Peer-graded Assignment: Capstone Project - The Battle of Neighborhoods

Where to locate a new Venezuelan restaurant in New York City?

Craig Gill

Introduction

With political and economic turmoil continuing to overwhelm Venezuelan society, thousands of citizens are looking to leave the country in search of new opportunities abroad, including my family currently located in Maracaibo, Venezuela. As long-time restauranteurs, they hope to settle in a "friendly" city or region where they can both integrate themselves into the American way-of-life while also maintaining connections with their native culture and family networks. They have chosen New York City as their top choice (timing dependent on multiple factors, including the current health crises and availability of visas).

This final project is intended to provide information relevant to a search for the "best" neighborhoods within New York City for a new Venezuelan restaurant. Based on previous experience and advise from friends and industry colleagues, they are looking for neighborhoods already accepting of similar culinary tastes, with an established network of suppliers relevant to Venezuelan cuisine, but without significant competition in this niche market.

In short, where in New York City is Caribbean food already popular, *but* without a Venezuelan restaurant?

Data

In order to answer the above questions, data on New York City boroughs and neighborhoods (and their corresponding latitudes and longitudes) will be accessed via the following resources: https://cocl.us/new_york_dataset

New York City data relating to restaurant facilities, including cuisine-type, names, and locations will be obtained via the FourSquare API as accomplished in the previous labs.

Note: Venezuelan cuisine is a blend of multiple flavors and is not easily categorized. In Foursquare, data on Venezuelan restaurants is limited. This is due both to the limited number of true-Venezuelan restaurants in NYC, but also due to categorization challenges (Venezuelan restaurants tend to fall into other categories like South American and Caribbean). In this particular case, because our menu tends to compare most favorably with Caribbean cuisine, we will focus on this category for analysis.
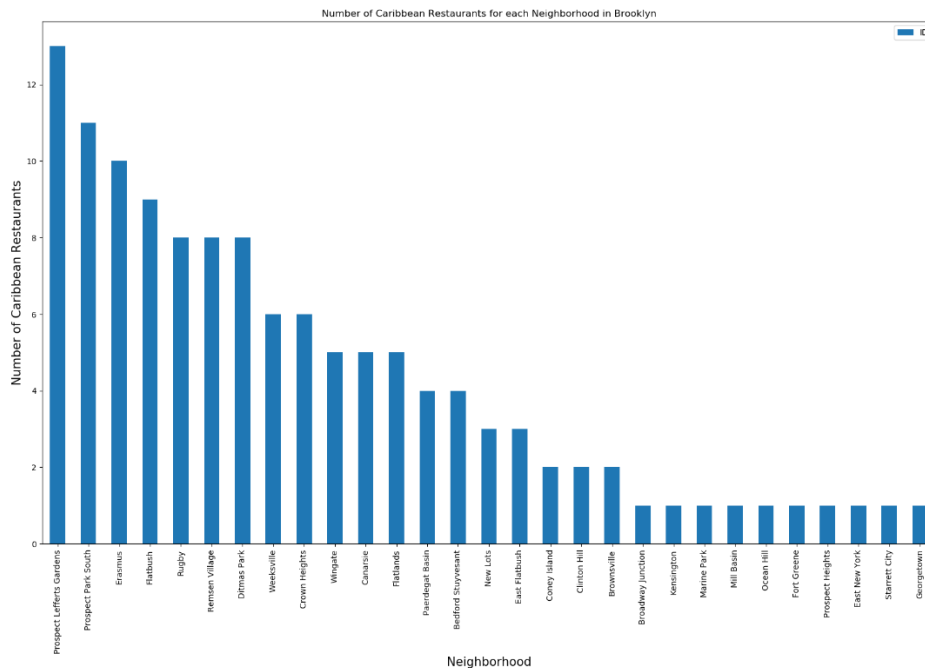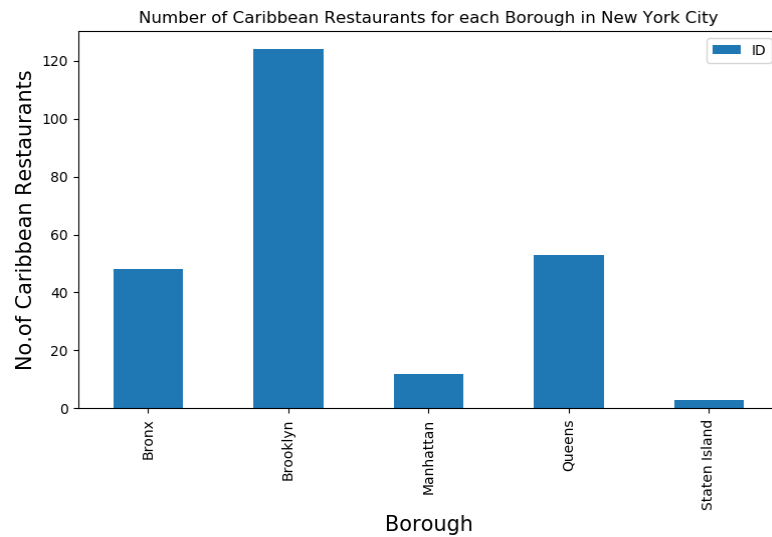
Methodology
- New York City data will be taken from https://cocl.us/new_york_dataset, organized, and processed in Pandas dataframes.
- Foursquare will be used to access current restaurant data, including restaurant names, cuisine type, and locations.

- Data will be organized by boroughs and then neighborhoods in order to narrow our search for the best locations to enter the market within New York City.
- We will utilize graphs to assist in visualizing the data (Matplotlib).

Results

The data shows that the most Caribbean cuisine "friendly" borough of New York City is Brooklyn. While outside the scope of this analysis, it is most likely due to immigration patterns. The area has many Cuban, Puerto Rican, Trinidadian, and other residents of Caribbean decent and these restaurants are most likely run by and cater to that population. There are 124 Caribbean restaurants in Brooklyn.

Within Brooklyn, there are 40 neighborhoods with at least one Caribbean restaurant, but a significant proportion of the restaurants are located in the central regions of the borough- Prospect Lefferts Gardens (13), Prospect Park South (11), Erasmus (9), etc. There are also many neighborhoods with zero results, including trendy neighborhoods like Dumbo and Williamsburg.

Discussion

The question being answered is straightforward given the parameters the ownership has set forth for determining where to locate this new restaurant. That said, the analysis did provide some interesting surprises for the team.

We were surprised to learn that Brooklyn would so dominate the Caribbean food scene. At least for us non-New Yorkers, we were prepared to see a more balanced spread between the boroughs. While we were not surprised by the lower quantities in Manhattan, we did not expect Queens and the Bronx to be so low when compared to Brooklyn.

Strictly from a data analysis tools point of view, it was also interesting to dig into how Foursquare categorizes their data. In future analysis, we would like to learn more about Foursquare categories, including their rules for categorizing a restaurant as one type of cuisine vs. another. We suspect that some restaurants (like Venezuelan ones) are being captured in other categories. In an initial data pull from Foursquare, only one Venezuelan restaurant was returned for all of New York City. We know, through experience and a quick Google search, that there are several additional restaurants labeled as Venezuelan throughout the city.

Conclusion

After analyzing the data described here and cross-checking additional information related to average home values (a signal for property values, median income, etc.), I will recommend to my family that they attempt to locate their restaurant in the Crown Heights neighborhood of Brooklyn. Crown Heights is currently home to 6 Caribbean restaurants, satisfying the desire to be located within an already established market for this cuisine. However, unlike Prospect Lefferts and Prospect Park South, there are not "too many" competitors in the neighborhood. In addition, the median home value in the neighborhood is over $800k- the neighborhood is relatively affluent without being so high that rents will be too expensive (Prospect Lefferts, for instance has a median home value of over $1.1M).