



AIRBNB Case Study

Revenue Analysis

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Background of the Case Study

- During Covid, Airbnb saw a major decline in revenue. Post Covid people have started to travel more, Airbnb wants to make sure its prepared for this change and wants us to help with this process.

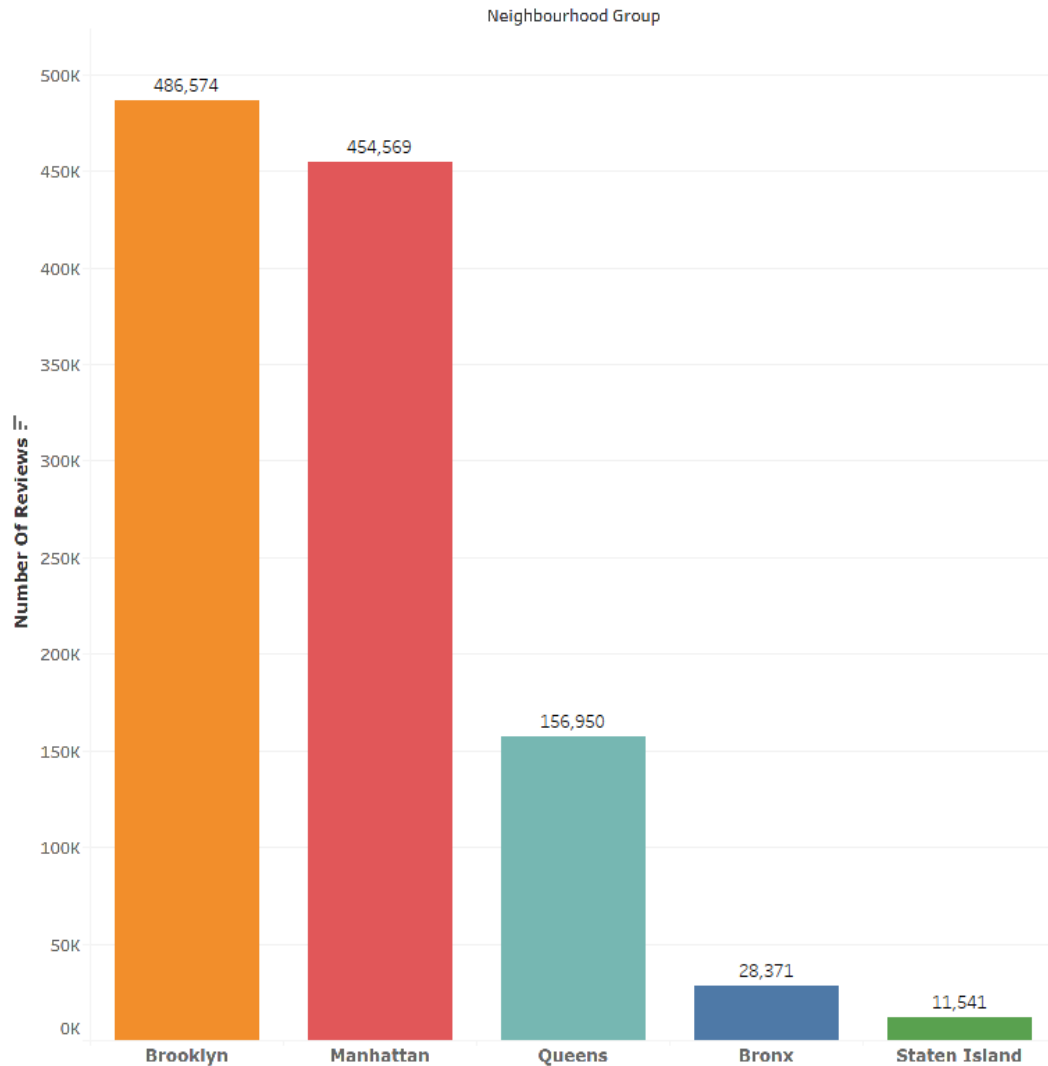
Objective and Agenda

- Understand the Airbnb business before covid and what factors had more influence on revenue.
- Analyze the data and find patterns to understand customer preference.
- We'll be using different cuts of data to derive the insights for making suggestions using different datapoints including Price, Neighborhood Groups, Availability, Reviews etc.
- Suggest key areas where the business should be focusing on for revenue increase.

Target Group of this Presentation

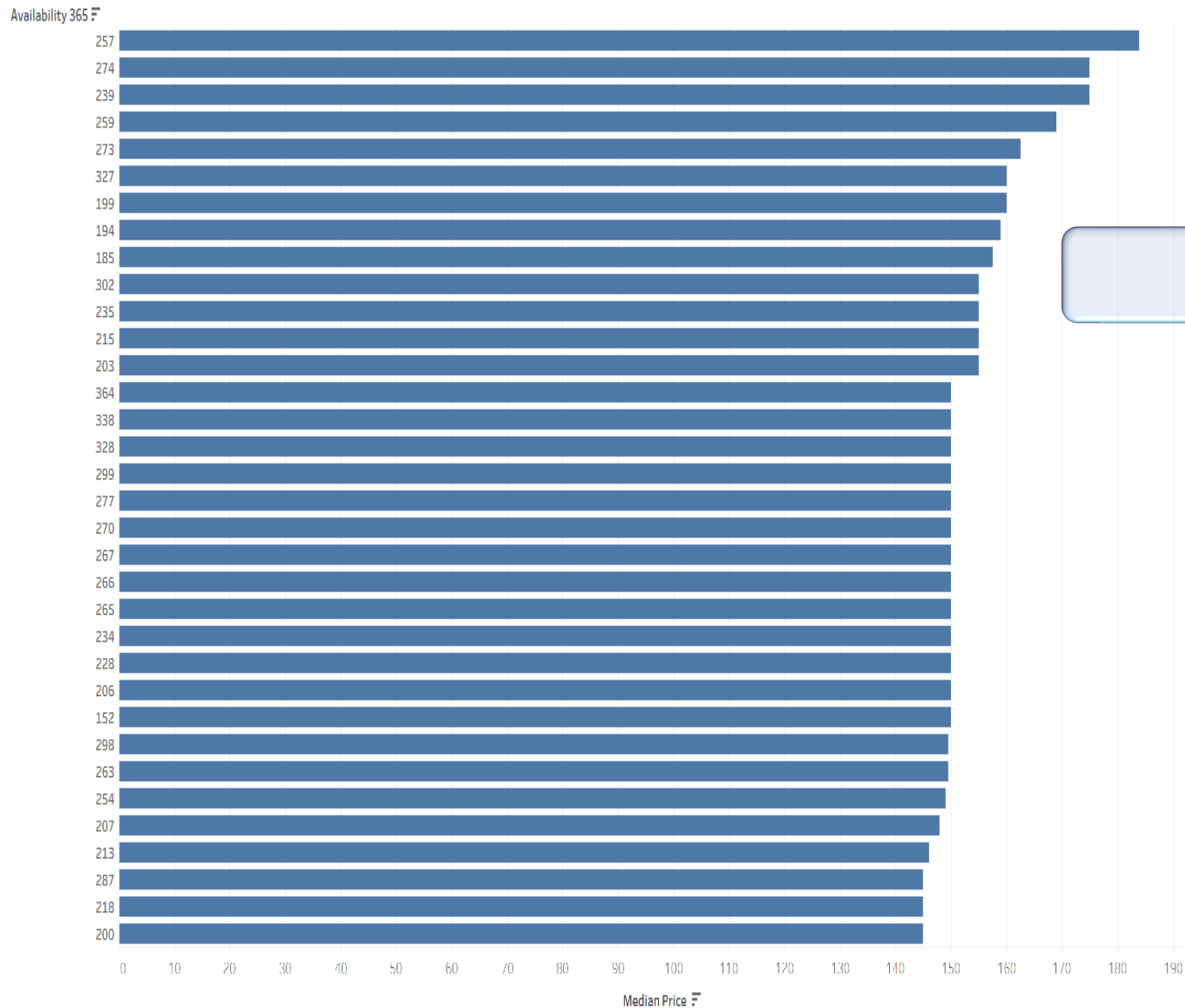
- Head of Acquisitions and Operations, NYC
- Head of User Experience, NYC

What are the neighbourhood groups they need to target?



Brooklyn and Manhattan seem to be doing good but the other 3 neighborhood groups are lacking as per the number of reviews and can be targeted by the company to maximize the revenue.

- Also, Brooklyn and Manhattan can further be focused to further improve as they are the biggest group with max reviews.



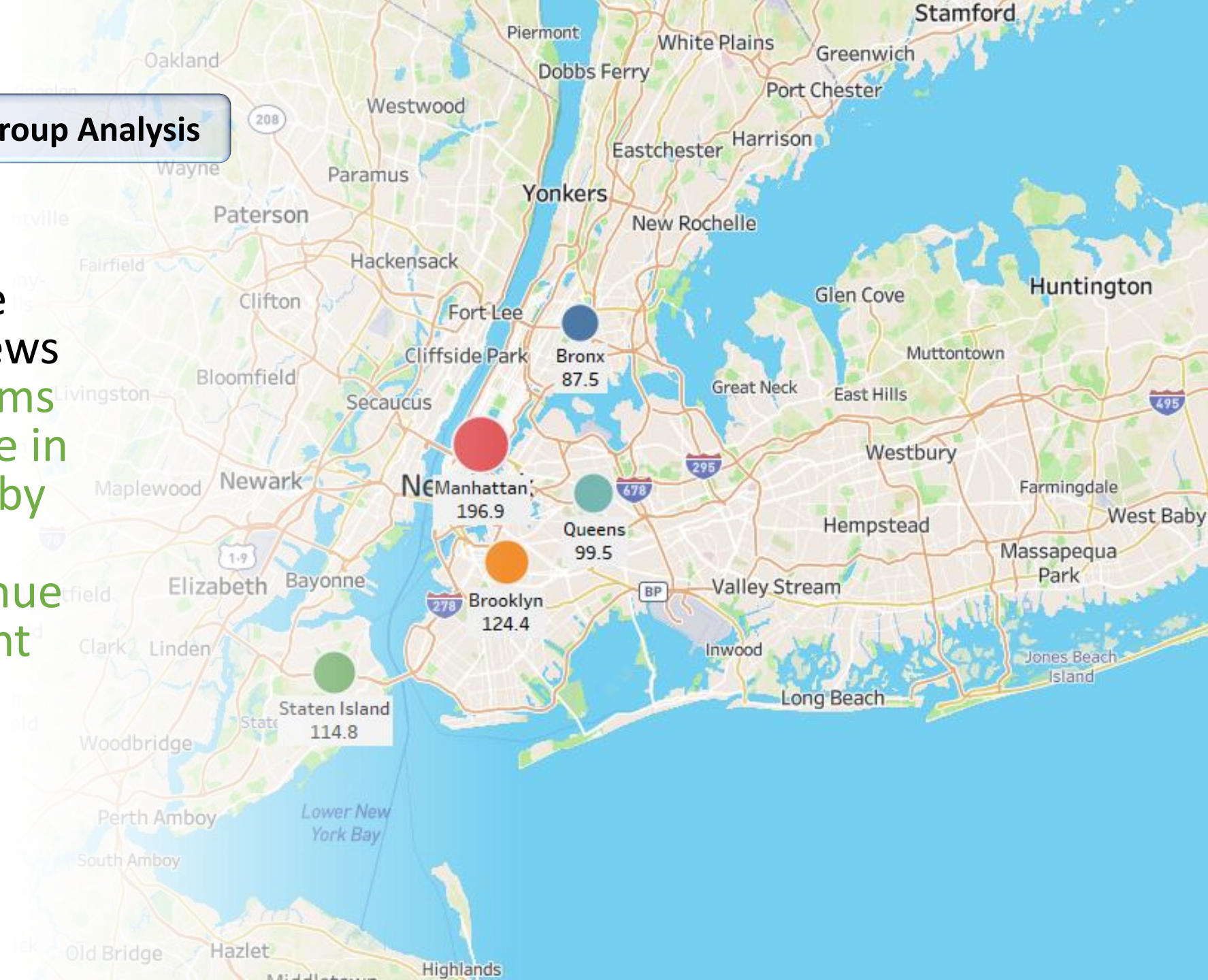
Pricing vs Availability

Highest Price is the one with the availability of 257.

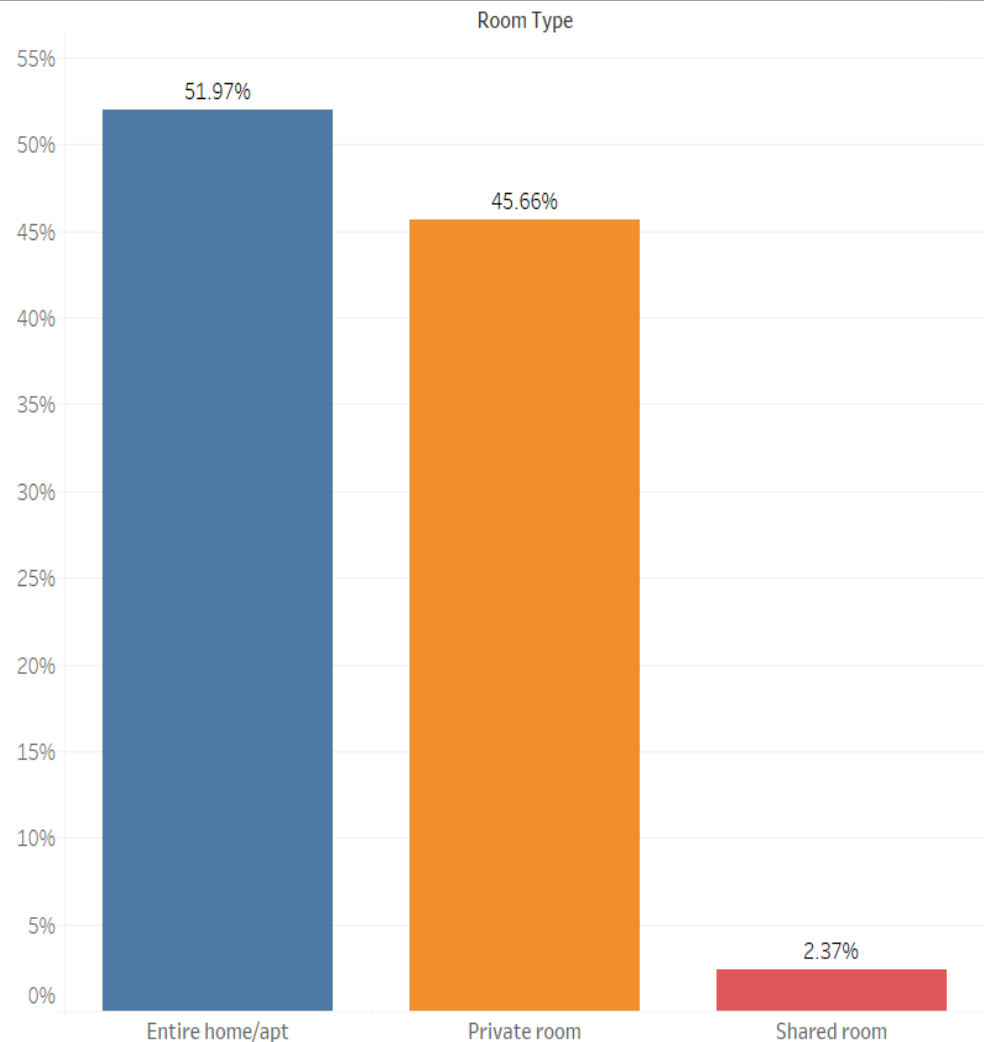
It goes against our notion that the highest availability will have the highest price.

AVG Price and Neighborhood Group Analysis

Manhattan has the highest Average Price and most no. of reviews too despite that. Seems customer spend more in Manhattan followed by Brooklyn. Good opportunity for revenue generation/ increment there.



What Does Customers Prefer among the Different Room Types?

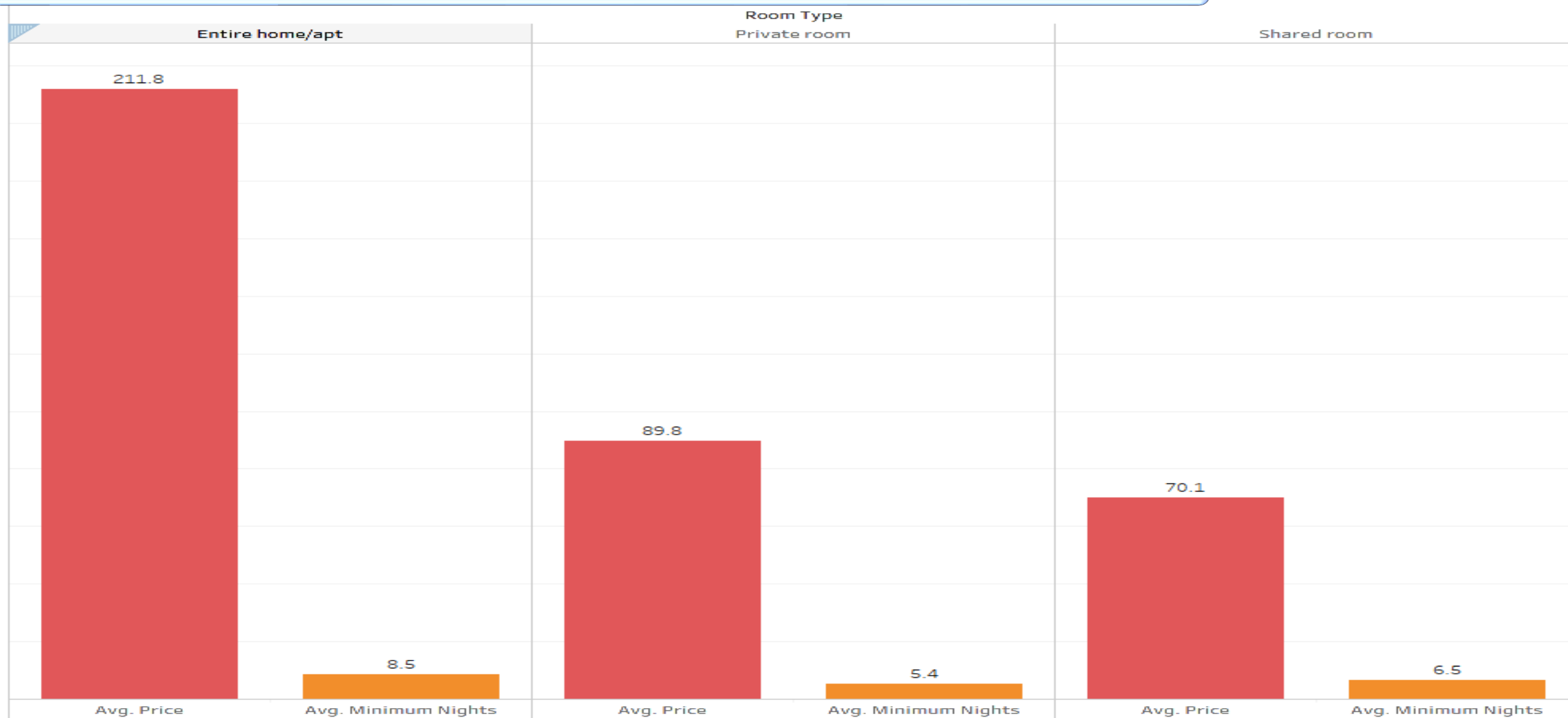


Entire Home/Apt and Private room account for most of the total no. of rooms. Customers prefer this room type more.

The company can focus more on these two as there are clearly the max revenue centers.

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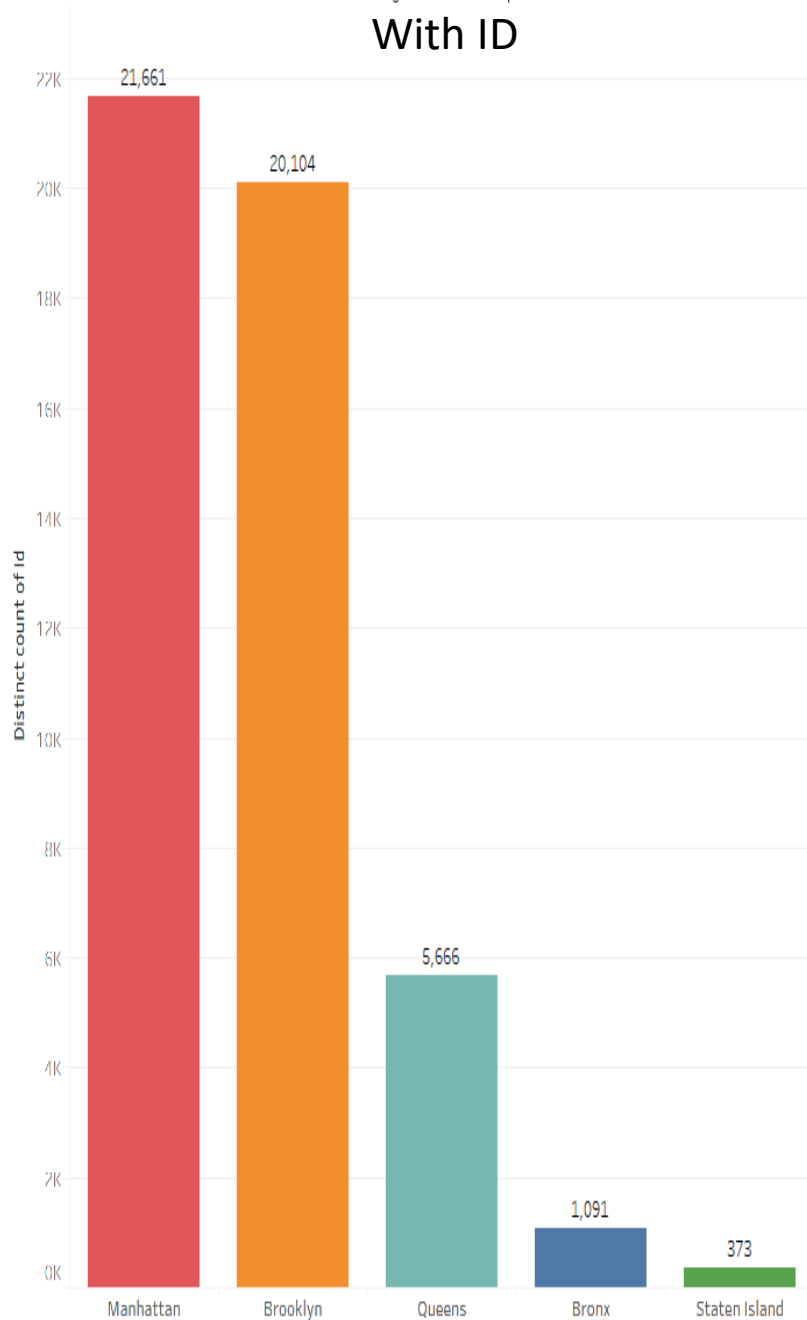
Avg Price and Minimum Number of nights for different room types



Min. nights is highest for Entire Home/Apt with **8.5** minimum average nights. Customers typically stay longer in Entire Home/Apt. Offers, discounts and promotional activities can further pull up stay for other room types, ultimately leading to more revenue.

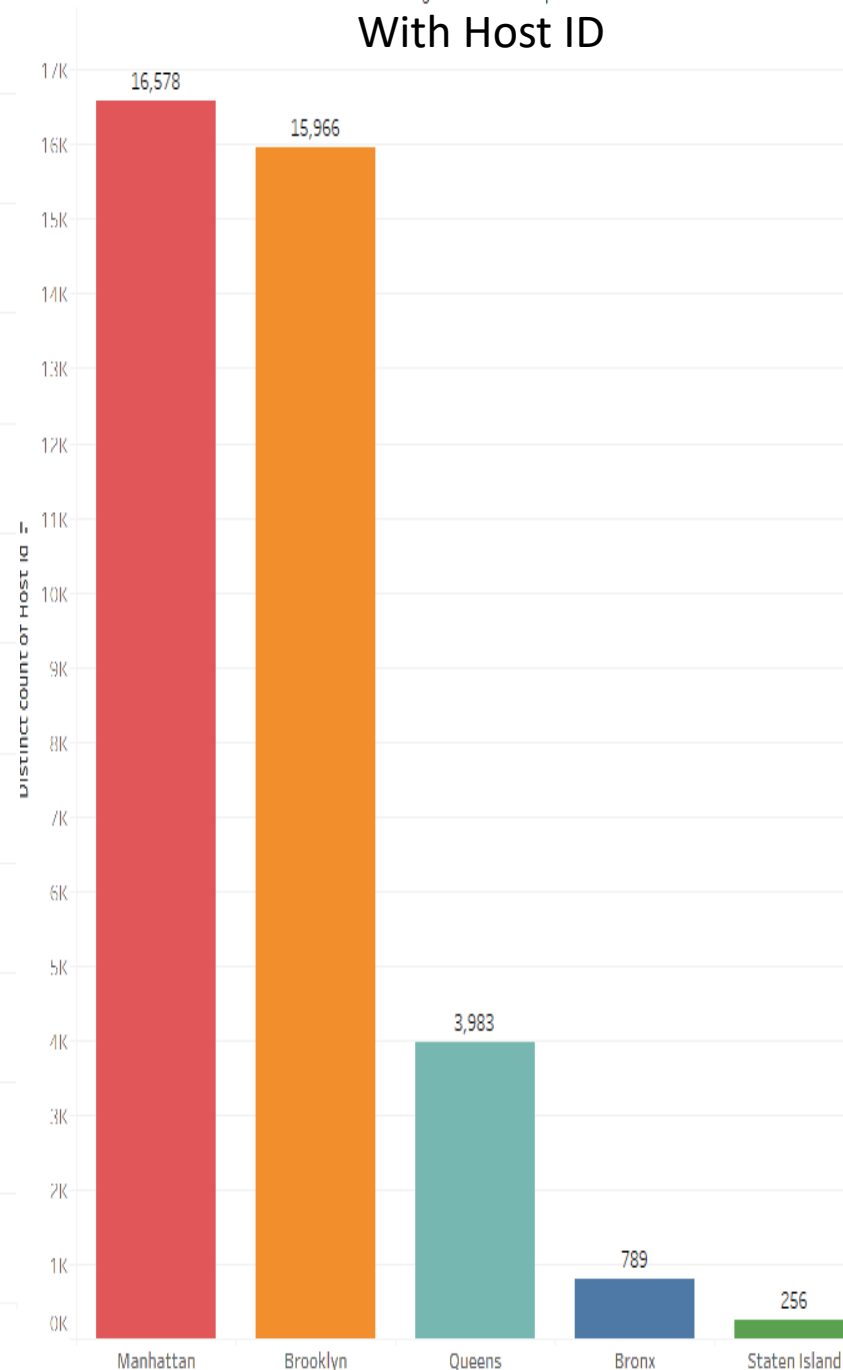
Neighbourhood Group

With ID



Neighbourhood Group

With Host ID



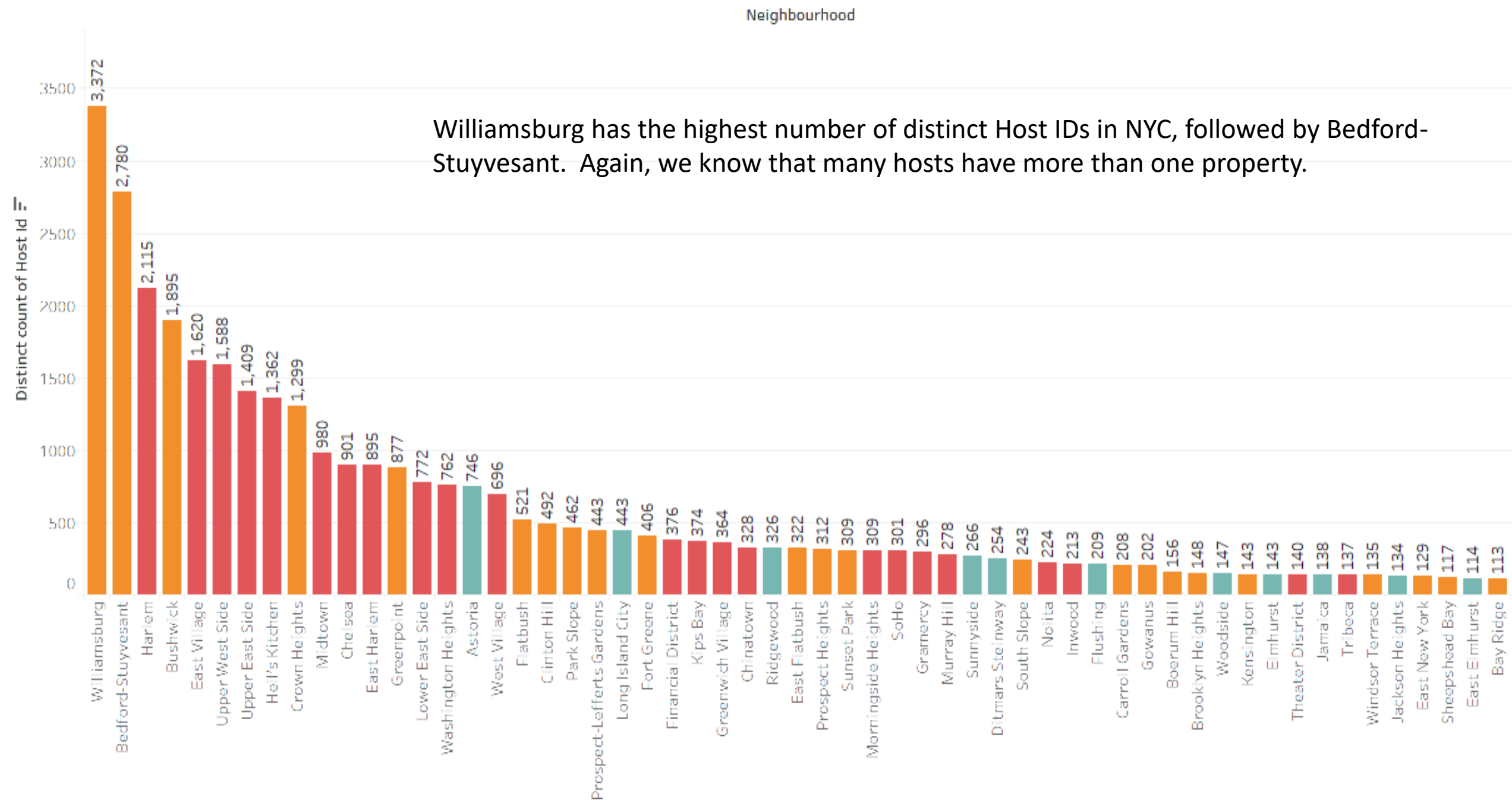
ID vs HOST ID

Number of properties are high ; number of distinct hosts are low.

This is because many hosts have more than one property

There might be many brokers handling multiple cases

Distinct count of host ID in the area



Observations and Insights

- **Brooklyn and Manhattan** seem to be doing good but the other 3 neighborhood groups are lacking as per the number of reviews and can be targeted by the company to maximize the revenue.
- Not necessarily **highest availability place will have the highest price**. Highest Price is the one with the availability of 257.
- **No. of properties are high ; number of distinct hosts are low**. This is because many hosts have more than one property. There might be many brokers handling multiple cases
- Customers typically **stay longer in Entire Home/Apt**. Offers, discounts and promotional activities can further pull up stay for other room types, ultimately leading to **more revenue**.
- Seems customer spend more in Manhattan followed by Brooklyn . **Good opportunity for revenue generation/ increment there**.

Appendix

- Detailed steps for each visualization added in Methodology Document (added separately)
- We used Exploratory data analysis to identify patterns in the given dataset.
- Key data points used for the analysis were –
 - Price
 - Neighborhood Groups
 - Reviews
 - Room Type
- We assumed that the reviews can be taken as positive reviews.