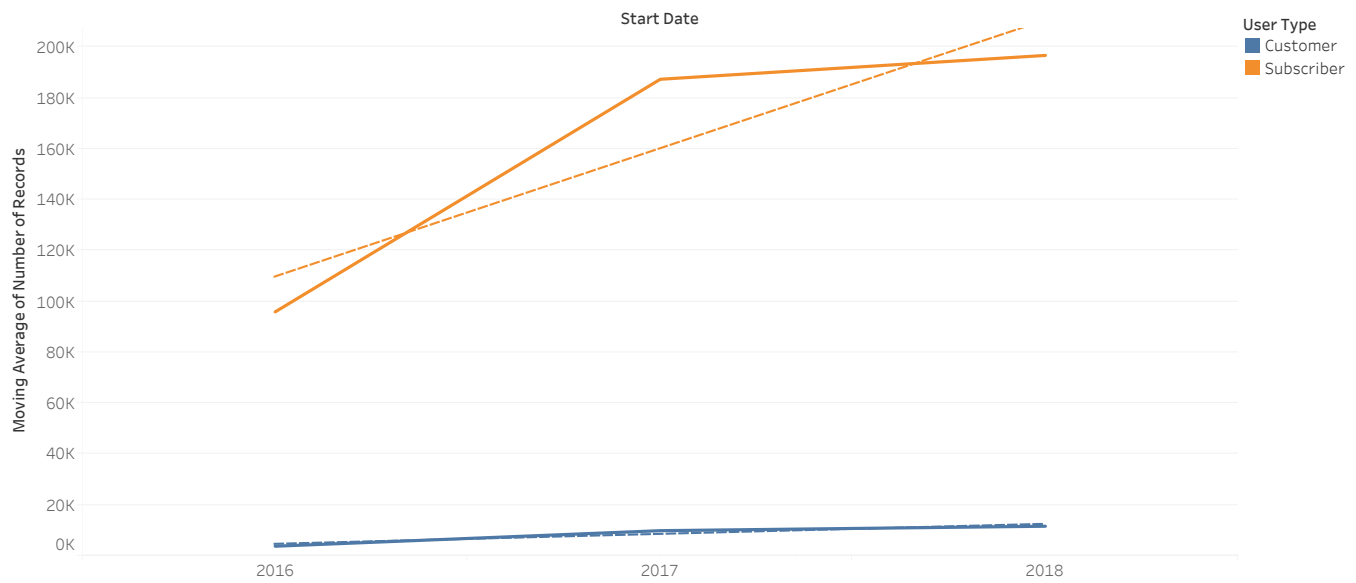# Citi Bike Analysis

First, I needed to see how membership and usage has been increasing since 2016. This shows a positive upward trend in Subscribers. There was a sharp increase in 2016 that then slowed down in 2017.

Year over Year growth is a valuable way to compare growth in records from the previous year. More people are using the Citi Bikes service in the summer time and this shows that May- August 2018 saw impressive gr...

Start Date

User Type
- Customer
- Subscriber

Moving Average of Number of Records

200K
180K
160K
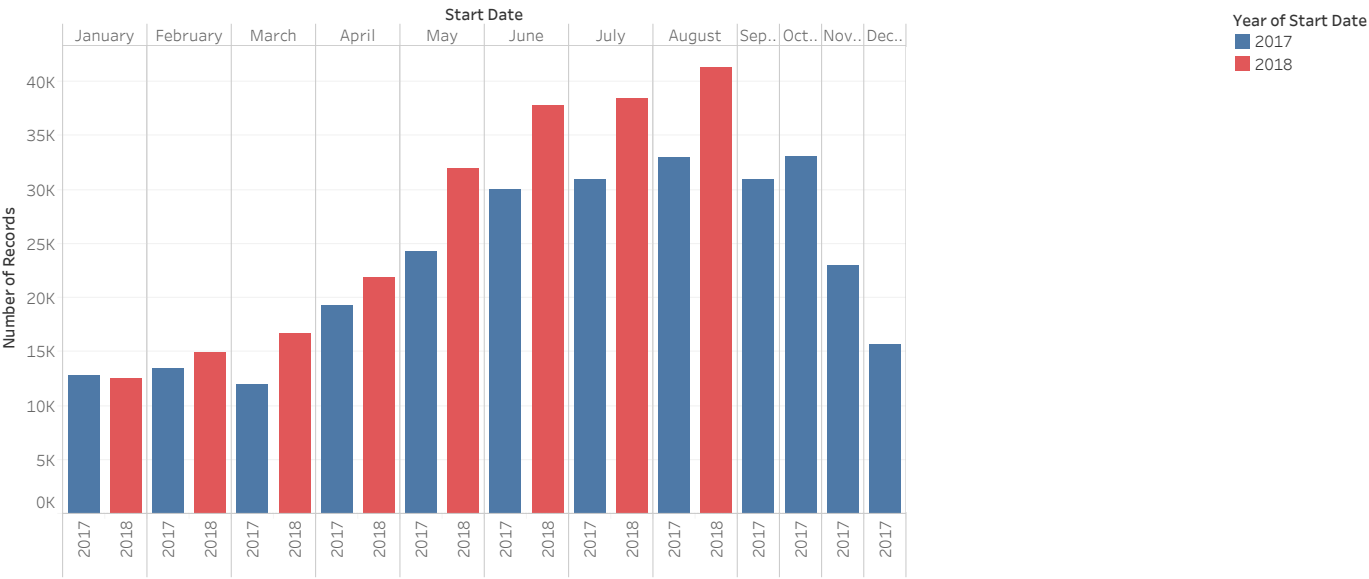140K
120K
100K
80K
60K
40K
20K
0K

2016   2017   2018

Citi Bike Analysis

First, I needed to see how membership and usage has been increasing since 2016. T..

Year over Year growth is a valuable way to compare growth in records from the previous year. More people are using the Citi Bikes service in the summer time and this shows that May- August 2018 saw impressive growth from the previous year, averaging almost 26% growth each month in comparison to the year before.

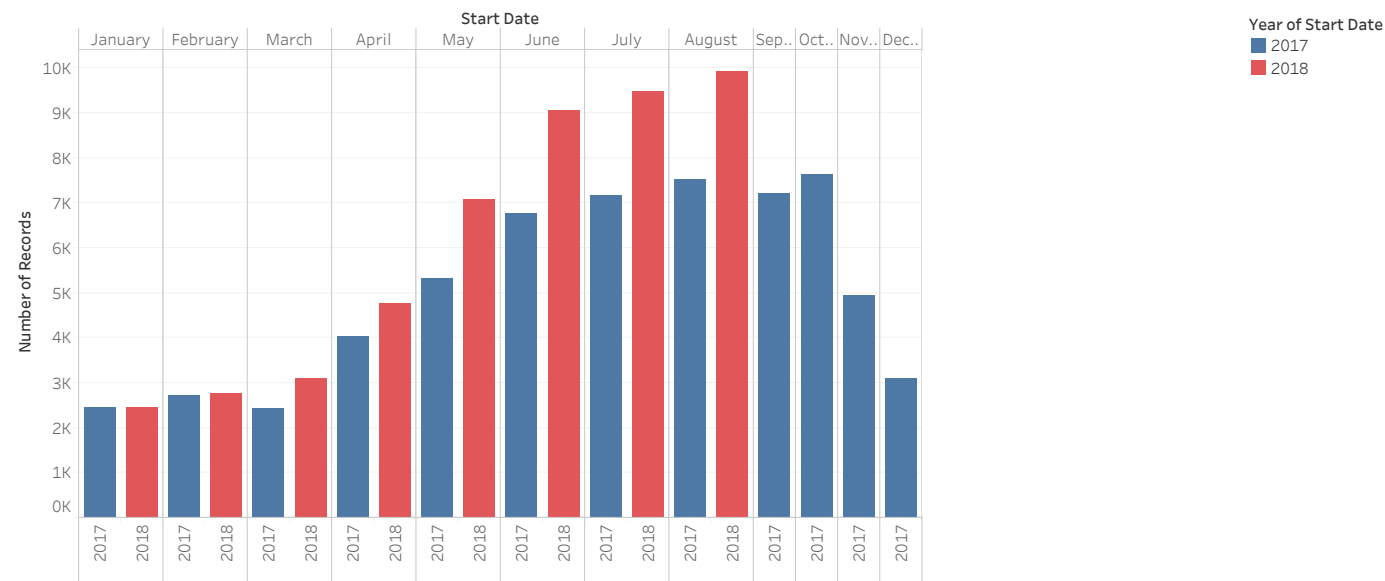Increasing membership amongst Females is a long term goal of Citi Bikes so I isolated growth by female..

Start Date

| January | February | March | April | May | June | July | August | Sep.. | Oct.. | Nov.. | Dec.. |

Year of Start Date
- 2017
- 2018

Number of Records

40K
35K
30K
25K
20K
15K
10K
5K
0K

2017 2018 | 2017 2018 | 2017 2018 | 2017 2018 | 2017 2018 | 2017 2018 | 2017 2018 | 2017 2018 | 2017 | 2017 | 2017 | 2017

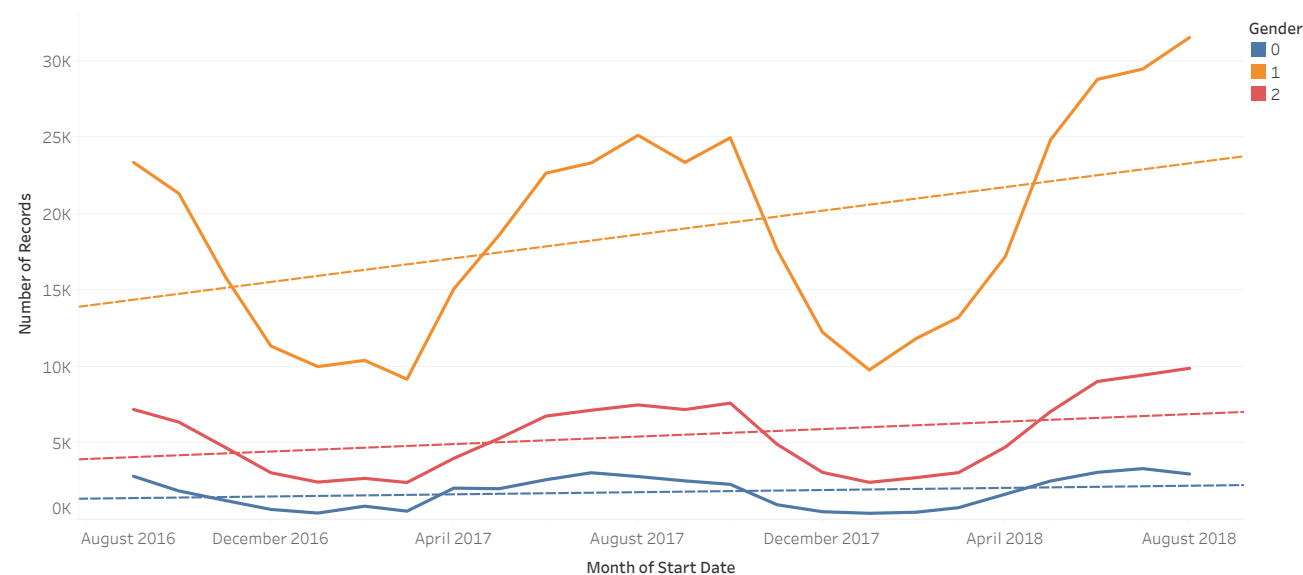# Citi Bike Analysis

Increasing membership amongst Females is a long term goal of Citi Bikes so I isolated growth by female subscribers to see how membership amongst females has performed. There appears to be a positive increase in the number of women who are using the Citi Bikes which is promising and suggests continued growth through next year.

Start Date

Year of Start Date
- 2017
- 2018

Citi Bike Analysis

Now that we know that overall growth is up, I wanted to see how membership for Genders has changed. Male = 1, Female = 2 and Unknown = 0. Again, we see a large divde between the number of men vs females who are using the Citi Bikes but we know that female membership has been steadily increasing, just not at the same rate as male membership.

Citi Bike Analysis

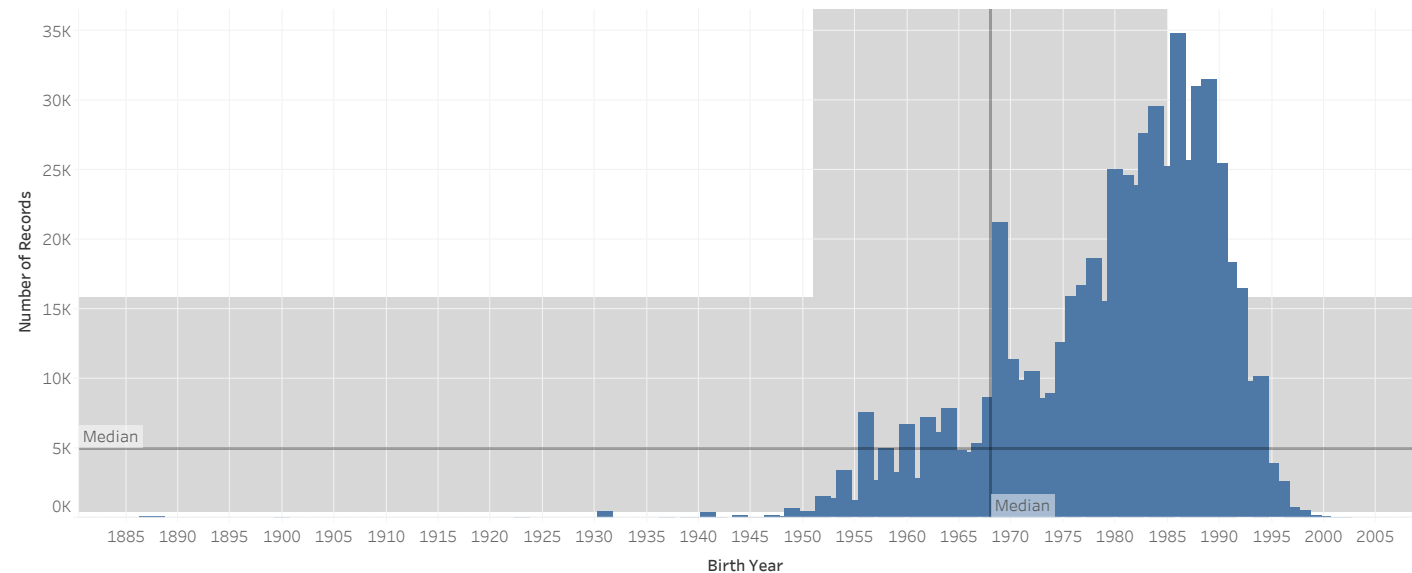I was curious to see what age groups are most frequently using the Citi Bikes. Here we can see that the distribution is centered around those born 1980-1990. There is a large spike in records at the age of 1969 which is interesting and suggestive that there could be an untapped market for people who are a little older.

Citi Bike Analysis

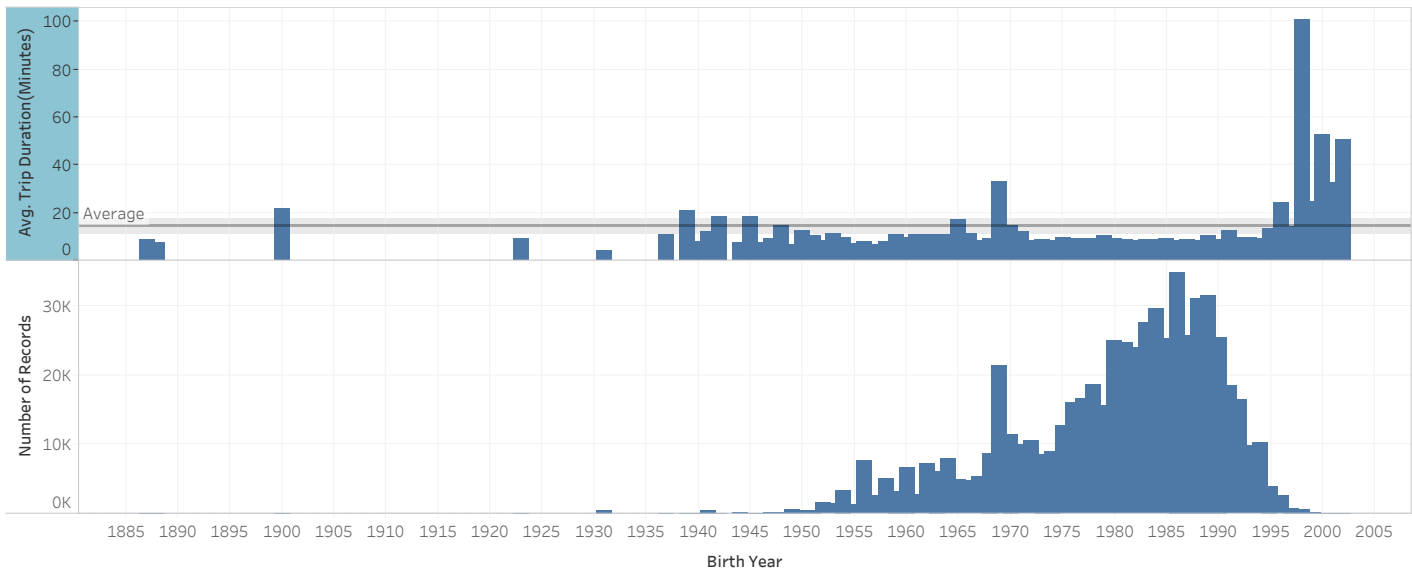I wanted to see a comparison between the number of records and the avergae trip duration for age groups. Here we see that people born in 1998 are riding the bikes for the longest, with an average of 100 minutes whereas the total average is only 17 minutes.

Citi Bike Analysis

I wanted to see a comparison between the number of records and the avergae trip duratio..

I wanted to see how time of year impacts how much time females and males spend riding the bike.I was surprised to see that there is little variance in the average trip distance throughout the entire year, I would have expected to trip duration in winter and fall to be significantly lower but there appears to be consistency throughout all the seasons.

In order to look at the reasons people are using the bikes, I wanted to see what time of the day each ..

Months

Gender
- 1
- 2

Citi Bike Analysis

I wanted to see how time of year impacts how much time females and males spend riding the ..

In order to look at the reasons people are using the bikes, I wanted to see what time of the day each gender is using the biking service. As expected, many people are using the bikes around 7-8 am and 4-6 pm in the evening which means that people are relying on the bikes as means to get to and from work. In order to increase usage in the middle of the day, more stations could be placed on College Campuses to encourage students to use the bikes on campus to get to class.

In breaking down start times by season, you can see that the typical busiest times are still morning/aft..

Start Time

Gender
- 0
- 1
- 2
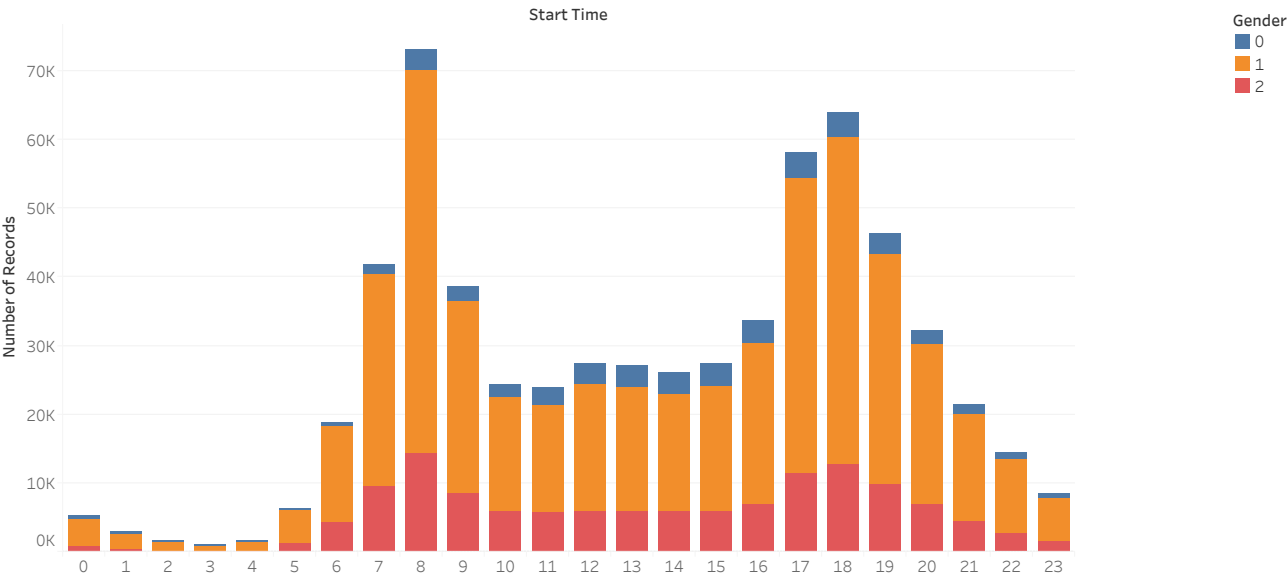
Citi Bike Analysis

In breaking down start times by season, you can see that the typical busiest times are still morning/afternoon commute to work with a small increase around lunch time. This suggests that subscribers have planned their daily commute around using Citi Bikes rather than people randomly using the bikes.

Winter Months / Spring Months / Summer Months / Start Time

	Null		
Fall	Summer	Spring Fall	Winter Null Fall

Months
- Fall
- Spring
- Summer
- Winter

Citi Bike Analysis

I was curious to see if there were any stations that saw a larger number of customers or subscribers. A outlier station with a really high number of customers could suggest that the station is near a venue, such as a stadium or theater that people would leave under the influence of alcohol and no longer feel comfortable driving. This graph does not suggest that.

This is a map of all the starting station locations. The stations are color coded with size reflective ..

Start Station Name

User Type
- Customer
- Subscriber

Bar chart with Number of Records (y-axis, 0K to 70K) by Start Station Name: Hamilton Park, Sip Ave, Morris Canal, Newark Ave, Van Vorst Park, City Hall, Jersey & 3rd, Jersey & 6th St, Columbus Drive, Brunswick & 6th, Monmouth and 6th, Manila & 1st, Oakland Ave, Baldwin at Montgom.., Washington St, Lincoln Park, 5 Corners Library, Lafayette Park, Astor Place, Riverview Park, Dey St, Communipaw & Berr.., Central Ave, Bergen Ave, North St, NJCU, West Side Light Rail
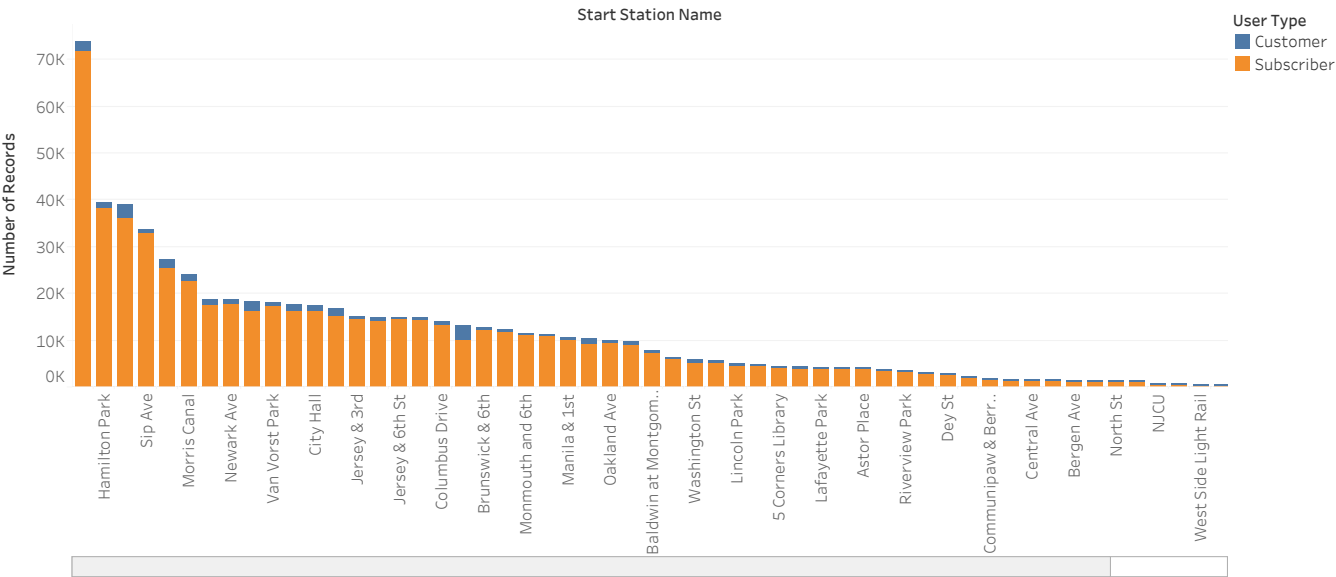
Citi Bike Analysis

I was curious to see if there were any stations that saw a larger number of customers or subscri..

This is a map of all the starting station locations. The stations are color coded with size reflective of popularity. There is a per capita income layer over the map in order to see if economic prosperity was an indication of more or less stations. It appears that while some lower income areas have stations, most of them are concentrated in the wealthier city area.

There appears to be consistency between starting/ending stations with GROVE Station being..

Start Station Name
- 5 Corners Library
- Astor Place
- Baldwin at Mont..
- Bayside Park
- Bergen Ave
- Bethune Center
- Brunswick & 6th
- Brunswick St
- Central Ave
- Christ Hospital
- City Hall
- Columbia Park
- Columbus Drive

Number of Records
- 1
- 5,000
- 10,000
- 14,916

2018 Per Capita Inc..
- 0 to 27,000
- 27,000 to 31,900
- 31,900 to 36,800
- 36,800 to 44,800
- 44,800 to 194,000

Citi Bike Analysis

This is a map of all the starting station locations. The stations are color coded with siz..

There appears to be consistency between starting/ending stations with GROVE Station being the most popular start and end location.

The starting/end station popularity is consistent. People appear to rely on specific stations every da..

End Station Name

User Type
- Customer
- Subscriber
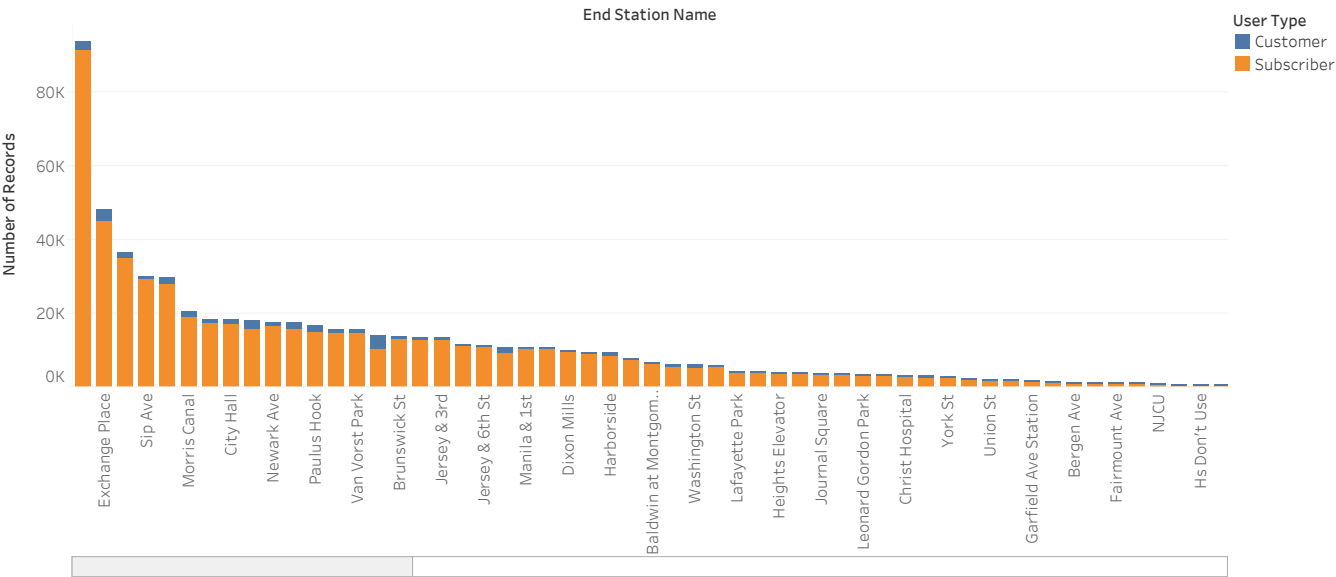
Citi Bike Analysis

There appears to be consistency between starting/ending stations with GROVE Station being the most popular start and end location.

The starting/end station popularity is consistent. People appear to rely on specific stations every day to get to and from work and the consistency in average trip duration throughout the seasons suggests that people consider the bikes to be their only form of transportation, no matter the season.

End Station Name, Z..
- 5 Corners Librar..
- 6 Ave & Broome ..
- 6 Ave & Canal St, ..
- 6 Ave & Spring St..
- 6 Ave & W 33 St, ..
- 8 Ave & W 16 St, ..
- 8 Ave & W 52 St, ..
- 11 Ave & W 41 St..
- 12 Ave & W 40 St..
- Allen St & Riving..
- Amsterdam Ave

Number of Records
- 1
- 20,000
- 40,000
- 60,000
- 80,000
- 93,747

2018 Per Capita Inc..
- 0 to 27,000
- 27,000 to 31,900
- 31,900 to 36,800
- 36,800 to 44,800
- 44,800 to 194,000