5.0 – Population Density

Starting Point:

- Addresses, Old Neighborhoods, no information on the Population , Square Miles of this neighborhood, and Population Density.

Process:

- Rather than the old Neighborhoods (A.Population_Density_Old_Neighborhoods.xlsx), we want the new neighborhoods of each of these addresses. These more specific neighborhoods will allow for greater clarity of the population density. We are trying to answer the question of "how dense is this neighborhood", so it is crucial that we are specific with what neighborhood rather than just "Central Brooklyn".

- Create an empty sheet. Replaced old neighborhoods with New Neighborhoods that are more specific. Empty population, square miles, and population density (B. Population_Density_New_Neighborhood.xlsx)

- Find population information on https://data.cityofnewyork.us/City-Government/New-York-City-Population-By-Neighborhood-Tabulatio/swpk-hqdp/about_data

- Python load New Neighborhoods (B. Population_Density_New_Neighborhood.xlsx) sheet in.

- Using formula Ex: *DF.loc[DF['Neighborhood'] =='Allerton', 'Population'] = '28903'* input in the population based on the name of the neighborhood.

- Repeat process with Population Column

- Identify Null values that got missed or have neighborhood complications

- Create new column based on dividing population column with square mile column.

- Export information.

Result:

- E. Population_Density_Completed.xlsx showing all updated neighborhoods, with their population, square miles, and population density
- D. Population_Density_Least_To_Greatest.xlsx showing the data from least populated to most populated.
- Full Data Set after 6.0 .xlsx incorporating this data into the greater data set.