



BIKE RIDERS ANALYSIS

NEW YORK CITI BIKE (2017-2019)

Data

New York Citi Bike Program trip history data for 2017 to 2019 was analyzed in order to determine trends. After collecting the data from <https://www.citibikenyc.com/system-data>, the .csv file was read into a Jupyter Notebook. Python code was used for data manipulation. Due to data size limitations for Tableau Public version, Data has been fractioned to 0.01 of the original data.

Analysis

3 Dashboards Tableau were created to investigate the Rides Over the Years and Demographics Phenomena in addition to maps detailing station start and end locations.

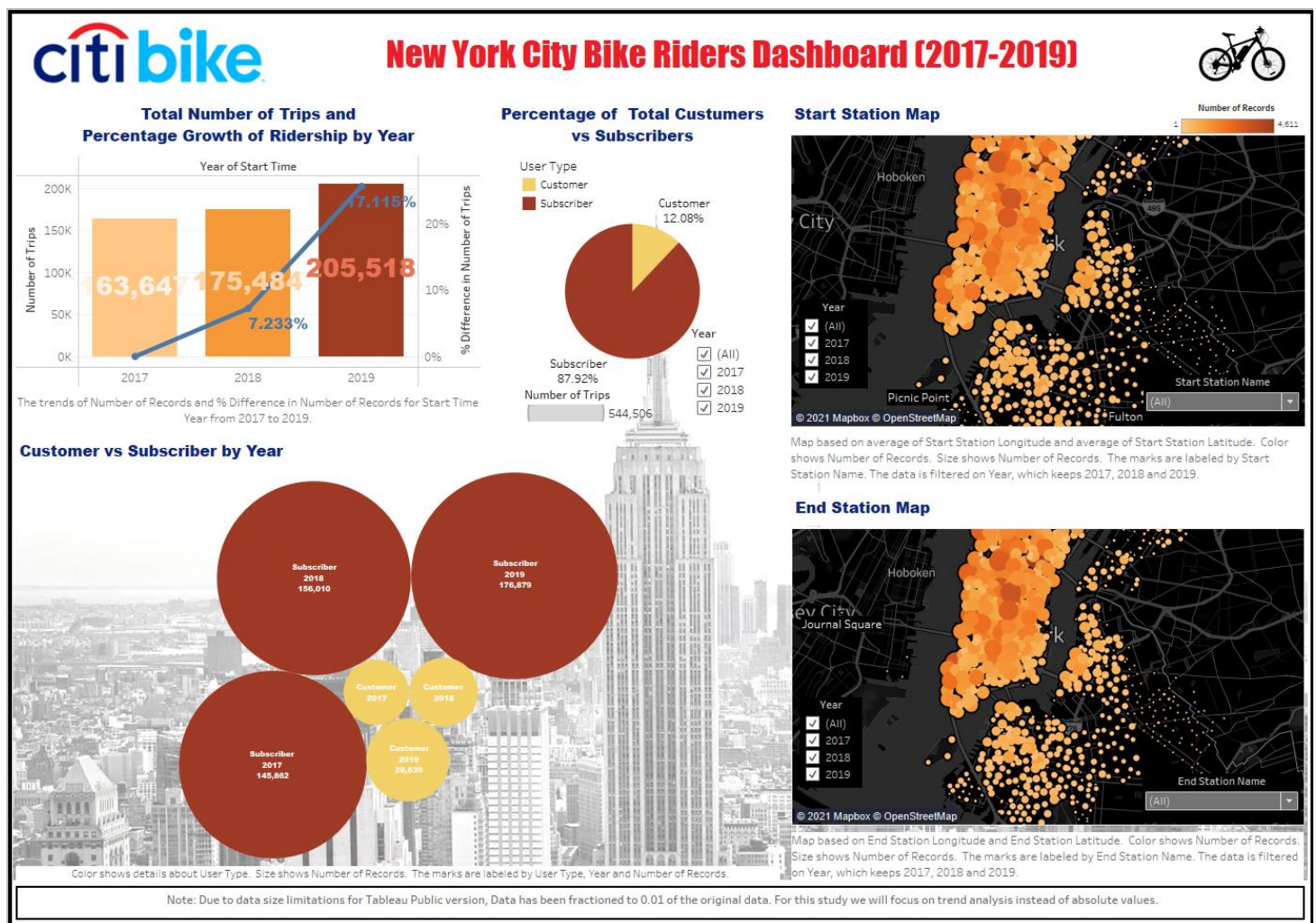


Figure 1

The first dashboard created in Tableau (Figure 1) shows a percentage growth of ridership within the years 2017 and 2019. Also shows that the majority of the riders are current subscribers. A small percentage of the data are new customers joining the CitiBike club.

The first dashboard also includes two interactive bubble maps showing start and end station. The color of the bubbles shows the number of trips by station and the user can filter the data by year and station name.

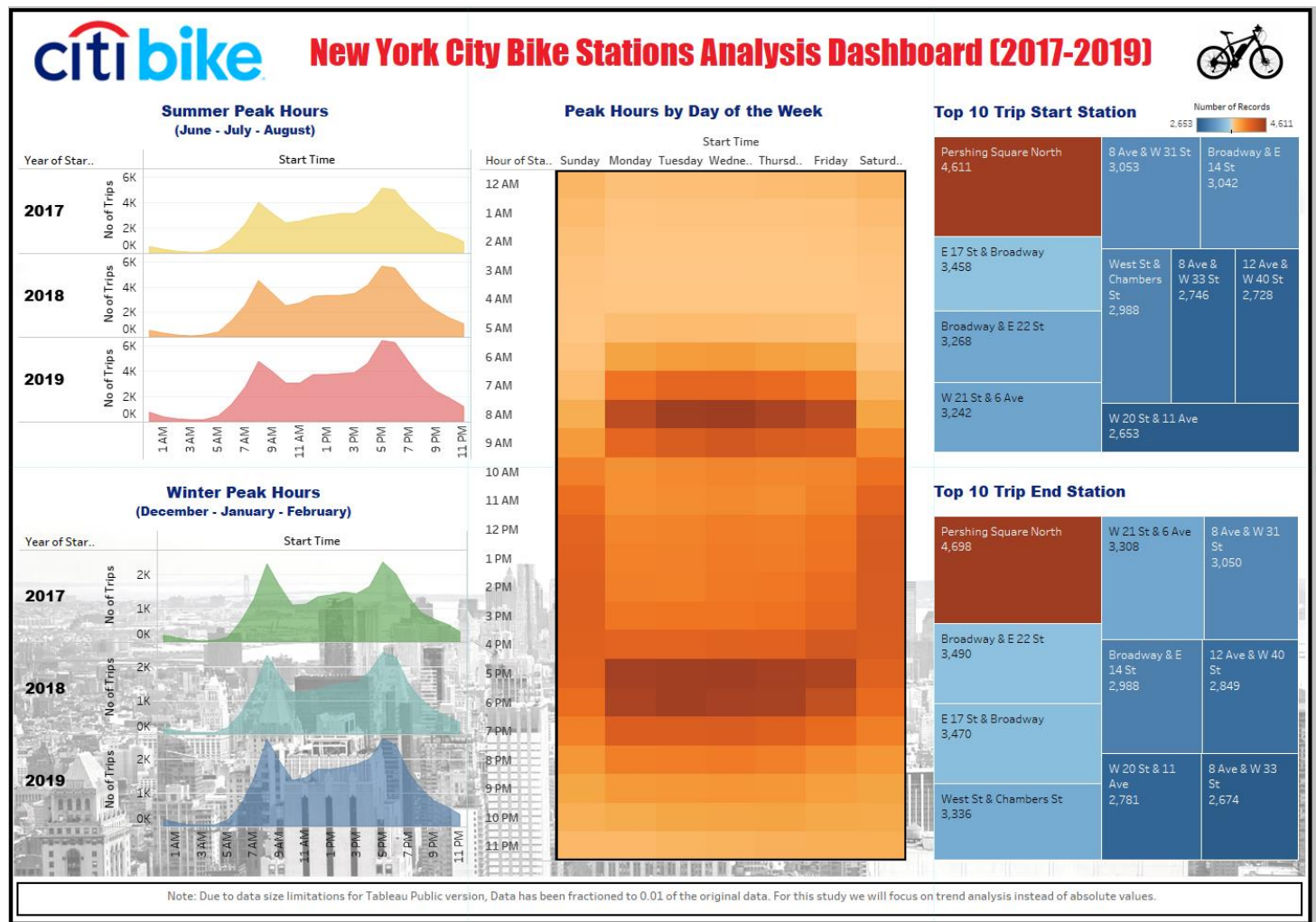


Figure 2

The second dashboard created in Tableau (Figure2) shows an analysis base on stations data. Peak hours show high spikes between 8am-9am and an even higher spike between 5pm-7pm. This is most likely due to alignment with work schedules with most people getting to work between 8am and 9am and finishing work beginning at 5pm. This trend is continuous both in the summer and winter months.

Figure 3 shows that the biggest percentage of the users in the peak hours are subscribers. Also, Figure 4 shows that subscribers tend to have a greater number of rides in weekdays while in costumers there is an increase in the number of rides on weekends.

Location is a prime indicator for the popularity of a station as points of interest spark use. The top five Citi Bike stations are located near train and subway stations and along points of attraction such as Broadway.

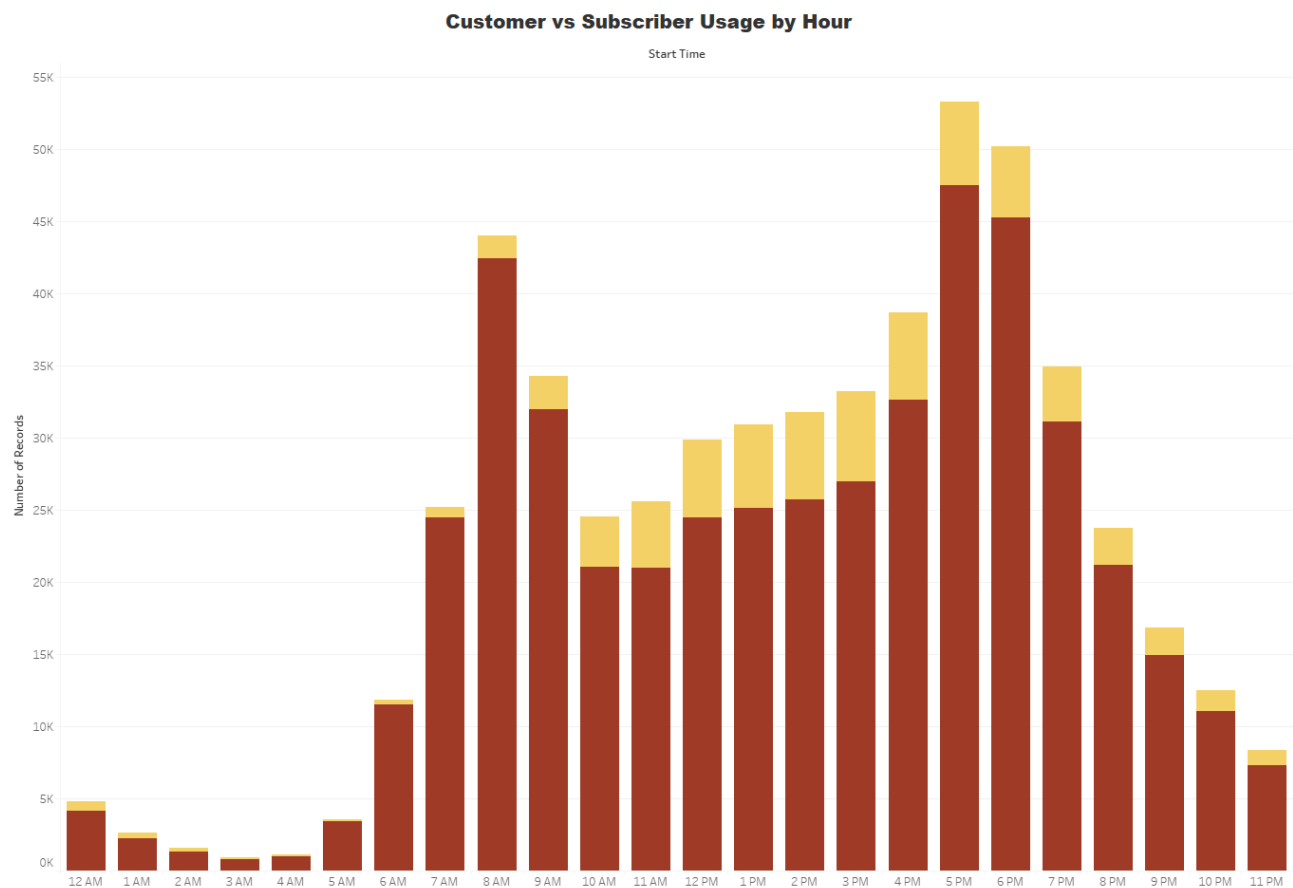


Figure 3

Customer vs Subscriber Usage by Day

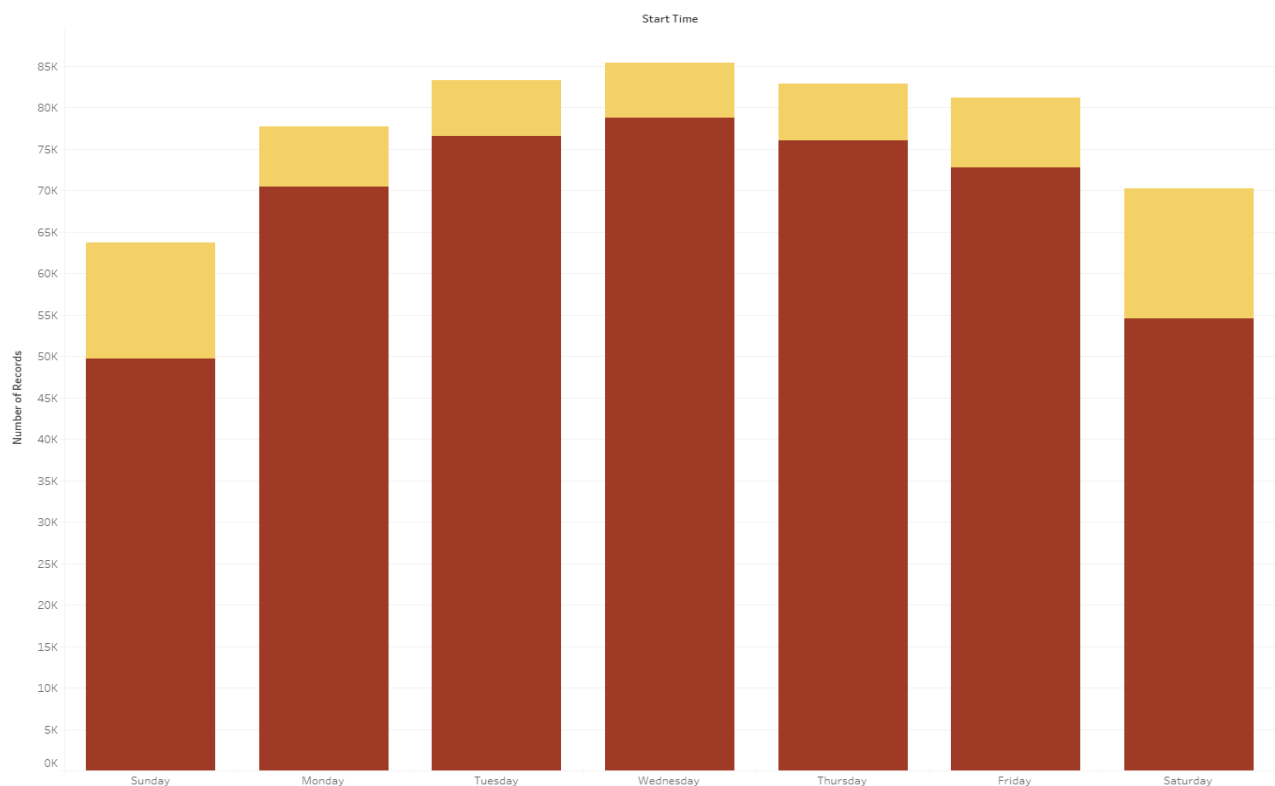


Figure 4

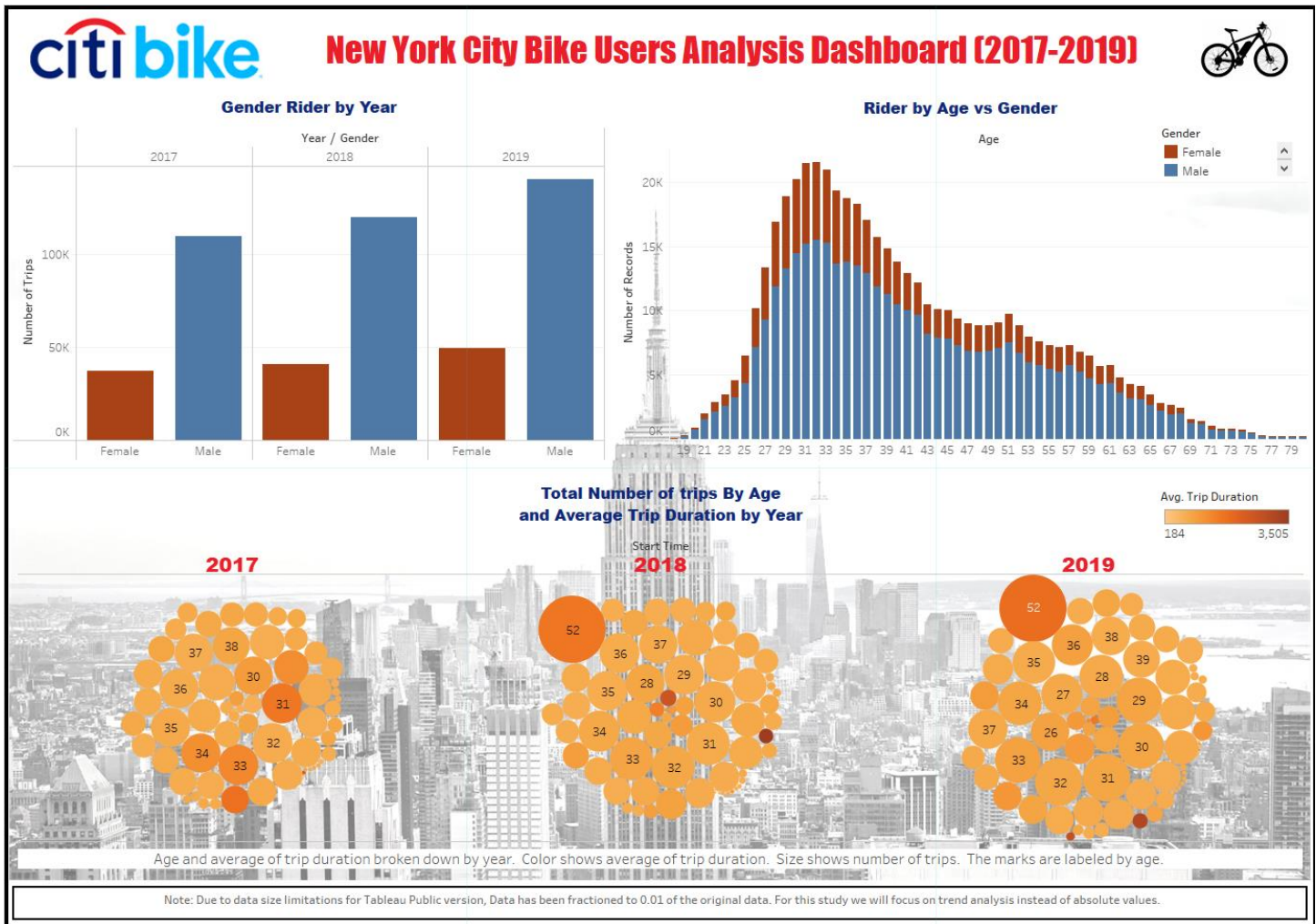


Figure 5

The third dashboard analyzes the demographics of the users. Gender does play a role in the rider base as males outnumber females when investigating who is riding.

The rider's age spans across a few generations. Those of around 28-34 shows to be the most active rides in New York City.