

Demystifying NYC's Airbnb Market

A Data-Driven Analysis of **100,000+ Listings** Revealing Trends in **Price**, **Location**, and **Demand**



A Market of Extremes, A Maze for Everyone



The Guest's Dilemma

- What is a reasonable nightly price in NYC?
- Which neighborhoods have the most options?
- Am I overpaying for the room type I'm getting?



The Host's Challenge

- How should I price my listing to be competitive?
- What accommodation types are most in demand?
- Where is the market most concentrated?

Forging Clarity from Code: A Rigorous Analytical Process



Raw Data

Sourced a dataset of 102,599 raw listings.




Data Cleaning & Preparation

Handled missing values (e.g., filled `reviews per month` with 0), converted data types (`price` to numeric, `last review` to datetime), removed duplicates, and dropped irrelevant columns (`license`, `house_rules`).



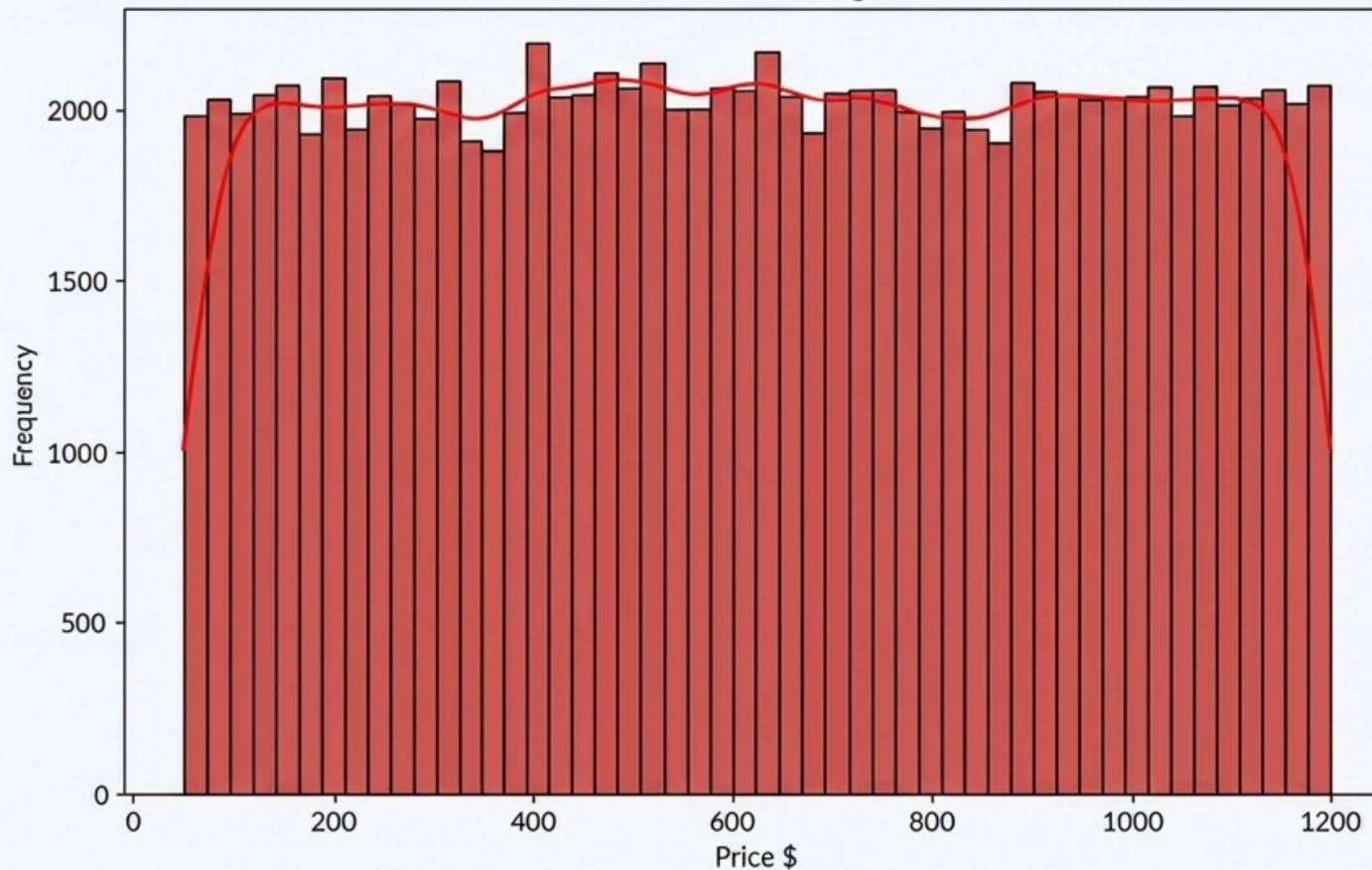
Analysis & Visualization

Uncovered key trends using statistical analysis and visualization.

TECH STACK:  python  pandas  matplotlib  seaborn

The Price of a Night: Most NYC Listings Fall Between \$340 and \$910

Distribution of Listing Price



Key Insight

Median Price
~\$625 per night.

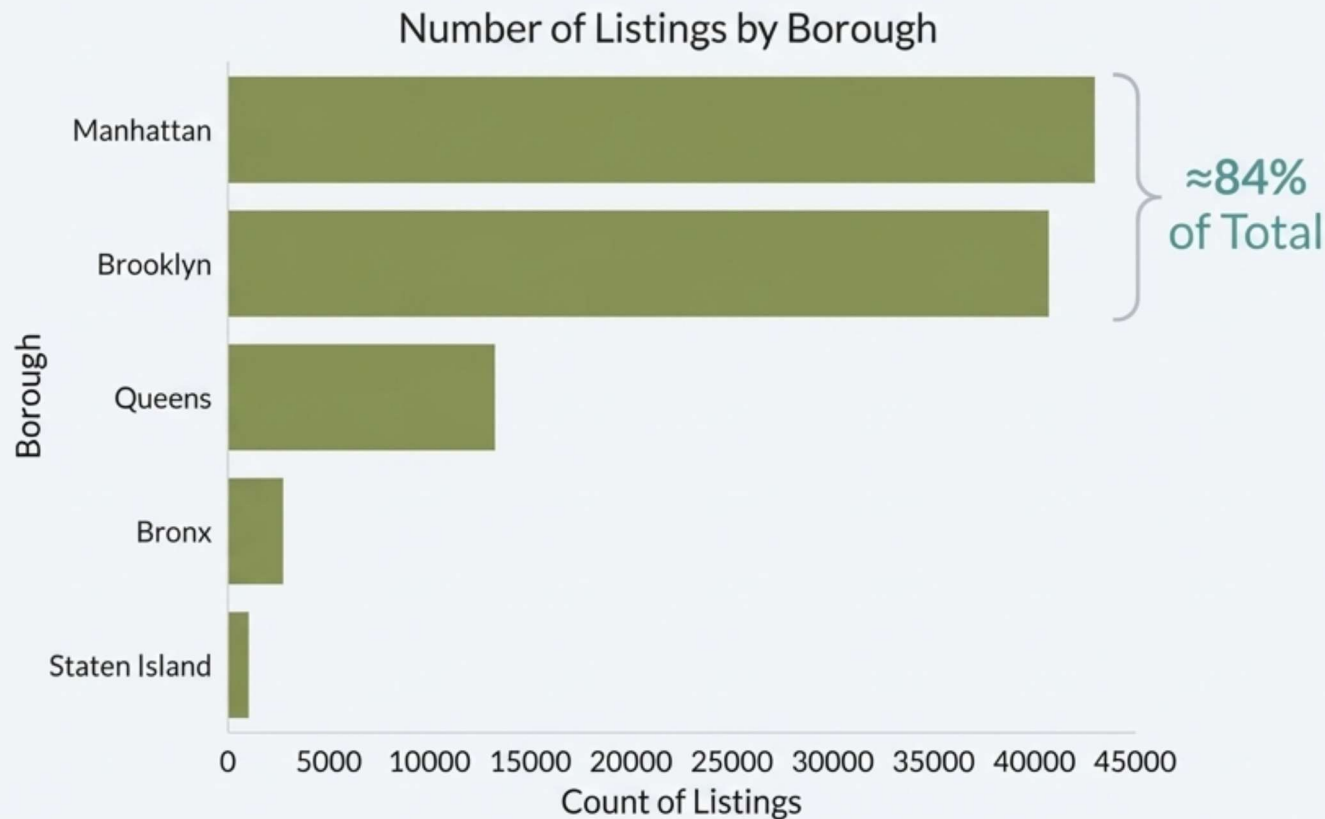
The Market Sweet Spot

The central 50% of listings (25th to 75th percentile) are priced between \$340 and \$910.

Observation

The distribution is wide but shows a heavy concentration in the mid-to-high price range, confirming NYC's reputation as an expensive market.

The 'Two Borough' Dominance: 84% of Listings are in Manhattan and Brooklyn



Key Insight



Market Epicenters

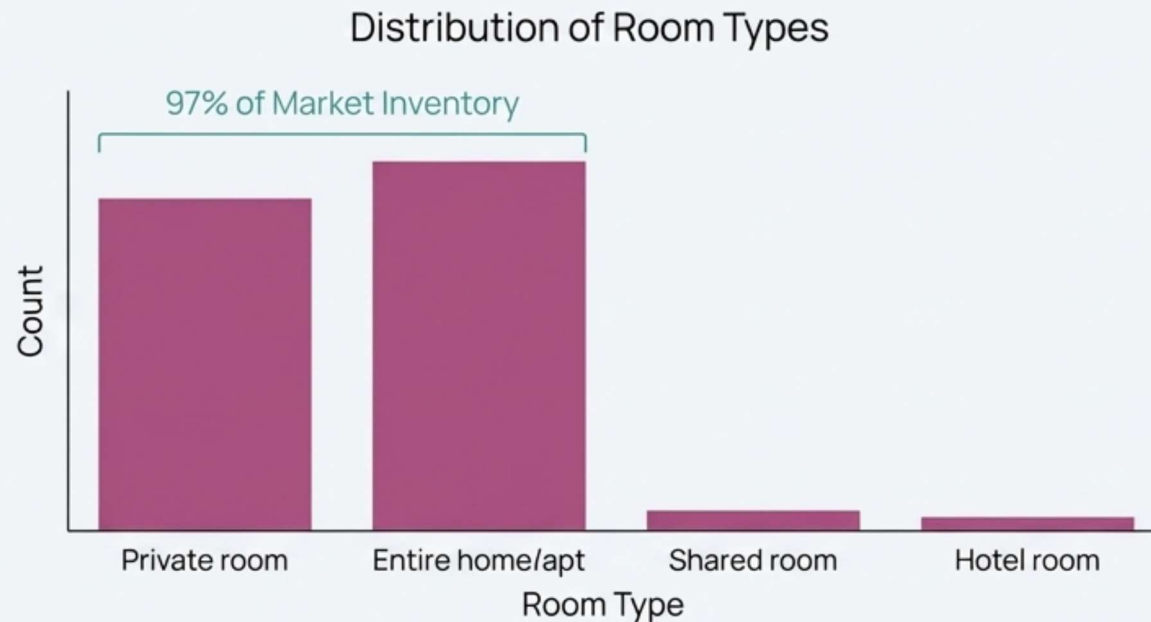
Manhattan and Brooklyn are the undisputed hubs of the NYC Airbnb market.



Alternative Options

Queens, the Bronx, and Staten Island have significantly less inventory, suggesting they are quieter, niche markets that may offer better value.

Guests Overwhelmingly Choose Privacy



Key Insight



The Big Two

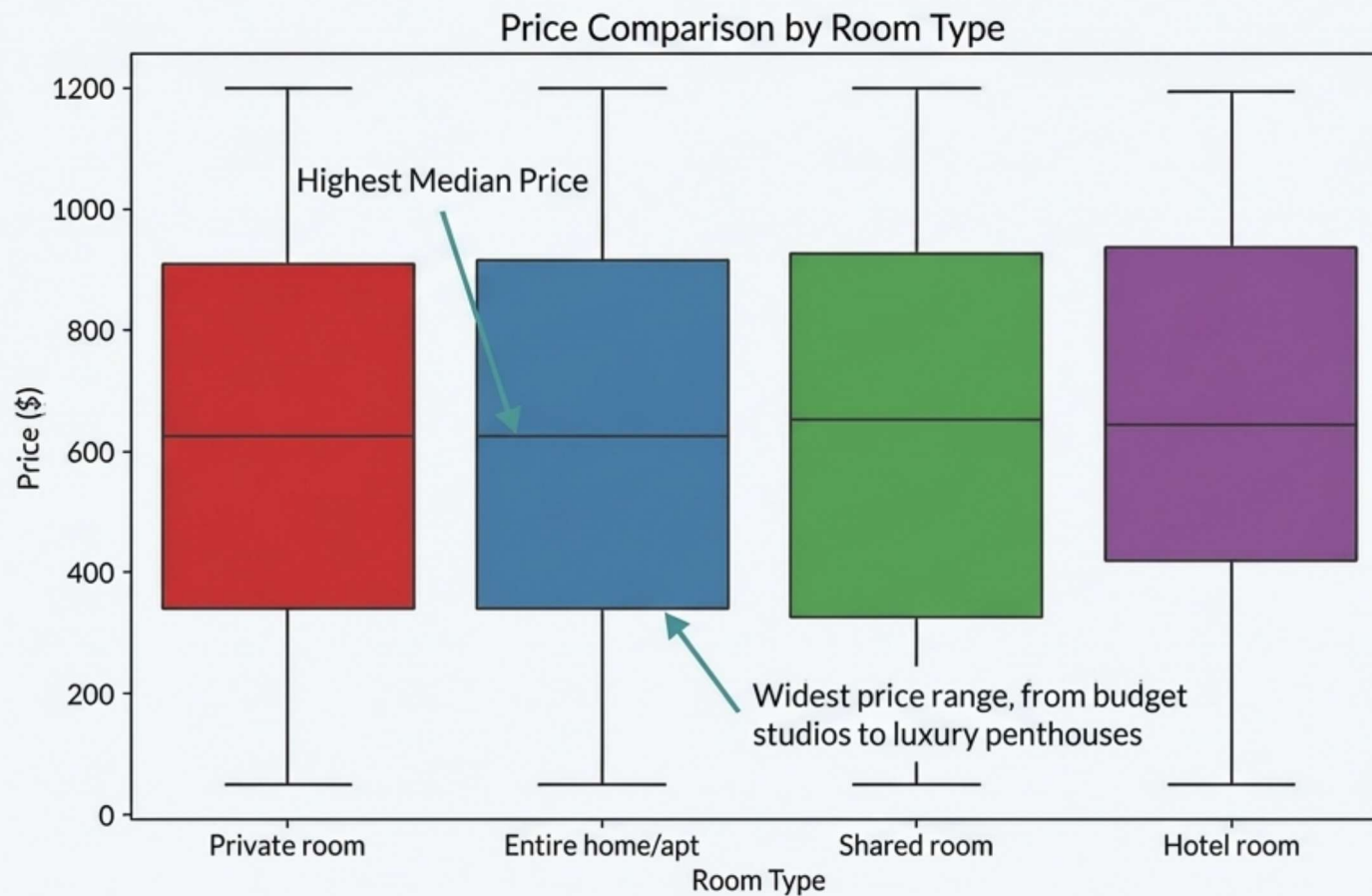
Entire homes/apartments (52%) and Private rooms (45%) together account for 97% of the entire market.



A Niche Market

Shared rooms and hotel rooms are incredibly rare (<3%), indicating a strong market preference for private spaces.

Analyzing the Price of Privacy



Key Insight



Premium for Space: Entire homes/apartments have the highest median price and the widest price range.

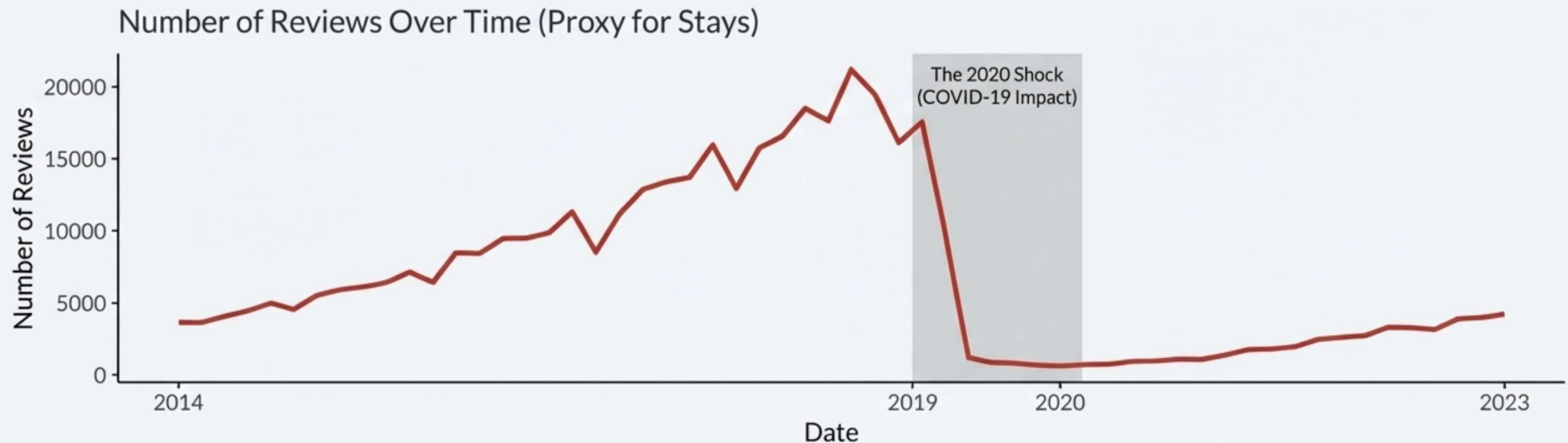


Value in Sharing (a little): Private rooms offer a significantly more affordable entry point for travelers.



Conclusion: The choice between an "Entire home" and a "Private room" is the single biggest factor influencing the final price.

Market Pulse: Tracking Guest Activity Through Time



Key Insight



Pre-Pandemic Growth

Review volume, a strong proxy for guest stays, shows a clear and steady growth trend leading up to 2019.



The 2020 Shock

The massive drop in early 2020 directly reflects the global travel freeze caused by the COVID-19 pandemic.



A Gradual Recovery

Following the drop, the data shows the beginning of a slow but steady market recovery.

The NYC Airbnb Market: A Summary of Key Findings



High Price Point: The median price is ~\$625/night, with most listings between \$340-\$910.



Geographic Focus: Manhattan and Brooklyn host a combined 84% of all listings.



Preference for Privacy: 97% of the market consists of Entire homes or Private rooms.



Privacy Premium: Entire homes are significantly more expensive than private rooms.



Market Resilience: The market shows a clear pattern of growth, a sharp pandemic-related decline, and signs of recovery.

Actionable Insights for the NYC Rental Market



For Guests

- Use the ~\$625 median as a price benchmark.
- For budget-conscious travel, prioritize "Private rooms".
- Explore listings in Queens, the Bronx, or Staten Island for potential value outside the main hubs.



For Hosts

- Price your listing competitively based on both location **and** room type.
- Recognize that "Entire home/apt" is the highest-value category.
- Understand that competition is fiercest in Manhattan and Brooklyn.