



AN ANALYSIS OF CURRENT INVENTORY IN:
NEW YORK CITY

SCOPE OF PROJECT

- Spreadsheet with 48,895 Listings
- 16 Data Points Per Listing
- TASK: Exploratory Analysis
 1. Formulate questions & hypotheses
 2. Answer these with multiple tools
 - Visualizations
 - Statistical Analysis (including p-value tests)
 - Query-based insights (SQL)
 3. Identify trends & areas of concern
 4. Establish relationships between variables

DATA POINTS

Listing ID
Name
Host ID
Host Name
Borough (Neighborhood Group)
Neighborhood
Latitude
Longitude
Room Type
Price
Minimum Nights
Number of Reviews
Last Review Date
Reviews Per Month
Number of Listings per Host
Availability (Last 365 Days)

AVAILABILITY

Do we really have 48,895 listings in New York City?

Are these claims supported?

- The majority of listings (75%) are available
- Of the Active Listings, 50% of them are available at least 183 days (50% of Year)

AVAILABLE VS. NOT AVAILABLE

CLAIM 1: Majority of Listings (75%) are Available

Result of Hypothesis Test: Claim rejected with 95% confidence
Unexpectedly, a higher proportion of listings are not available.

What IS available?

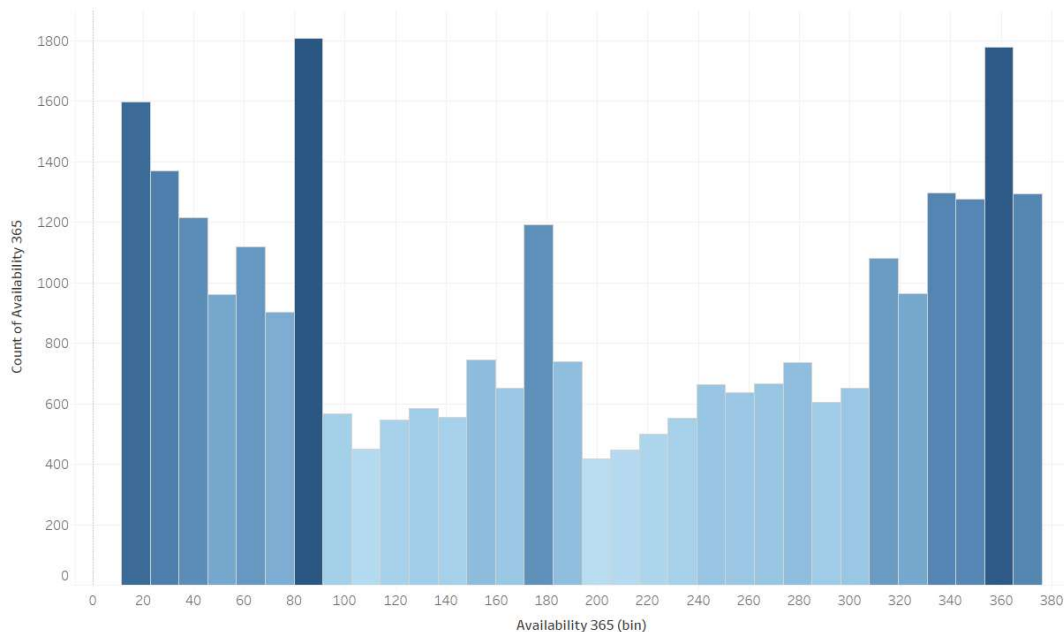
Status	Number of Listings	% of Total
Active (Available 1+ Days)	31,362	64%
Inactive (Available 0 Days)	17,533	36%
TOTAL	48,895	100%

HOW AVAILABLE IS A LISTING?

CLAIM 2: 50% of active are available 50+% of Year (183 days)

Result of Hypothesis Test: Claim rejected with 95% confidence

Less than 50% of active listings are available half the year



Availability	Listing Count	% of Total
Less Than Half the Year (1-182)	17,052	54%
More Than Half The year (183-365)	14,310	46%
TOTAL ACTIVE	31,362	100%

COMPARING LEVELS OF AVAILABILITY

Define Attribute: Availability Level

Availability (Days)	Attribute: Availability Level
0	Inactive
1 -182 (Less than 50% Year)	Low Availability
183 - 365 (More than 50% Year)	High Availability

Proportion of Total Listings

Attribute: Availability Level	Listing Count (Source: SQL)	% of Total
Inactive	17,533	36%
Low Availability	17,052	35%
High Availability	14,310	29%
TOTAL	48,895	100%

YES, ONLY **29%** OF OUR TOTAL
LISTINGS ARE AVAILABLE AT LEAST
HALF THE YEAR.

LOCATION

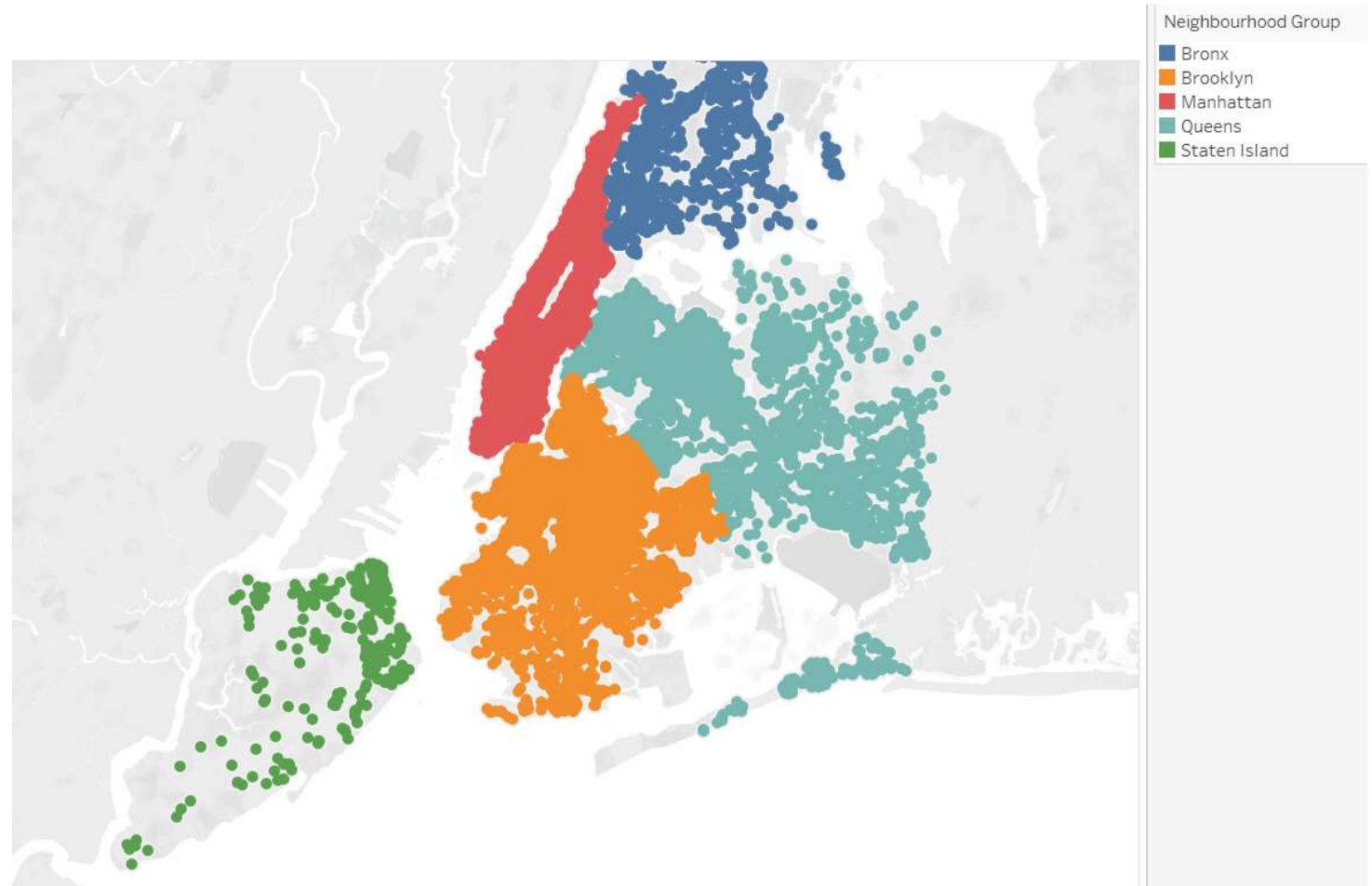
Do we have listings in all 5 boroughs?

Are these claims supported?

- Manhattan has a higher average price, listing count, and neighborhoods represented than any other borough. It is the preferred borough for hosts.
- Is the most popular neighborhood in each outer borough next to Manhattan?

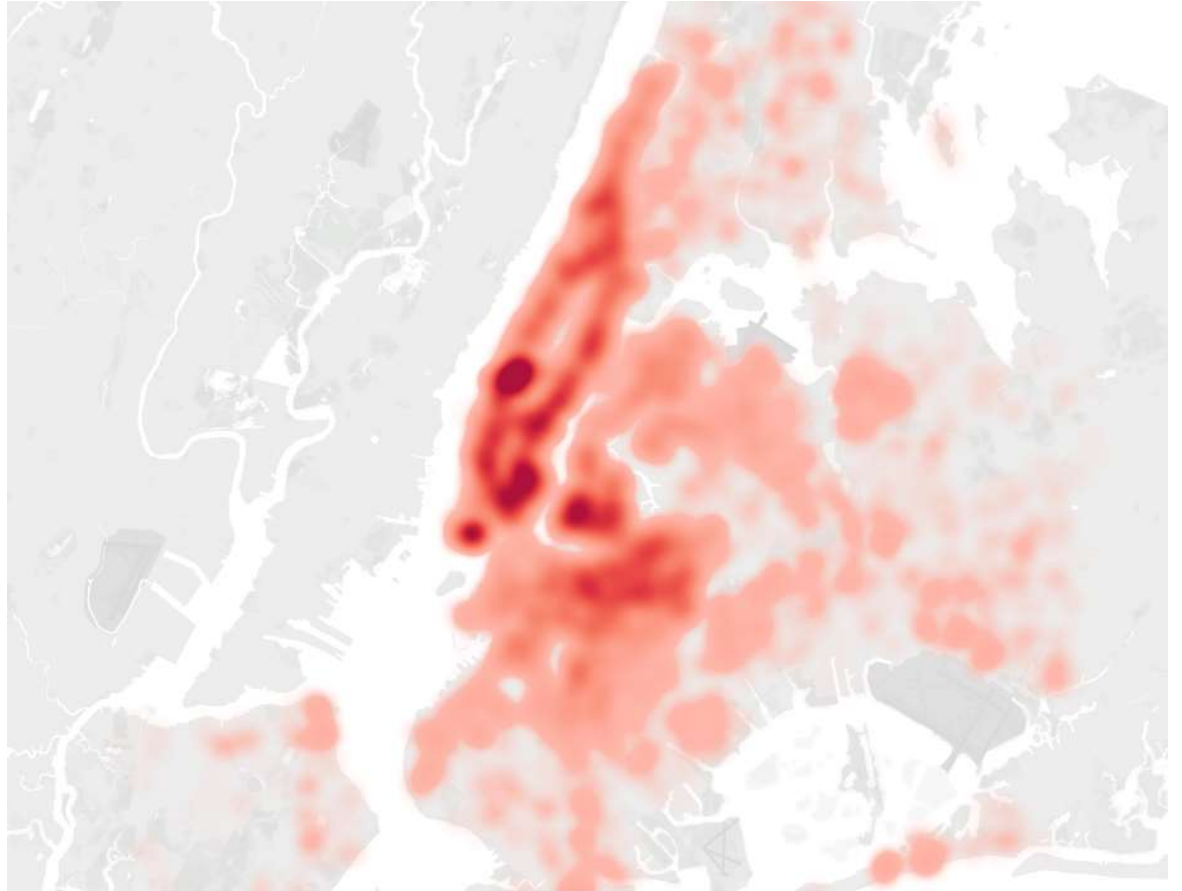
ARE ALL 5 BOROUGHES REPRESENTED?

YES



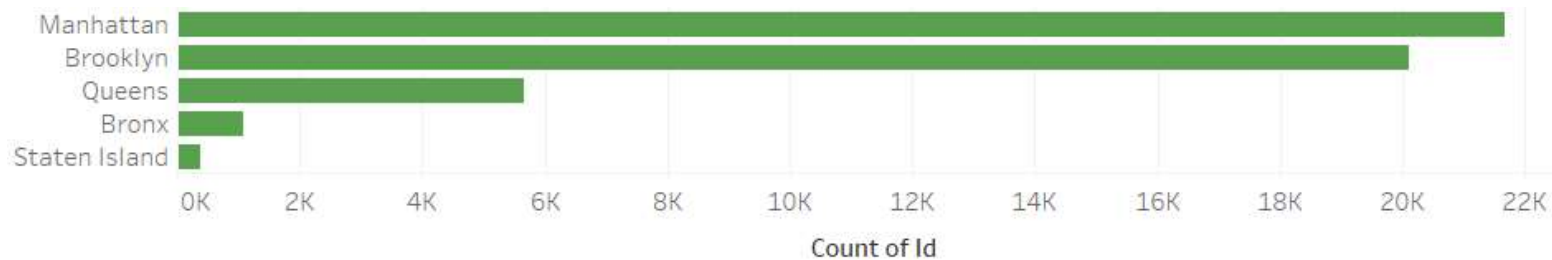
ARE BOROUGHES REPRESENTED EVENLY?

NO



MANHATTAN VS. OUTER BOROUGHES

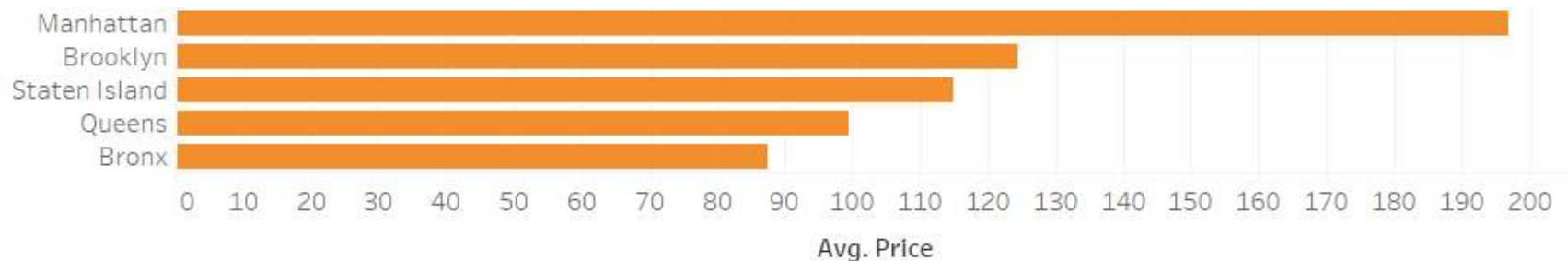
Does Manhattan have **more listings** than other boroughs?



YES

CLAIM: Manhattan has a higher **average price**

Result of Hypothesis Tests: Testing supports the alternative claim that Manhattan's average price is higher than each borough with 95% confidence.

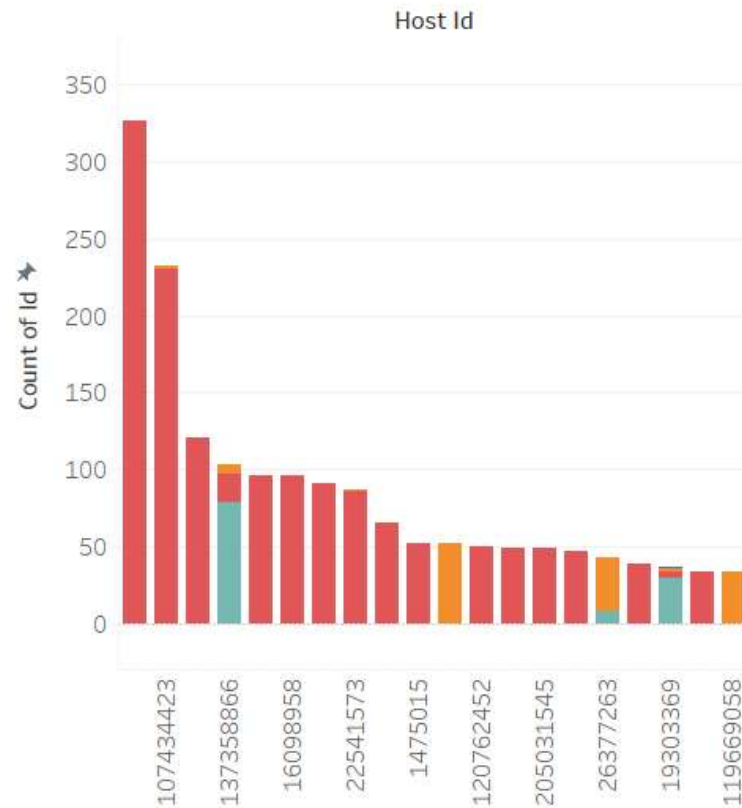


IS IT PREFERRED BY HOSTS?

YES, but note the following:

- 1) Most active hosts tend to specialize in a borough
- 2) That borough is not always Manhattan.

Top 20 Hosts by Listing Count

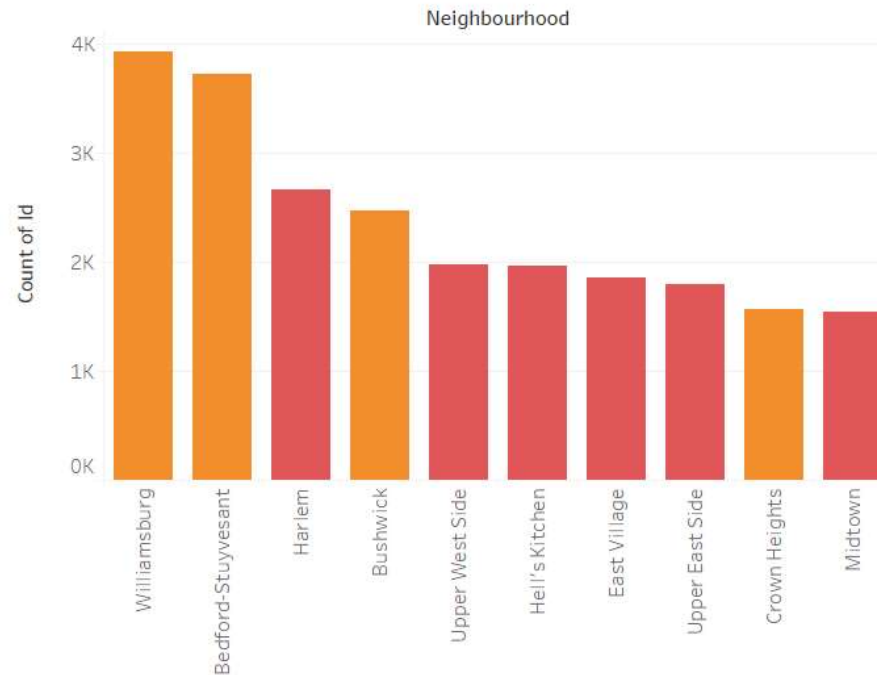


ARE MANHATTAN NEIGHBORHOODS MORE POPULAR?

YES, but not for much.

4 of the Top 10 most popular neighborhoods are in Brooklyn, including the Top 2

Top 10 Neighborhoods by Borough



QUESTIONS?

RESOURCES

- LINK TO GITHUB REPOSITORY
- LINK TO TABLEAU PUBLIC