



BEST LOCATION FOR A NEW RESTAURANT IN HOUSTON NEIGHBORHOOD

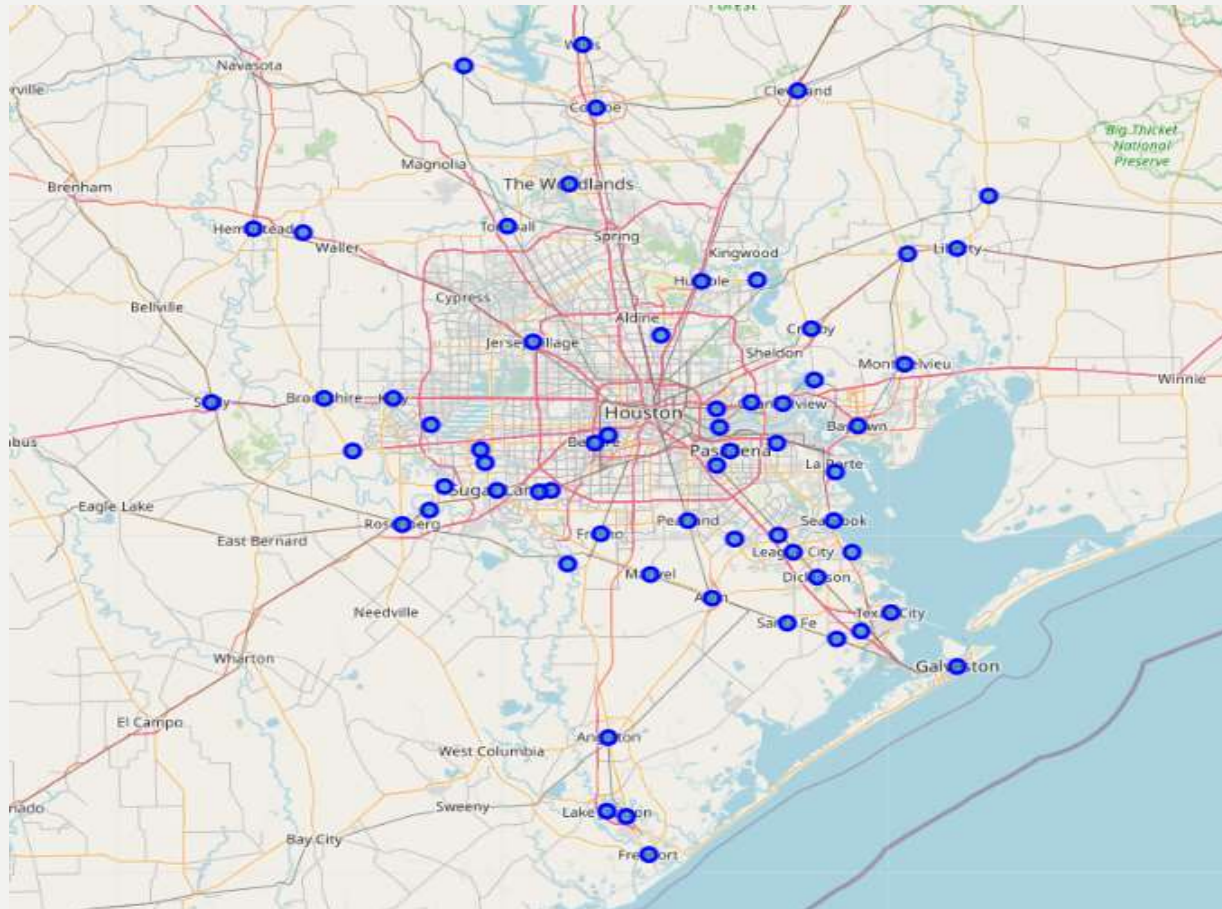
Data Source for the project

- Foursquare source data
 - *For venues in Houston neighborhood*
- StatisticalAtlas
 - *For finding Houston county and neighborhood*
- Census Data
 - *For gathering statistics about Houston Neighborhood*

Exploratory Data Analysis

- Data Composition
 - 62 rows representing 62 neighborhoods in Houston
 - 64 columns for neighborhoods statistics
- Handling of missing data
 - Delete columns where more than 90% values are missing
 - Replace missing values in each column by column average
- Use of Foursquare for venues determination
 - Radius set at 5 miles for neighborhood venues evaluation
 - Limit set a 100 per neighborhood
 - 4801 venues found
 - 1234 restaurants extracted from all the venues
- Neighborhoods latitudes longitudes and altitudes evaluation

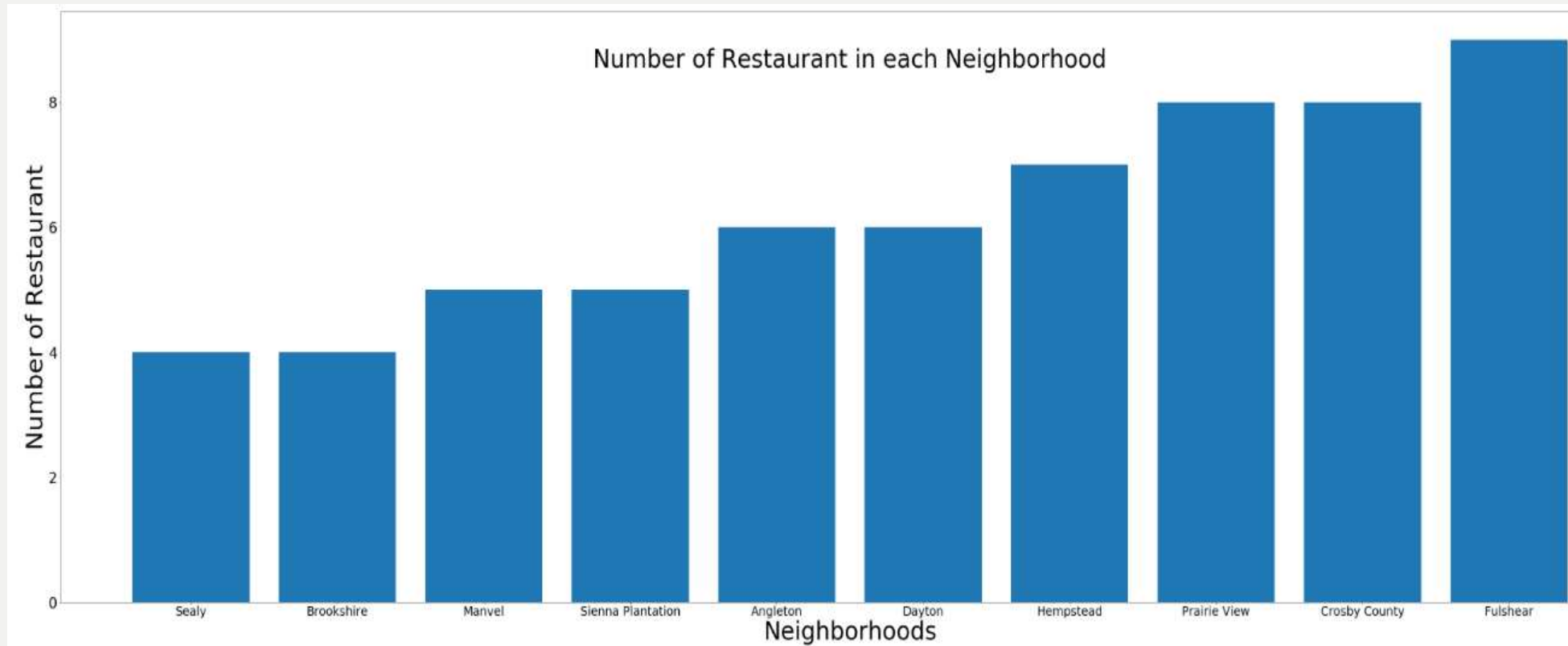
Houston map with Neighborhoods



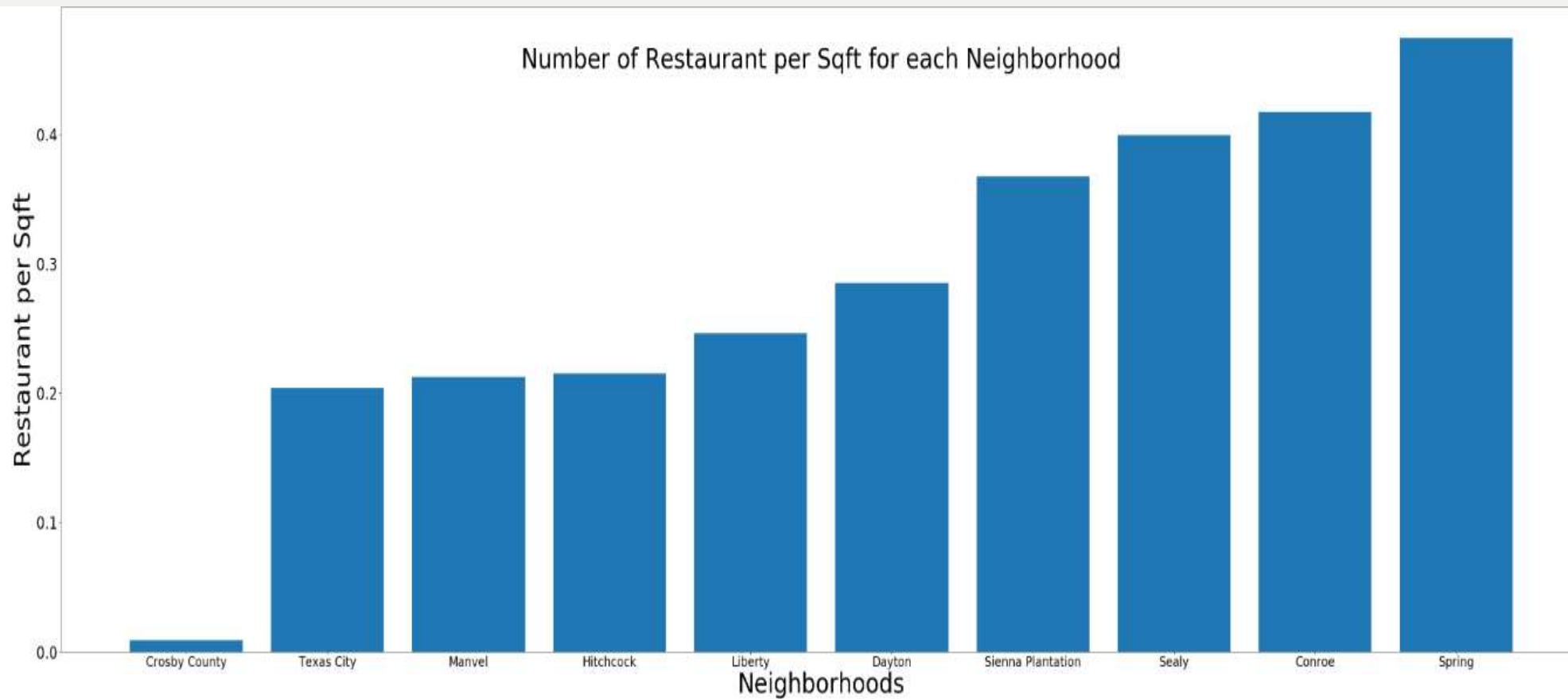
Key Performance Indicators(KPI's) for Evaluating the Neighborhood

- Number of restaurant in each neighborhood
- Number of restaurant per neighborhood sqft
- Number of restaurant per neighborhood family income
- Number of restaurant per neighborhood population

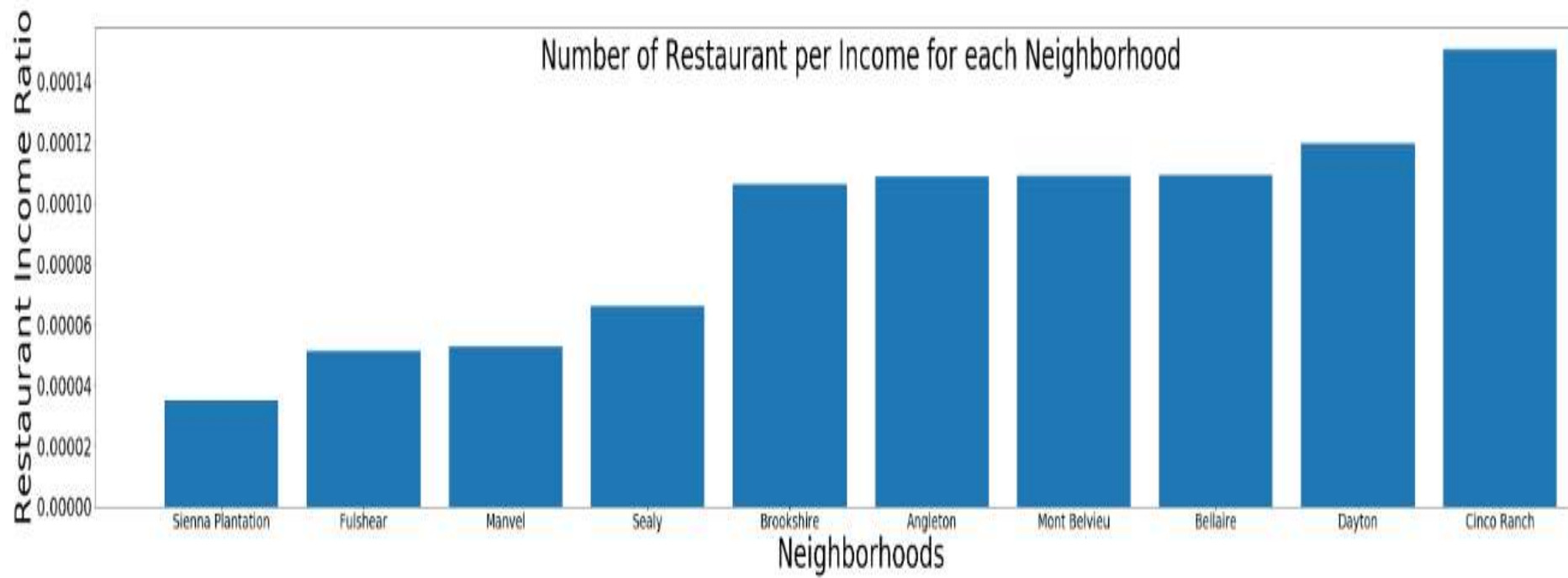
Neighborhoods with least Number of Restaurants



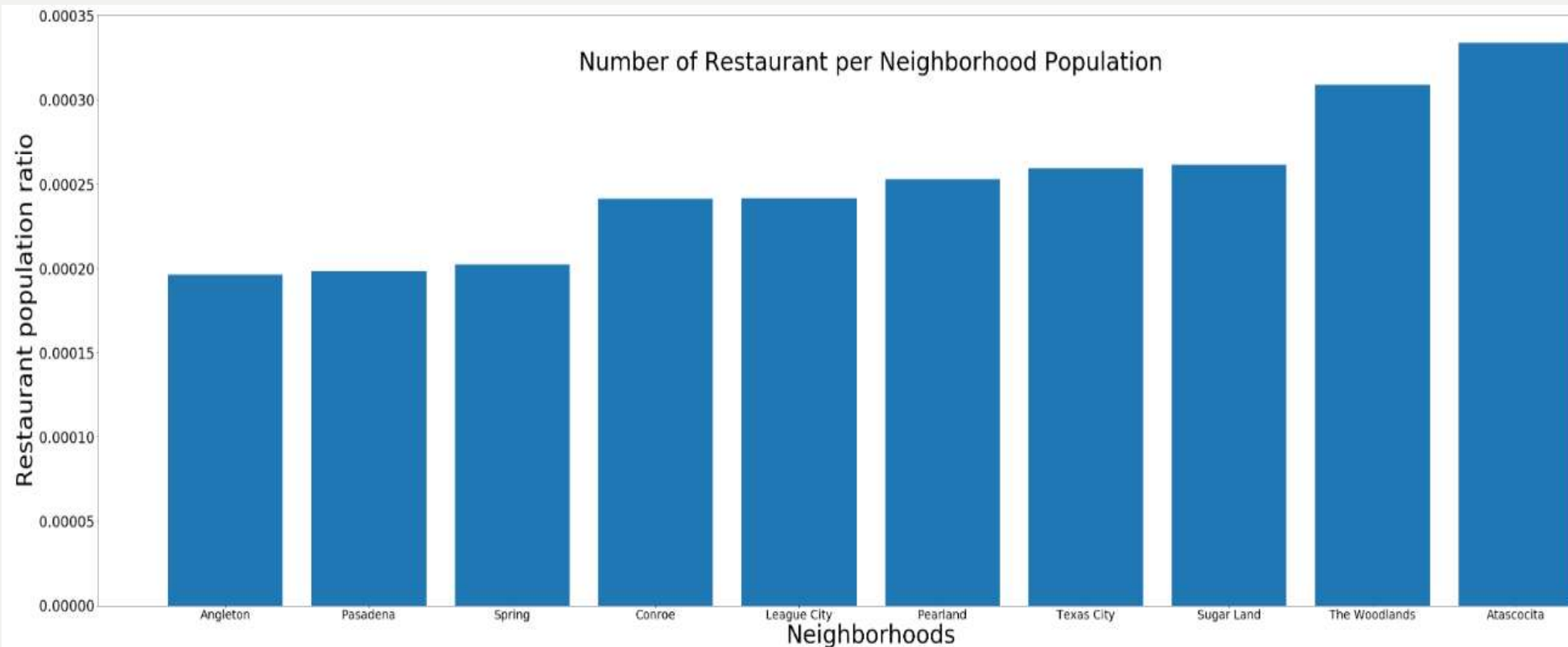
Neighborhoods with least Number of Restaurants per Sqft



Neighborhoods with least Number of Restaurants per Family Income



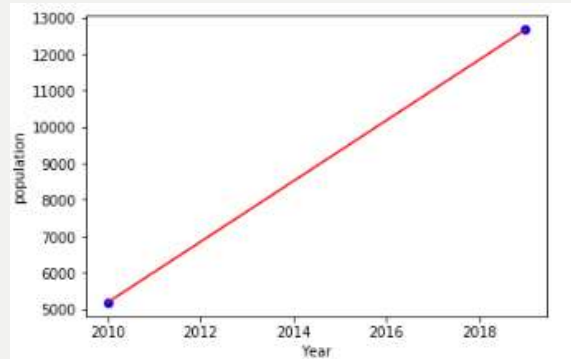
Neighborhoods with least Number of Restaurants per Neighborhood Population



Conclusion based on Neighborhood KPI

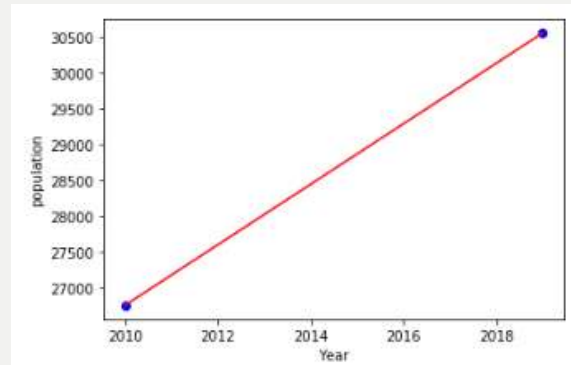
- The best Neighborhood should be ranked low in all the 4 KPI's
- No neighborhood appears in the 5 lowest value off all 4 KPI's
- Two Neighborhoods Angleton and Manvel appears low on 3 of the 4 KPI's
- Angleton and Manvel are the 2 Neighborhood to consider for opening a restaurant

Prediction of population growth in Manvel by 2025



- Manvel population Expected to growth by 39% from 2019 to 2025
- Population estimate to be 17665 by 2025

Prediction of population growth in Angleton by 2025



- Angleton population expected to growth by 8% from 2019 to 2025
- Population estimate to be 33084 by 2025

Conclusion



Manvel population is growing faster, but will take more than 10 years to get to Angleton population



Because of the higher population in Angleton, I will suggest to open the restaurant in Angleton



For future study we can look at where exactly to open the restaurant in Angleton



The map below group the Restaurant by Category. This will help to choose the most appropriate type of restaurant for Angleton to avoid to much competition

