



NYC Exploration

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Insights

1. *Location*

Over time, the location of Airbnb's can be correlated with the location of hotels and actively-gentrifying neighborhoods.

2. *Hosts*

Airbnb 'monopolies' have taken root in New York with a few hosts having more listings than most hotels have rooms

3. *Pricing*

As Airbnb prices lower, hotel and other overnight accommodation prices lower even faster



We pulled from a variety of datasets.

- Airbnb New York (2015-2018) *Kaggle*
- NYC Property Listings (2016-2017) *Kaggle*
- New York Hotels (2018) *Kaggle*
- Overnight accomodation costs in NYC (2013-2018) *Trivago*

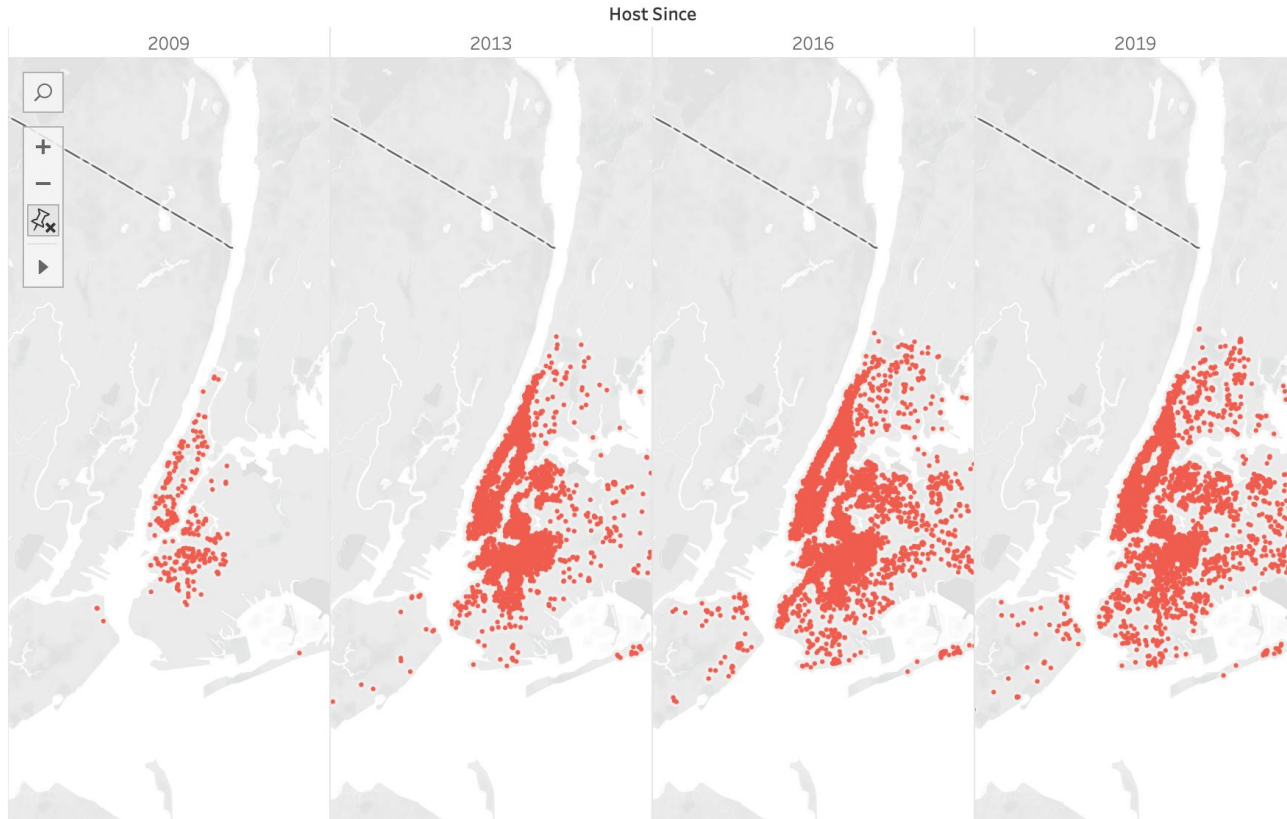
We explored the following questions.

- How have Airbnbs grown (in terms of location) in New York?
- How do different hosts use Airbnb?
- How have hotel and housing prices changed over time?
- How do these relate to Airbnb prices?

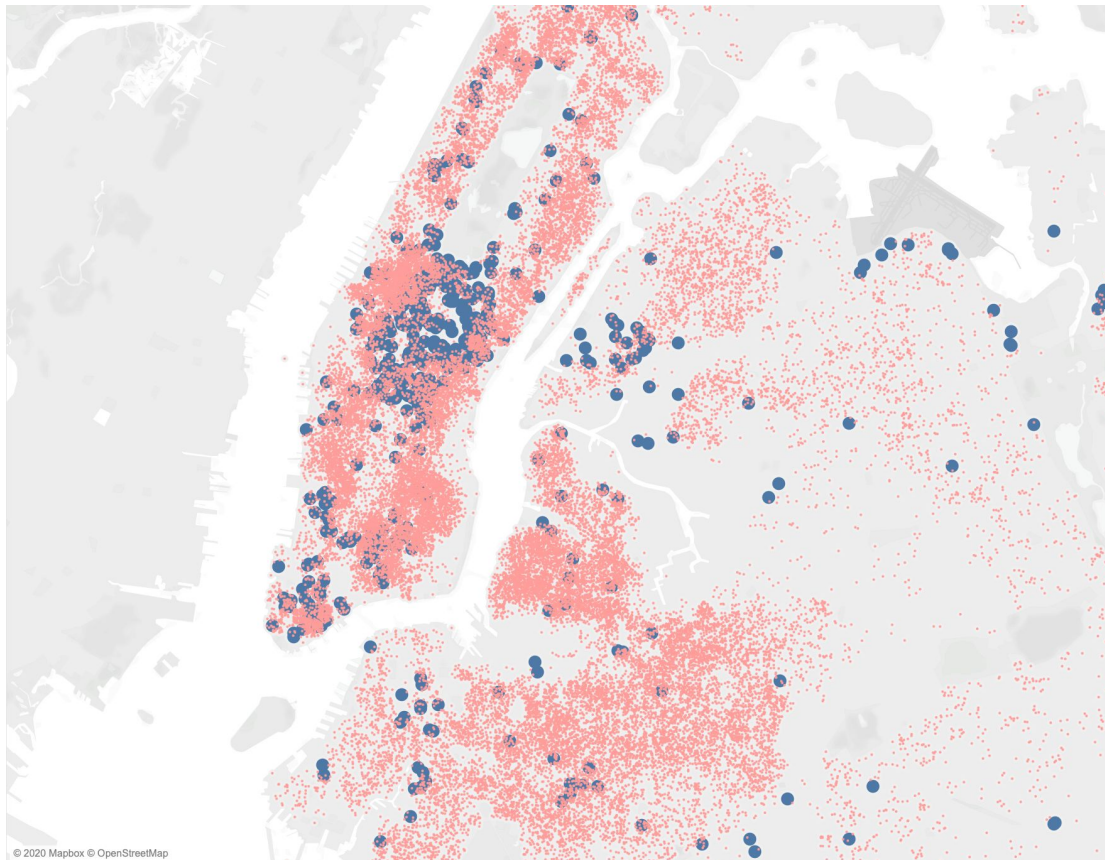
1. Location

Airbnb's first appeared in Manhattan, and gradually expanded.

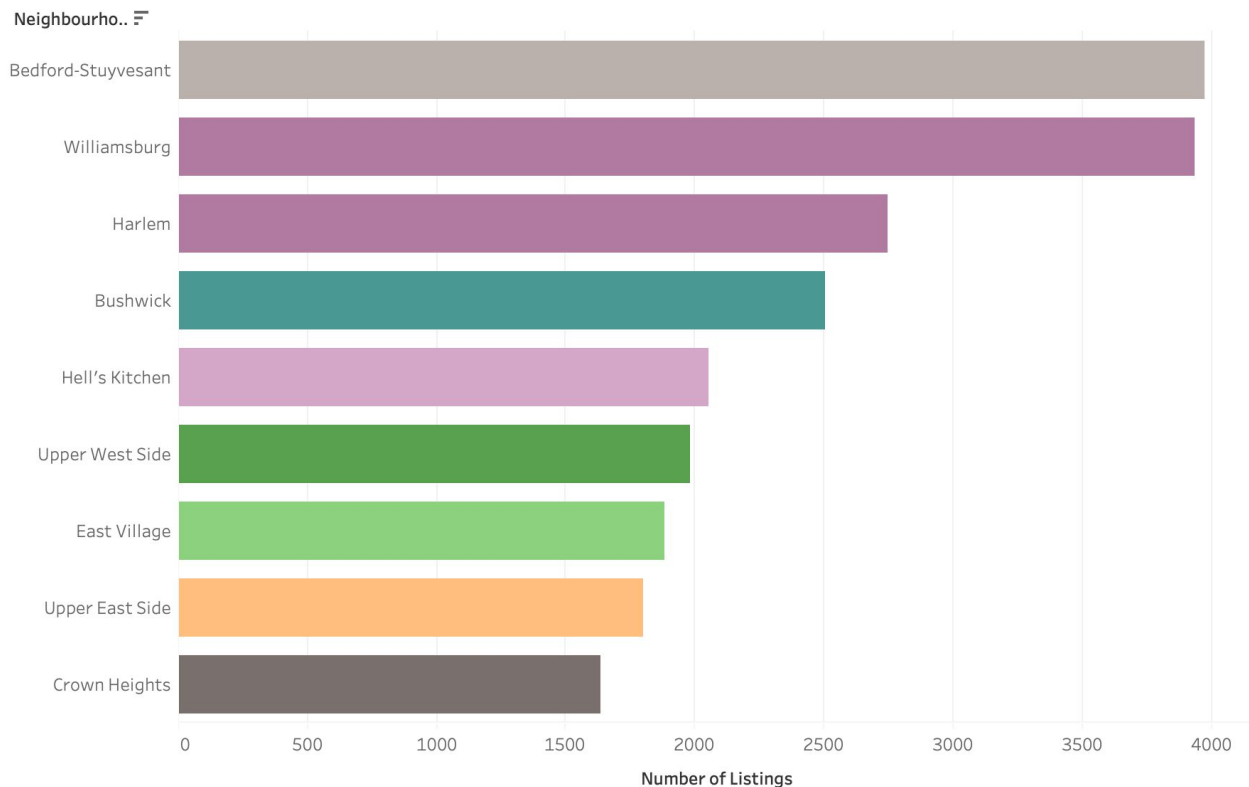
Listing Locations over Time (Measured by Host-Since)



Airbnb's cover a greater area than hotels.



Airbnb's are most commonly found in gentrifying areas.

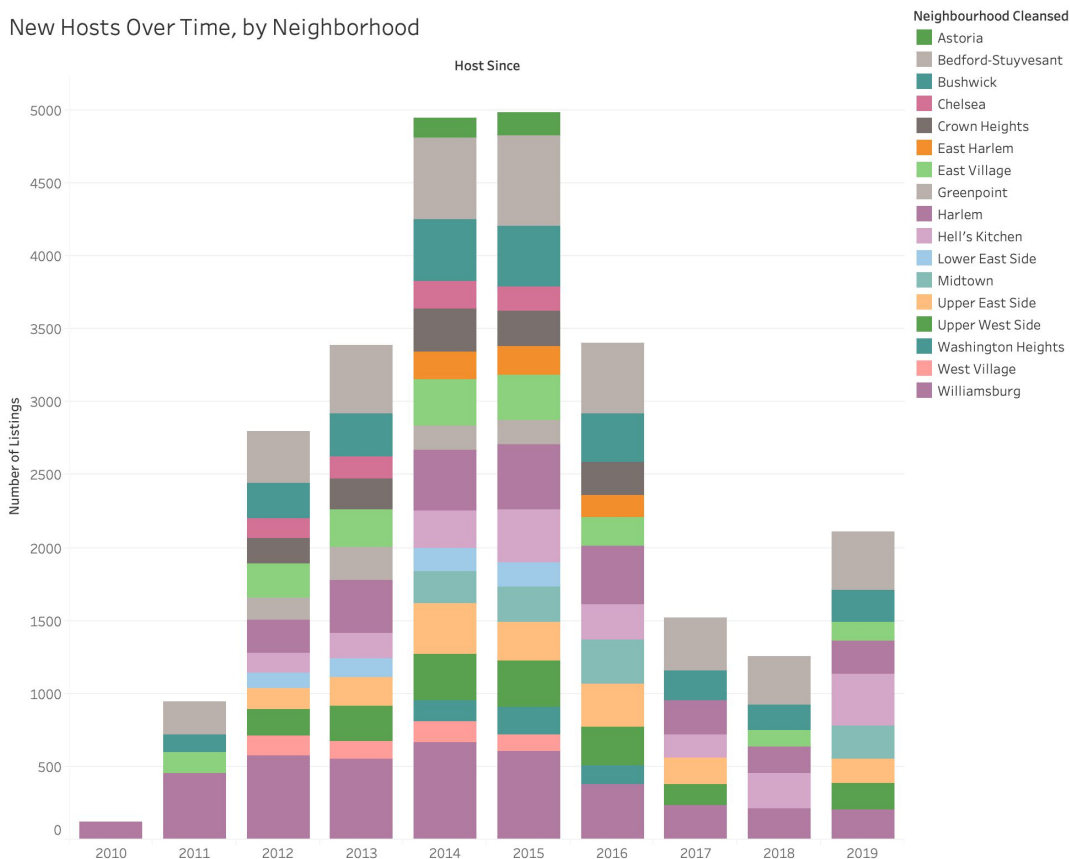


Investopedia List:

- Bedford-Stuyvesant
- Brownsville/Ocean Hill
- Bushwick
- Williamsburg/Greenpoint
- Central Harlem
- East Harlem
- Lower East Side/Chinatown

Airbnb's have grown in gentrifying areas.

New Hosts Over Time, by Neighborhood



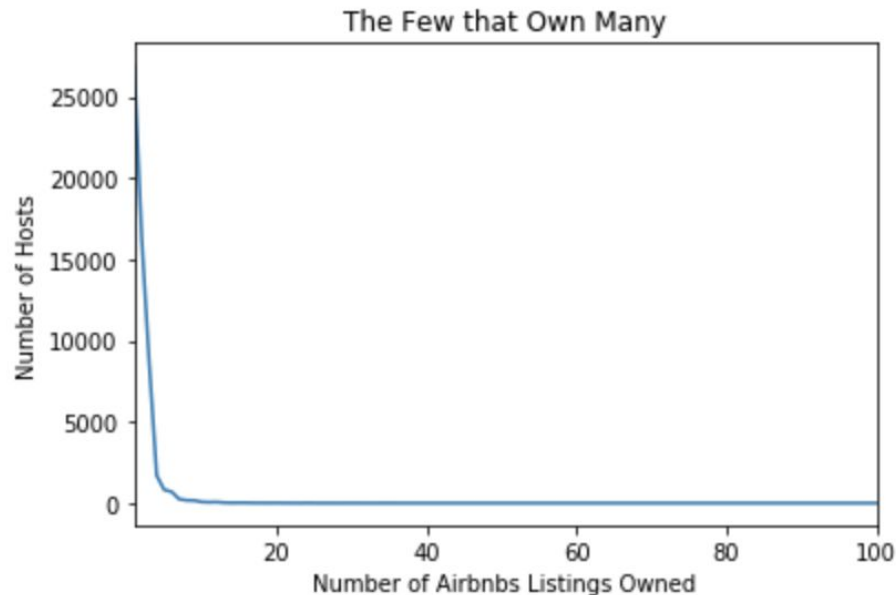
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2. Hosts

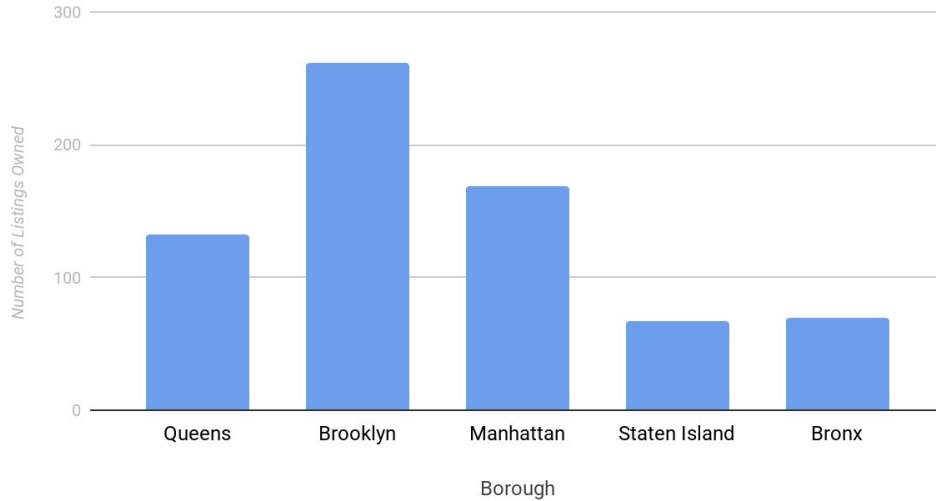
Host Monopoly



- 93% of hosts own 3 or less listings
- **Top 7% of hosts own more than 23% of total listings**

Monopolies By Borough

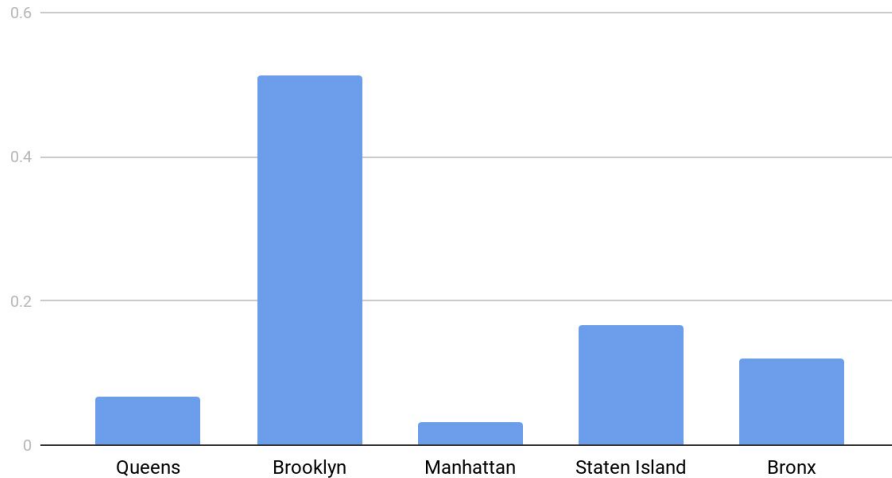
Number of Listings Owned By Top 5 Hosts



- 5 Hosts hold almost 300 listings in Brooklyn
- Hotels only have an average of 115 rooms (USA Today)

Adjusted For Number of Listings

Percent of Listings Owned by the Top 5 Hosts

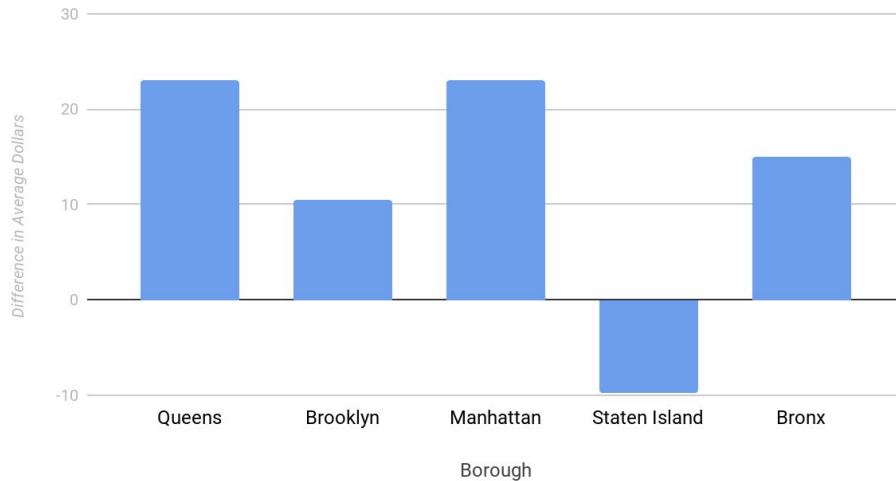


- Monopolistic control
 - highest in Brooklyn
 - lowest in Manhattan

Formula - percent hosts / percent listings

Super Host Pricing

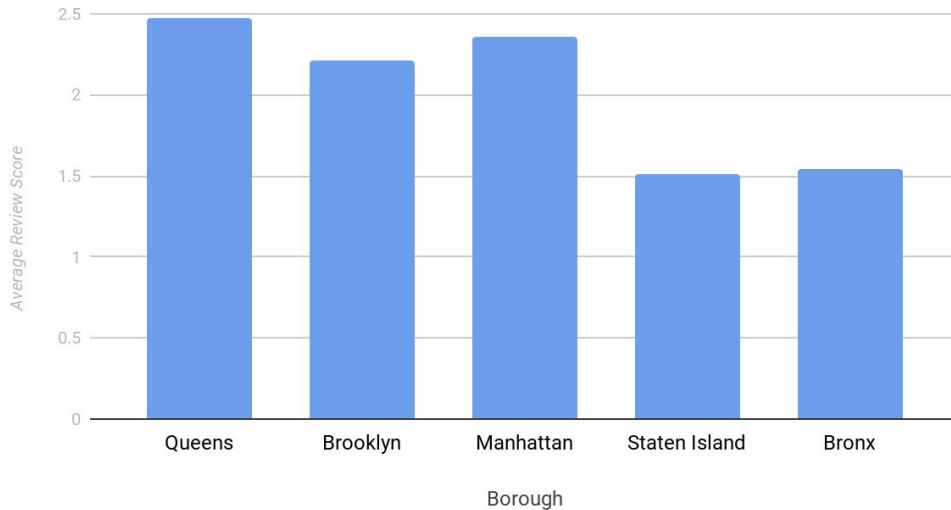
Average Price: Everyone Else - Super Host



- In almost every borough, hosts with more listings have cheaper prices
- Predatory pricing?

Super Host Average Review

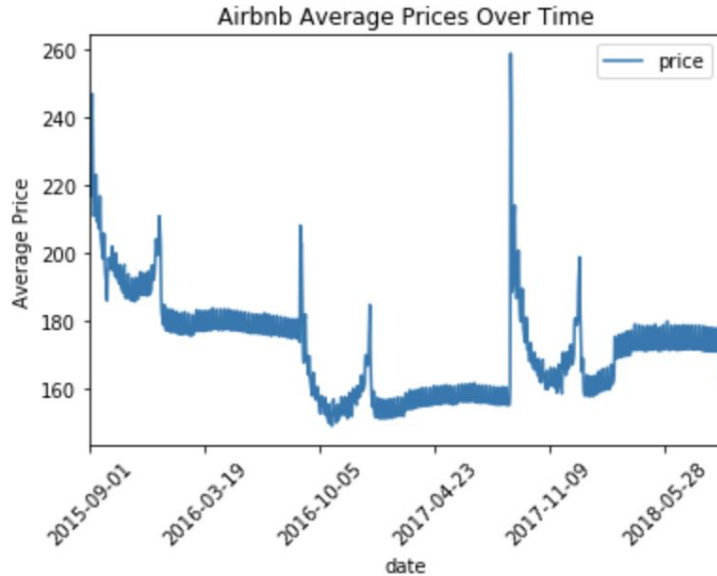
Average Review Score: Everyone Else - Super Host



- In almost every borough, hosts with more listings have lower reviews
- High Quantity, Low Quality

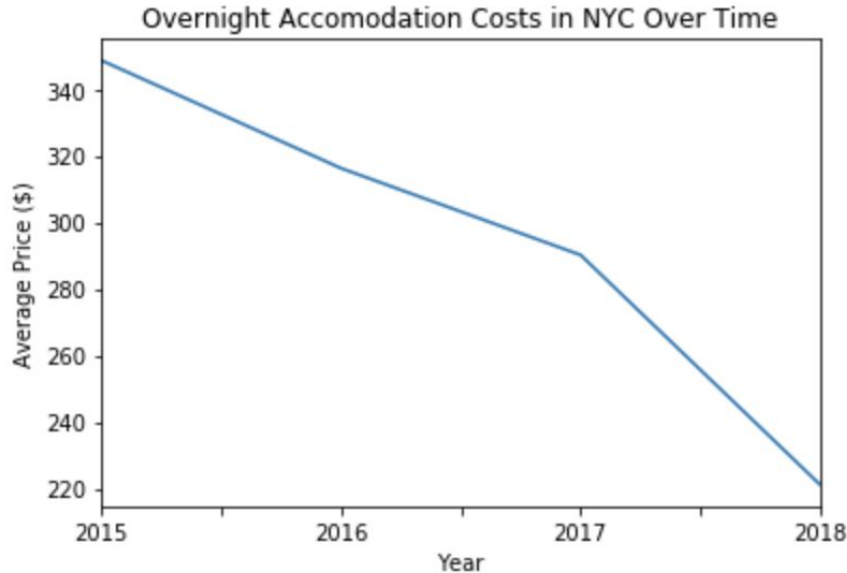
3. Prices

Airbnb Prices Have Lowered Overtime



- Decreased slightly ~ \$40
- Highly seasonal
 - Highest prices
 - December
 - September

But, Hotel Prices are Nose-Diving



- Average price for a night dropped almost \$100 in same time period (2015-2018)

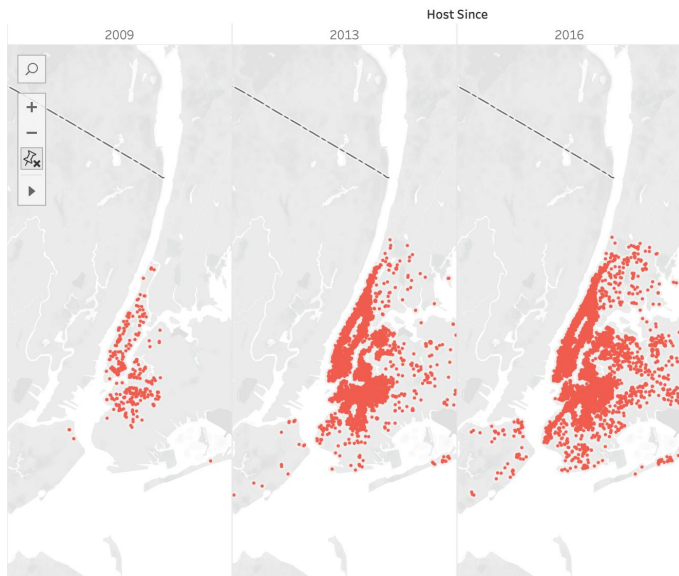
Housing Prices Mostly Stable



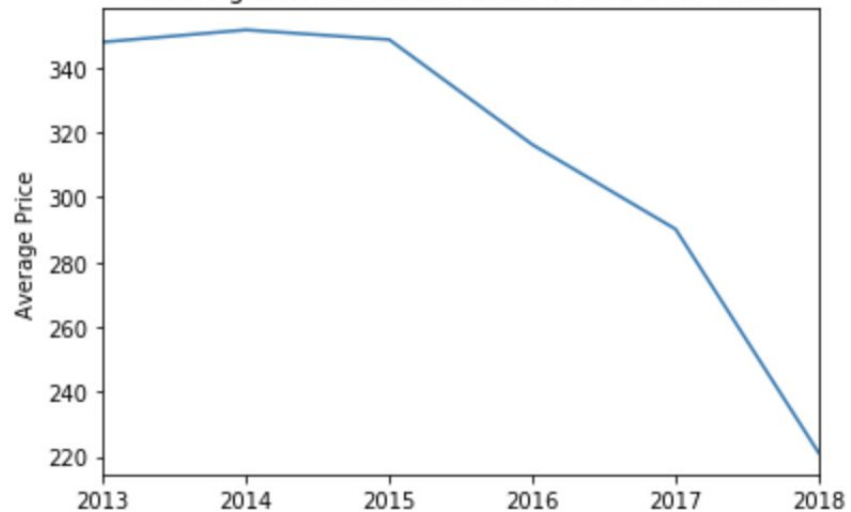
- Some big outliers, but seem unrelated to price drops in Airbnbs and Hotels

Overview

Listing Locations over Time (Measured by Host-Since)



Overnight Accomodation Costs in NYC Over Time

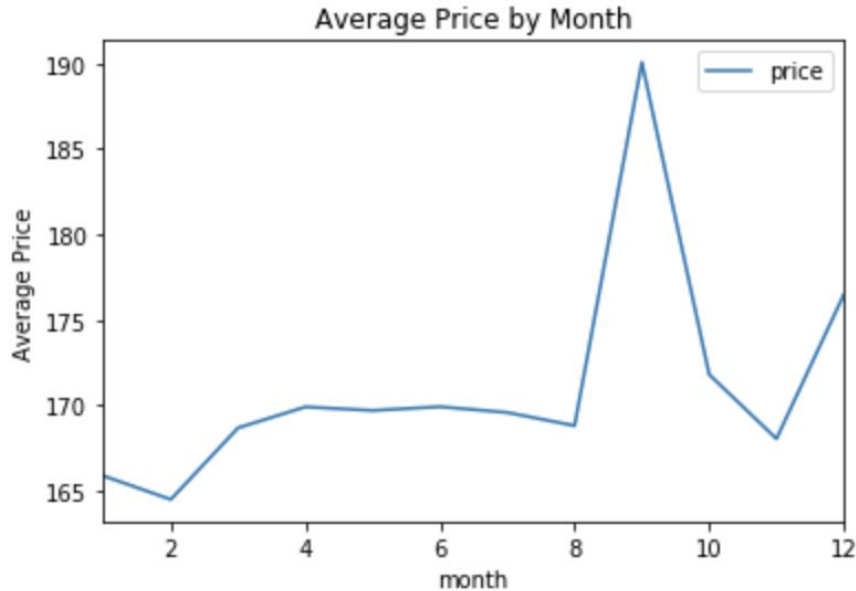


Thank you!



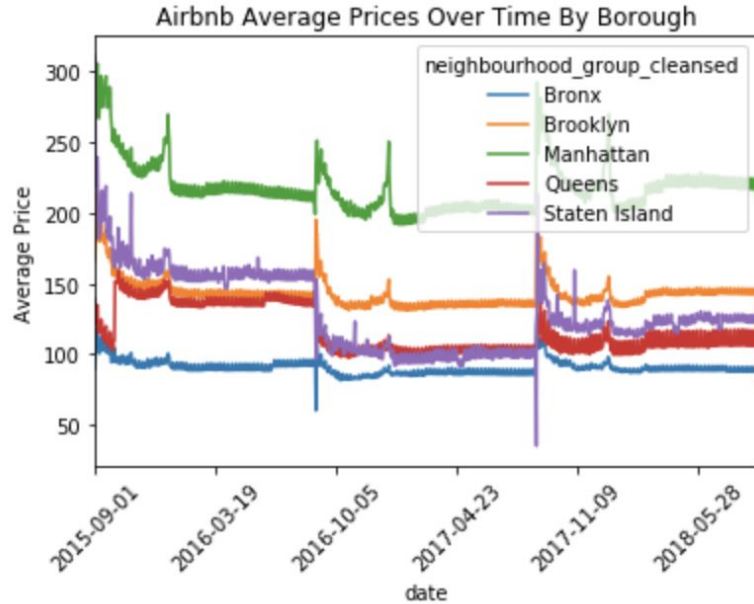
Appendix

When should you book your Airbnb?



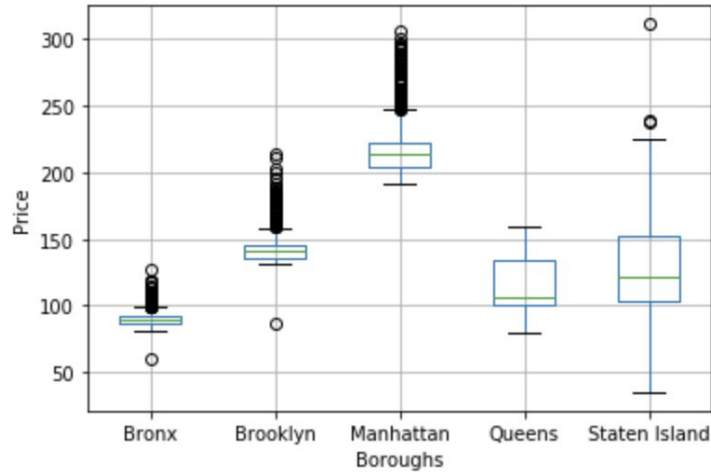
- Highest priced months
 - September ~ \$200 / day
 - December ~ \$175 / day
- Lowest priced months
 - February ~ \$165 / day
 - November ~ \$170

Airbnb Prices By Borough



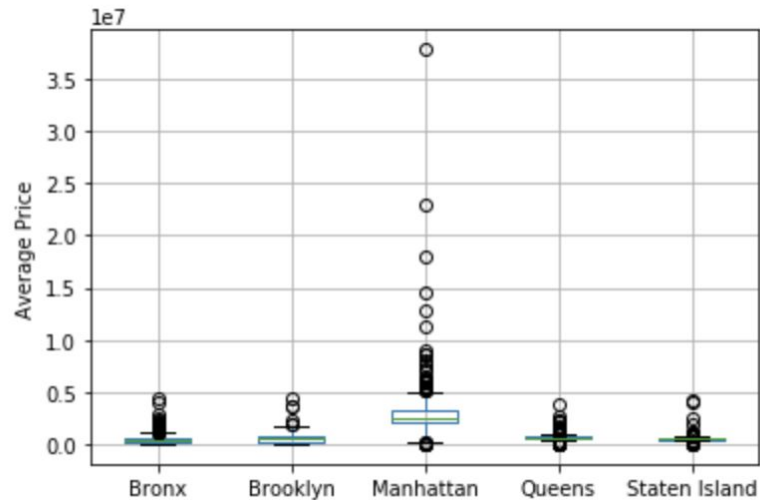
- Airbnb prices change consistently over the boroughs
- Avg. Price from Highest to Lowest
 - Manhattan
 - Brooklyn
 - Staten Island
 - Queens
 - Bronx
- Bronx listings are most consistent

Price Distributions By Borough

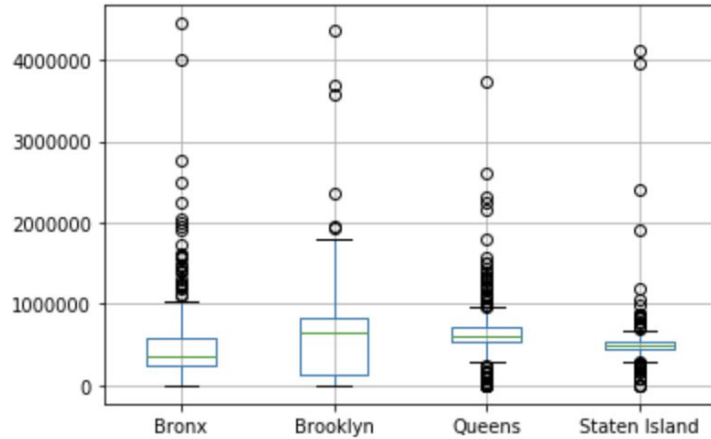


- Manhattan, Brooklyn, and the Bronx have several high priced listings
- Staten Island has the highest variability in listing prices
- Queens has the lowest variability

Housing Prices In Manhattan

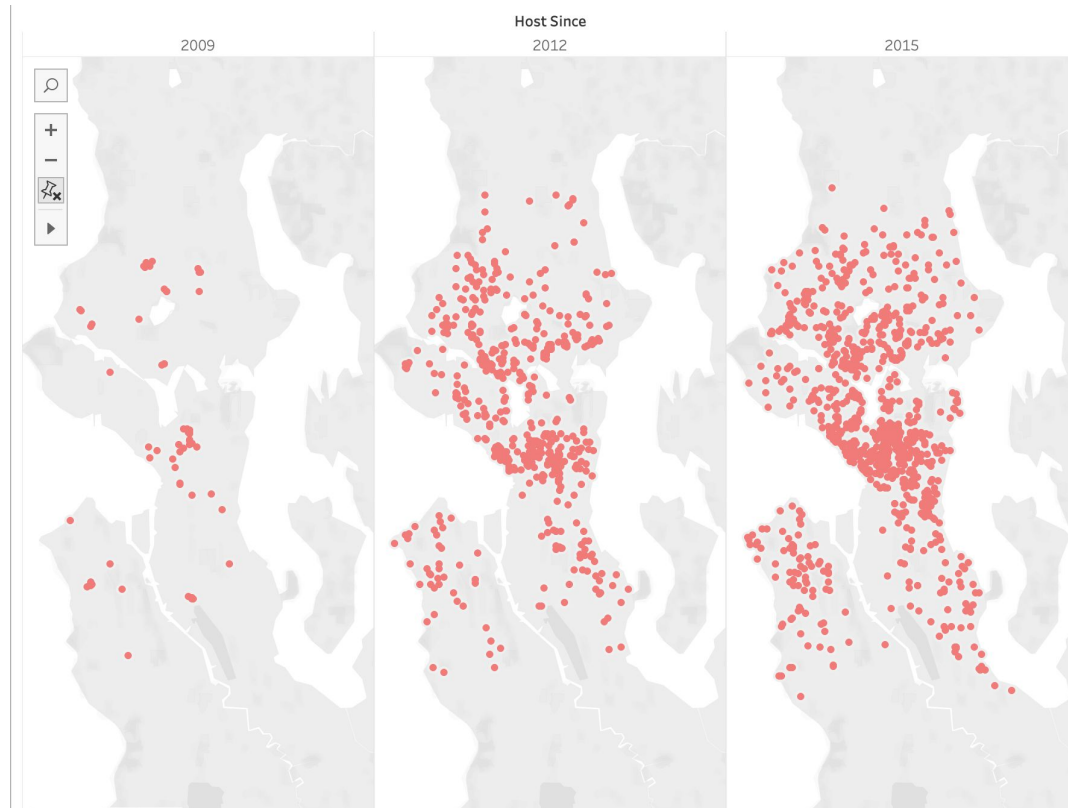


Housing Prices For Other Boroughs



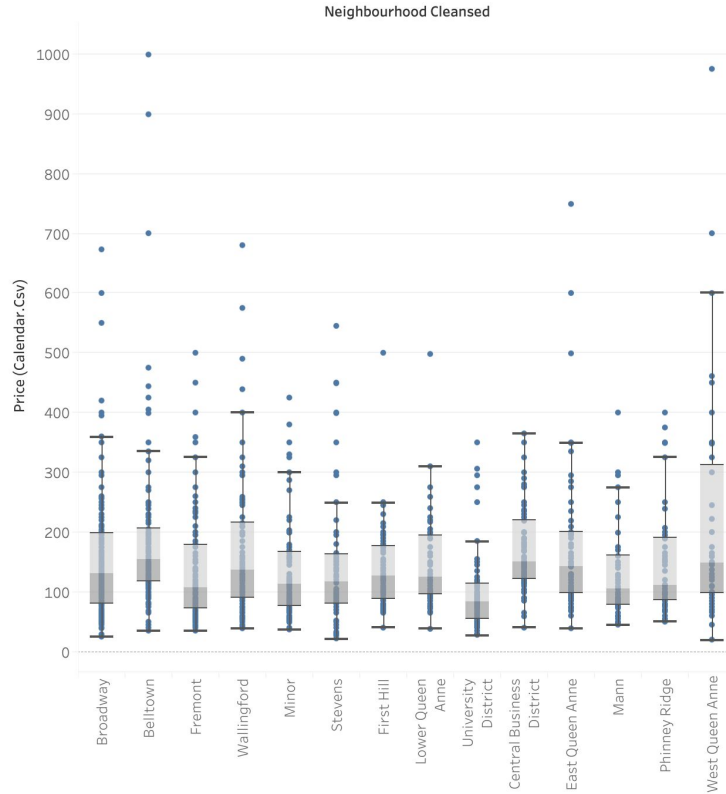
- The other neighborhoods have a similar distribution

Airbnb had a much different growth pattern in Seattle ...



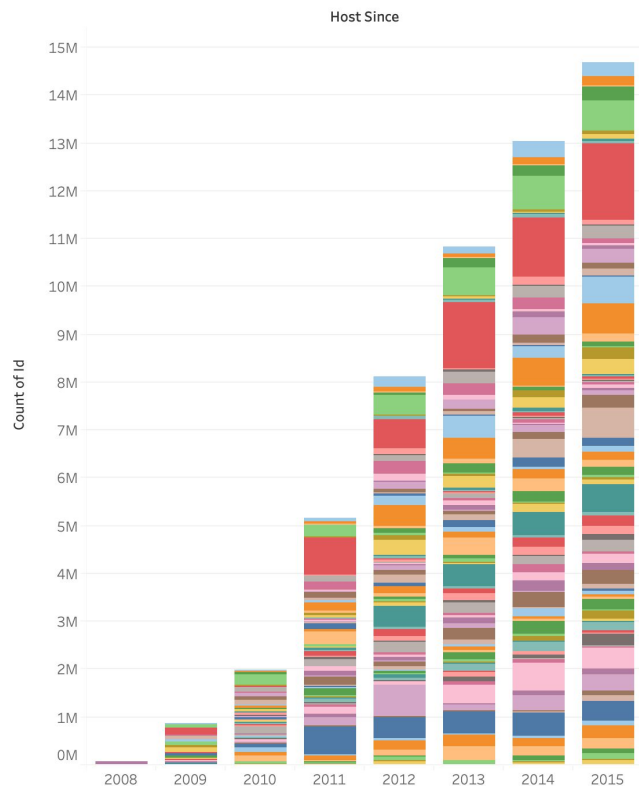
Most popular neighborhood's price distributions, in Seattle.

Neighborhood & Price



What neighborhoods have grown over time in Seattle.

New Hosts by Neighborhood by Year



Neighbourhood Cleansed

- Adams
- Alki
- Arbor Heights
- Atlantic
- Belltown
- Bitter Lake
- Briarcliff
- Brighton
- Broadview
- Broadway
- Bryant
- Cedar Park
- Central Business ..
- Columbia City
- Crown Hill
- Dunlap
- East Queen Anne
- Eastlake
- Fairmount Park
- Fauntleroy
- First Hill
- Fremont
- Gatewood
- Genesee
- Georgetown
- Green Lake
- Greenwood
- Haller Lake
- Harrison/Denny-B..
- High Point
- Highland Park
- Holly Park
- Industrial District
- Interbay
- International Dist..

