New York Kitchen Unit

WORK FROM HOME – FOOD DELIVERY SERVICE

Report Background

- An investment firm are taking opportunity in adversity.

- The aim of this report is to source a new venue to open a kitchen to meet the needs of a changed food market in the last 12 months.

- **Problem: Breaking into the "Working from home" food market.**

  - Sourcing a location for a new kitchen unit which is close enough to residential areas where the vast majority of office workers are now working from home.

- Interest: New Opportunity

  - Professionals with culinary and hospitality experience have found themselves out of work recently due to the pandemic and are looking for opportunities.

Data acquisition and cleaning

▶ New York Neighbourhoods data available form existing json file

▶ FourSquare API venue data collected for each neighbourhood

▶ New York Census data downloaded from:
https://furmancenter.org/coredata/userguide/data-downloads

▶ Queens and The Bronx as focus areas

▶ Cleaned neighbourhood data contained

  ▶ neighbourhood name, borough, latitude and longitude data

  ▶ FourSquare Top 100 venues in a neighbourhood

▶ Cleaned census data

 ▶ Population, education, income, rent burden for Queens and The Bronx

Population data
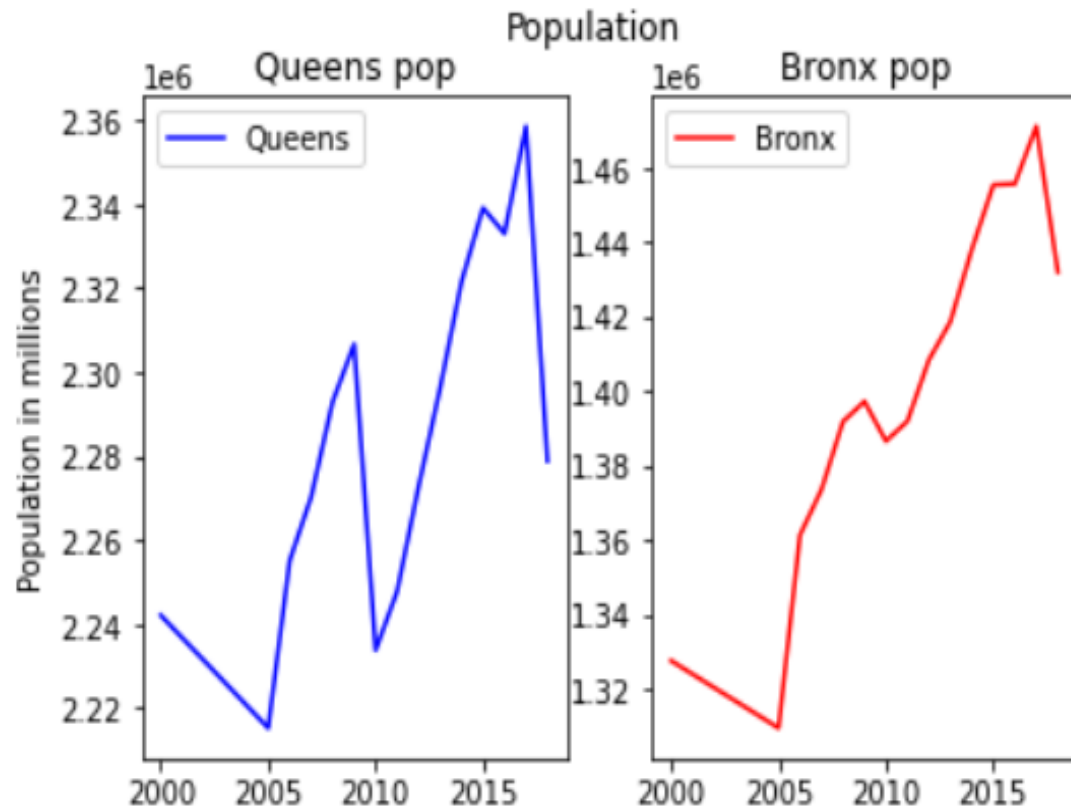
- ➢ Queens is much more populated than The Bronx.
- ➢ Both boroughs have grown along with the city, on average, over the last 20 year.
- ➢ Visible drop in population in Queens from 2008 – 2010, with only a minor dip in The Bronx.
  - ➢ Queens is an expensive area to reside in while the Bronx was not affected as much but the crash.
- ➢ Downward trend in population in both boroughs since approx. 2018.

Income Data

- ➤ The census income data is, unfortunately, only representative of the past and does not reflect the more recent employment market in each borough.
- ➤ Queens - median household's total income of all members of the household aged 15 years or older is larger than The Bronx.
- ➤ Queens base median level of income is considerably higher also.

Educated population


Population Data

Queens Edu Pop

Bronx Edu Pop
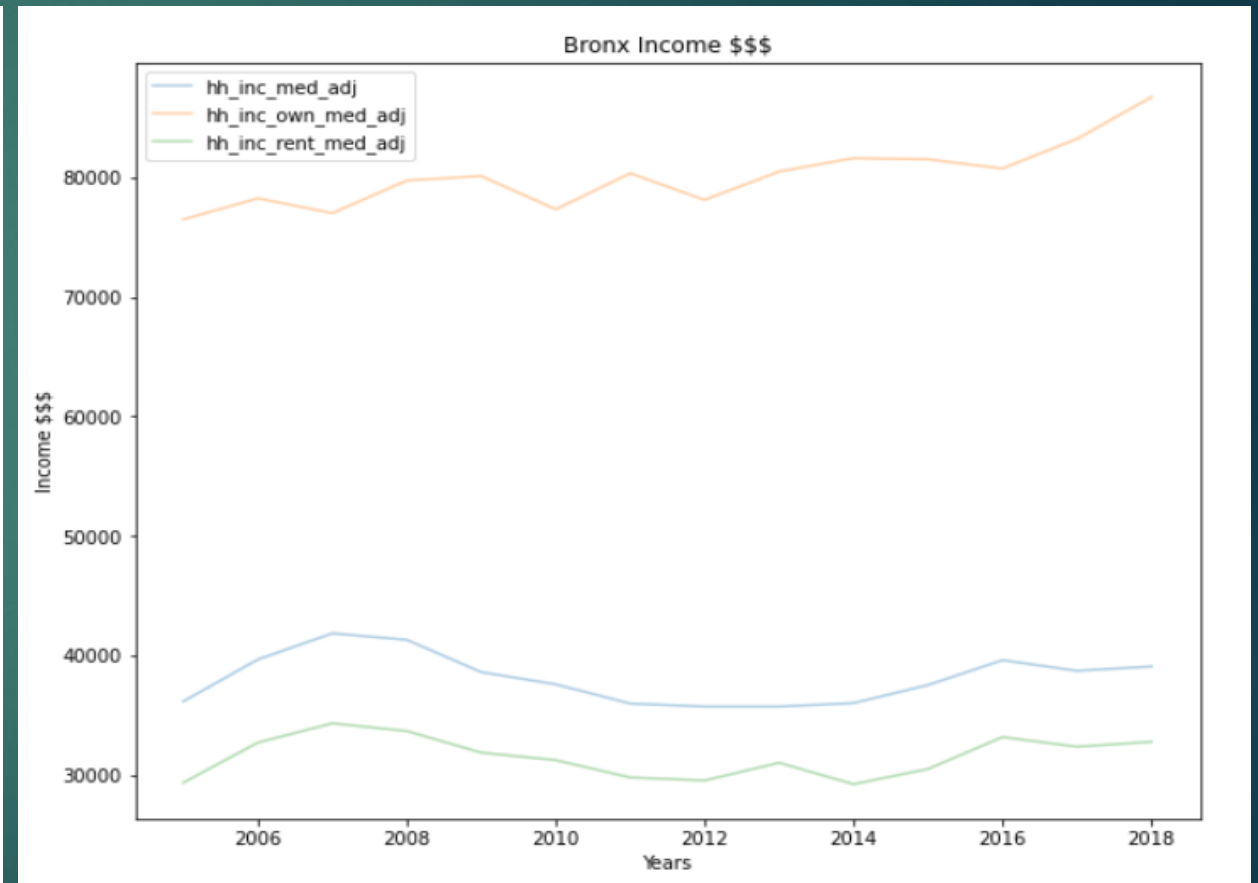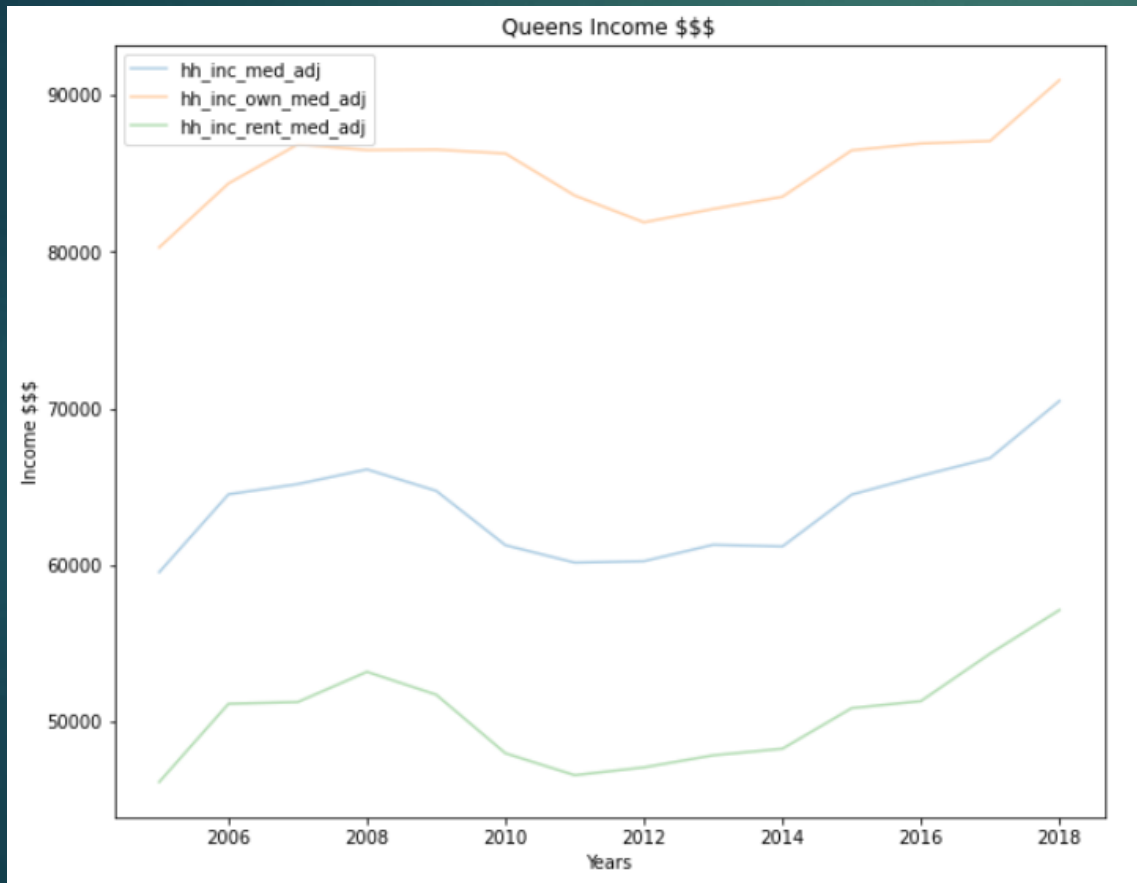
➢ An important attribute of our working from home professionals from the census data is education levels.

➢ New York is the financial capitol of America and will attract high achievers and high earners.

➢ Queens college educated population is growing above the 30% mark as of 2018 in an upward trend.

➢ The Bronx data shows the same trend of increasing educated population.

➢ Visible difference in the levels of educated residents.

    ➢ Queens over 30% .

    ➢ The Bronx approx. 20%.
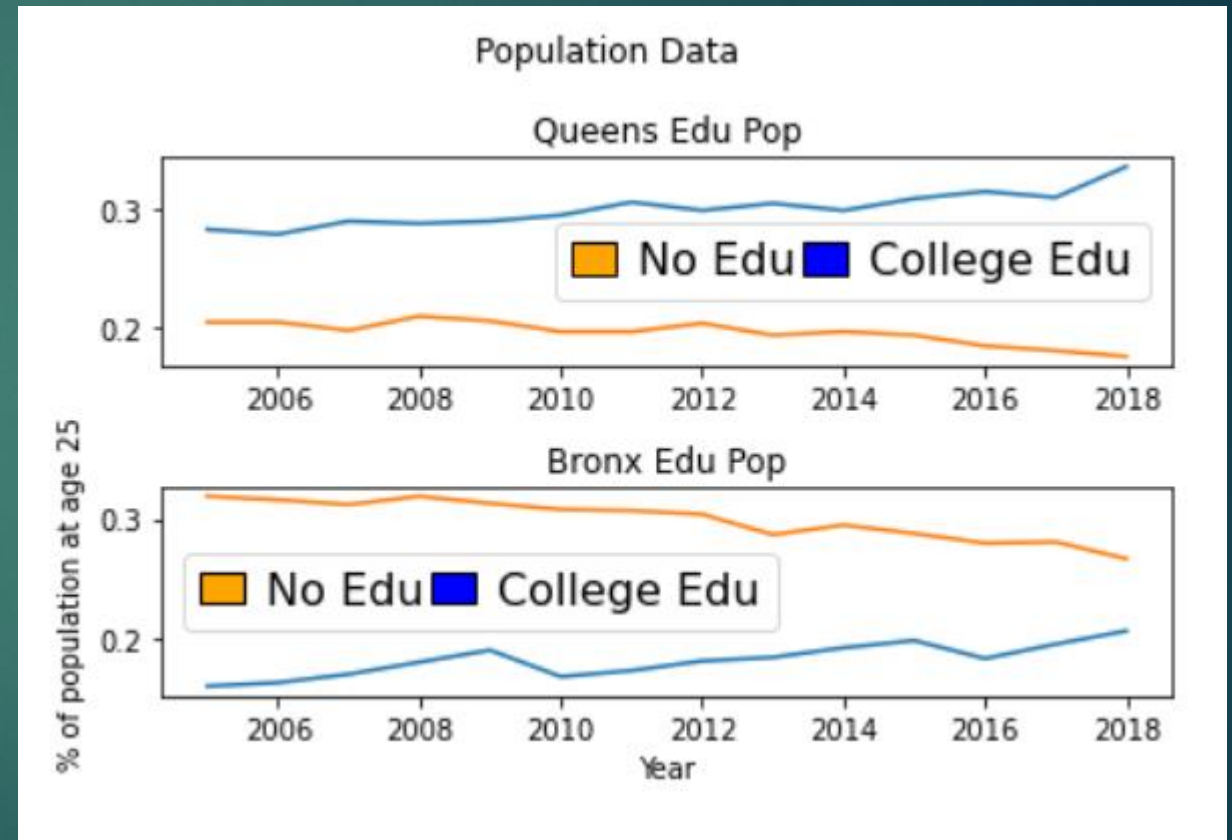
Rent Burden
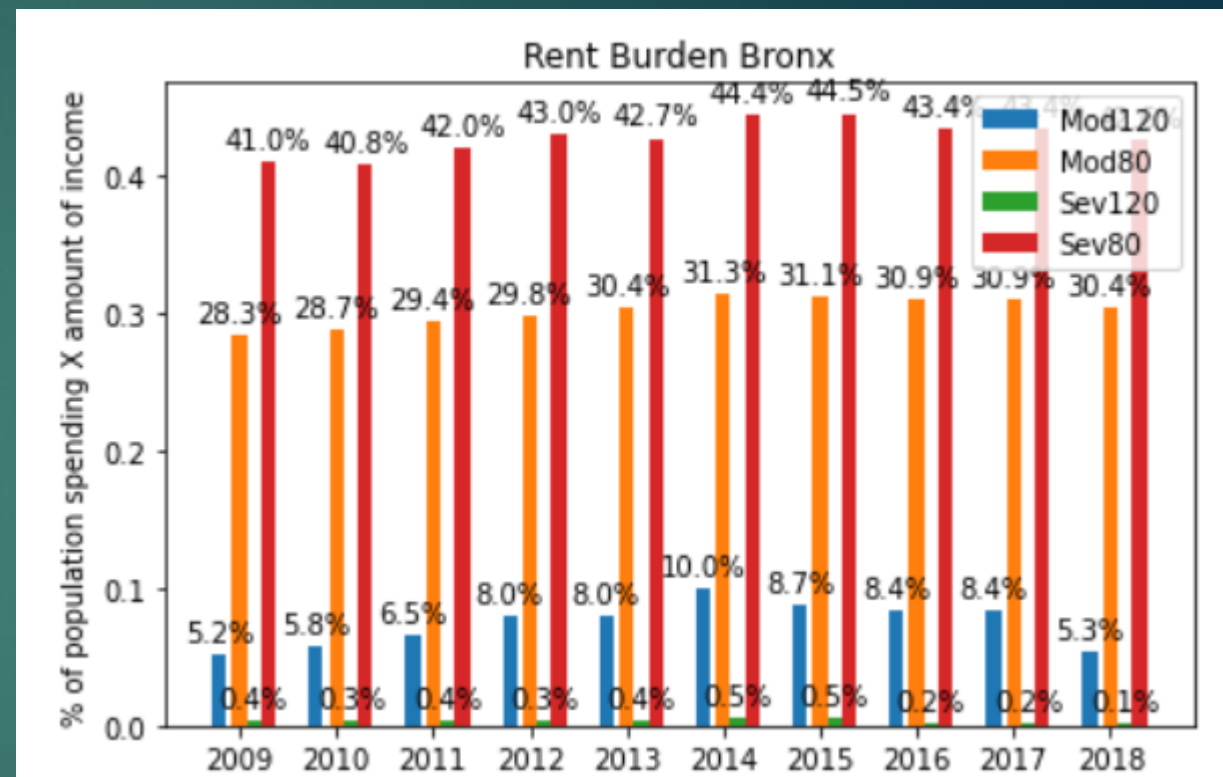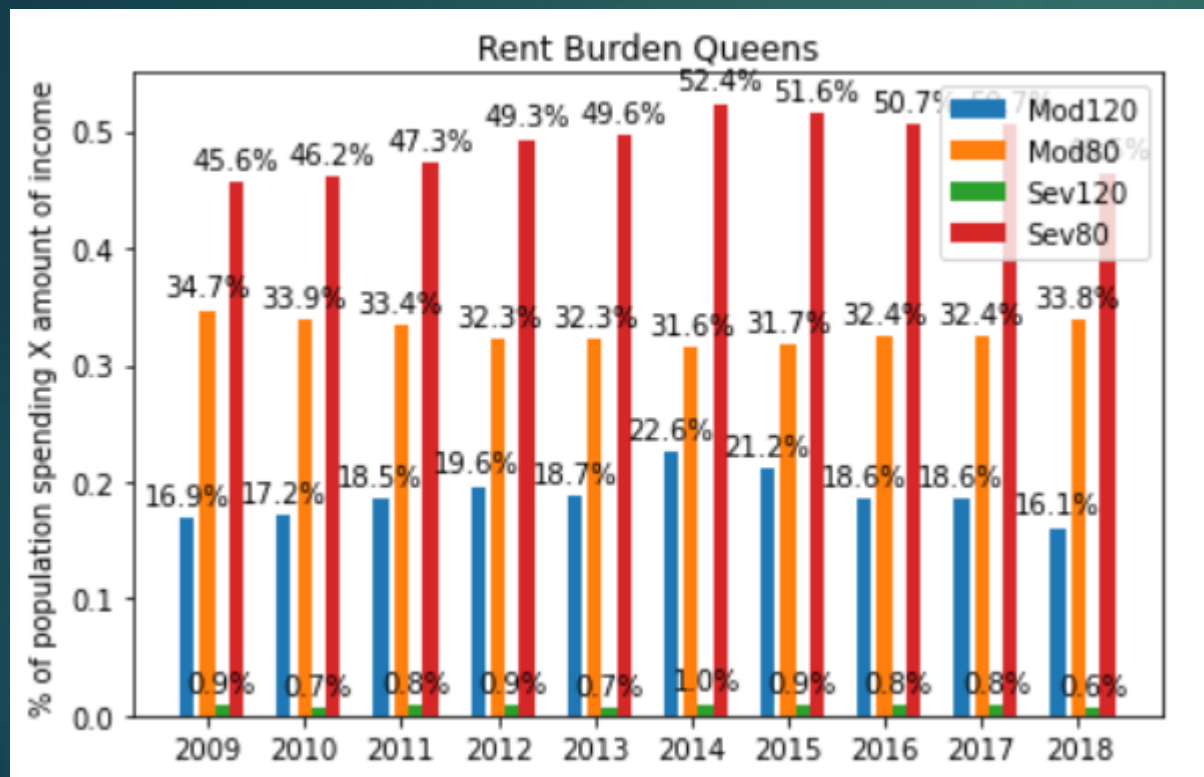
Queens has a higher income, yet still higher rent burden across all low- to median-level income renter households.

Queens Map
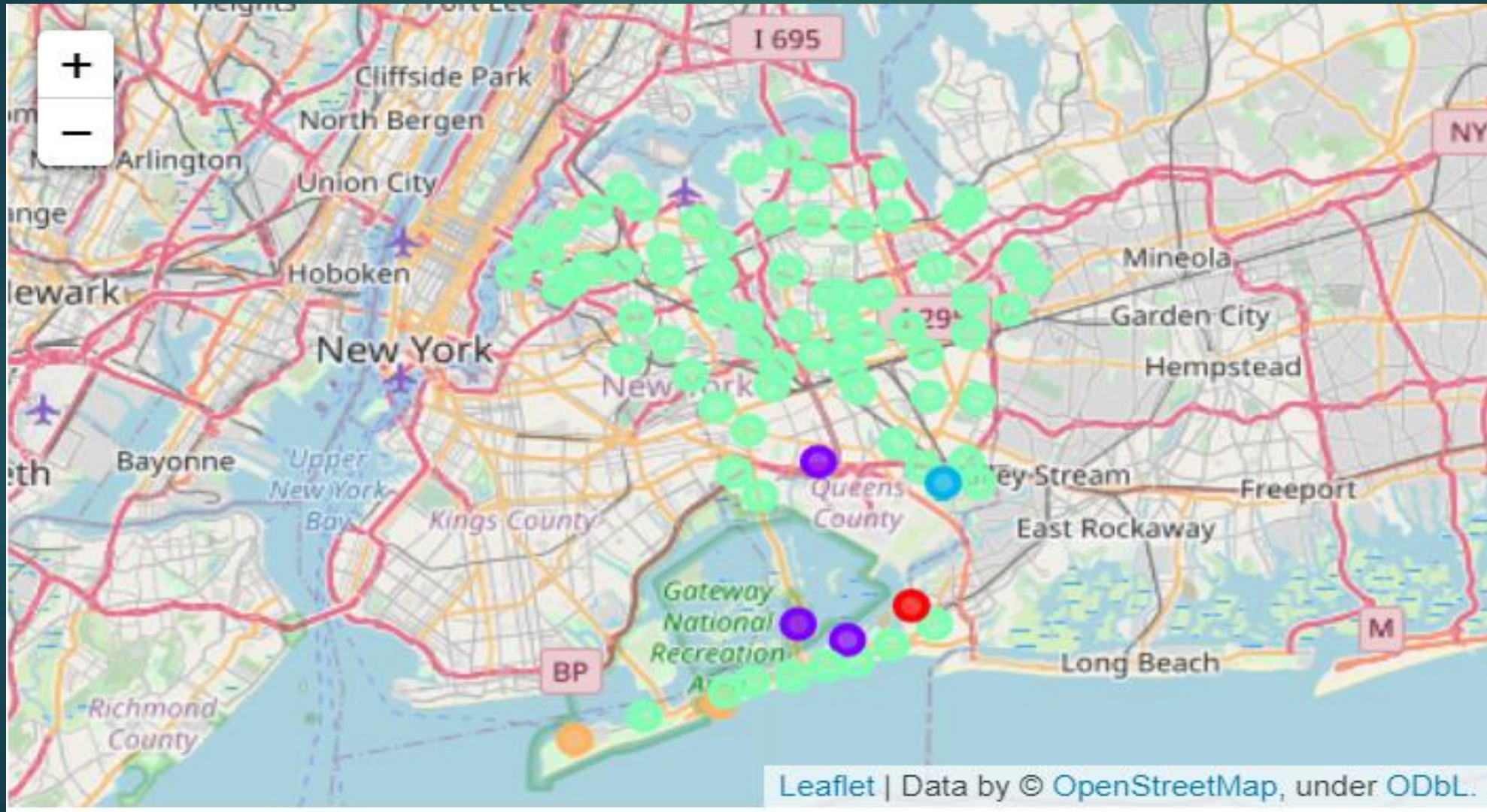
K-means clustering

➢ The largest cluster of neighbourhood narrowed down to Queens containing our target market of working professionals.

➢ Below is visibly an area which has a lot of food venues already, and covers a vast majority of Queens visible in the map.

	Neighbourhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	Astoria	Bar	Middle Eastern Restaurant	Hookah Bar	Greek Restaurant	Seafood Restaurant	Café	Deli / Bodega	Indian Restaurant	Bakery	Mediterranean Restaurant
1	Woodside	Grocery Store	Thai Restaurant	Bakery	Filipino Restaurant	Pizza Place	Latin American Restaurant	American Restaurant	Pub	Donut Shop	Chinese Restaurant
2	Jackson Heights	Latin American Restaurant	Peruvian Restaurant	South American Restaurant	Bakery	Mobile Phone Shop	Thai Restaurant	Mexican Restaurant	Grocery Store	Pharmacy	Pizza Place
3	Elmhurst	Thai Restaurant	Mexican Restaurant	Bubble Tea Shop	Vietnamese Restaurant	Chinese Restaurant	Gym / Fitness Center	Seafood Restaurant	Sushi Restaurant	Fast Food Restaurant	Malay Restaurant
4	Howard Beach	Italian Restaurant	Pharmacy	Chinese Restaurant	Sandwich Place	Fast Food Restaurant	Japanese Restaurant	Clothing Store	Gym	Mexican Restaurant	Seafood Restaurant

Conclusion and future direction

▶ Queens census demographics contain our target market of working from home professionals.

▶ k-means clustering has been useful to rule out some areas for our kitchen unit – in this instance remote areas near the coast which were mainly recreational spots.

▶ Further analysis:

  ▶ Eliminate further neighbourhoods in the data set.

  ▶ Scan commercial leasing units in the neighbourhoods for a cost analysis.