

## Airbnb Analytics

### BIG Idea:

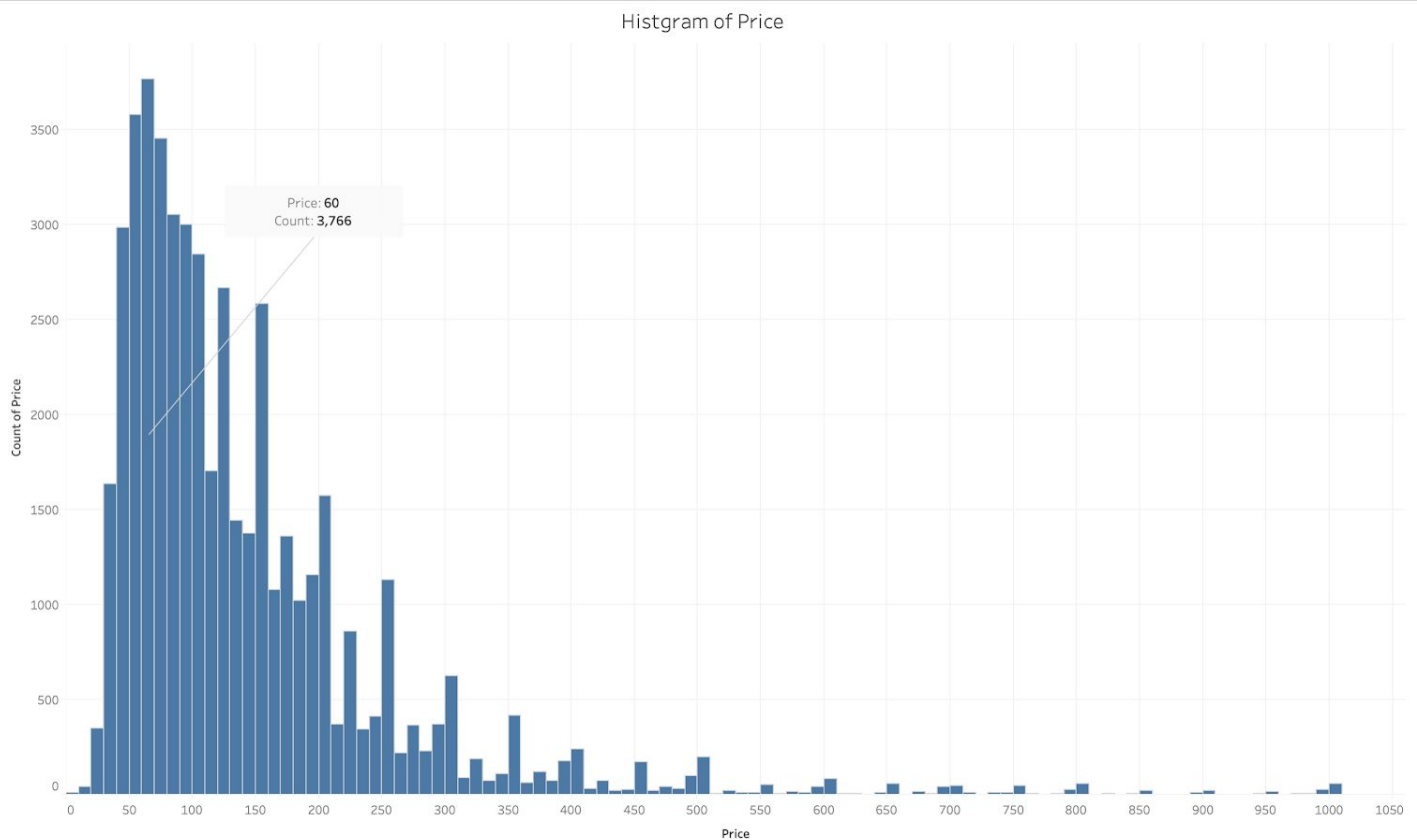
Airbnb has been expanding its business in the world since 2008. NYC is a popular city for sightseeing, and there are 48895 Airbnb rooms/houses in 2019.

We need the skill to make a decision by using big data in recent years.

By knowing the features of Airbnb hosts and guests, it is possible to make a good decision when you use Airbnb as a host or customer.

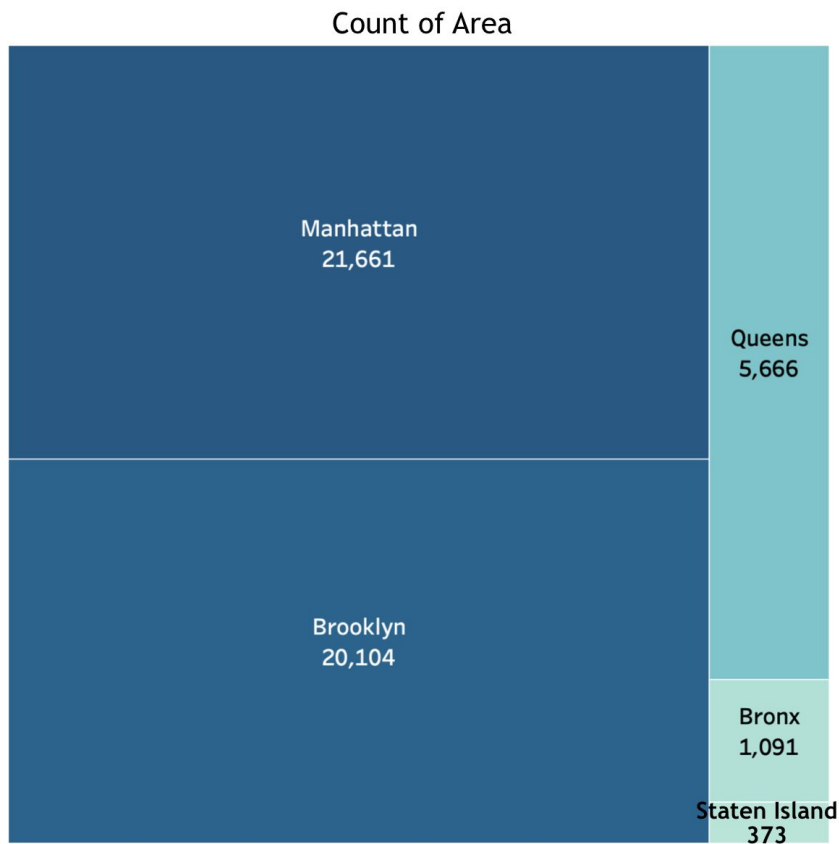
### Slide1:

In New York City, the average price is 152.7 dollars and the median is 106 dollars. The most expensive price is \$10,000. The most common price range is \$60 and there are 3,766 rooms/homes in NYC.



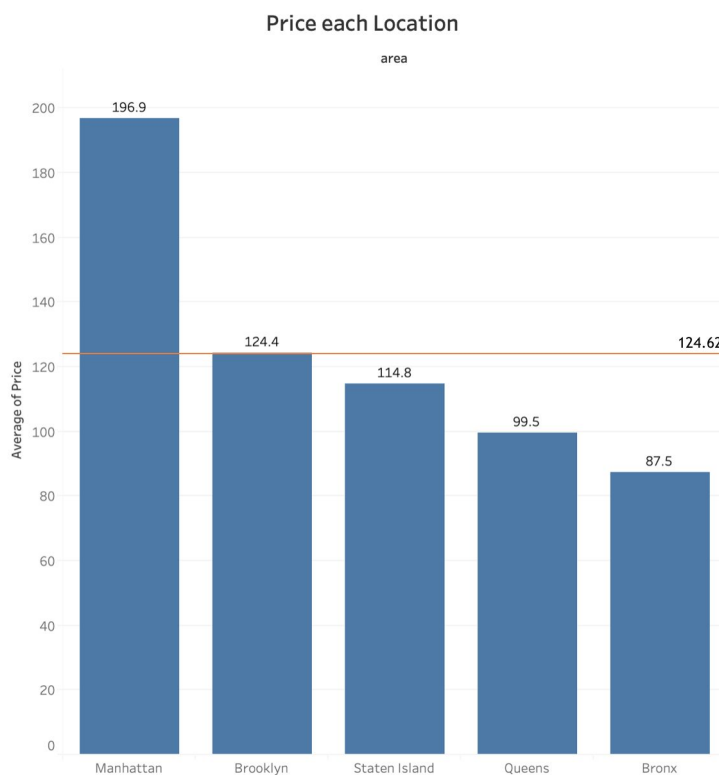
### Slide2:

This is a graph that shows the count of hosts each Area. The rectangle size shows the count of hosts and the most host area is Manhattan and it's 21,661. Approximately 85% of hosts are in Manhattan or Brooklyn. On the other hand, the least host area is Staten Island and it's 373.



#### Slide3:

This shows that the average price of each area. The most expensive average price is Manhattan and it's \$196.9. The second area is Brooklyn and it's the same values with the whole average, \$124. Queens and Bronx are cheaper than others. If you save your money, you should choose a host of Queens or Bronx.



#### Slide4:

Let's check the room type and the average price with the count. In NYC, 25,409 Entire home/apt type hosts and the average price is \$212. There are 22,326 Private room type hosts and the average is \$90. Compared to other room type, the number of Shared room is small and it is 1,160. The shared room's price is \$70 and it is the cheapest price. If you want to save your money, you should choose the shared rooms.

## Room Type and Average Price

room_type	Avg. price	Count of room_type
Entire home/apt	212	25,409
Private room	90	22,326
Shared room	70	1,160

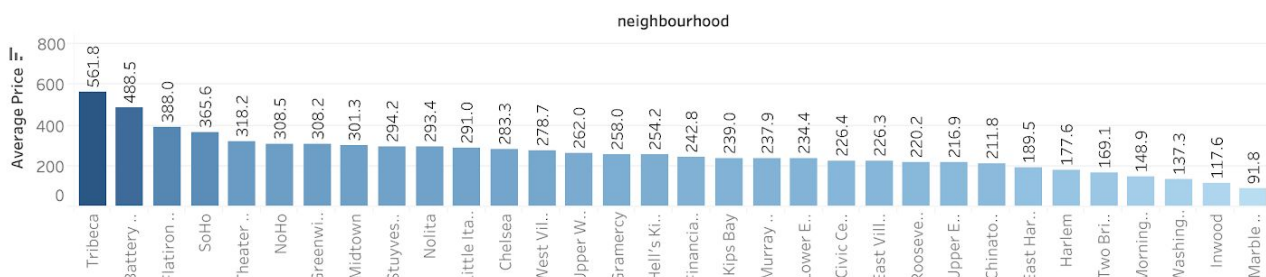
Slide5:

However, you might live in Manhattan within your vacation.

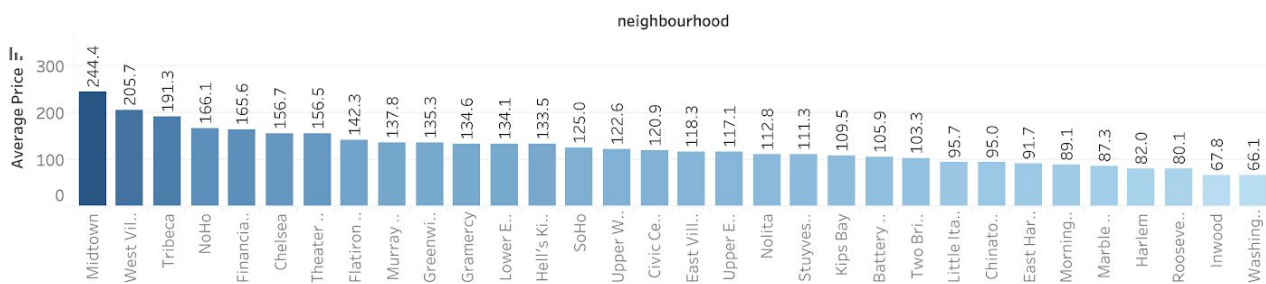
In Manhattan, there are many cheap hosts. For families or groups, it is able to pay only \$91.8 dollars in Marble Hill. If you choose a private room, you can spend under \$70 per night in Inwood and Washington D.C.

When you choose a private room in Financial District, you should check a Private room. The average price of Financial District is \$165.6 and it is cheaper than the Shared room average.

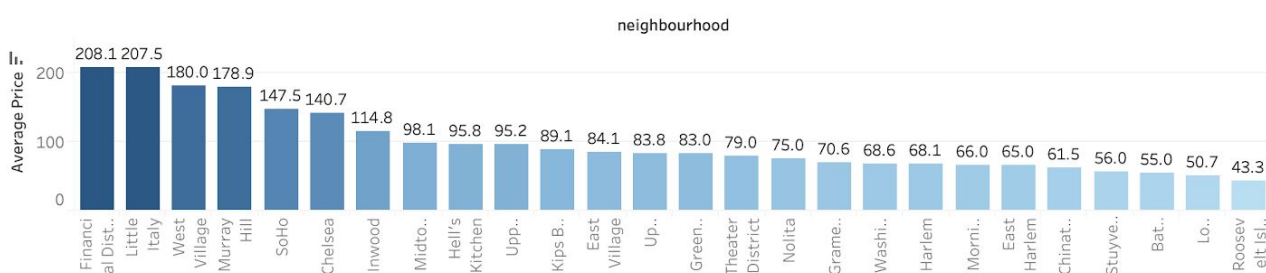
Manhattan Entire Home/Apt Average Price



Manhattan Private Room Average Price

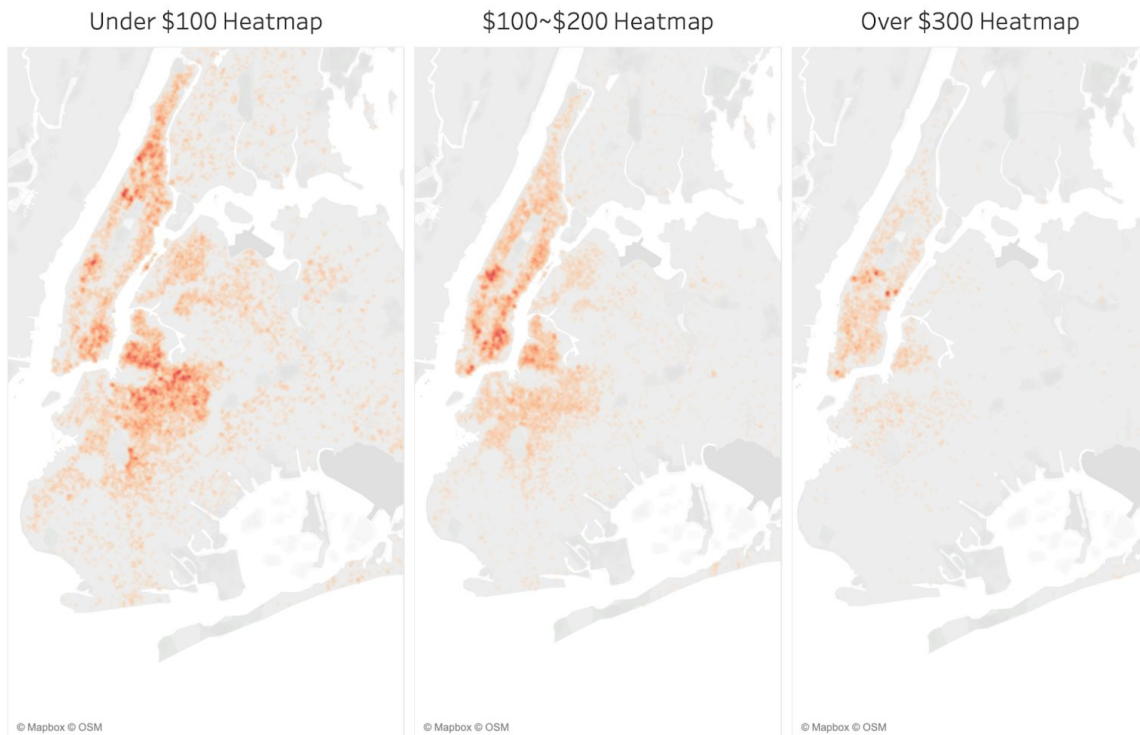


Manhattan Shared Room Average Price



Slide6:

This is the heatmaps to know the hosts each price range. Manhattan is the most expensive area but there are a lot of room under \$100 in Chelsea, East Village, and Harlem. Green Point and Williams Park are very popular area but they also have many hosts under \$100.

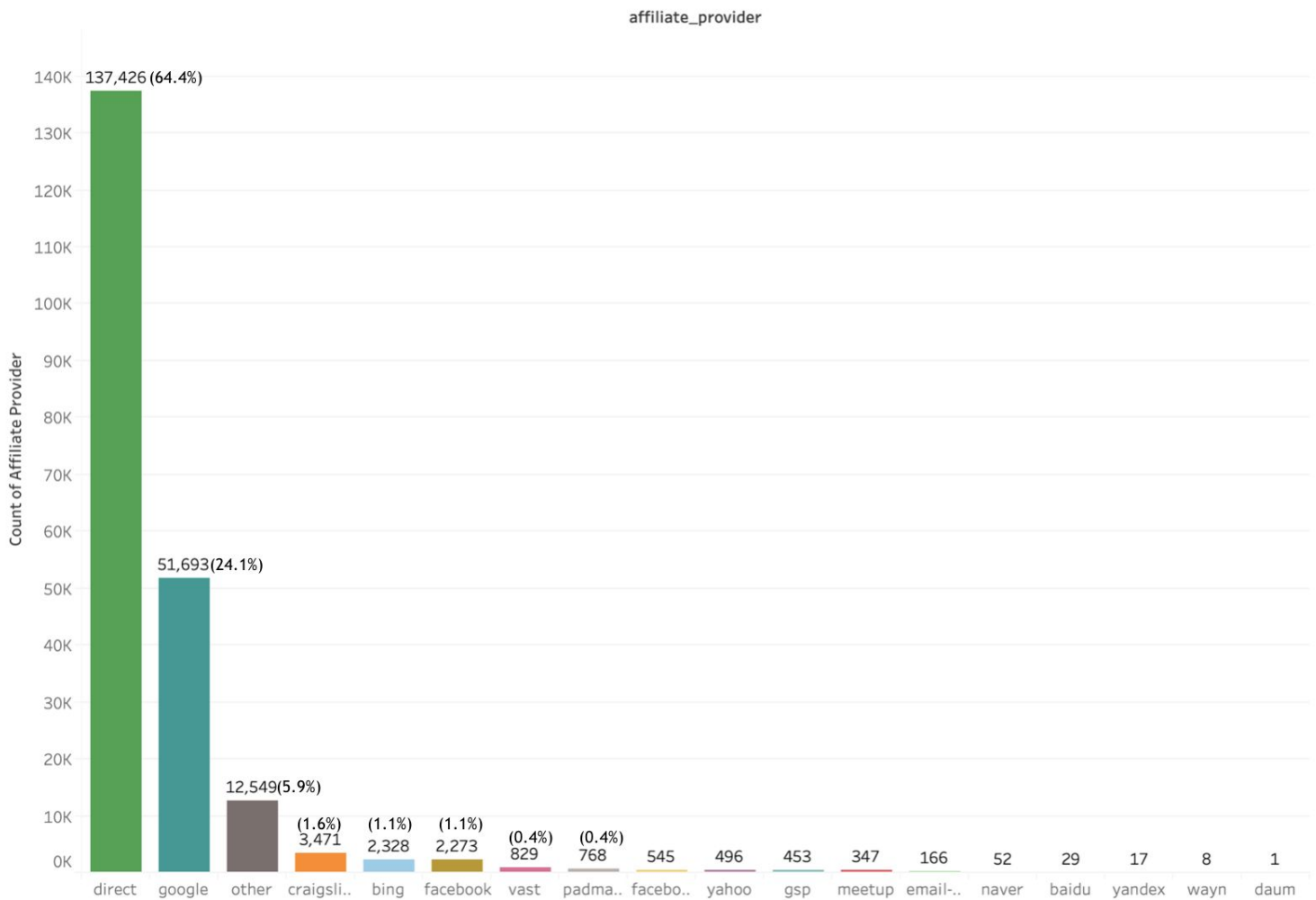


#### Slide7:

Lets's focus on guest information.

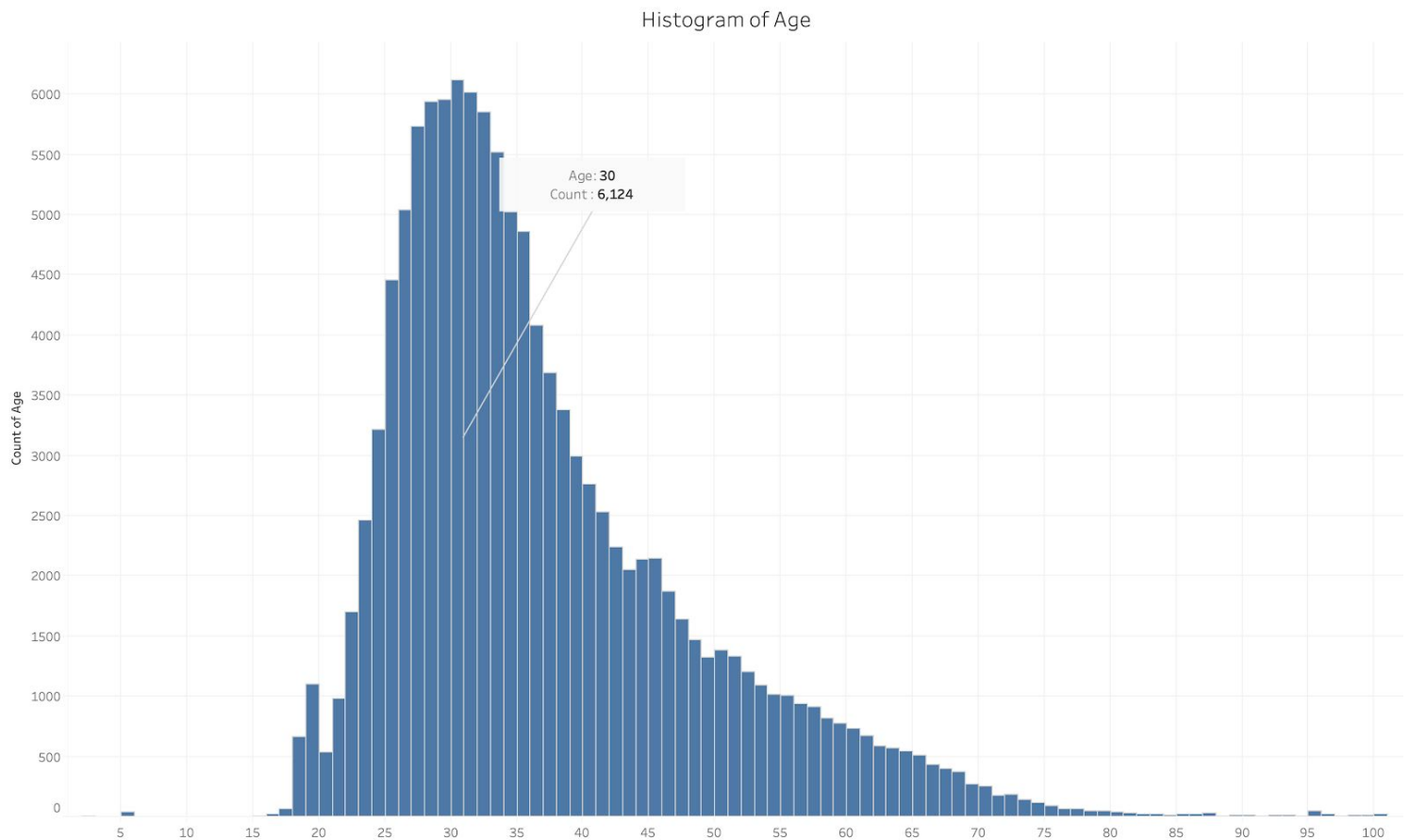
213451 users booked Airbnb in 2014. 64.4% of users directly visited the Airbnb website in 2014. 24.1% of users searched Airbnb house or room on google websites or advertisements. The rate of Facebook was low and it's only 1.1%. From this result, hosts should focus on the own Airbnb page, such as add more details and good pictures.

## How Users Book Thier Airbnb



Slide8:

According to the histogram of age, most users are 30 years old. Users' age of 50% is between 22 and 41 years old in 2014. The age segment shows that Airbnb is popular with college student and family segmentation.



### Summary:

In New York City, the Manhattan area is very popular for Airbnb and the price is \$72 more expensive than the average price(\$124). On the other hand, there are many hosts under \$100 in the north of Manhattan, Chelsea, and East Village. Queens area is recommended because their average price is 99.5 dollars and it is comfortable to go to Manhattan.

According to the guests, almost all guests' age is between 20 and 40. In addition, 64.4% guests directly book their reservations, so hosts need to focus on their own Airbnb page to gather more guests.

### Data Sources:

New York City Airbnb Open Data

<https://www.kaggle.com/dgomonov/new-york-city-airbnb-open-data>

Airbnb New User Bookings

<https://www.kaggle.com/c/airbnb-recruiting-new-user-bookings/overview>