Houston, TX Population`

1 Introduction

1.1 Background

Houston is the 4th most populous city in the US with over 2 million within the city limits and an additional 3 million in the suburbs surrounding Houston.

1.2 Purpose

The purpose of this project was to evaluate the population data within Houston city limits. The goal of the analysis was to identify the most populous areas and the areas that are growing the fastest.

2 Data Acquisition and Cleaning

2.1 Data Sources

The population data was collected and cleaned from the US census website broken down by the zip code of residence. The zip code locations were then identified with coordinate data. The "json" file was imported from an open source website

2.2 Data Cleaning

Fortunately the data was pretty clean from most of the sources. The one exception was the location data had all position numbers while the folium library needed "negative" data to be able to reference Houston.

3 Data Analysis

3.1 Visualization

The first step I completed once the data was cleaned was a means to visualize the data to see if there was anything that stood out. The first plot is the current population data, the second plot is the population data from 10 years ago, and the third plot is the population change.

The data visualization found the greatest population was in West Houston area which is also experiencing the greatest population increase. While the Eastern neighborhoods are far less populated and have slower population growth.

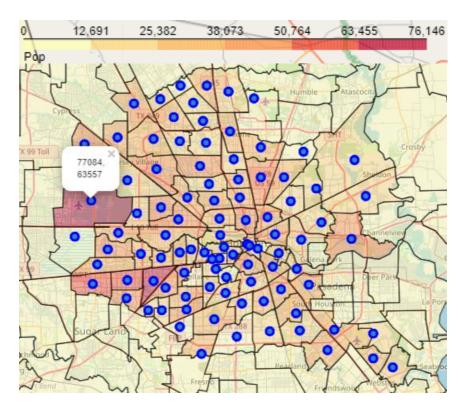


Figure 1: Current Population

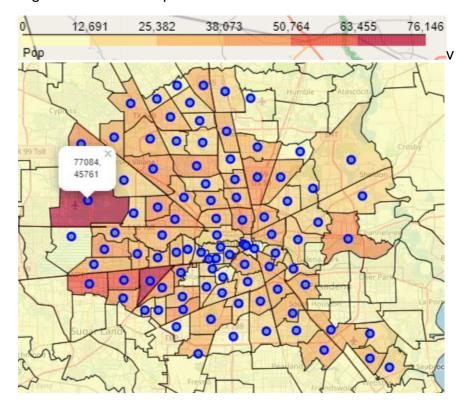
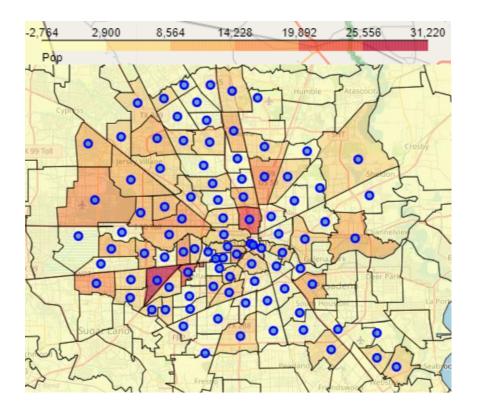
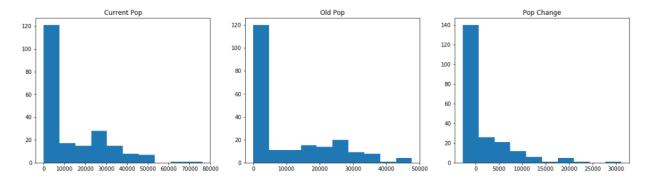


Figure 2: Old Population



3.2 Population Histogram

We see of the 213 unique zip codes in Houston the Majority of them have less than 10000 people living in the, with only a few exceeding the 50000 population mark. The population growth in each zip code was less than 5000 people over 10 years with a few exceptions.



4 Conclusion

Based on the population numbers and the measured growth the recommended area to live in would be the eastern side of Houston to spread out the population density.

5 Next Steps

The next steps for this analysis will be to determine why there is such a large population in certain areas while very small in others. This analysis will include an evaluation of the major industry in each of the zip codes to look a for a correlation.