

SETTING UP THE LOCATION OF A NEW CHINESE RESTAURANT

Jose Romero Porrino

February 2021

IBM Data Science Certificate Coursera Capstone Project

PROBLEM STATEMENT



❑ New York City is home to hundreds of cultures, and so is to thousands of foreign-cuisine restaurants

❑ But how to proceed when growing a restaurant?

❑ **2 variables** depending on location: market size and competition

❑ This project aims to be valuable for those setting up a Chinese restaurant in NY City taking into consideration population, density competition and other demographics.

DATA

- ❖ Mainly related to demographics of the city.
 - Division of its 5 boroughs and their size, population and density
 - 306 neighborhoods

https://en.wikipedia.org/wiki/New_York_City

https://en.wikipedia.org/wiki/Demographics_of_New_York_City

- ❖ A Geojson dataset of the city (https://cocl.us/new_york_dataset)
- ❖ Foursquare APIs in order to gain access to Chinese restaurants in the city.

METHODOLOGY AND RESULTS

FIRST PART: DEMOGRAPHICS

- Most populous boroughs: Brooklyn and Queens
- Densest borough: Manhattan
- Least populous and dense: Staten Island

	borough	county	population	gdp_billions	land_sqm	land_sqkm	persons_sqm	persons_sqkm
0	The Bronx	Bronx	1418207.0	42.695	42.10	109.04	33867.0	13006.0
1	Brooklyn	Kings	2559903.0	91.559	70.82	183.42	36147.0	13957.0
2	Manhattan	New York	1628706.0	600.244	22.83	59.13	71341.0	27544.0
3	Queens	Queens	2253858.0	93.310	108.53	281.09	20767.0	8018.0
4	Staten Island	Richmond	476143.0	14.514	58.37	151.18	8157.0	3150.0

This affects to location selection: overcrowded place to attract as many clients as possible vs quiet place so the restaurant is able to supply with the highest possible quality the lower demand

Highest % of Asian population: Queens (17.6% of total)

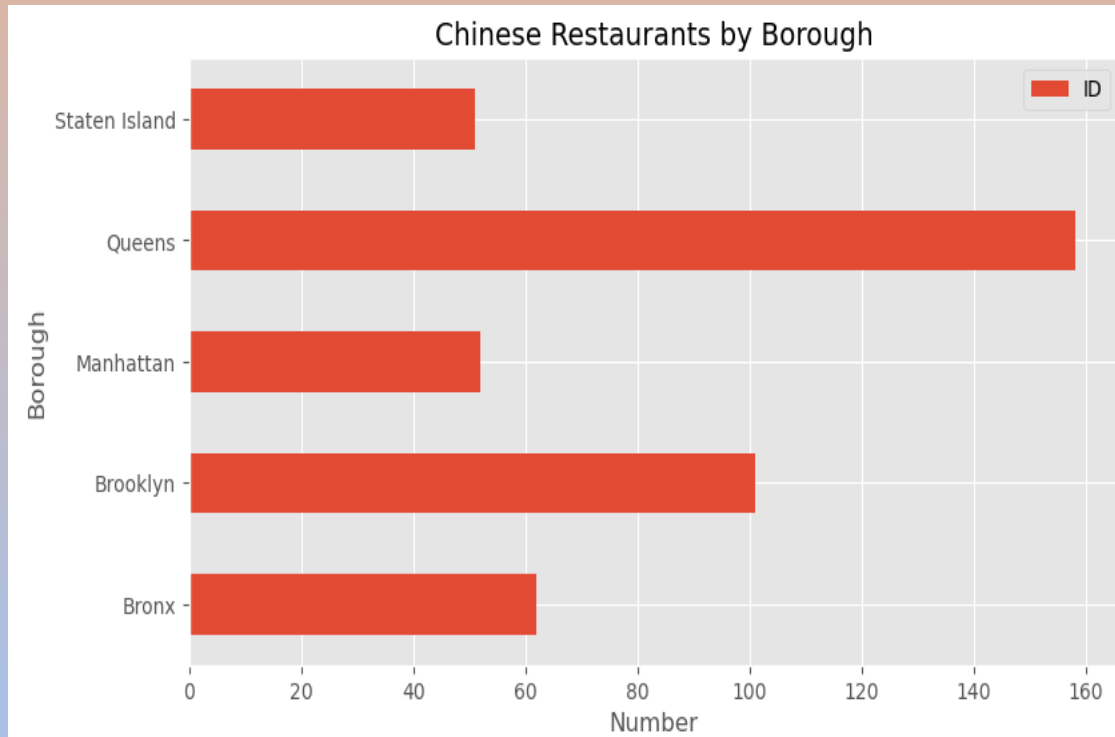
Lowest % of Asian population: The Bronx and Staten Island (less than 5%)

Friendly reminder that Asian race includes many other origins and cultures than just the Chinese one

	Jurisdiction	% White	% Black or African American	% Asian	% Other	% Mixed Race	% Hispanic latino of other race
0	Brooklyn	41.2	36.4	7.5	10.6	4.3	19.8
1	Queens	44.1	20.0	17.6	12.3	6.1	25.0
2	Manhattan	54.4	17.4	9.4	14.7	4.1	27.2
3	Bronx	29.9	35.6	3.0	25.7	5.8	48.4
4	Staten Island	77.6	9.7	5.7	4.3	2.7	12.1
5	NYC Total	44.7	26.6	9.8	14.0	4.9	27.0

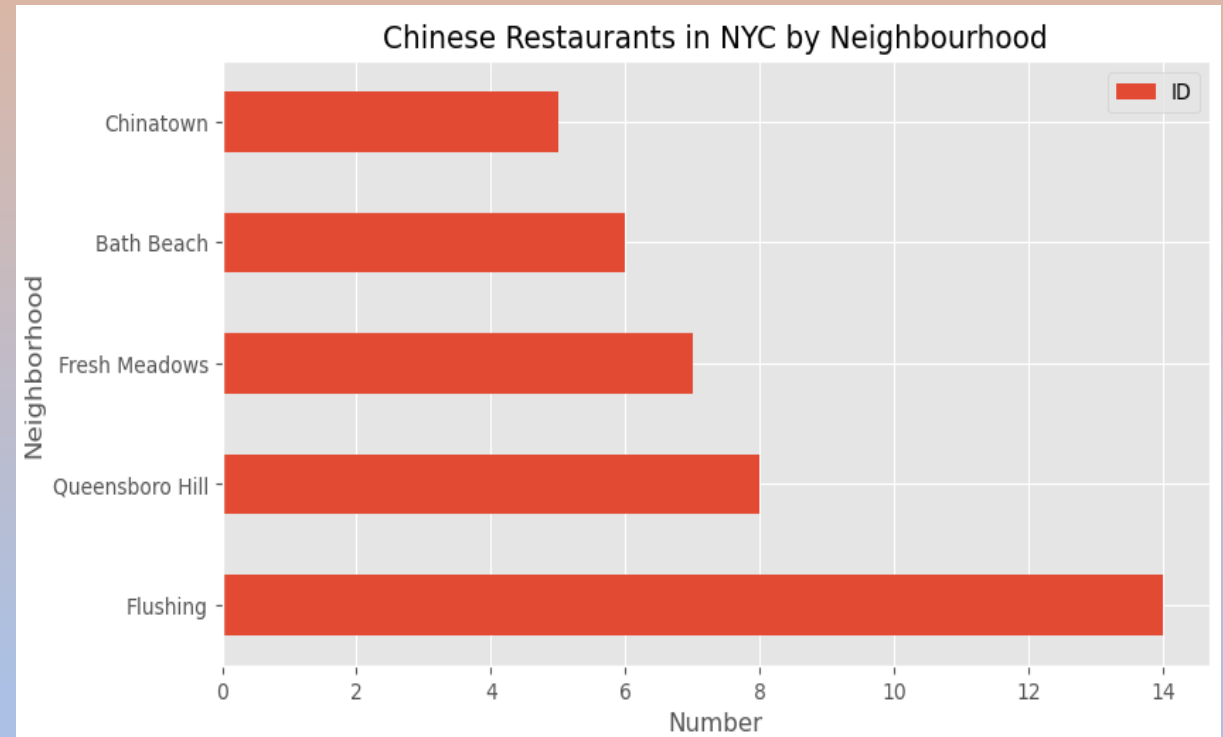
SECOND PART: CHINESE RESTAURANTS IN THE CITY

424 Chinese restaurants detected by Foursquare APIs.



BOROUGHS

Queens absolute leader, 158 of them (38% of total)



NEIGHBORHOODS

The top 3 are Queens's neighborhoods.

RESULTS DISCUSSION

OBSERVATIONS

- ❑ Flushing, Queensboro Hills and Fresh Meadows neighborhoods (all located in Queens) are some of the best neighborhoods for Chinese cuisine.
- ❑ When it comes to boroughs, Queens is the absolute leader of Chinese restaurants.
- ❑ At the bottom, we can check that Manhattan and Staten Island are not very appealing for Chinese restaurant owners.
- ❑ As for curiosity, the famous and notorious Chinatown Manhattan is not the neighborhood with the highest number of Chinese restaurants.

FINAL RECOMMENDATION

THE LOCATION



DEPENDS ON THE STRATEGY TO FOLLOW:

1. Attract the highest number of clients + competition is not a problem: **QUEENS**

Reasons:

- ✓ 2nd most populous borough
- ✓ Highest percentage of Asian population
- ✓ Highest number of Chinese restaurants
- ✓ Flushing, Queensboro Hill or Fresh Meadows are great options.



2. Gain a competitive strategy (first-mover) or not facing a high rivalry level:

MANHATTAN



Reasons:

- ✓ Densest borough
- ✓ 2nd highest Asian population (%)
- ✓ At the same time one of the boroughs with the lowest number of Chinese restaurants.
 - The market and demand is there, and competition is low.

3. No recommendation:

STATEN ISLAND

Reasons:

- ✓ Least populated and least dense borough
- ✓ Very low percentage of Asian population
- ✓ Lowest number of Chinese restaurants (it has be for a reason).



CONCLUSIONS AND FUTURE DIRECTIONS

- **Main intention:** establishing a ***protocol*** about how to proceed in order to open a Chinese (or any other type of cuisine) restaurant in New York.
- New York is known by its multiculturalism and Chinese population is a very present one in the city. Chinatown can be an example of that, while Queens is known as the most diverse place in the world.
- **Crucial to analyze:** population, location and other demographics → market size and competition
- As for future directions, this project may need a more accurate list of Chinese restaurants, since Foursquare may not have registered all of them, or does not identify a determined restaurant as Chinese.