Final Tableau Project

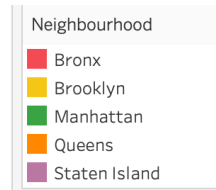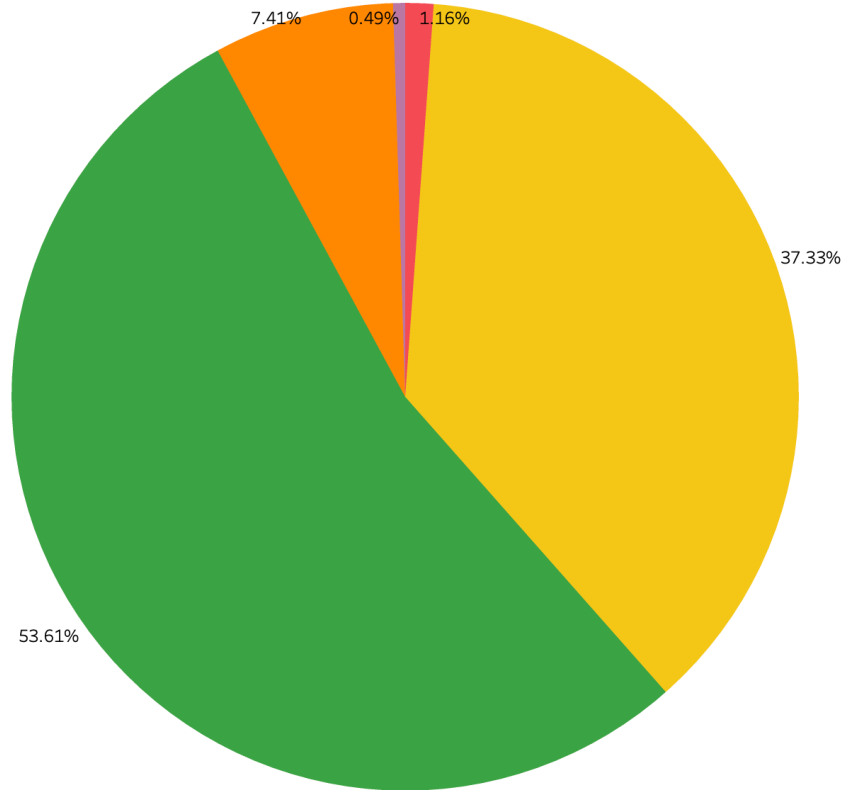Option 2 - Airbnb

Goals / Objectives

- Showcase skills used in Tableau
- Select a dataset to find trends, patterns, and outliers through visuals

Process

- Analyze The Data
  - Zip Codes can be mapped geographically
  - Neighborhoods can be categorized by boroughs
  - Property Types are filtered relevant to properties in New York
    - Exclude 'Campers/RVs', 'Tents', 'Lighthouses'
  - Room Types define the level of privacy and space
  - Numerical Values – Beds, Number Of Reviews, Price, Review Scores Rating, Count of Airbnb Listings
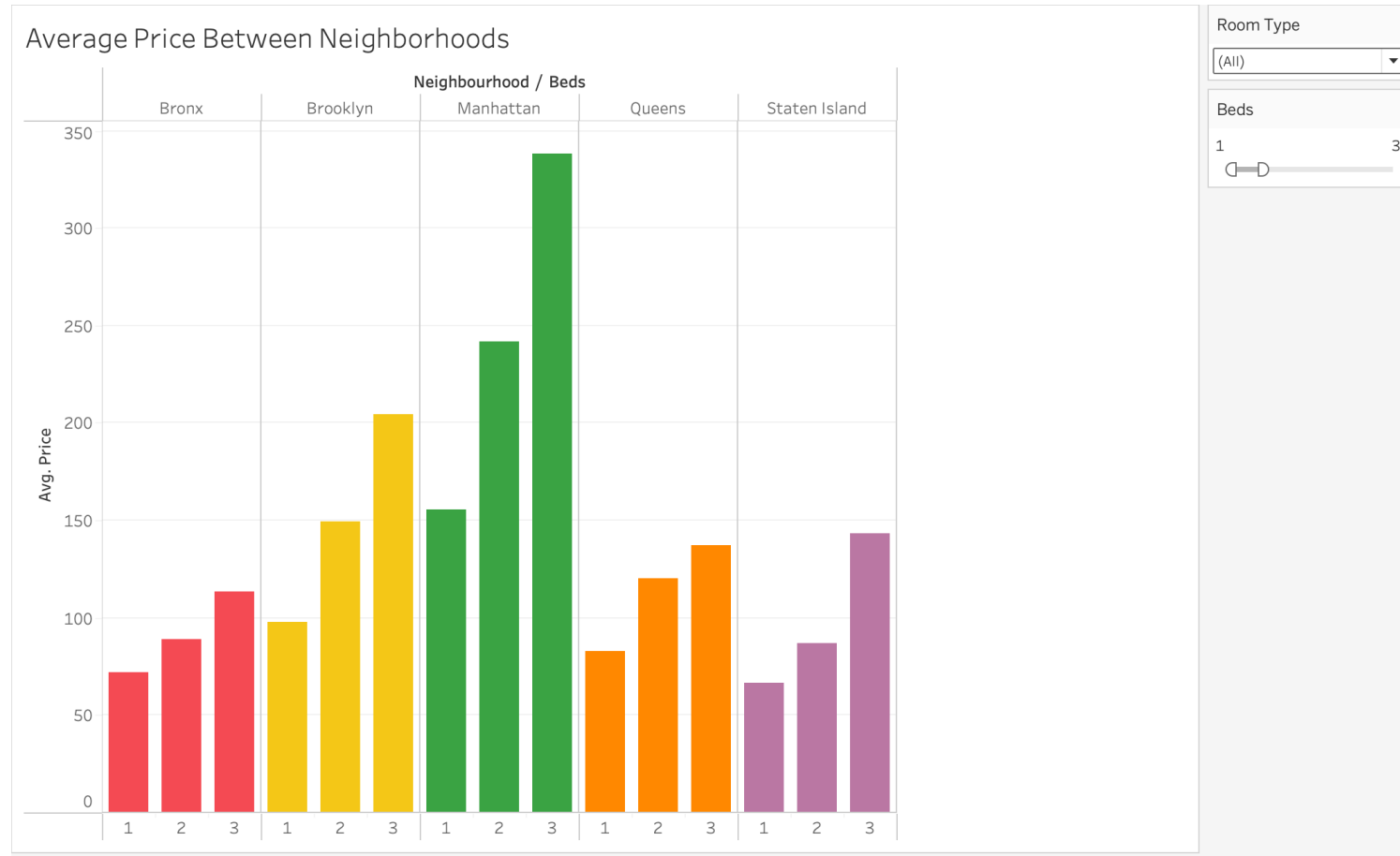
Process / Results

Percentage of Airbnb Listings in New York
(Total of 30,478 Listings)

Neighbourhood
■ Bronx
■ Brooklyn
■ Manhattan
■ Queens
■ Staten Island

7.41%   0.49%   1.16%

37.33%

53.61%

How would you describe the neighborhoods?

Manhattan and Brooklyn have much more properties than Queens, Bronx, and Staten Island, which are comprised of over 80% Airbnb listings due to tourist attractions, transportation accessibility, and available housing units for accommodations.

Process / Results

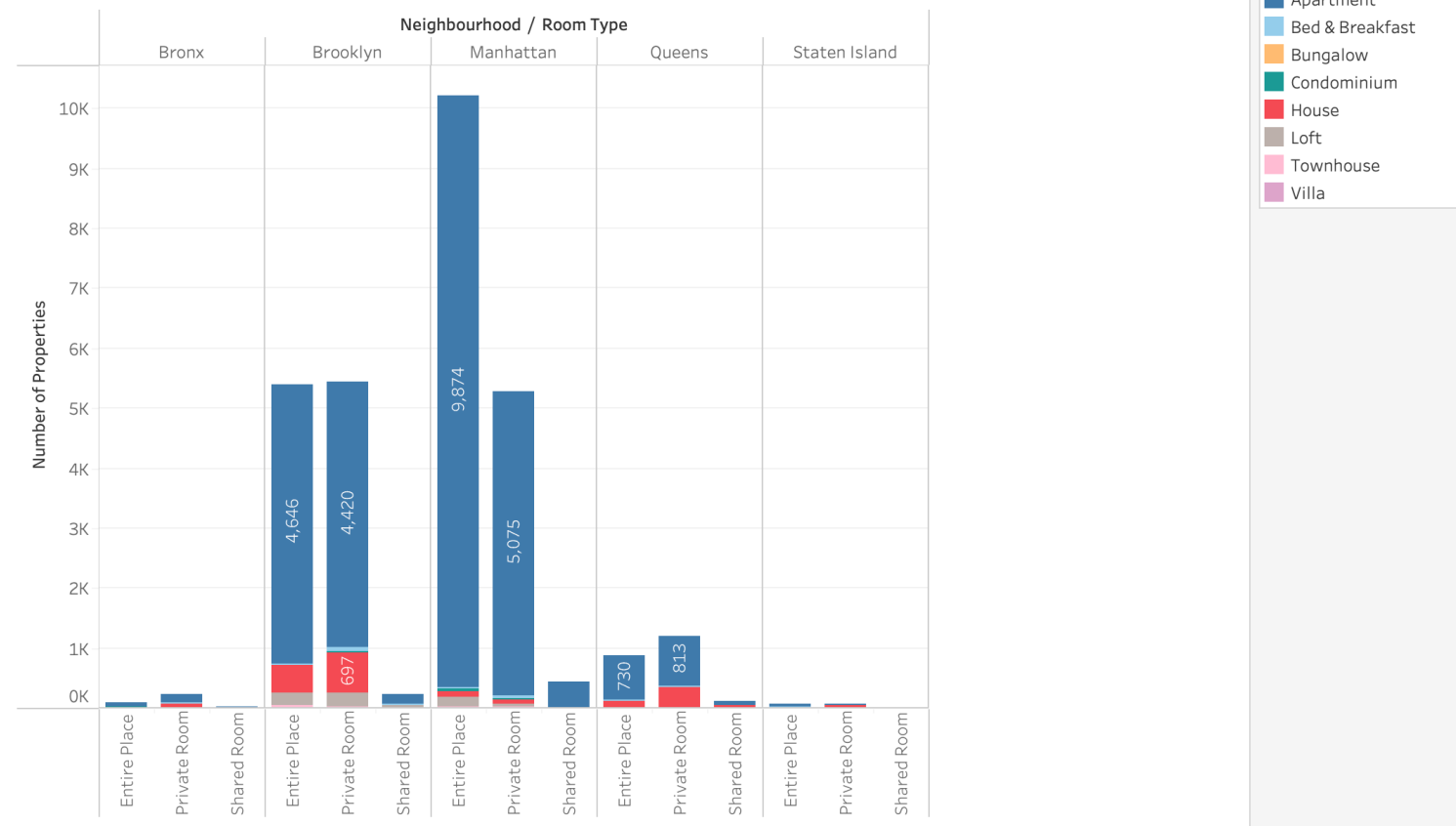

Average Price Between Neighborhoods

Is it cheaper to stay at an Airbnb than a hotel?

Yes, to a degree, because there are more price options with Airbnb than hotels with respect to room types and number of beds. Plus, Airbnb can provide longer stays and allow larger groups of visitors.

Process / Results

Number of Airbnb Listings in New York

Are room types distinct between neighborhoods?

By far, Manhattan has the most apartment listing for "entire space" occupancy. It seems to fit the property profile with New York being compact and denser in urban population. Plus, it may be suggested that apartments are popular listings as primary tenants look for financial flexibility and freedom to move around the city.
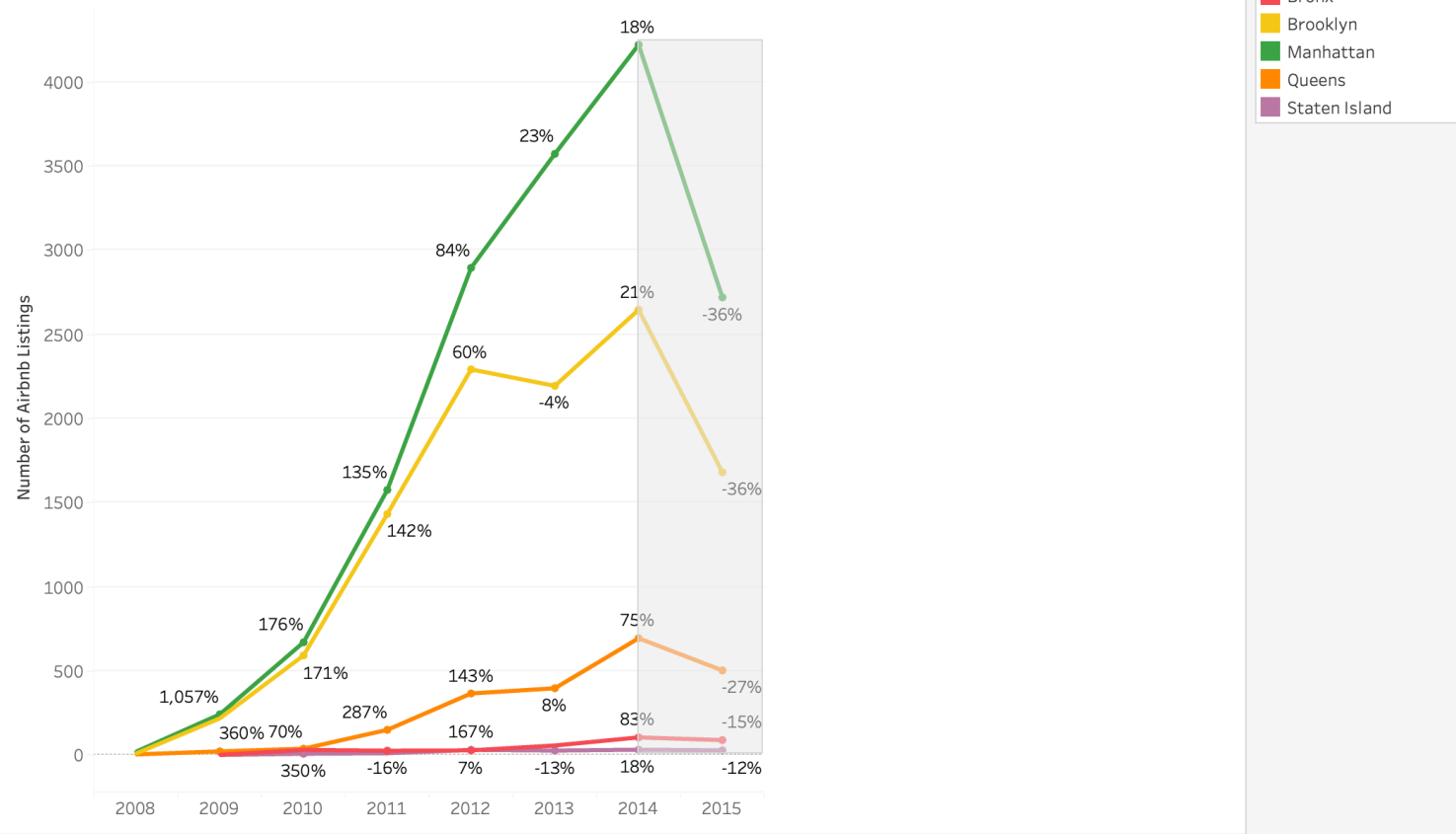
Process / Results

Are there outliers within prices?

Most notably, there is a 2-bed listed for $10,000. However, data validation is needed to check whether the type of property for the price is reasonable.

Process / Results

Why is there a sharp decline of Airbnb listings in 2014?

There is a legal dispute between Airbnb and the state of New York on the rental of apartments for less than 30 days. Violations of these regulations ordered such Airbnb listings to be taken down.

https://www.washingtonpost.com/news/the-switch/wp/2014/04/22/airbnb-is-facing-off-against-new-yorks-attorney-general-heres-why/

Challenges

- Make direct comparison of variables along x-axis versus y-axis

- Forecasting

- Using Tableau is slower and requires a different learning curve from SQL and Python

- Tell a story with pictures

Future Goals

- Combine recent data (2016 to current) with the existing Airbnb Excel data (up to 2015) to see if there are any updates to trends

- Compare dataset between Airbnb vs. hotels in New York

- Apply advanced Tableau skills (e.g., Animations)