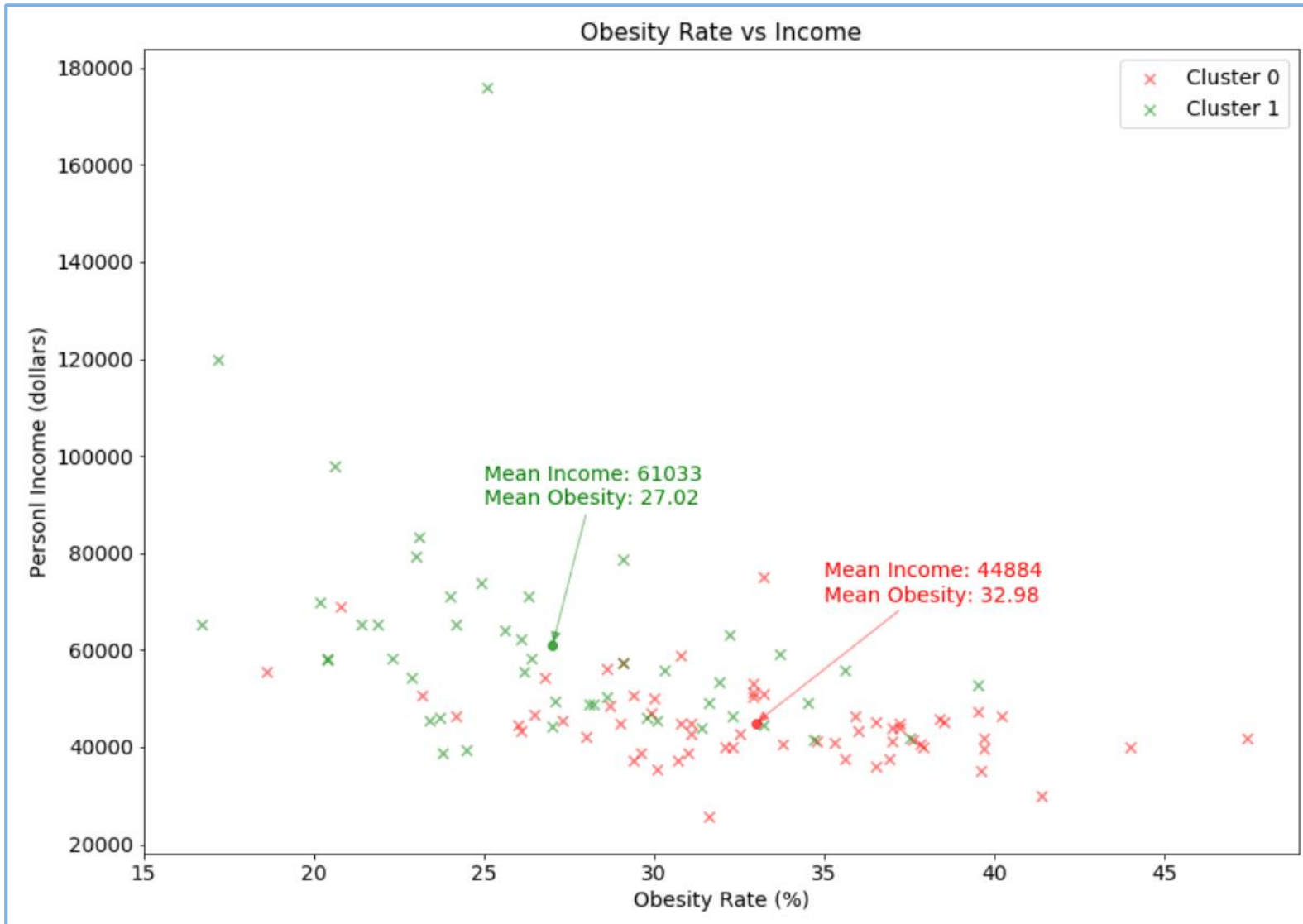 - Lower

Restaurants and Clusters

Cluster 0 → Less diverse

Cluster 1 → More diverse

Income and Clusters

- Cluster 0:
  - Higher obesity
    - 32.98
  - Lower income
    - 44884

- Cluster 1:
  - Lower Obesity
    - 27.02
  - Higher income
    - 61033

Conclusion

- Higher Obesity Rate
  - — Lower Personal Income
    - — More Fast Food Restaurant
- Lower Obesity Rate
  - — Higher Personal Income
    - — Less Fast Food Restaurant

We need to pay attention to the economic problem, besides only proposing health policy

THANK YOU