

The Battle of the Neighbourhoods

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Introduction

- New York is known as a “melting pot” of cultures and communities due to it being a key port for immigration. This has led to New York being the most linguistically diverse cities with as many as 800 languages spoken throughout.
- This analysis will focus on the most populous county in New York State, Brooklyn. With around 2.5million residents, the borough maintains a distinct culture with many neighbourhoods being ethnic enclaves. Brooklyn has dozens of neighbourhoods that represent many of the major culturally identified groups of New York City and such a diverse culture brings a huge variety in restaurant cuisines, from Mexican food trucks, to your Italian family-owned restaurants. You definitely want to make sure you're getting the best Mexican food in the area so one thing is key...location, location, location!
- This project aims to analyse current Mexican restaurants in Brooklyn to determine which is the best neighbourhood for the client - a food blogger who has travelled to Brooklyn to write a report on Mexican cuisine.



The Problem

I will attempt to find answers to the following questions by firstly listing and visualising neighbourhoods of Brooklyn that have excellent Mexican restaurants.

1. What neighbourhoods have the most Mexican restaurants in Brooklyn?
2. Which areas lack Mexican restaurants?
3. What is the best area to live/stay in if you want try the most highly rated Mexican restaurants in Brooklyn?

Data

With Brooklyn's ever growing population and diversity in cultures there is significant variety in cuisines and restaurants. For this project I will use the following data sources:

1. New York City data containing Boroughs and Neighbourhoods as well as latitude and longitude.
 - Data source: https://cocl.us/new_york_dataset
 - This dataset contains the information detailed above and will be used as the starting point to exploring Brooklyn.
2. Mexican restaurants for Brooklyn by neighbourhood.
 - Data source: Foursquare API
 - This will provide information about all venues including name, location, menu, and photos. This will be the main data source as the information on Mexican restaurants will be available from this.

Methodology

1. I will begin by collecting New York City data from https://cocl.us/new_York_dataset
2. Filter this data to just the Brooklyn borough.
3. Find all venues for each neighbourhood in Brooklyn using Foursquare API.
4. Filter this data to just Mexican restaurants.
5. Using Foursquare API I will collect Ratings, Tips, and Likes for all Mexican restaurants in Brooklyn.
6. I will sort neighbourhoods with Ratings as the constraint.
7. I will then consider all neighbourhoods that have a Mexican restaurant with an average rating of ≥ 8.0 .
8. I will join this data to the Brooklyn dataset to retrieve location data.
9. Finally, I will use Folium to display the average Mexican restaurant rating in each neighbourhood.

Conclusion

Now I can answer the questions that I asked at the beginning:

1. *What neighbourhoods have the most Mexican restaurants in Brooklyn?*
 - Sunset Park and Ditmas Park have the most Mexican restaurants with a total of 8 and 7 respectively.
2. *Which areas lack Mexican restaurants?*
 - There are some areas of Brooklyn with no Mexican restaurants such as Brownsville or Rugby.
 - However, there are many with just 1 such as Williamsburg, Broadway Junction, and Georgetown.
3. *What is the best area to live/stay in if you want to try the most highly rated Mexican restaurants in Brooklyn?*
 - Looking at the map, the best neighbourhood would be Gowanus with an average rating of 8.83.

For the food blogger in Brooklyn I would recommend visiting Reyes Deli & Grocery in Gowanus, Brooklyn for the most highly rated Mexican restaurant in Brooklyn.