# Airbnb Blog Post

Airbnb has seen exponential growth since it launched in New York City over a decade ago. In recent years, this growth has stalled due to the COVID-19 pandemic. With the pandemic still looming and the city increasing its efforts to crack down on illegal hosting practices – becoming a host has come with new baggage. I wanted to explore whether hosting would still be an attractive option for potential new hosts, and if so, where in NYC?

Chart, line chart

Description automatically generated

COVID-19 and tighter regulations has left an impression on the Airbnb landscape of New York City. The growth in listings slowed in 2018, and the onset of the pandemic in 2020 cut active listings by 11,972. In 2021, there were a total of 38,277 active listings in NYC. The following analysis was conducted on the 2021 dataset available on InsideAirbnb, as it is the most recent reflection of the market.

I began the exploratory analysis by breaking down the number of listings by boroughs. Manhattan by far had the largest number of listings, followed by Brooklyn, Queens, the Bronx, and Staten Island.

Chart, pie chart

Description automatically generated

I was interested in seeing where these listings were located and mapped the geolocations with respect to price per night. The bubble marker size and colour indicate price; a larger marker size corresponded to higher prices, and colors denoted price according to the legend.

Listings can be seen sprawled across the city. There were some listings that had exorbitantly high prices all the way up to $10,000 per night. Interestingly, these listings were spread out throughout the city rather than being solely located in Manhattan. Closer inspection revealed them to be select party penthouses or lofts, or just nonsensical listings that did not justify the asking price (no reviews, small quarters, no unique features etc).

In contrast, some listings were priced as low as $10 per night, but had either unliveable conditions or were very nice, and in reality were asking for more than $100 per night in the descriptions. Both types of outliers were removed from the dataset and excluded from further analysis.

Since most of the listings were concentrated within Manhattan, Brooklyn and Queens, the remainder of the analysis were also limited to these boroughs.

Map

Description automatically generated

Filtering out listings that were priced at more than $1000 per night or less than $50 per night, and not located in Manhattan, Brooklyn or Queens left a total of 32, 436 listings. The corresponding map revealed a landscape just as dense with a large number of properties listed at or close to $1000 per night.

Map

Description automatically generated

To get a sense of which neighborhoods attracted the most Airbnb hosts, the top fifteen neighbourhoods with the largest number of active listings were mapped. The legend in the map plot below shows the neighborhoods with the largest number of listings in descending order. Most highly active neighbourhoods are in Manhattan, however Williamsburg had the largest number of active listings at 2,603 listings, followed by Harlem with 1,971 listings, likely due to its close proximity to central Manhattan and lower rent prices and cost of living for hosts.

Map

Description automatically generated

Chart, histogram

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