Tableau Homework
Citi Bike

We looked at Citi Bike's data for September, 2014, approximately one year after the program was launched. At that time, the program included approximately 6,000 bikes and 330 stations. Since then, the Citi Bike program has grown and currently there are approximately 24,500 bikes and over 1,500 stations.

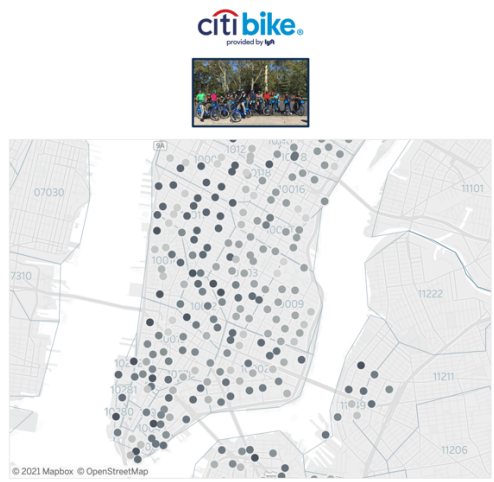
We examined multiple dimensions including busiest stations, gender, age, and daily rental vs. subscriber riders to identify interesting phenomenon.

GitHub repository:
https://github.com/stevereisschicago/Tableau.git

Tableau page:
https://public.tableau.com/app/profile/steve.reiss/viz/Citibike_16361477952080/TABLEAUHW?publish=yes

ABOUT OUR DATA:

- Our data didn't include a field for "User ID", so we are only able to calculate data on rides, not on individual users.
- There was no gender or age data available on daily rental riders, only on subscribers. Our analysis of age and gender only includes subscribers.
- Some data that was clearly bad. For example, we had 200 rides from people born in the year 1900 (making them 114 years old at the time). We filtered out the obvious bad data and only included riders born since 1940 (making the oldest riders included 75)



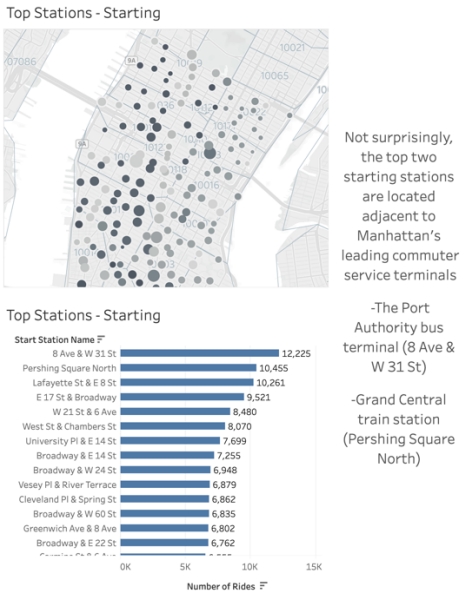
Using Citi Bike's own data we chose to look at the month of September, 2014, approximately one year after the program was launched

At that time, the program included approximately 6,000 bikes and 330 stations, currently there are over 24,500 bikes and 1,500 stations

We examined multiple dimensions (including gender, age and daily vs. subscriber ride patterns) and made some interesting observations, highlighted on the slides that follow

CHART: TOP STATIONS - STARTING

- Not surprisingly, the top two starting stations are located adjacent to Manhattan's leading commuter service terminals
    - The Port Authority bus terminal (8 Ave & W 31 St)
    - Grand Central train station (Pershing Square North)



Not surprisingly, the top two starting stations are located adjacent to Manhattan's leading commuter service terminals

-The Port Authority bus terminal (8 Ave & W 31 St)

-Grand Central train station (Pershing Square North)

CHART: TOP STATIONS - ENDING

- The two top ending stations are different from the top two starting stations, perhaps suggesting that not as many people are biking back to commuter terminals at the end of the day.
    - Possibly because they are meeting friends, going to the gym, or they may not feel as rushed.
- There were fewer than expected ending locations in the two of the busiest business districts, Wall Street and the Sixth Avenue / Midtown corridor
    - Possibly because people in those professions are more likely to wear suits to work, making commuting on a bike less practical.

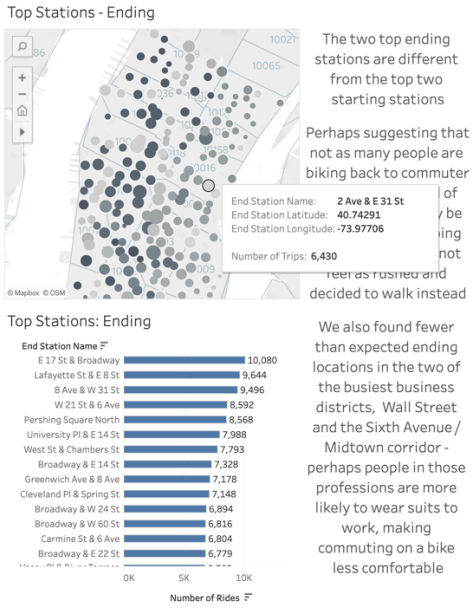


CHART: GENDER - SUBSCRIBERS

- More than three times as many men as women have subscriptions but women take advantage of their subscriptions slightly more frequently.

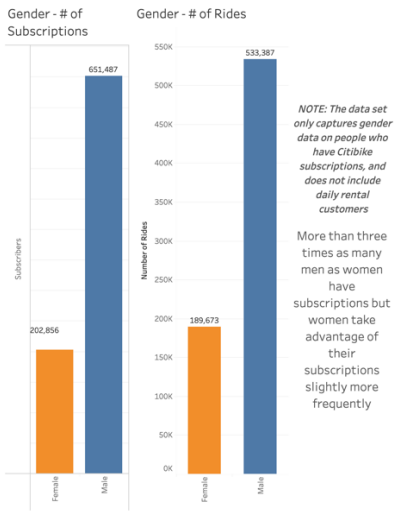


CHART: GENDER - METRICS

- Trips by women cover a slightly longer distance than trips by men.
- Women's trips take more time than men's trip - related to both the longer distance and slower riding speed.

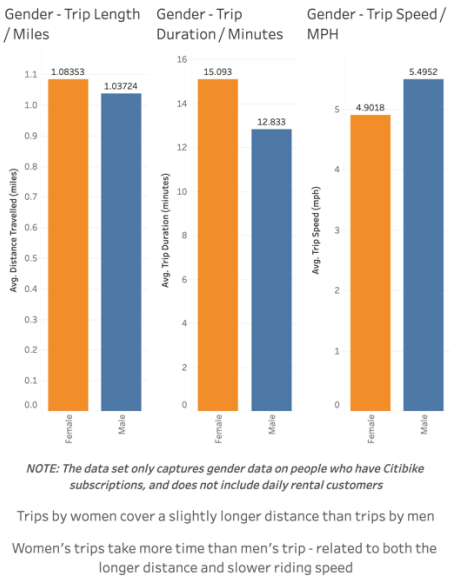
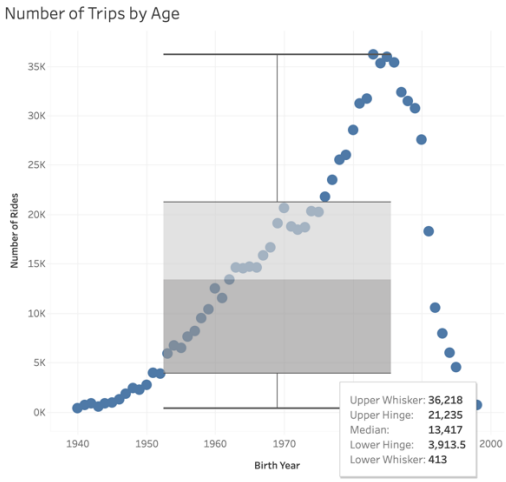


CHART: AGE – TOTAL TRIPS

- The largest group of Citi Bike subscriber rider trips were from those born between 1980 and 1990 (between 25 and 35 years of age), the number falling off quickly for those younger than 25.

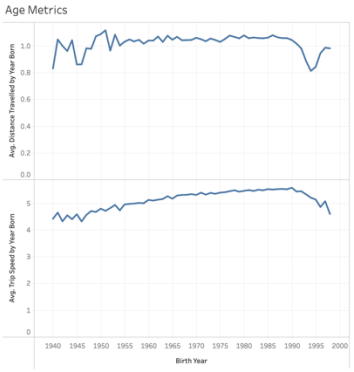


NOTE: The data set only captures age data on people who have Citibike subscriptions, and does not include daily rental customers

Based on the number of trips, the largest group of CitiBike subscriber riders were born between 1980 and 1990 (between 25 and 35 years of age), the number falling off quickly for those younger than 25

CHART: AGE - METRICS

- Distance travelled is constant except for a marked dip for those born from 1992 – 1997. That may not be significant as the data set is small.



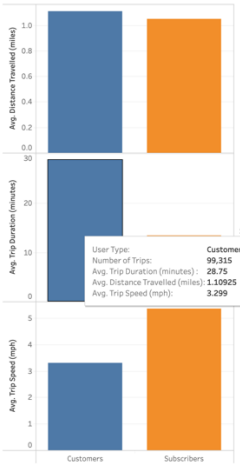
NOTE: The data set only captures age data on people who have Citibike subscriptions, and does not include daily rental customers

Distance travelled is fairly constant except for a marked dip for those those born from 1992 - 1997, although it may not be significant as the data subset is fairly small

CHART: DAILY RENTERS VS. SUBSCRIBERS

- The tooltip shows that the great majority of rides are taken by subscribers vs. daily renters
- The average trip distance is only slightly longer for daily rental customers, but they spend significantly more time / ride at a slower speed than subscribers.
    - Possibly because subscribers more likely to be regular commuters / in a hurry, while daily customers may be more likely to be recreational (decided it would be a nice day to ride to work) or not have the same time constraints.

Daily Customers vs. Subscribers



The great majority of rides are taken by subscribers vs. daily renters

There are some significant differences between the groups - while the average trip distance is only slightly longer for daily rental customers, they spend significantly more time / de at a slower speed than subscribers

It may be that ubscribers are more likely to be headed to work, while daily customers may include recreational and not have the same time constraints