

# Chinese Restaurants in the City of New York

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# Background/Questions

- The city of New York is the most populous city and the most densely populated major city in the United States.
- New York City is a large and ethnically diverse metropolis, as well as the cultural capital of the world.
- The Chinese population has constituted the fastest-growing nationality in New York States.
- With many Chinese American population and visitors from China, Chinese food becomes one of the most popular food categories in New York City.

Three questions to be answered in this project:

- How about the location distribution of the Chinese restaurant?
- Where should I go to enjoy the best Chinese restaurant?
- Where is a suitable location if someone wants to open a new Chinese restaurant?

# Data Acquisition

- New York City data containing the neighborhoods and boroughs, latitudes, and longitudes will be obtained from the data source: [https://cocl.us/new\\_york\\_dataset](https://cocl.us/new_york_dataset)
- New York City data containing neighborhood boundaries will be obtained from the data source: <https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm>
- The locations and quality of Chinese restaurants will be obtained via the FourSquare API utilized via the Request library in Python.

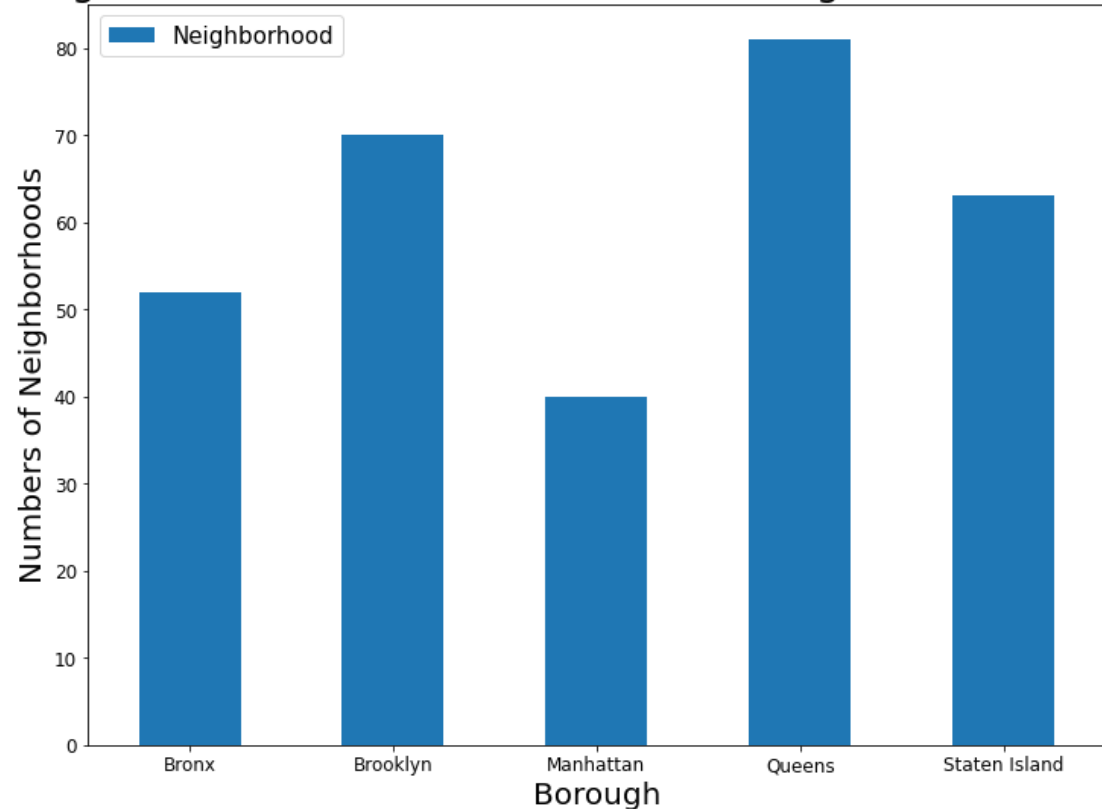
# Methodology

- Collect the data of New York City from [https://cocl.us/new\\_york\\_dataset](https://cocl.us/new_york_dataset), and convert the data into a dataframe for the following analysis.
- Locate all venues and filter out all Chinese restaurant from FourSquare API. The rating, tips and like count of each Chinese restaurant will be added to the dataframe
- Sort the data based on the rating
- Segment, cluster and visualize the data using various Python libraries

# Results

- 306 Neighborhoods and 5 Boroughs in New York City

Neighborhoods distribution for each borough in New York City



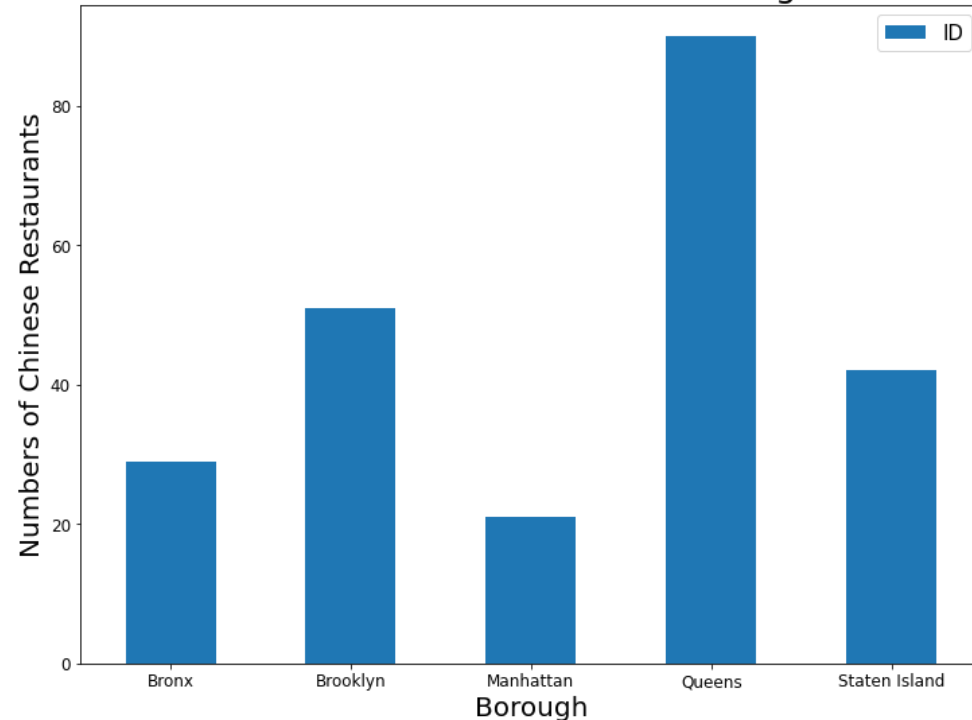
	Borough	Neighborhood	Latitude	Longitude
0	Bronx	Wakefield	40.894705	-73.847201
1	Bronx	Co-op City	40.874294	-73.829939
2	Bronx	Eastchester	40.887556	-73.827806
3	Bronx	Fieldston	40.895437	-73.905643
4	Bronx	Riverdale	40.890834	-73.912585

	Borough	Neighborhood	Latitude	Longitude
301	Manhattan	Hudson Yards	40.756658	-74.000111
302	Queens	Hammels	40.587338	-73.805530
303	Queens	Bayswater	40.611322	-73.765968
304	Queens	Queensbridge	40.756091	-73.945631
305	Staten Island	Fox Hills	40.617311	-74.081740

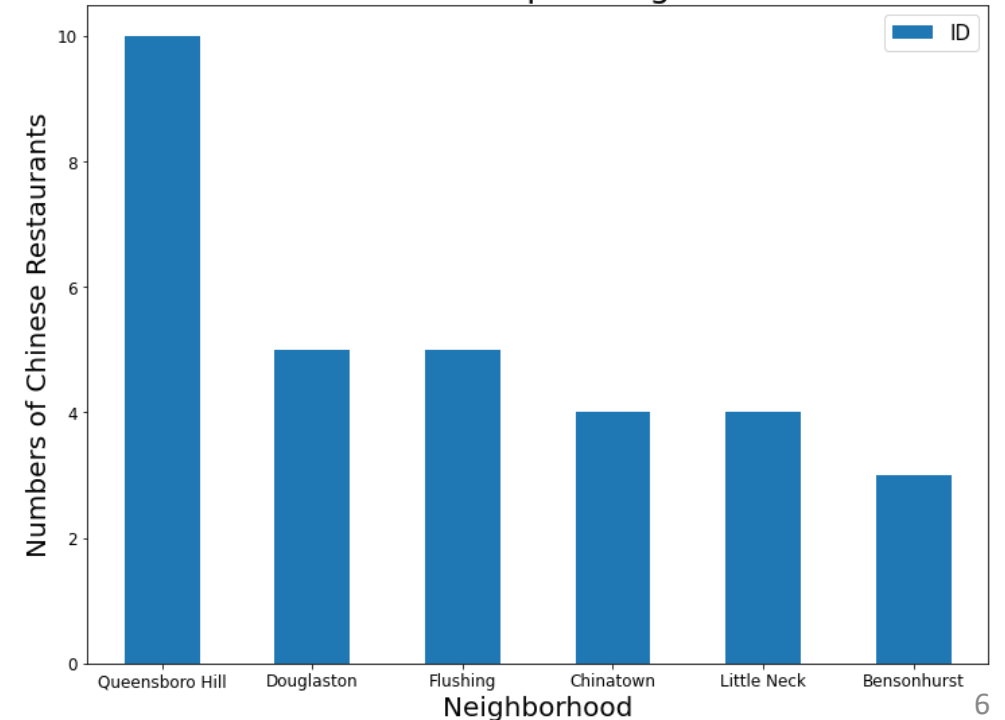
# Results

- The borough of Queens has the largest number of Chinese restaurants among all five boroughs, while Manhattan has the least.
- The neighborhood of Queensboro Hill located in Queens has 10 Chinese restaurants, the largest number in all neighborhoods of New York City.

Numbers of Chinese Restaurants for Each Borough in New York City

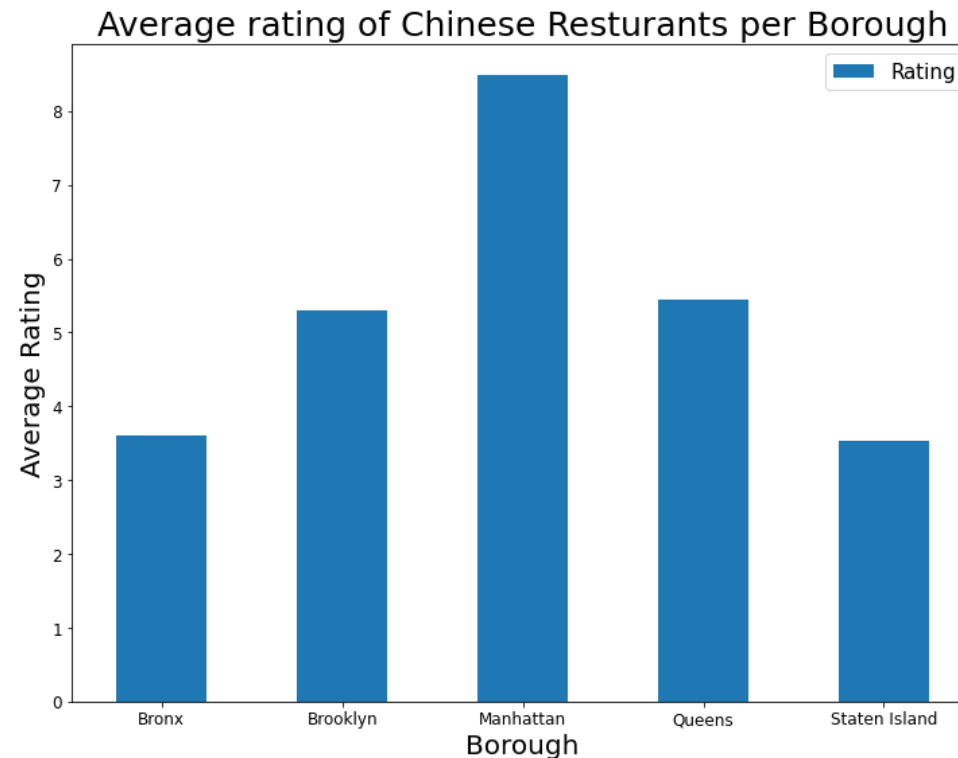


Numbers of Chinese Restaurants per Neighborhood in New York City



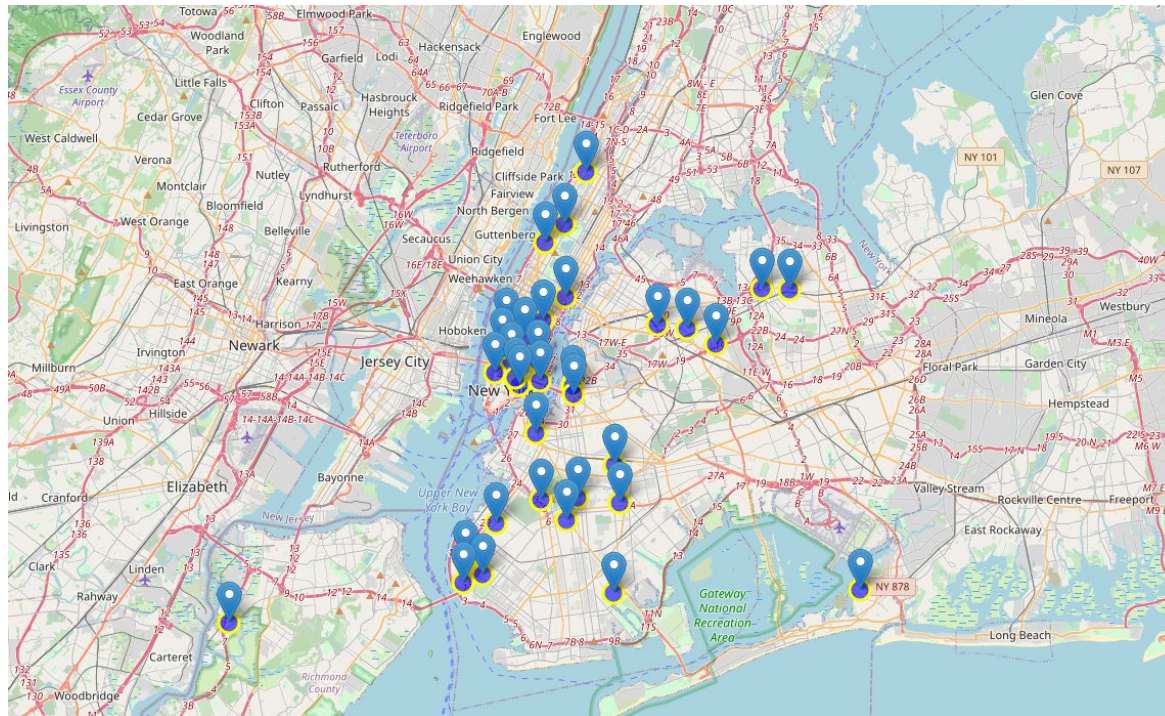
# Results

- Although Manhattan has the least number of Chinese restaurants, the Chinese restaurants in Manhattan has the highest average rating.



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- The neighborhood of South Side in Brooklyn, Lower East Side in Manhattan and North Side in Brooklyn are the neighborhoods that has the best average rating of Chinese restaurants.



	Neighborhood	Average Rating
131	South Side	9.0
85	Lower East Side	9.0
102	North Side	9.0
149	Windsor Terrace	9.0
50	Flatiron	8.9

The map here shows the distribution of Chinese restaurants with a rating of over 8.0.



# Conclusion

Q1: How about the location distribution of the Chinese restaurant?

- 233 Chinese restaurants are distributed in New York City.
- Among the five boroughs of Bronx, Brooklyn, Manhattan, Queens, and Staten Island in NYC, Queens has the largest number of Chinese restaurants.
- The neighborhood of Queensboro Hill located in Queens is the neighborhood in all of NYC with the most Chinese restaurants.

Q2: Where should I go to enjoy the best Chinese restaurant?

- Although Manhattan has the least number of Chinese restaurants, it has the best rated Chinese restaurants on average.
- The neighborhood of South Side in Brooklyn, Lower East Side in Manhattan, North Side in Brooklyn, and Windsor Terrace in Brooklyn to enjoy the Chinese restaurant, as they are the top four neighborhoods that have the best average rating of Chinese restaurants.

Q3: Where is a suitable location if someone wants to open a new Chinese restaurant?

- Manhattan.
- Not many Chinese restaurants in Manhattan. The competition with other Chinese restaurants will be easier in Manhattan than other boroughs.
- Manhattan already has some good Chinese restaurants. People will prefer to go there for Chinese food.