

# The Battle of Neighborhoods

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## Introduction

### 1.1 Background

Yoga has become a way of life. Millions of people throughout the world are practicing yoga more frequently and the number is expected to increase dramatically over the coming years. Not only are studies supporting this, but you are likely to see the proof yourself throughout your community. People are always seeking a way to beat stress and yoga is one way to do that. It is a relatively low-cost, easy and an enjoyable way to obtain good mental health by boosting your brain chemicals responsible for fighting stress.

### 1.2 Problem

The primary idea of this study is to help some partners who are wanting to start a chain of yoga studios in New York. New York City encompasses five boroughs: The Bronx, Brooklyn, Manhattan, Queens, and Staten Island. However, the partners are only interested in three of the five boroughs right now, Manhattan, Brooklyn, and Queens.

For their first location to become a huge success, they need to do their due-diligence and select the perfect location for their studio. To do this, they need to download the data from: [https://geo.nyu.edu/catalog/nyu\\_2451\\_34572](https://geo.nyu.edu/catalog/nyu_2451_34572) and covert the addresses into their equivalent latitude and longitude values. Afterwards, they will use the Foursquare API to explore all the neighborhoods in New York City. Once Foursquare has been activated, we will use the explore function to get the most common venue categories in each neighborhood and then group the neighborhoods into clusters. Subsequently, we will then use the k-means algorithm and Folium library to help visualize the three Boroughs and their neighborhoods along with their emerging clusters. Lastly, we will compare this information against the borough's demographics (Age, Race, Gender, & Income) from the Census Reporter to get a broader picture and narrow down the perfect location for their first studio.

## Data

### 2.1 Data Sources

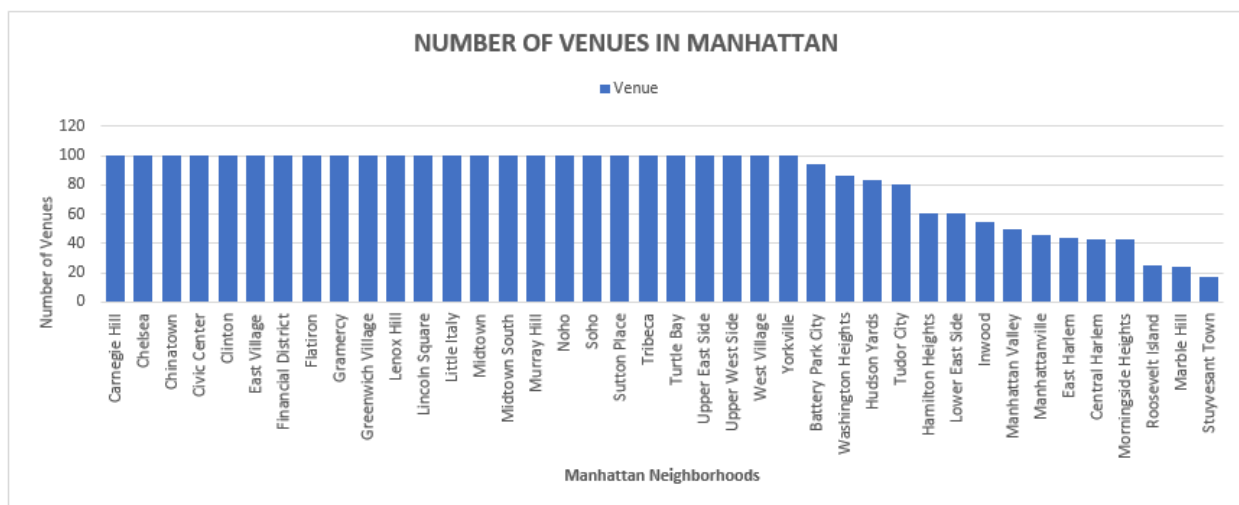
- [https://geo.nyu.edu/catalog/nyu\\_2451\\_34572](https://geo.nyu.edu/catalog/nyu_2451_34572)
- Foursquare API
- [Census Reporter - Manhattan Data](#)
- [Census Reporter - Brooklyn Data](#)
- [Census Reporter - Queens Data](#)

### 2.2 Manhattan

Manhattan is geographically the smallest and most densely populated of the five boroughs. It is also considered the “symbol” of New York City. Mostly known for its iconic landmarks, Times Square and Central Park. It is also considered the cultural, financial, media and entertainment capital of the world. Thus, making Manhattan a great choice to start up a franchise.

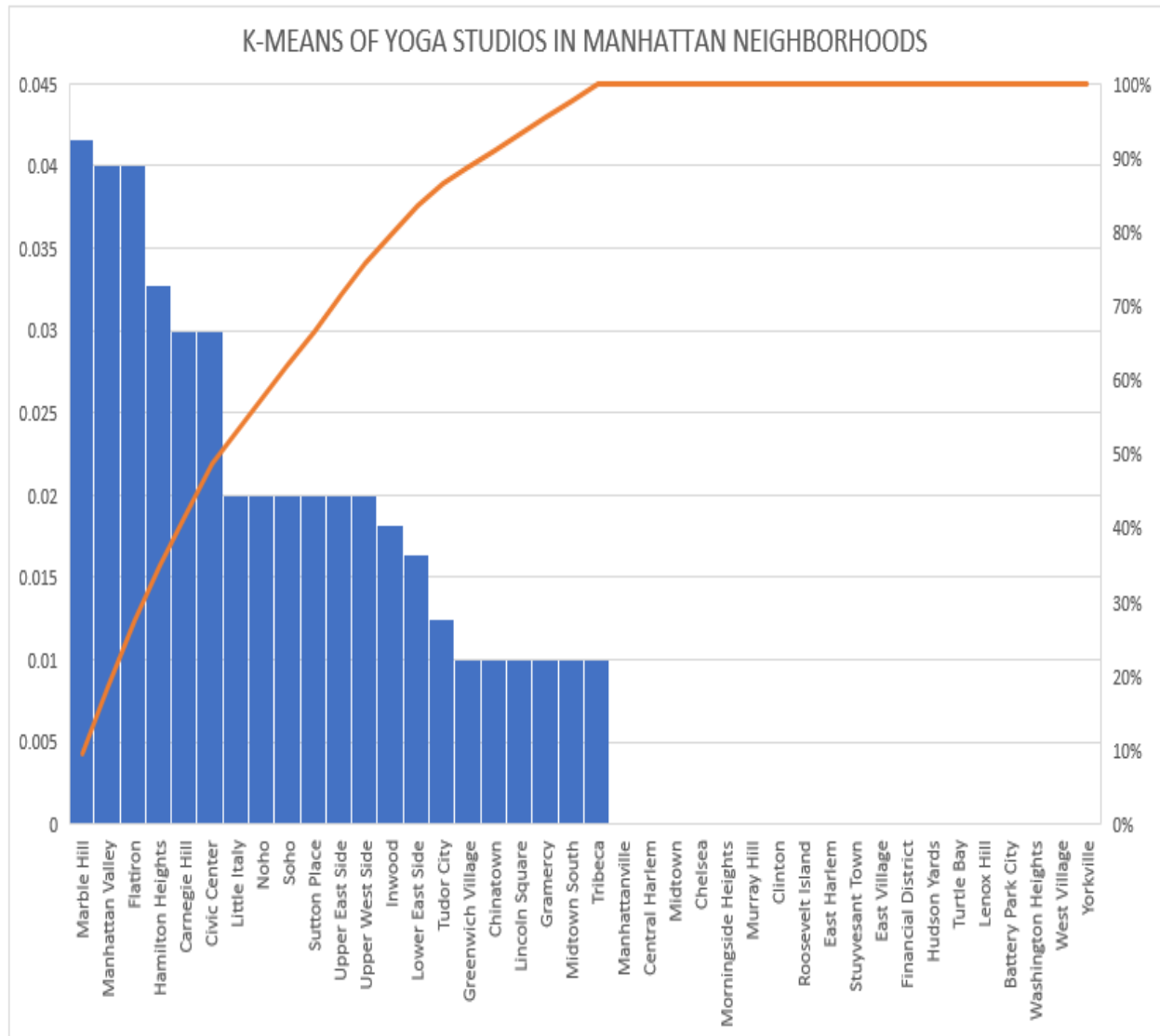
As of 2018, according to the Census Reporter, Manhattan’s population density of 71,886.2 people per square mile makes it the highest of any county in the United States and higher than the density of any individual US City.

Manhattan has a total of 40 neighborhoods and 3,312 venues. See Chart below for a visual:



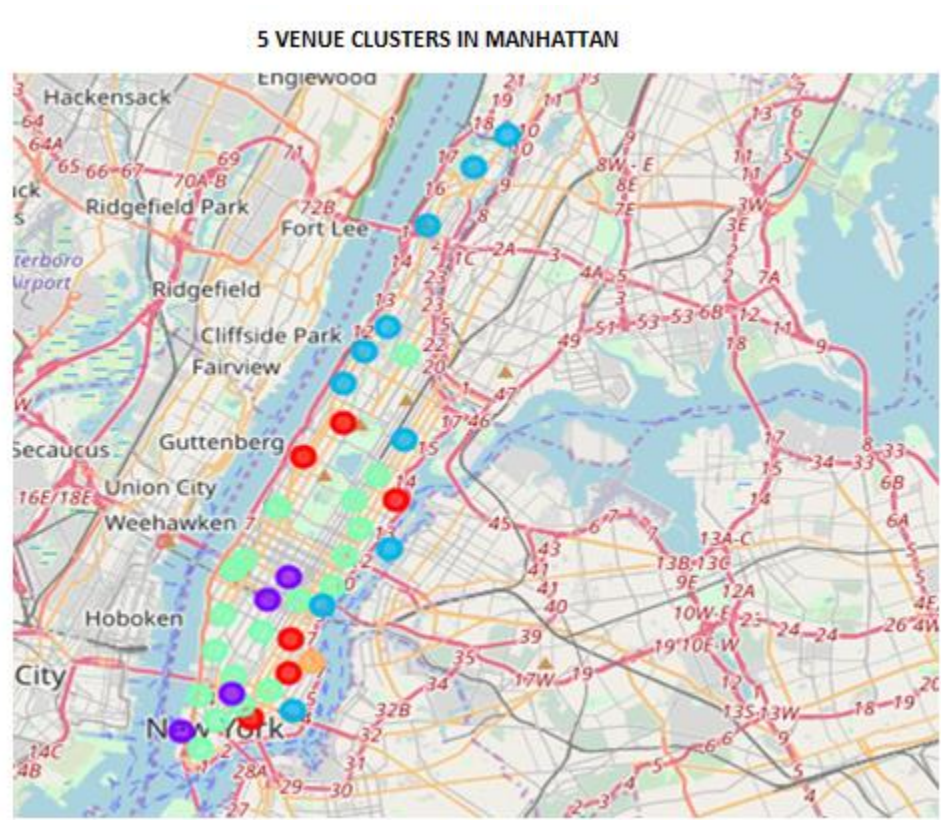
Next, I found the k-means of all the venues in Manhattan, see my GitHub for the full data set. For this report, I’m only interested in the yoga studios in Manhattan. Therefore, that is the only venue that I charted below:

## Pareto Chart for K-Means of Yoga Studios in Manhattan



K-Means clustering is an unsupervised learning algorithm that finds a fixed number (k) of clusters in a set of data. A cluster is a group of data points that are grouped together due to similarities in their features.

See below for the five venue clusters in Manhattan:



```
Cluster1
In [51]:
manhattan_merged.loc[manhattan_merged['Cluster Labels'] == 0, manhattan_merged.columns[[1] + list(range(5, manhattan_merged.shape[1]))]]
Out[51]:
```

Column1	Neighborhood	1st Most Common	2nd Most Common	3rd Most Common	4th Most Common	5th Most Common	6th Most Common	7th Most Common Venue	8th Most Common	9th Most Common	10th Most Common
1	Chinatown	Chinese Restaurant	Cocktail Bar	American Restaurant	Vietnamese Restaurant	Optical Shop	Hotpot Restaurant	Spa	Bakery	Salon / Barbershop	Bar
9	Yorkville	Italian Restaurant	Gym	Coffee Shop	Bar	Pizza Place	Deli / Bodega	Japanese Restaurant	Wine Shop	Diner	Mexican Restaurant
12	Upper West Side	Italian Restaurant	Wine Bar	Bar	Café	Coffee Shop	Bakery	Mediterranean Restaurant	Indian Restaurant	Yoga Studio	Gym / Fitness Center
19	East Village	Bar	Ice Cream Shop	Wine Bar	Mexican Restaurant	Pizza Place	Cocktail Bar	Vegetarian / Vegan Restaurant	Korean Restaurant	Chinese Restaurant	Italian Restaurant
25	Manhattan Valley	Indian Restaurant	Coffee Shop	Bar	Pizza Place	Yoga Studio	Mexican Restaurant	Thai Restaurant	Playground	Park	Peruvian Restaurant
27	Gramercy	Italian Restaurant	Bar	American Restaurant	Bagel Shop	Mexican Restaurant	Pizza Place	Spa	Diner	Cocktail Bar	Ice Cream Shop

#### Cluster 2

In [52]:

```
manhattan_merged.loc[manhattan_merged['Cluster Labels'] == 1, manhattan_merged.columns[[1] + list(range(5, manhattan_merged.shape[1]))]]
```

Out[52]:

Column1	Neighborhood	1st Most Common	2nd Most Common	3rd Most Common	4th Most Common	5th Most Common	6th Most Common	7th Most Common	8th Most Common	9th Most Common	10th Most Common
15	Midtown	Hotel	Coffee Shop	Clothing Store	Steakhouse	Theater	Bakery	Cocktail Bar	Sporting Goods Shop	Bookstore	Café
23	Soho	Clothing Store	Boutique	Shoe Store	Women's Store	Art Gallery	Bakery	Sporting Goods Shop	Mediterranean Restaurant	Men's Store	Yoga Studio
28	Battery Park City	Park	Coffee Shop	Hotel	Memorial Site	Gym	Women's Store	Boat or Ferry	Shopping Mall	Wine Shop	Clothing Store
33	Midtown South	Korean Restaurant	Japanese Restaurant	Hotel	Hotel Bar	Dessert Shop	Coffee Shop	Gym / Fitness Center	American Restaurant	Cocktail Bar	Cosmetics Shop

#### Cluster 3

In [53]:

```
manhattan_merged.loc[manhattan_merged['Cluster Labels'] == 2, manhattan_merged.columns[[1] + list(range(5, manhattan_merged.shape[1]))]]
```

Out[53]:

Column1	Neighborhood	1st Most Common	2nd Most Common	3rd Most Common	4th Most Common	5th Most Common	6th Most Common	7th Most Common	8th Most Common	9th Most Common	10th Most Common
0	Marble Hill	Sandwich Place	Gym	Coffee Shop	Yoga Studio	Pharmacy	Seafood Restaurant	Tennis Stadium	Supplement Shop	Miscellaneous Shop	Donut Shop
2	Washington Heights	Café	Grocery Store	Bakery	Chinese Restaurant	Mobile Phone Bank	Mexican Restaurant	Sandwich Place	Supermarket	Supplement Shop	
3	Inwood	Café	Mexican Restaurant	Lounge	Pizza Place	Restaurant	Park	Frozen Yogurt Shop	Deli / Bodega	Bakery	Chinese Restaurant
4	Hamilton Heights	Pizza Place	Deli / Bodega	Coffee Shop	Mexican Restaurant	Café	Sandwich Place	Indian Restaurant	Sushi Restaurant	Park	Yoga Studio
5	Manhattanville	Coffee Shop	Seafood Restaurant	Italian Restaurant	Mexican Restaurant	Park	Bus Stop	Chinese Restaurant	Indian Restaurant	Café	Grocery Store
7	East Harlem	Mexican Restaurant	Bakery	Thai Restaurant	Latin American Restaurant	Pizza Place	Deli / Bodega	Café	Beer Bar	Taco Place	Gas Station
11	Roosevelt Island	Coffee Shop	Sandwich Place	Japanese Restaurant	Kosher Restaurant	Soccer Field	Farmers Market	Supermarket	Metro Station	Outdoors & Recreation	School
20	Lower East Side	Pizza Place	Coffee Shop	Art Gallery	Chinese Restaurant	Café	Japanese Restaurant	Cocktail Bar	Theater	Ramen Restaurant	Bakery
26	Morningside Heights	Bookstore	Park	Coffee Shop	American Restaurant	Burger Joint	Sandwich Place	New American Restaurant	Deli / Bodega	Ice Cream Shop	Mexican Restaurant
36	Tudor City	Café	Park	Mexican Restaurant	Deli / Bodega	Diner	Pizza Place	Coffee Shop	Dog Run	Gym	Spanish Restaurant

#### Cluster 4

In [54]:

```
manhattan_merged.loc[manhattan_merged['Cluster Labels'] == 3, manhattan_merged.columns[[1] + list(range(5, manhattan_merged.shape[1]))]]
```

Out[54]:

Column1	Neighborhood	1st Most Common	2nd Most Common	3rd Most Common	4th Most Common	5th Most Common	6th Most Common	7th Most Common	8th Most Common	9th Most Common	10th Most Common
6	Central Harlem	African Restaurant	French Restaurant	American Restaurant	Bar	Seafood Restaurant	Chinese Restaurant	Spa	Gym / Fitness Center	Gym	Market
8	Upper East Side	Coffee Shop	Italian Restaurant	Exhibit	Art Gallery	Bakery	Juice Bar	Gym / Fitness Center	Pizza Place	Hotel	French Restaurant
10	Lenox Hill	Italian Restaurant	Coffee Shop	Sushi Restaurant	Pizza Place	Cocktail Bar	Café	Gym / Fitness Center	Gym	Burger Joint	Sporting Goods Shop
13	Lincoln Square	Theater	Plaza	Café	Italian Restaurant	Concert Hall	Performing Arts Venue	Indie Movie Theater	American Restaurant	Gym / Fitness Center	French Restaurant
14	Clinton	Theater	Italian Restaurant	Gym / Fitness Center	American Restaurant	Coffee Shop	Hotel	Spa	Wine Shop	Sandwich Place	Food Court
16	Murray Hill	Sandwich Place	Coffee Shop	Japanese Restaurant	American Restaurant	Hotel	Mediterranean Restaurant	Italian Restaurant	Gym	Gym / Fitness Center	Vietnamese Restaurant
17	Chelsea	Coffee Shop	Bakery	Italian Restaurant	Hotel	Wine Shop	Ice Cream Shop	American Restaurant	Japanese Restaurant	Theater	Cosmetics Shop
18	Greenwich Village	Italian Restaurant	Clothing Store	Sushi Restaurant	Café	French Restaurant	Indian Restaurant	Cosmetics Shop	Caribbean Restaurant	Boutique	Seafood Restaurant
21	Tribeca	American Restaurant	Italian Restaurant	Park	Café	Spa	Greek Restaurant	Coffee Shop	Wine Bar	Wine Shop	Boutique
22	Little Italy	Café	Bakery	Bubble Tea Shop	Cocktail Bar	Sandwich Place	Salon / Barbershop	Mediterranean Restaurant	Italian Restaurant	Yoga Studio	Women's Store
24	West Village	Italian Restaurant	New American Restaurant	American Restaurant	Cocktail Bar	Wine Bar	Park	Jazz Club	Cosmetics Shop	Ice Cream Shop	Bakery
29	Financial District	Coffee Shop	American Restaurant	Bar	Gym	Pizza Place	Italian Restaurant	Wine Shop	Hotel	Gym / Fitness Center	Cocktail Bar
30	Carnegie Hill	Pizza Place	Café	Coffee Shop	Yoga Studio	Bakery	Bookstore	Cosmetics Shop	French Restaurant	Grocery Store	Gym
31	NoHo	Italian Restaurant	French Restaurant	Coffee Shop	Cocktail Bar	Hotel	Pizza Place	Sushi Restaurant	Mexican Restaurant	American Restaurant	Grocery Store
32	Civic Center	Coffee Shop	Gym / Fitness Center	French Restaurant	Gym	Yoga Studio	Bakery	Cocktail Bar	Sandwich Place	Spa	Park
34	Sutton Place	Gym / Fitness Center	Italian Restaurant	Gym	Furniture / Home Store	Indian Restaurant	Coffee Shop	Yoga Studio	Beer Garden	Pilates Studio	Sushi Restaurant
35	Turtle Bay	Italian Restaurant	Coffee Shop	Steakhouse	Sushi Restaurant	Wine Bar	Japanese Restaurant	Indian Restaurant	Ramen Restaurant	Café	Park
38	Flatiron	Yoga Studio	Spa	American Restaurant	Café	Gym / Fitness Center	Japanese Restaurant	Salon / Barbershop	Mediterranean Restaurant	Dessert Shop	Cycle Studio
39	Hudson Yards	American Restaurant	Hotel	Gym / Fitness Center	Italian Restaurant	Coffee Shop	Café	Thai Restaurant	Burger Joint	Asian Restaurant	Dog Run

#### Cluster 5

In [55]:

```
manhattan_merged.loc[manhattan_merged['Cluster Labels'] == 4, manhattan_merged.columns[[1] + list(range(5, manhattan_merged.shape[1]))]]
```

Out[55]:

Column1	Neighborhood	1st Most Common	2nd Most Common	3rd Most Common	4th Most Common	5th Most Common	6th Most Common	7th Most Common	8th Most Common	9th Most Common	10th Most Common
37	Stuyvesant Town	Bar	Boat or Ferry	Park	Cocktail Bar	Baseball Field	Coffee Shop	Gym / Fitness Center	Heliport	Farmers Market	Pet Service

Out of the 5 Clusters above, I have highlighted eight possible neighborhoods to consider for our yoga studio. I took each cluster and looked at how common yoga studios and gyms/fitness centers were for each neighborhood. For every yoga studio or gym occurrence, I gave that neighborhood a star. According to this criterion, I narrowed it down to two possible locations: Sutton Place and Flatiron.

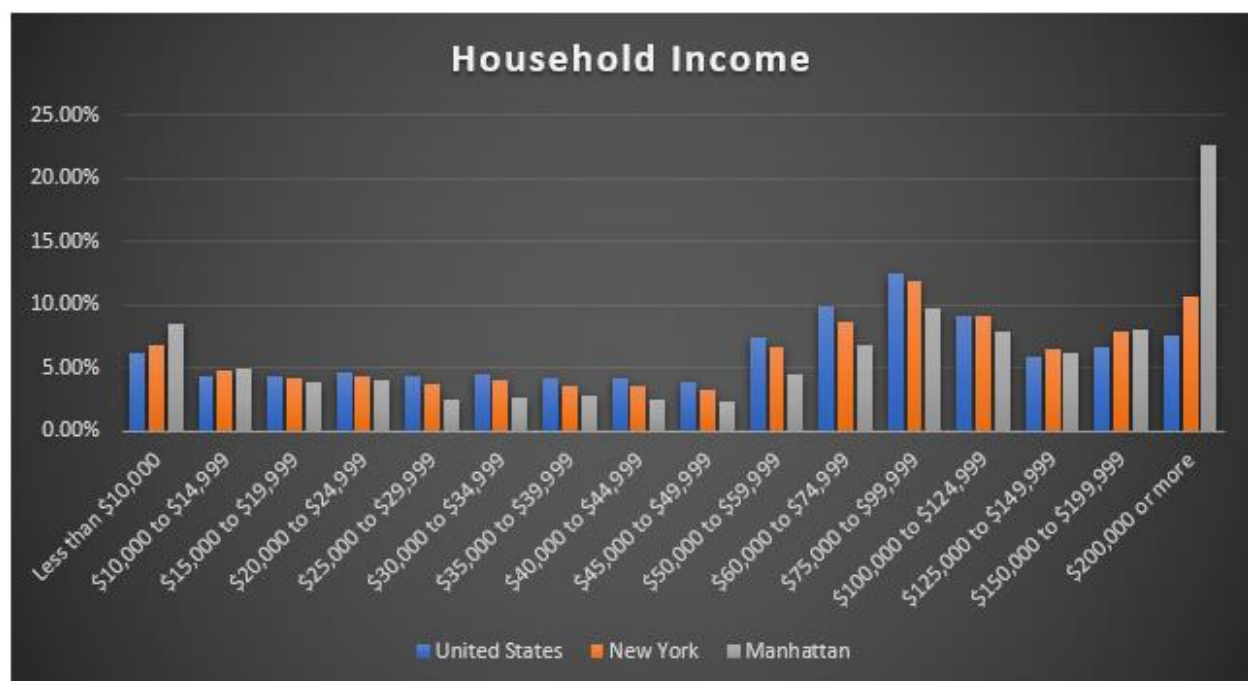
Now that I have narrowed down my locations with the k-means clustering, I am going to compare the results with the census demographics for Manhattan.

## Manhattan Demographics:

### Income:

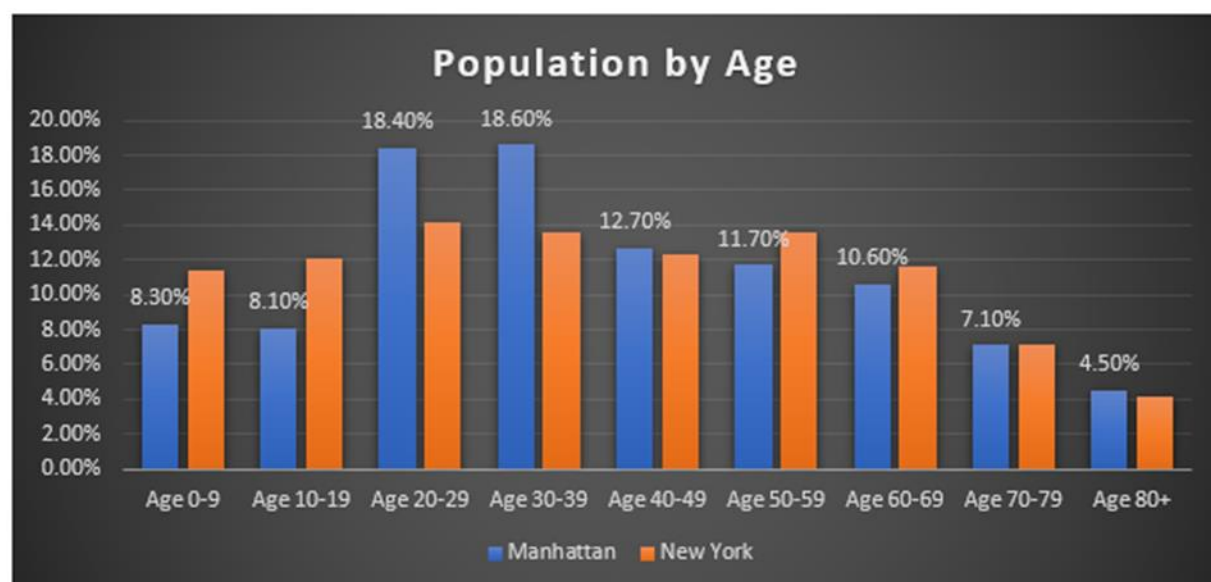
Household Income in the Past 12 Months (In 2018 Inflation-adjusted Dollars)

Household Income	United States	New York	Manhattan
Less than \$10,000	6.25%	6.84%	8.50%
\$10,000 to \$14,999	4.33%	4.85%	4.97%
\$15,000 to \$19,999	4.31%	4.22%	3.87%
\$20,000 to \$24,999	4.69%	4.42%	3.99%
\$25,000 to \$29,999	4.30%	3.77%	2.49%
\$30,000 to \$34,999	4.58%	3.98%	2.69%
\$35,000 to \$39,999	4.24%	3.58%	2.78%
\$40,000 to \$44,999	4.26%	3.59%	2.55%
\$45,000 to \$49,999	3.87%	3.33%	2.33%
\$50,000 to \$59,999	7.46%	6.60%	4.55%
\$60,000 to \$74,999	9.91%	8.64%	6.85%
\$75,000 to \$99,999	12.55%	11.94%	9.66%
\$100,000 to \$124,999	9.16%	9.15%	7.92%
\$125,000 to \$149,999	5.85%	6.49%	6.16%
\$150,000 to \$199,999	6.61%	7.95%	8.03%
\$200,000 or more	7.64%	10.65%	22.67%



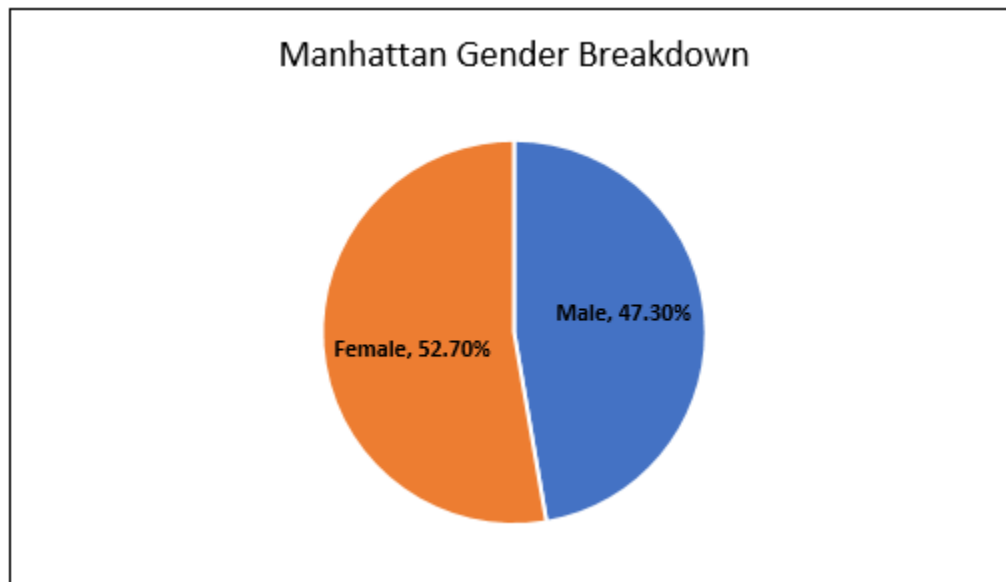
### Population by Age:

Population by Age	Manhattan	New York
Age 0-9	8.30%	11.40%
Age 10-19	8.10%	12.10%
Age 20-29	18.40%	14.20%
Age 30-39	18.60%	13.60%
Age 40-49	12.70%	12.30%
Age 50-59	11.70%	13.60%
Age 60-69	10.60%	11.60%
Age 70-79	7.10%	7.10%
Age 80+	4.50%	4.20%

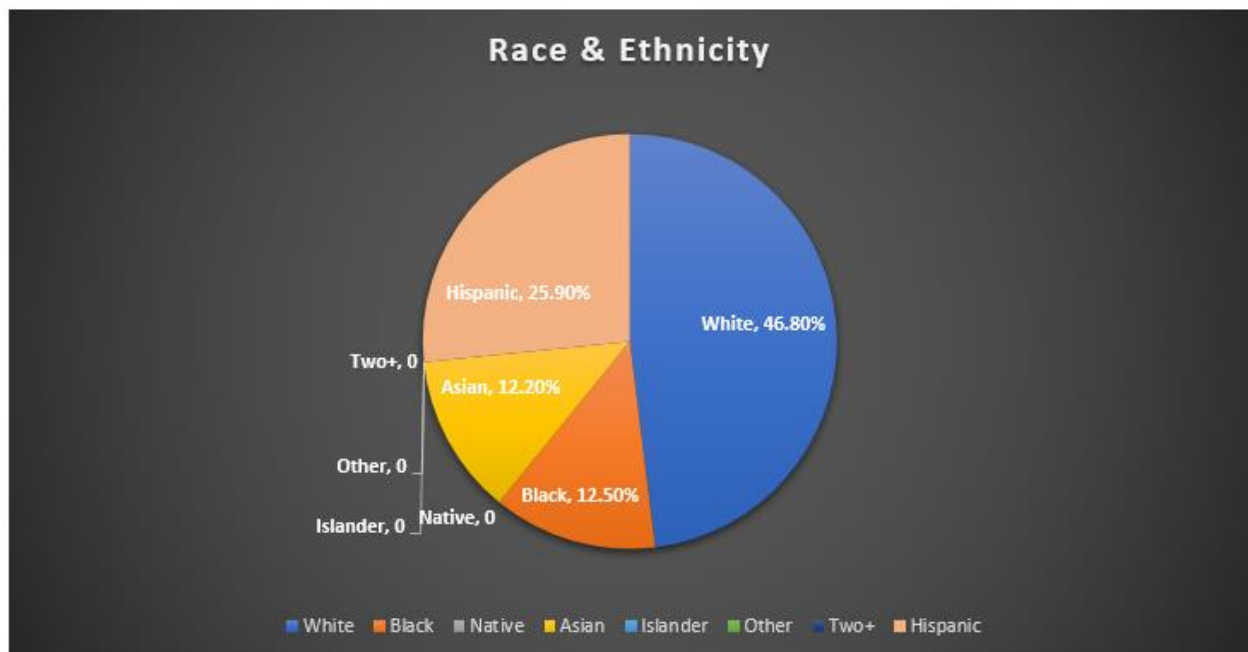




### Gender:



### Race & Ethnicity:



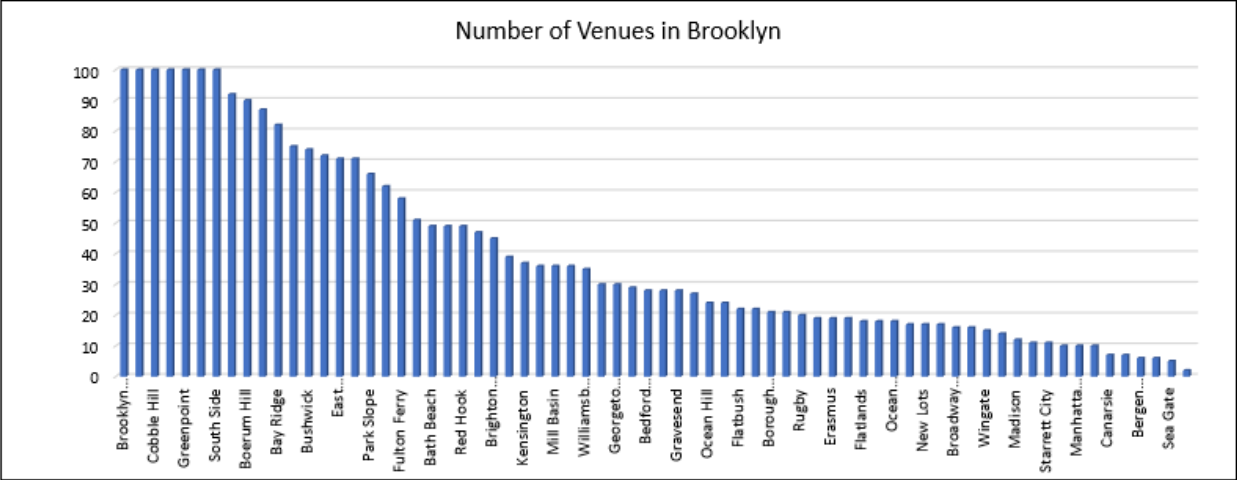
After analyzing Manhattan's demographics, I determined that the median age was around 38 years and the population was predominantly female and white. Manhattan's median household income is around \$85,000, which is about 25% higher than New York's median income of \$67,000.



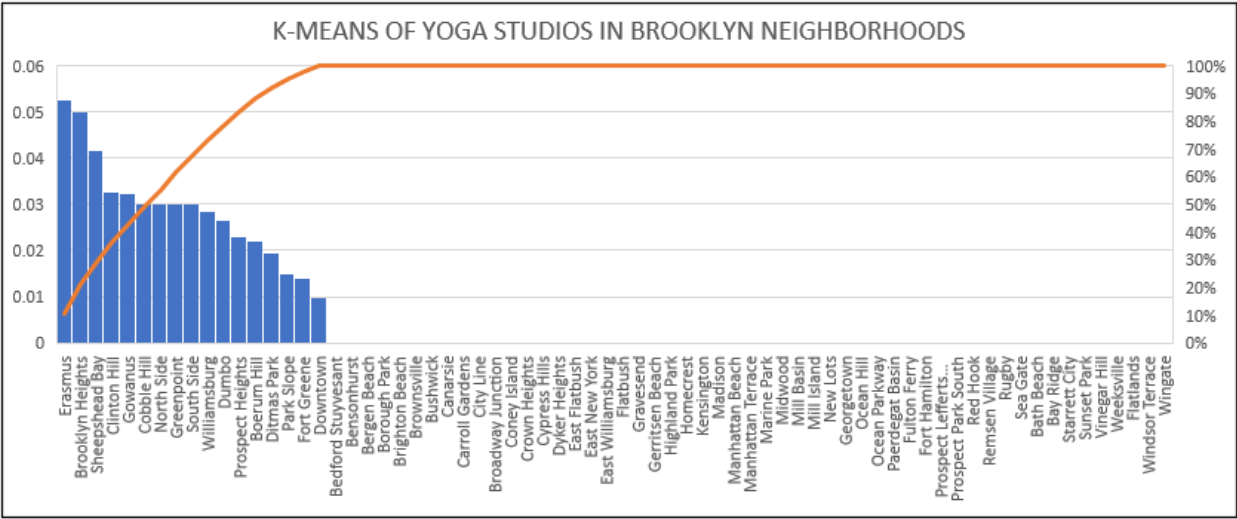
### 2.3 Brooklyn Data

Brooklyn has the highest population out of the five boroughs but only half the people per square mile, when compared to Manhattan. This borough is mostly known for its cultural, social and ethnic diversity with a very distinctive architectural heritage. The Greenpoint Historic District is probably one of the more renowned neighborhoods in Brooklyn. They are famous for their Brownstone townhomes. However, since 2010, Brooklyn has evolved from into a hub of entrepreneurship and high-tech startup firms along with their postmodern art and design. With this new “branding”, so to speak, I feel that Brooklyn could be an ideal location for a new yoga franchise.

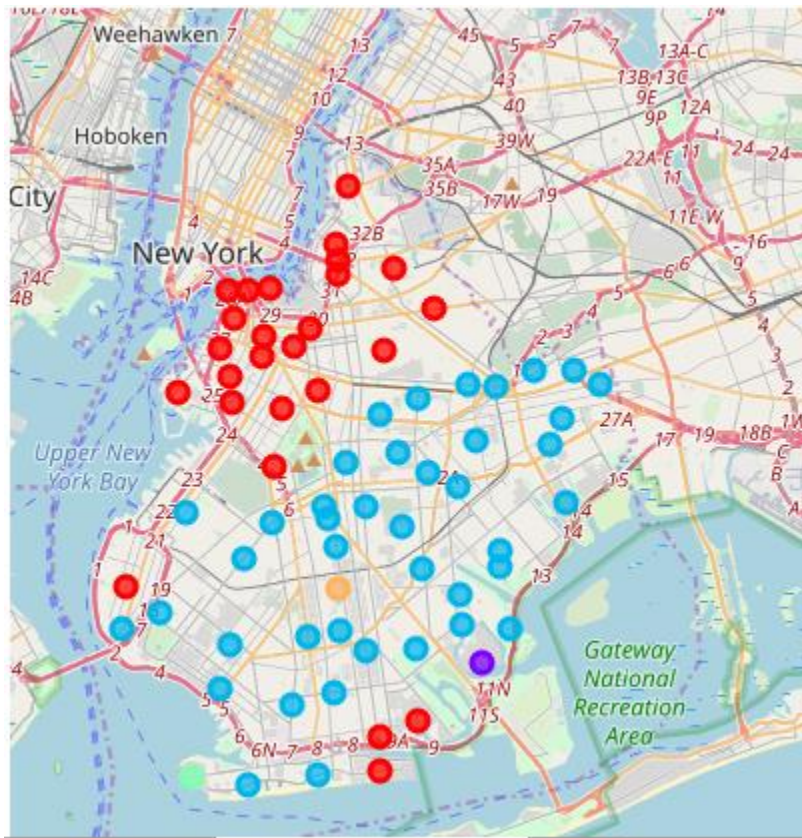
Brooklyn has a total of 70 neighborhoods with over 2,000 venues. See charts below:



### Pareto Chart for K-Means of Yoga Studios in Brooklyn



## 5 Clusters of Brooklyn:



## Cluster 1:

Neighborhood	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
Bay Ridge	Italian Restaurant	Spa	Pizza Place	Greek Restaurant	American Restaurant	Bar	Thai Restaurant	Ice Cream Shop	Chinese Restaurant	Bagel Shop
Greenpoint	Bar	Pizza Place	Cocktail Bar	Coffee Shop	Yoga Studio	Mexican Restaurant	Cafe	French Restaurant	Boutique	Sushi Restaurant
Sheepshead Bay	Dessert Shop	Turkish Restaurant	Sandwich Place	Yoga Studio	Karaoke Bar	Diner	Creperie	Outlet Store	Restaurant	Russian Restaurant
Windor Terrace	Grocery Store	Cafe	Diner	Park	Pizza	Bagel Shop	Middle Eastern Restaurant	Bookstore	Salad Place	Chinese Restaurant
Prospect Heights	Bar	Bakery	Cafe	Wine Shop	Gourmet Shop	Mexican Restaurant	Thai Restaurant	Cocktail Bar	Yoga Studio	Diner
Williamsburg	Bar	Coffee Shop	Pizza Place	Bagel Shop	Yoga Studio	Burger Joint	Taco Place	Latin American Restaurant	Steakhouse	Liquor Store
Bushwick	Bar	Deli / Bodega	Coffee Shop	Mexican Restaurant	Pizza Place	Bakery	Thrift / Vintage Store	Discount Store	Cafe	Sandwich Place
Bedford Stuyvesant	Cafe	Pizza Place	Deli / Bodega	Coffee Shop	Bar	Cocktail Bar	BBQ Joint	Fried Chicken Joint	Fruit & Vegetable Store	Boutique
Brooklyn Heights	Yoga Studio	Park	Deli / Bodega	Pizza Place	Bakery	Cosmetics Shop	Italian Restaurant	Gym	Pizza	Pharmacy
Cobble Hill	Playground	Pizza Place	Bar	Coffee Shop	Yoga Studio	Deli / Bodega	Italian Restaurant	Ice Cream Shop	Cocktail Bar	Middle Eastern Restaurant
Carroll Gardens	Italian Restaurant	Coffee Shop	Pizza Place	Cocktail Bar	Bakery	Wine Shop	Bar	Gym / Fitness Center	Spa	Gift Shop
Red Hook	Seafood Restaurant	Park	American Restaurant	Bar	Art Gallery	Flower Shop	Bagel Shop	Wine Shop	Ice Cream Shop	Pizza Place
Gowanus	Italian Restaurant	Bar	Furniture / Home Store	Pizza Place	Mexican Restaurant	Coffee Shop	Art Gallery	Yoga Studio	Chinese Restaurant	Gym / Fitness Center
Fort Greene	Italian Restaurant	Pizza Place	Coffee Shop	Cocktail Bar	Wine Shop	Wine Bar	Playground	Performing Arts Venue	Opera House	Theater
Park Slope	Burger Joint	Coffee Shop	Pizza Place	Italian Restaurant	American Restaurant	Pet Store	Bakery	Bagel Shop	Korean Restaurant	Furniture / Home Store
Manhattan Beach	Cafe	Sandwich Place	Playground	Ice Cream Shop	Pizza Place	Food	Bus Stop	Beach	Harbor / Marina	Field
Gerritsen Beach	Bar	Ice Cream Shop	Bagel Shop	Deli / Bodega	Convenience Store	Park	Event Space	Seafood Restaurant	Skate Park	Pizza Place
Clinton Hill	Italian Restaurant	Pizza Place	Mexican Restaurant	Thai Restaurant	Wine Shop	Japanese Restaurant	Caribbean Restaurant	Restaurant	Yoga Studio	Chinese Restaurant
Downtown	Burger Joint	Coffee Shop	French Restaurant	Sandwich Place	Chinese Restaurant	Pizza Place	Bar	Asian Restaurant	Bubble Tea Shop	Residential Building (Apartment / Condo)
Boerum Hill	Dance Studio	Bar	Coffee Shop	Sandwich Place	Bakery	French Restaurant	Arts & Crafts Store	Furniture / Home Store	Yoga Studio	Cocktail Bar
East Williamsburg	Bar	Deli / Bodega	Bakery	Coffee Shop	Cocktail Bar	Mexican Restaurant	Concert Hall	Music Venue	Cafe	Donut Shop
North Side	Coffee Shop	Wine Bar	Yoga Studio	Yoga Studio	American Restaurant	Bakery	French Restaurant	Burger Joint	Chinese Restaurant	South American Restaurant
South Side	Bar	Pizza Place	Coffee Shop	Wine Bar	American Restaurant	Mexican Restaurant	Chinese Restaurant	Breakfast Spot	Yoga Studio	Burger Joint
Fulton Ferry	Park	American Restaurant	Scenic Lookout	Coffee Shop	Bar	Roof Deck	Bakery	Pizza Place	Boat or Ferry	Ice Cream Shop
Vinegar Hill	Food Truck	Bike Rental / Bike Share	Cafe	Coffee Shop	Whisky Bar	Wine Bar	Entertainment Service	Bar	Scenic Lookout	Bakery
Dumbo	Coffee Shop	Park	Bakery	Scenic Lookout	Bookstore	Yoga Studio	Gym	Ice Cream Shop	Italian Restaurant	Japanese Restaurant

## Cluster 2:

Neighborhood	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
MIDI Island	Pool	Locksmith	Event Space	Falafel Restaurant	Farm	Farmers Market	Fast Food Restaurant	Field	Filipino Restaurant	Fish & Chips Shop

## Cluster 3:

Neighborhood	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
Bensonhurst	Chinese Restaurant	Ice Cream Shop	Sushi Restaurant	Grocery Store	Donut Shop	Italian Restaurant	Bakery	Bagel Shop	Noodle House	Factory
Sunset Park	Bank	Bakery	Latin American Restaurant	Mexican Restaurant	Pizza Place	Pharmacy	Gym	Fried Chicken Joint	Mobile Phone Shop	Record Shop
Gravesend	Italian Restaurant	Bakery	Bus Station	Lounge	Martial Arts Dojo	Chinese Restaurant	Pizza Place	Donut Shop	Record Shop	Pharmacy
Brighton Beach	Restaurant	Russian Restaurant	Beach	Eastern European Restaurant	Gourmet Shop	Sushi Restaurant	Bank	Pharmacy	Mobile Phone Shop	Supplement Shop
Manhattan Terrace	Pizza Place	Donut Shop	Ice Cream Shop	Spa	Convenience Store	Burger Joint	Steakhouse	Liquor Store	Organic Grocery	Grocery Store
Flatbush	Mexican Restaurant	Bakery	Coffee Shop	Caribbean Restaurant	Plaza	Pharmacy	Donut Shop	Chinese Restaurant	Sandwich Place	Middle Eastern Restaurant
Crown Heights	Pizza Place	Museum	Café	Salon / Barbershop	Supermarket	Candy Store	Bakery	Bagel Shop	Coffee Shop	Bookstore
East Flatbush	Department Store	Hardware Store	Moving Target	Food	Caribbean Restaurant	Chinese Restaurant	Supermarket	Pharmacy	Fast Food Restaurant	Park
Kensington	Grocery Store	Thai Restaurant	Restaurant	Pizza Place	Ice Cream Shop	Del / Bodega	Donut Shop	Mobile Phone Shop	Furniture / Home Store	Supermarket
Brownsville	Moving Target	Chinese Restaurant	Restaurant	Park	Pizza Place	Burger Joint	Fried Chicken Joint	Trail	Performing Arts Venue	Discount Store
Cypress Hills	Fried Chicken Joint	Latin American Restaurant	Ice Cream Shop	Spanish Restaurant	Fast Food Restaurant	Chinese Restaurant	Bank	Food	South American Restaurant	Pizza Place
East New York	Del / Bodega	Fast Food Restaurant	Asian Restaurant	Fried Chicken Joint	Music Venue	Metro Station	Caribbean Restaurant	Child Care Service	Gym	Event Service
Starrett City	Pharmacy	Caribbean Restaurant	Shopping Mall	Pizza Place	American Restaurant	Cosmetics Shop	Convenience Store	Bus Station	Donut Shop	Supermarket
Canarsie	Del / Bodega	Grocery Store	Chinese Restaurant	Caribbean Restaurant	Asian Restaurant	Gym	Bus Line	Flower Shop	Flea Market	Fish Market
Flatlands	Pharmacy	Fried Chicken Joint	Fast Food Restaurant	Caribbean Restaurant	Park	Lounge	Bar	Electronics Store	Asian Restaurant	Paper / Office Supplies Store
Coney Island	Baseball Stadium	Caribbean Restaurant	Beach	Pizza Place	Theme Park Ride / Attraction	Brewery	Skating Rink	Music Venue	Café	Farmers Market
Bath Beach	Pharmacy	Pizza Place	Chinese Restaurant	Gas Station	Bubble Tea Shop	Italian Restaurant	Fast Food Restaurant	Sushi Restaurant	Russian Restaurant	Kebab Restaurant
Borough Park	Bank	Pizza Place	Pharmacy	Fast Food Restaurant	Grocery Store	Hotel	Restaurant	Coffee Shop	Café	Metro Station
Dyker Heights	Dance Studio	Cosmetics Shop	Golf Course	Grocery Store	Bagel Shop	Burger Joint	Plaza	Discount Store	Distillery	Food Stand
Marine Park	Gym	Park	Chinese Restaurant	Basketball Court	Baseball Field	Athletics & Sports	Soccer Field	Del / Bodega	Pizza Place	Ice Cream Shop
Prospect Lefferts Gardens	Bakery	Café	Pizza Place	Caribbean Restaurant	Del / Bodega	Ice Cream Shop	Supermarket	Indian Restaurant	Sushi Restaurant	Wine Shop
Ocean Hill	Del / Bodega	Southern / Soul Food Restaurant	Convenience Store	Playground	Coffee Shop	Bus Stop	Mexican Restaurant	Fried Chicken Joint	Supermarket	Check Cashing Service
City Line	Donut Shop	Shoe Store	Grocery Store	Bakery	Diner	Gift Shop	Mexican Restaurant	Clothing Store	Metro Station	South American Restaurant
Bergen Beach	Harbor / Marina	Baseball Field	Playground	Athletics & Sports	Donut Shop	Food & Drink Shop	Food	Flower Shop	Flea Market	Fish Market
Prospect Park South	Caribbean Restaurant	Mobile Phone Shop	Grocery Store	Pizza Place	Fast Food Restaurant	Latin American Restaurant	Mexican Restaurant	Women's Store	Donut Shop	Clothing Store
Georgetown	Bank	Pharmacy	Breakfast Spot	Donut Shop	Pet Store	Mexican Restaurant	Shipping Store	Burger Joint	Frozen Yogurt Shop	Sandwich Place
Ocean Parkway	Pizza Place	Bagel Shop	Dessert Shop	Paper / Office Supplies Store	Donut Shop	Sake Bar	Bus Station	Playground	Steakhouse	Sushi Restaurant
Fort Hamilton	Del / Bodega	Pizza Place	Pharmacy	Chinese Restaurant	Sandwich Place	Bank	Bagel Shop	Donut Shop	Cocktail Bar	Pub
Ditmas Park	Del / Bodega	Women's Store	Pizza Place	Caribbean Restaurant	Chinese Restaurant	Metro Station	Donut Shop	Discount Store	Kids Store	Hardware Store
Wingate	Fried Chicken Joint	Donut Shop	Bus Station	Fish & Chips Shop	Field	Fast Food Restaurant	Farmers Market	Chinese Restaurant	BBQ Joint	Juice Bar
Rugby	Caribbean Restaurant	Chinese Restaurant	Grocery Store	Bank	Pizza Place	Fried Chicken Joint	Seafood Restaurant	Fast Food Restaurant	Supermarket	Sandwich Place
Remsen Village	Caribbean Restaurant	Liquor Store	Fast Food Restaurant	Del / Bodega	Fish Market	Sandwich Place	Supermarket	Donut Shop	Coffee Shop	Pharmacy
New Lots	Pizza Place	Fried Chicken Joint	Grocery Store	Metro Station	Park	Fast Food Restaurant	Bank	Bakery	Breakfast Spot	Asian Restaurant
Paerdegat Basin	Moving Target	Asian Restaurant	Harbor / Marina	Bus Line	Food	Gym	Falafel Restaurant	Farm	Farmers Market	Fast Food Restaurant
Mill Basin	Chinese Restaurant	Pizza Place	Sushi Restaurant	Bank	Cosmetics Shop	Bagel Shop	Japanese Restaurant	Frozen Yogurt Shop	Burger Joint	Supermarket
Weeksville	Discount Store	Grocery Store	Park	Café	Lounge	Chinese Restaurant	Cocktail Bar	Juice Bar	Metro Station	Liquor Store
Broadway Junction	Diner	Gas Station	Donut Shop	Ice Cream Shop	Sandwich Place	Moving Target	Fried Chicken Joint	Nightclub	Caribbean Restaurant	Seafood Restaurant
Homecrest	Bank	Grocery Store	Donut Shop	Cosmetics Shop	Mexican Restaurant	Vietnamese Restaurant	Pizza Place	Sandwich Place	Chinese Restaurant	Mobile Phone Shop
Highland Park	Pizza Place	Metro Station	Grocery Store	Spanish Restaurant	Gym / Fitness Center	Cosmetics Shop	Construction & Landscaping	Park	Food	Fried Chicken Joint
Madison	Bagel Shop	Del / Bodega	Dessert Shop	Candy Store	Italian Restaurant	Hobby Shop	Bus Station	Insurance Office	Pilates Studio	Pizza Place
Erasmus	Caribbean Restaurant	Grocery Store	Yoga Studio	Gym / Fitness Center	Pharmacy	Convenience Store	Donut Shop	Chinese Restaurant	School	Music Venue

## Cluster 4:

Neighborhood	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
Sea Gate	Spa	Beach	Bus Station	Home Service	Construction & Landscaping	Fish & Chips Shop	Farm	Farmers Market	Fast Food Restaurant	Field

## Cluster 5:

Neighborhood	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
Midwood	Pizza Place	Ice Cream Shop	Pharmacy	Video Game Store	Convenience Store	Candy Store	Bakery	Bagel Shop	Women's Store	Filipino Restaurant

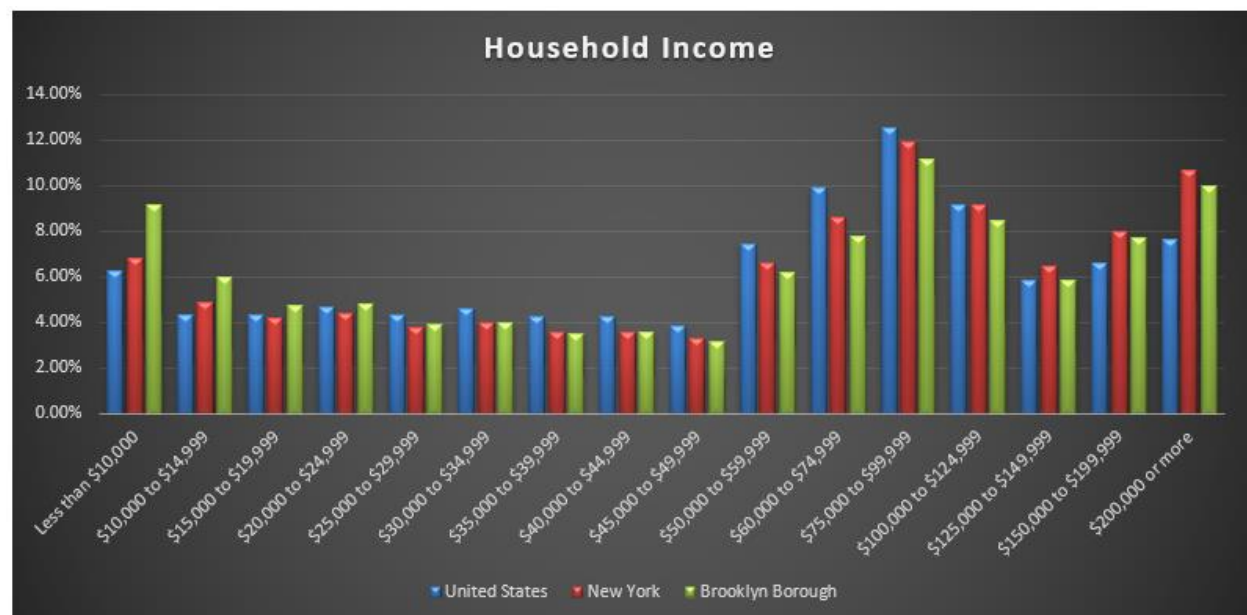
According to my criterion, there are around 13 neighborhoods that could be an ideal location for our yoga studio. However, I narrowed it down even further to three possible neighborhoods: Brooklyn heights, Gowanus, and Erasmus. To try to narrow things down even further I need to look at Brooklyn's demographics. See data below:

## Brooklyn Demographics:

### Income:

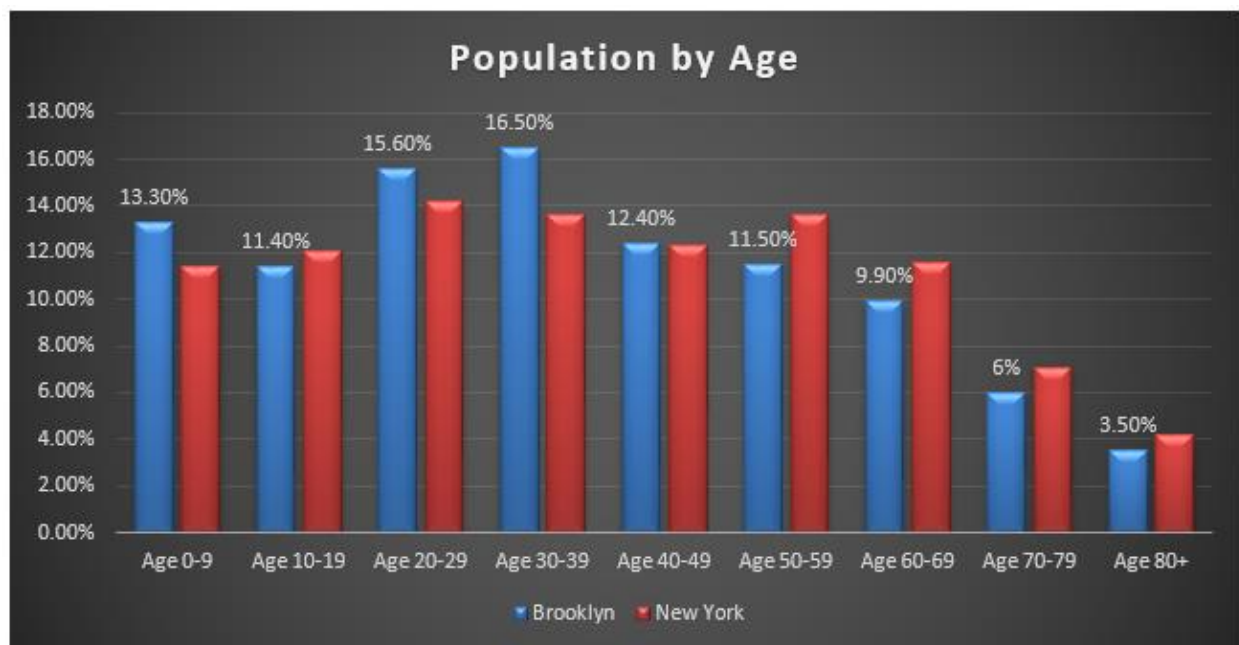
Household Income in the Past 12 Months (In 2018 Inflation-adjusted Dollars)

Household Income	United States	New York	Brooklyn Borough
Less than \$10,000	6.25%	6.84%	9.16%
\$10,000 to \$14,999	4.33%	4.85%	5.98%
\$15,000 to \$19,999	4.31%	4.22%	4.71%
\$20,000 to \$24,999	4.69%	4.42%	4.83%
\$25,000 to \$29,999	4.30%	3.77%	3.92%
\$30,000 to \$34,999	4.58%	3.98%	4.01%
\$35,000 to \$39,999	4.24%	3.58%	3.51%
\$40,000 to \$44,999	4.26%	3.59%	3.60%
\$45,000 to \$49,999	3.87%	3.33%	3.16%
\$50,000 to \$59,999	7.46%	6.60%	6.20%
\$60,000 to \$74,999	9.91%	8.64%	7.78%
\$75,000 to \$99,999	12.55%	11.94%	11.18%
\$100,000 to \$124,999	9.16%	9.15%	8.48%
\$125,000 to \$149,999	5.85%	6.49%	5.83%
\$150,000 to \$199,999	6.61%	7.95%	7.69%
\$200,000 or more	7.64%	10.65%	9.95%

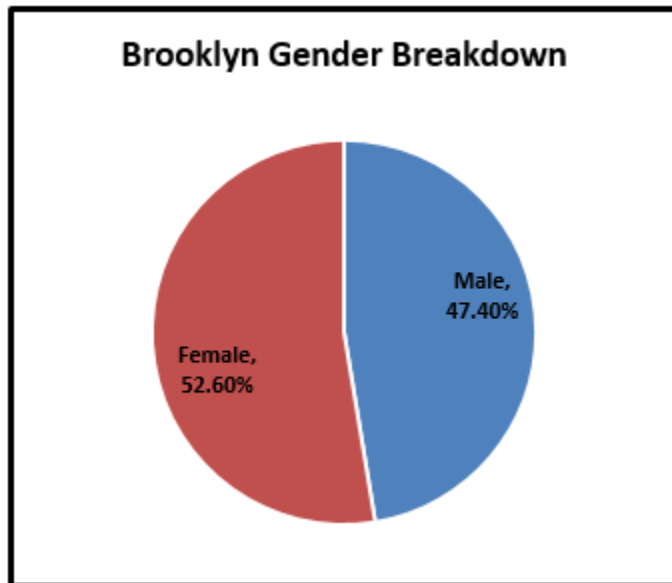


## Population by Age:

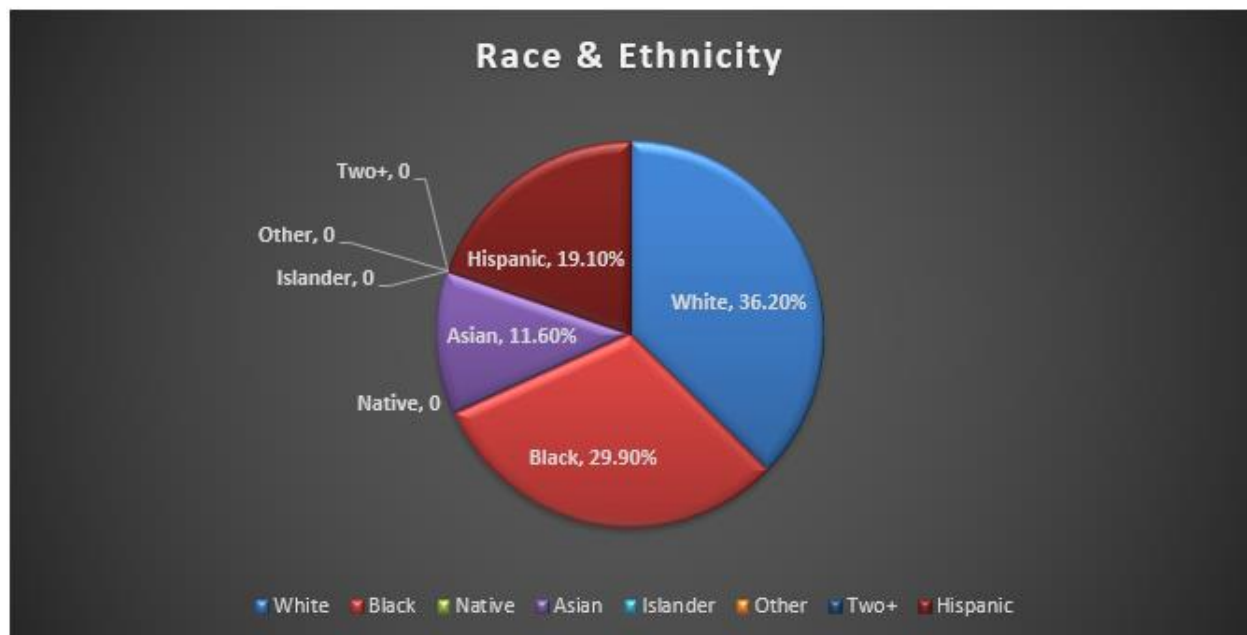
Population by Age	Brooklyn	New York
Age 0-9	13.30%	11.40%
Age 10-19	11.40%	12.10%
Age 20-29	15.60%	14.20%
Age 30-39	16.50%	13.60%
Age 40-49	12.40%	12.30%
Age 50-59	11.50%	13.60%
Age 60-69	9.90%	11.60%
Age 70-79	6%	7.10%
Age 80+	3.50%	4.20%



## Gender:



## Race & Ethnicity:



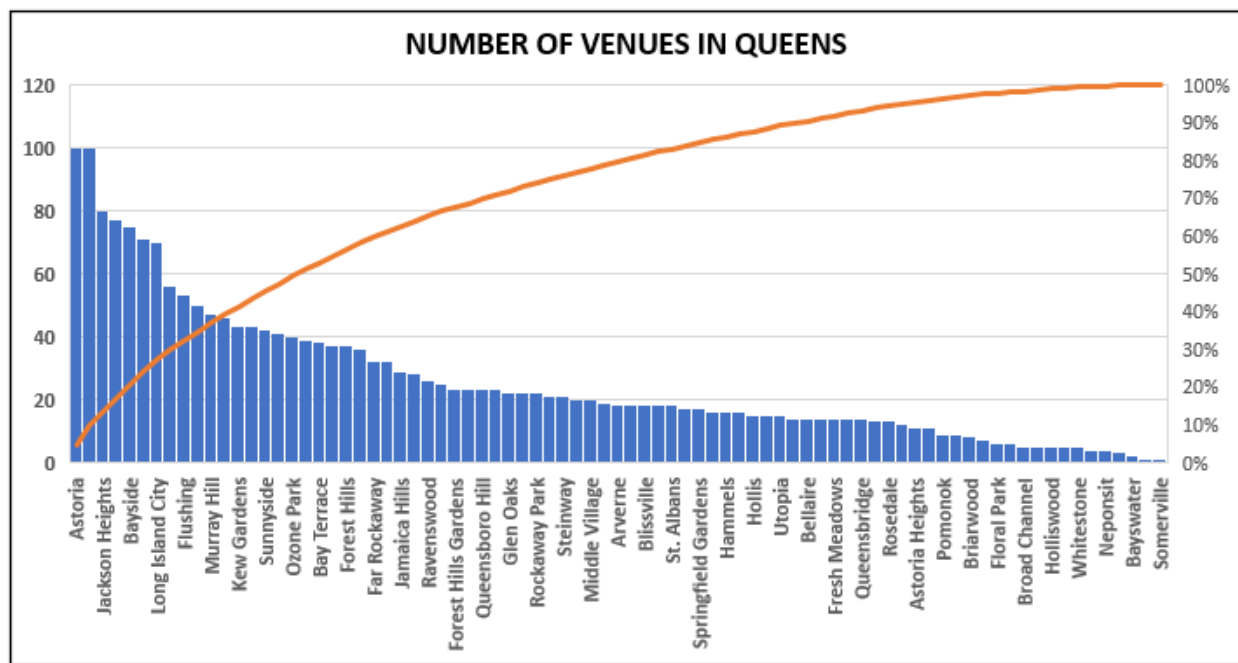
After analyzing Brooklyn's demographics, I determined that the median age was around 35 years. The population is predominately female, like Manhattan, but has more of an even mix between the black and white population. Brooklyn's median household income is around \$61,000, which is about 90% of New York's median income.



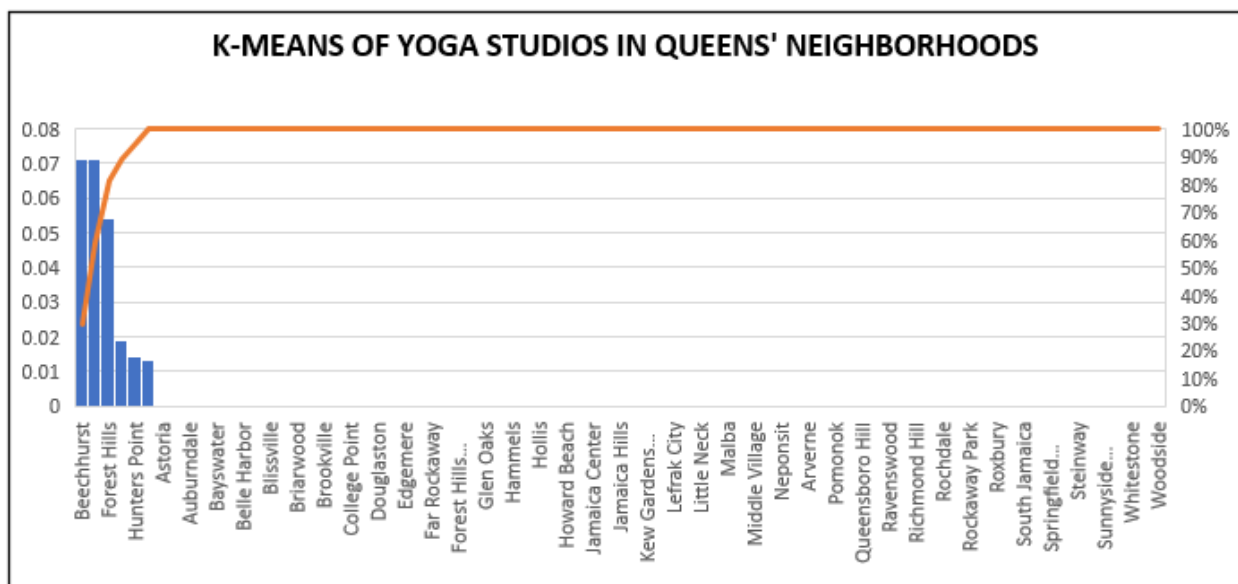
## 2.4 Queens Data:

Queens is geographically the largest borough and the most ethnically diverse county in the United States, as well as, the most ethnically diverse urban area in the world. This borough is mostly known for being the home of Citi Field, New York Mets, and hosting the annual US Open tennis tournament. Along with their renowned sports affiliation, two of the three busiest airports in the United States, JFK and LaGuardia, are also located in Queens.

Queens has 81 neighborhoods and over 2,000 venues. See data below:

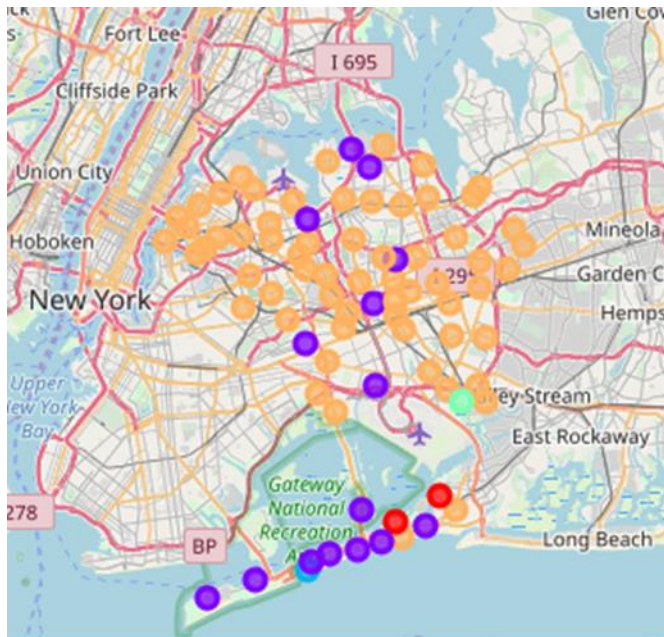


## K-Means of Yoga Studios in Queens' Neighborhoods:





## 5 Cluster of Queens:



### Cluster 1:

Neighborhood	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
Somerville	Park	Farmers Market	Egyptian Restaurant	Electronics Store	Empanada Restaurant	Event Space	Falafel Restaurant	Farm	Women's Store	Eastern European Restaurant
Bayswater	Park	Playground	Women's Store	Farm	Egyptian Restaurant	Electronics Store	Empanada Restaurant	Event Space	Falafel Restaurant	Farmers Market

### Cluster 2:

Neighborhood	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
Woodhaven	Deli / Bodega	Bank	Pharmacy	Supermarket	Nail Salon	Sandwich Place	Gift Shop	Donut Shop	Bagel Shop	Thai Restaurant
South Ozone Park	Park	Deli / Bodega	Fast Food Restaurant	Hotel	Sandwich Place	Donut Shop	Bar	Falafel Restaurant	Electronics Store	Empanada Restaurant
Whitestone	Historic Site	Deli / Bodega	Bubble Tea Shop	Candy Store	Dance Studio	Food	Flower Shop	Fish Market	Fish & Chips Shop	Electronics Store
Briarwood	Deli / Bodega	Bus Station	Plaza	Mexican Restaurant	Fast Food Restaurant	Coffee Shop	Arts & Crafts Store	Women's Store	Event Space	Falafel Restaurant
Broad Channel	Sporting Goods Shop	Deli / Bodega	Dive Bar	Pizza Place	Other Nightlife	Dance Studio	Egyptian Restaurant	Food	Flower Shop	Fish Market
Breezy Point	Monument / Landmark	Beach	Trail	Bus Stop	Flower Shop	Fish Market	Fish & Chips Shop	Filipino Restaurant	Fast Food Restaurant	Egyptian Restaurant
Edgemere	Metro Station	Pizza Place	Hotel	Scenic Lookout	Deli / Bodega	Seafood Restaurant	Skate Park	Bus Station	Gift Shop	Farm
Rockaway Beach	Beach	Latin American Restaurant	Seafood Restaurant	Arepa Restaurant	Food Truck	BBQ Joint	Pizza Place	Ice Cream Shop	Candy Store	Beach Bar
Belle Harbor	Beach	Spa	Deli / Bodega	Pub	Italian Restaurant	Boutique	Bakery	Donut Shop	Chinese Restaurant	Mexican Restaurant
Rockaway Park	Beach	Pizza Place	Bank	Mediterranean Restaurant	Donut Shop	French Restaurant	Steakhouse	Board Shop	Seafood Restaurant	Sandwich Place
North Corona	Deli / Bodega	Gym / Fitness Center	Bakery	Mexican Restaurant	Pizza Place	South American Restaurant	Latin American Restaurant	Mobile Phone Shop	Museum	Gym
Utopia	Deli / Bodega	Spa	Indie Movie Theater	Basketball Court	Donut Shop	Bakery	Park	Automotive Shop	South American Restaurant	Pizza Place
Roxbury	Baseball Field	Deli / Bodega	Beach	Irish Pub	Trail	Fast Food Restaurant	Women's Store	Farmers Market	Event Space	Falafel Restaurant
Malba	Latin American Restaurant	Rest Area	Tennis Court	Women's Store	Farm	Egyptian Restaurant	Electronics Store	Empanada Restaurant	Event Space	Falafel Restaurant
Hammels	Beach	Dog Run	Deli / Bodega	Fried Chicken Joint	Café	Gym / Fitness Center	Diner	Bus Station	Shoe Store	Bus Stop

### Cluster 3:

Neighborhood	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
Neponsit	Beach	Women's Store	Farmers Market	Electronics Store	Empanada Restaurant	Event Space	Falafel Restaurant	Farm	Fast Food Restaurant	Food Truck

### Cluster 4:

Neighborhood	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
Brookville	Deli / Bodega	Women's Store	Fast Food Restaurant	Electronics Store	Empanada Restaurant	Event Space	Falafel Restaurant	Farm	Farmers Market	Filipino Restaurant

## Cluster 5:

Neighborhood	1st Most Common	2nd Most Common	3rd Most Common	4th Most Common	5th Most Common	6th Most Common	7th Most Common	8th Most Common	9th Most Common	10th Most Common
Astoria	Bar	Hookah Bar	Greek Restaurant	Middle Eastern Restaurant	Seafood Restaurant	Café	Mediterranean Restaurant	Indian Restaurant	Bubble Tea Shop	Pub
Woodside	Grocery Store	Thai Restaurant	Latin American Restaurant	Bakery	Filipino Restaurant	Pizza Place	American Restaurant	Bar	Donut Shop	Pub
Jackson Heights	Latin American Restaurant	Peruvian Restaurant	South American Restaurant	Bakery	Mexican Restaurant	Mobile Phone Shop	Grocery Store	Thai Restaurant	Supermarket	Pharmacy
Elmhurst	Thai Restaurant	Mexican Restaurant	South American Restaurant	Chinese Restaurant	Vietnamese Restaurant	Bubble Tea Shop	Snack Place	Bar	Sushi Restaurant	Malay Restaurant
Howard Beach	Italian Restaurant	Bagel Shop	Fast Food Restaurant	Pharmacy	Deli / Bodega	Sandwich Place	Sushi Restaurant	Tapas Restaurant	Japanese Restaurant	Bank
Corona	Mexican Restaurant	Convenience Store	Park	Supermarket	Empanada Restaurant	Basketball Court	Sandwich Place	Bakery	Donut Shop	Restaurant
Forest Hills	Gym / Fitness Center	Gym	Yoga Studio	Pharmacy	Convenience Store	Park	Thai Restaurant	Pizza Place	Video Game Store	Bank
Kew Gardens	Chinese Restaurant	Bank	Pet Store	Cosmetics Shop	Pizza Place	Juice Bar	Donut Shop	Indian Restaurant	Movie Theater	Italian Restaurant
Richmond Hill	Lounge	Latin American Restaurant	Pizza Place	Bank	Gym / Fitness Center	Caribbean Restaurant	Sandwich Place	Moving Target	Bakery	Donut Shop
Flushing	Hotpot Restaurant	Bubble Tea Shop	Chinese Restaurant	Korean Restaurant	Sushi Restaurant	Karaoke Bar	Gym / Fitness Center	Gym	Food	Bakery
Long Island City	Hotel	Coffee Shop	Pizza Place	Bar	Mexican Restaurant	Café	Gym / Fitness Center	Deli / Bodega	Donut Shop	Bubble Tea Shop
Sunnyside	Pizza Place	Italian Restaurant	Chinese Restaurant	Bakery	Discount Store	Coffee Shop	Bar	South American Restaurant	Hotel	Mexican Restaurant
East Elmhurst	Donut Shop	Hotel Bar	Coffee Shop	Gas Station	Supermarket	Lake	Bakery	Gym	Snack Place	Rental Car Location
Maspeth	Pizza Place	Diner	Mobile Phone Shop	Chinese Restaurant	Bank	Grocery Store	Lounge	Sandwich Place	Sushi Restaurant	Taco Place
Ridgewood	Bank	Greek Restaurant	Pizza Place	Bakery	Italian Restaurant	Mobile Phone Shop	Grocery Store	Café	Egyptian Restaurant	Korean Restaurant
Glendale	Brewery	Arts & Crafts Store	Food & Drink Shop	Chinese Restaurant	Pizza Place	Empanada Restaurant	Event Space	Falafel Restaurant	Farm	Farmers Market
Rego Park	Bakery	Chinese Restaurant	Pizza Place	Pharmacy	Grocery Store	Sandwich Place	Restaurant	Sushi Restaurant	Donut Shop	Coffee Shop
Ozone Park	Pizza Place	Pharmacy	Gym	Bank	Diner	Furniture / Home Store	Fast Food Restaurant	Sporting Goods Shop	Spanish Restaurant	Bowling Alley
College Point	Deli / Bodega	Pizza Place	Latin American Restaurant	Bakery	Park	Asian Restaurant	Massage Studio	Café	Fried Chicken Joint	Buffet
Bayside	Bar	Sushi Restaurant	Indian Restaurant	American Restaurant	Pub	Greek Restaurant	Bakery	Ice Cream Shop	Café	
Auburndale	Italian Restaurant	Miscellaneous Shop	Gymnastics Gym	Noodle House	Supermarket	Korean Restaurant	Furniture / Home Store	Athletics & Sports	Discount Store	Toy / Game Store
Little Neck	Chinese Restaurant	Deli / Bodega	Italian Restaurant	Korean Restaurant	Shanghai Restaurant	Spa	Bank	Bakery	Japanese Restaurant	Cantonese Restaurant
Douglaston	Bank	Deli / Bodega	Diner	Shipping Store	Donut Shop	Fast Food Restaurant	Cajun / Creole Restaurant	Chinese Restaurant	Bus Station	Italian Restaurant
Glen Oaks	Pharmacy	Fast Food Restaurant	Park	Gift Shop	Mobile Phone Shop	Bank	Bakery	Bagel Shop	Donut Shop	Food Truck
Bellerose	Pizza Place	Flower Shop	Italian Restaurant	Mobile Phone Shop	Diner	Gas Station	Chinese Restaurant	Bank	Grocery Store	Donut Shop
Kew Gardens Hills	Bank	Playground	Restaurant	Middle Eastern Restaurant	Pizza Place	Sushi Restaurant	Indie Movie Theater	Bus Station	Bagel Shop	Deli / Bodega
Fresh Meadows	Bus Station	Chinese Restaurant	Pharmacy	Vegetarian / Vegan Restaurant	Food Truck	Bar	Grocery Store	Cosmetics Shop	Playground	Pizza Place
Jamaica Center	Mobile Phone Shop	Clothing Store	Department Store	Pizza Place	American Restaurant	Mexican Restaurant	Performing Arts Venue	Sandwich Place	Coffee Shop	Caribbean Restaurant
Oakland Gardens	Chinese Restaurant	Korean Restaurant	Yoga Studio	Donut Shop	Dessert Shop	Coffee Shop	Clothing Store	Deli / Bodega	Bagel Shop	Sandwich Place
Queens Village	Bank	Bus Stop	Hotel	Department Store	Diner	Discount Store	Donut Shop	Salon / Barbershop	Sandwich Place	Car Wash
Hollis	Fried Chicken Joint	Park	Shopping Mall	Mobile Phone Shop	Fast Food Restaurant	Bakery	Sandwich Place	Lounge	Asian Restaurant	Electronics Store
South Jamaica	Bus Station	Grocery Store	Sandwich Place	Caribbean Restaurant	Vegetarian / Vegan Restaurant	Supermarket	Bakery	Fast Food Restaurant	Filipino Restaurant	Farmers Market
St. Albans	Caribbean Restaurant	Fast Food Restaurant	Discount Store	Electronics Store	Market	Grocery Store	Chinese Restaurant	Shopping Mall	Donut Shop	Café
Rosedale	Market	Southern / Soul Food Restaurant	Food Court	Donut Shop	Breakfast Spot	Bus Station	Bus Stop	Fast Food Restaurant	Liquor Store	Sandwich Place
Springfield Garden	Bus Station	Fried Chicken Joint	Donut Shop	Cheek Cashing Service	Liquor Store	Sandwich Place	Chinese Restaurant	Gym	Gas Station	Park
Cambria Heights	Caribbean Restaurant	Pharmacy	Moving Target	Nightclub	Lounge	Liquor Store	Restaurant	Bakery	Flower Shop	
Rosedale	Bus Station	Cosmetics Shop	Jewelry Store	Fried Chicken Joint	Supermarket	Caribbean Restaurant	Baseball Field	Chinese Restaurant	Sandwich Place	Pharmacy
Far Rockaway	Deli / Bodega	Supermarket	Pizza Place	Grocery Store	Pharmacy	Fried Chicken Joint	Bank	Chinese Restaurant	Caribbean Restaurant	Fast Food Restaurant
Steinway	Rental Car Location	Women's Store	Japanese Restaurant	Playground	Pizza Place	Deli / Bodega	Dessert Shop	Donut Shop	Brewery	Men's Store
Beechhurst	Chinese Restaurant	Yoga Studio	Shopping Plaza	Optical Shop	Donut Shop	Gym	Supermarket	Restaurant	Italian Restaurant	Dessert Shop
Bay Terrace	Clothing Store	Women's Store	Shoe Store	Kids Store	American Restaurant	Lingerie Store	Mobile Phone Shop	Cosmetics Shop	Donut Shop	Pharmacy
Arverne	Surf Spot	Metro Station	Sandwich Place	Coffee Shop	Board Shop	Bus Stop	Bed & Breakfast	Beach	Thai Restaurant	Donut Shop
Murray Hill	Korean Restaurant	Supermarket	Coffee Shop	Bar	Bank	Pizza Place	Asian Restaurant	Karaoke Bar	Bath House	Breakfast Spot
Floral Park	Grocery Store	Basketball Court	Indian Restaurant	Chinese Restaurant	Dosa Place	Pizza Place	Farm	Electronics Store	Empanada Restaurant	Event Space
Holliswood	Mobile Phone Shop	Donut Shop	Playground	Sandwich Place	Supermarket	Farm	Electronics Store	Empanada Restaurant	Event Space	Falafel Restaurant
Jamaica Estates	Bus Station	Indian Restaurant	Antique Shop	Intersection	Dog Run	Fast Food Restaurant	Empanada Restaurant	Event Space	Falafel Restaurant	Farm
Queensboro Hill	Chinese Restaurant	Bank	Bakery	Frozen Yogurt Shop	Asian Restaurant	Bus Station	Playground	Café	Supermarket	Dumpling Restaurant
Hillcrest	Donut Shop	College Academic Building	Mobile Phone Shop	College Basketball Court	Fast Food Restaurant	Shipping Store	Market	Grocery Store	Coffee Shop	Food Court
Ravenswood	Chinese Restaurant	Grocery Store	Breakfast Spot	Brazilian Restaurant	Bar	Taco Place	Sushi Restaurant	Latin American Restaurant	Liquor Store	Market
Lindenwood	Dance Studio	Japanese Restaurant	Fruit & Vegetable Store	Liquor Store	Chinese Restaurant	Bakery	Grocery Store	Gym	Donut Shop	Bank
Laurelton	Caribbean Restaurant	Train Station	Sculpture Garden	Park	Cosmetics Shop	Deli / Bodega	Department Store	Flower Shop	Fish Market	Fish & Chips Shop
Lefrak City	Cosmetics Shop	Department Store	Bakery	Spa	Furniture / Home Store	Supermarket	Liquor Store	Fruit & Vegetable Store	Steakhouse	Fried Chicken Joint
Bellare	Deli / Bodega	Chinese Restaurant	Convenience Store	Gym	Coffee Shop	Bus Stop	Bus Station	Moving Target	Greek Restaurant	Grocery Store
Forest Hills Garden	Sandwich Place	Pharmacy	Bakery	Grocery Store	Plaza	Park	Playground	Food & Drink Shop	New American Restaurant	Sushi Restaurant
Jamaica Hills	Pharmacy	Indian Restaurant	Bus Stop	Fried Chicken Joint	Fast Food Restaurant	Donut Shop	Southern / Soul Food	Thai Restaurant	Bus Line	Shopping Mall
Pomonok	Scenic Lookout	Bus Station	Food & Drink Shop	Japanese Restaurant	Supermarket	Bar	Pizza Place	Bowling Alley	Playground	Fish Market
Astoria Heights	Hostel	Bowling Alley	Bakery	Supermarket	Shopping Mall	Italian Restaurant	Bus Station	Burger Joint	Pizza Place	Playground
Hunters Point	Café	Coffee Shop	Japanese Restaurant	Italian Restaurant	Burger Joint	Deli / Bodega	Scenic Lookout	American Restaurant	Bar	Brewery
Sunnyside Garden Bar	Grocery Store	Pizza Place	Coffee Shop	Korean Restaurant	Supermarket	Turkish Restaurant	Thai Restaurant	American Restaurant	Pharmacy	
Blissville	Hotel	Donut Shop	Bus Station	Deli / Bodega	Intersection	Bar	Movie Theater	Clothing Store	Restaurant	Airport Terminal
Middle Village	Cosmetics Shop	Playground	Italian Restaurant	South American Restaurant	Martial Arts Dojo	Sports Bar	Electronics Store	Sushi Restaurant	Sandwich Place	Bakery
Queensbridge	Hotel	Hotel Bar	Hotel Pool	Scenic Lookout	Platform	Sandwich Place	Spanish Restaurant	Beer Garden	Roof Deck	Performing Arts Venue

After assessing Queens' five clusters, I discovered there are 13 possible locations that we could open a yoga studio. However, after further evaluation, I decided that there are only four prime locations: Forest Hill, Flushing, Beechurst, and North Corona. While these would be the ideal locations for Queens, further evaluation is needed before coming to a final conclusion.

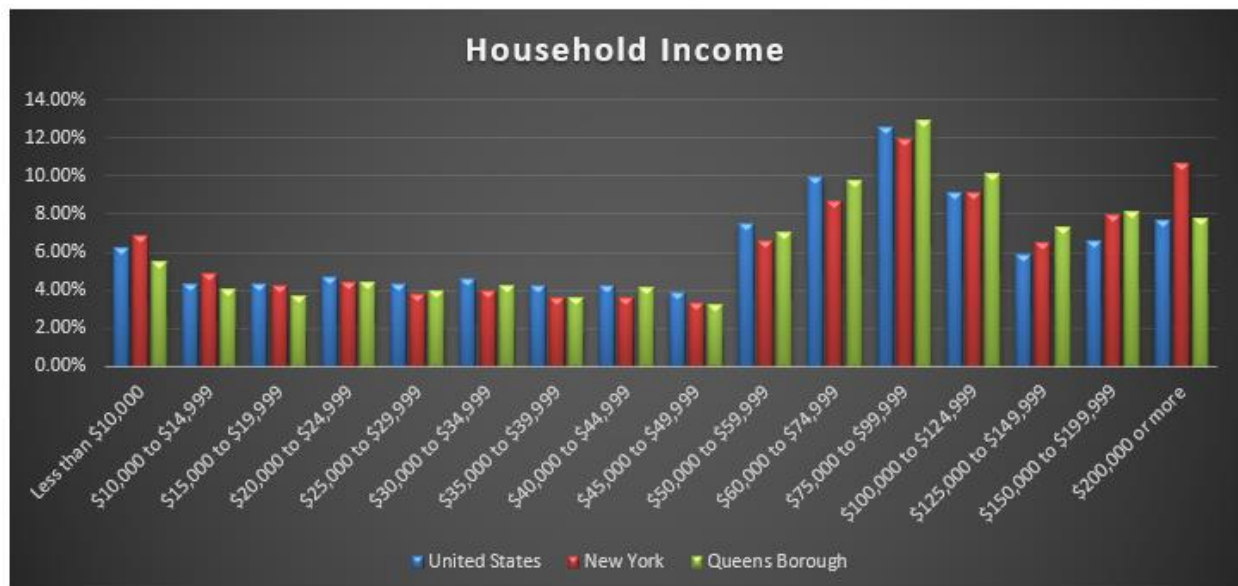
See Queens' demographics below:

## Queens Demographics:

### Income:

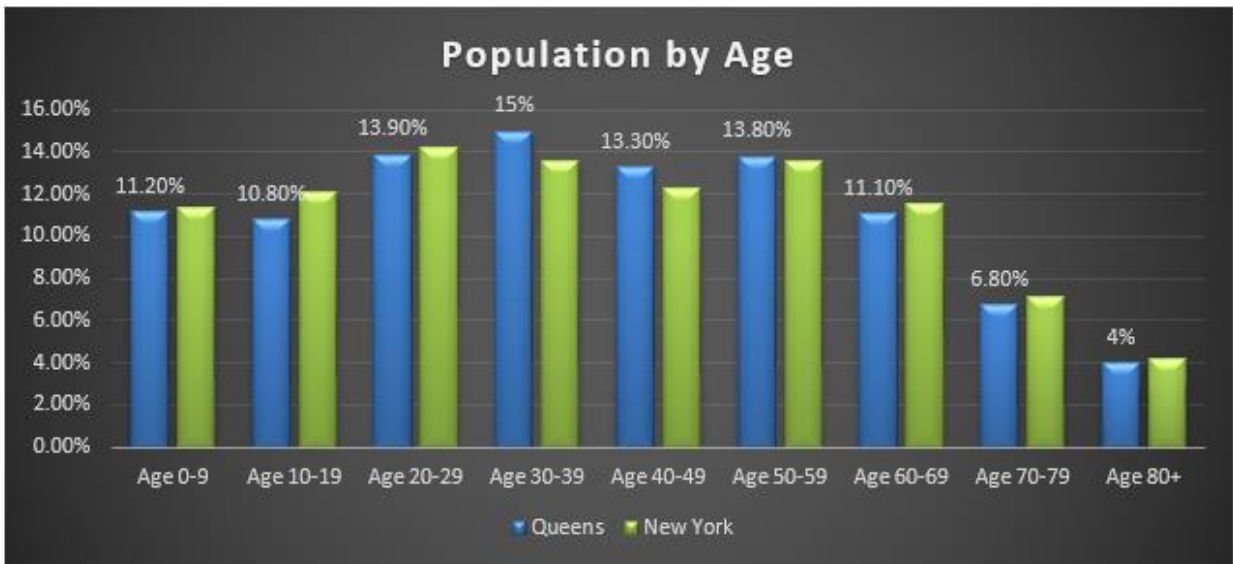
Household Income in the Past 12 Months (In 2018 Inflation-adjusted Dollars)

Household Income	United States	New York	Queens Borough
Less than \$10,000	6.25%	6.84%	5.48%
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\$15,000 to \$19,999	4.31%	4.22%	3.71%
\$20,000 to \$24,999	4.69%	4.42%	4.45%
\$25,000 to \$29,999	4.30%	3.77%	3.99%
\$30,000 to \$34,999	4.58%	3.98%	4.28%
\$35,000 to \$39,999	4.24%	3.58%	3.62%
\$40,000 to \$44,999	4.26%	3.59%	4.13%
\$45,000 to \$49,999	3.87%	3.33%	3.24%
\$50,000 to \$59,999	7.46%	6.60%	7.01%
\$60,000 to \$74,999	9.91%	8.64%	9.80%
\$75,000 to \$99,999	12.55%	11.94%	12.94%
\$100,000 to \$124,999	9.16%	9.15%	10.13%
\$125,000 to \$149,999	5.85%	6.49%	7.28%
\$150,000 to \$199,999	6.61%	7.95%	8.14%
\$200,000 or more	7.64%	10.65%	7.78%

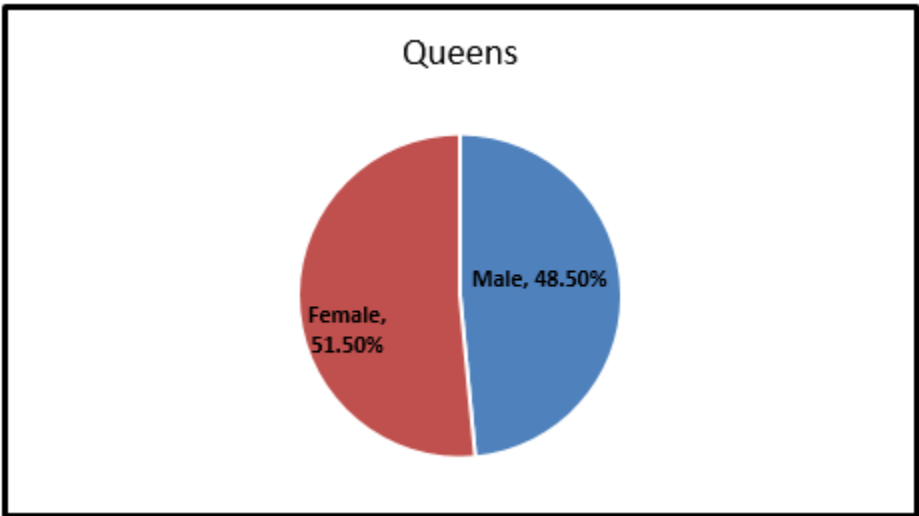


Population by Age:

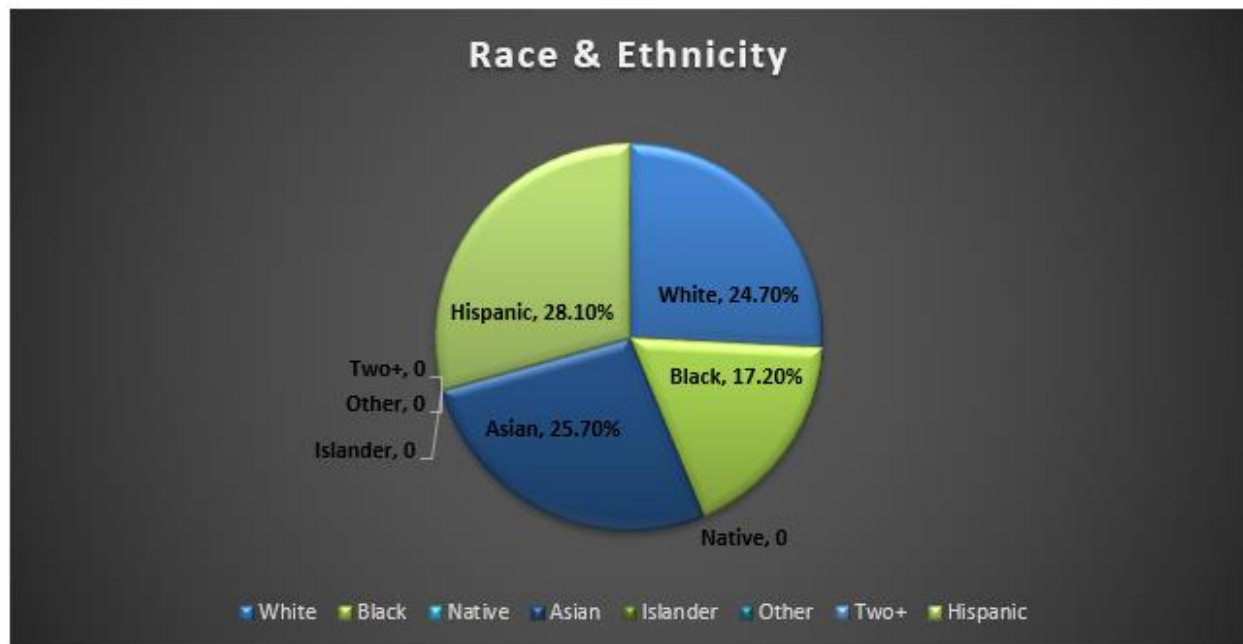
Population by Age	Queens	New York
Age 0-9	11.20%	11.40%
Age 10-19	10.80%	12.10%
Age 20-29	13.90%	14.20%
Age 30-39	15%	13.60%
Age 40-49	13.30%	12.30%
Age 50-59	13.80%	13.60%
Age 60-69	11.10%	11.60%
Age 70-79	6.80%	7.10%
Age 80+	4%	4.20%



Gender:



## Race & Ethnicity:



After analyzing Queens' demographics, I determined the median age is around 39 years and the population is predominately female (like the other two boroughs). However, Queens is the most ethnically diverse out of the three boroughs. The majority of the population is Hispanic and Asian. Queens' median income is around the same as New York's median income, at around \$69,000.

## Conclusion:

After an exhaustive evaluation of the three boroughs in New York, I have determined that Manhattan would be the ideal location to start a yoga studio franchise. While Manhattan is geographically the smallest of the boroughs, it is the most densely populated and has the highest household income.

Once the Manhattan location has become a success, I feel that Brooklyn would be a great location for their second studio. Brooklyn is not only culturally and ethnically diverse, it also has the highest population of the five boroughs. While the median income is the lowest of the three boroughs, it is still about 90% of New York's median income of \$67,844.

The partners should also keep Queens in mind when they discuss further expansion opportunities. While Queens would not be my first or second choice, I still feel that it would be an ideal location for a yoga studio. Queens is not only geographically the largest borough and the most ethnically diverse, when compared to Manhattan and Brooklyn, it also has around the same median income as New York.