**Airbnb Report**

**Who is using Airbnb in NYC?**

We explored the data and found that Airbnb listing price is in a big range from as low at $10 to as high as $10,000 per night. By bin the price group and we found that over 80% list price are under $200 per night, 2.6% list price over $500 per night. Base on this we believe Airbnb attracts customers with its great price value. We also found that there are more than 1 list from each Host ID. 55% 1\_list from each Host ID, about 30% Host ID has 2 to 5 list, 2.5% Host ID with over 100 list. There is a Host ID with 372 lists. We guessed that the Host ID with 5 list or more could be agency.

**How is Airbnb used in the different boroughs?**

We conducted exploratory analysis on our data which. Through visual analysis, we found that Manhattan has the highest number of listings (>8000) for the entire home or apartment followed by Brooklyn, Queens, Bronx and Staten Island. However, the highest number of private room listings were found to be in Brooklynn and then Manhattan. Our analysis on Airbnb counts by neighbourhood showed that the boroughs with the highest numbers of listings are Bedford-Stuyvesant, Williamsburg, Harlem and Bushwick.

**How do house building projects affect Airbnb use?**

We got the data of all new house buildings in NYC which were completed between 2014 and 2019. Looking at the distribution share of home owned units and correlate that data with AirBnb listings as well as the population and area of each borough, we arrived at the following conclusions.

* There is a correlation of the high number of new home units with the high number of AirBnb listings in Manhattan, Brooklyn and Queens.
* The number of listings in Staten Island and Bronx are relatively low considering their land size.
* Manhattan seems to get the most Airbnb transactions considering its lands size and population.

**Does crime have an impact on Airbnb’s use?**

We pulled the data on all the arrests in NYC in 2019 and calculated totals per borough. We then indexed this against the population of each respective borough. Our double bar chart entitled “Comparing Arrest Rate with Airbnb's Popularity in 2019” shows that as the arrest rate decreases, the frequency of Airbnb listings also seems to decrease. This held true for four of five boroughs. The exception was the Bronx, which had the highest arrest rate and relatively few Airbnb listings.

**Is there a relationship between hashtagged Twitter data and the popularity of Airbnb?**

We used the Twitter API to pull a list of recent original tweets that included hashtags for each of the five boroughs. But we did not find any correlation here. Manhattan and Brooklyn had far more Airbnb listings, but their borough names did not get used as a hashtags any significant amount more.