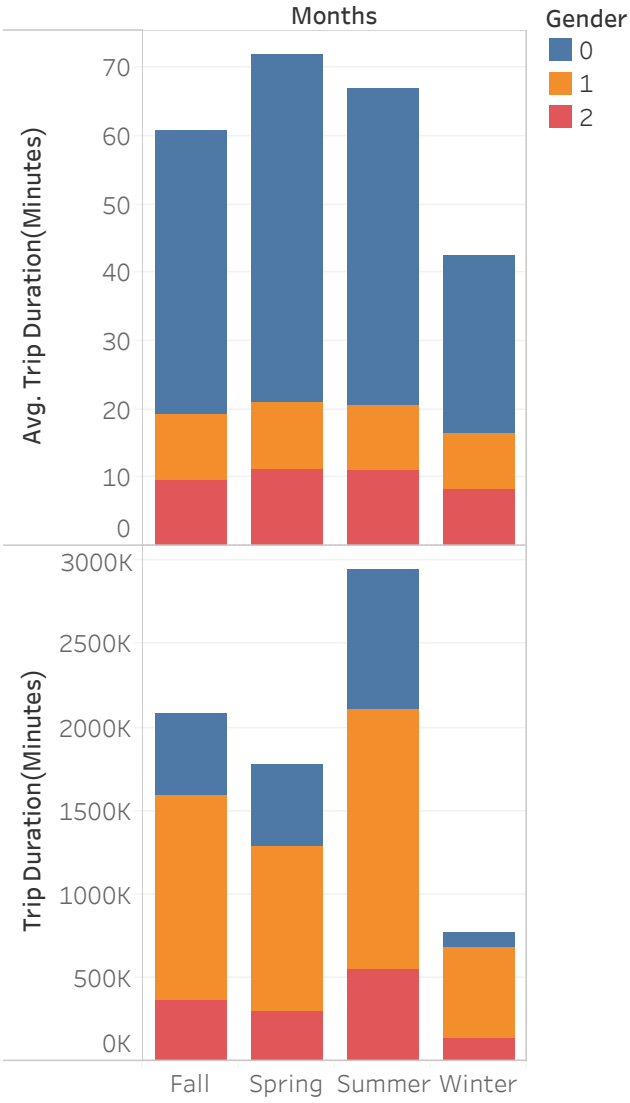
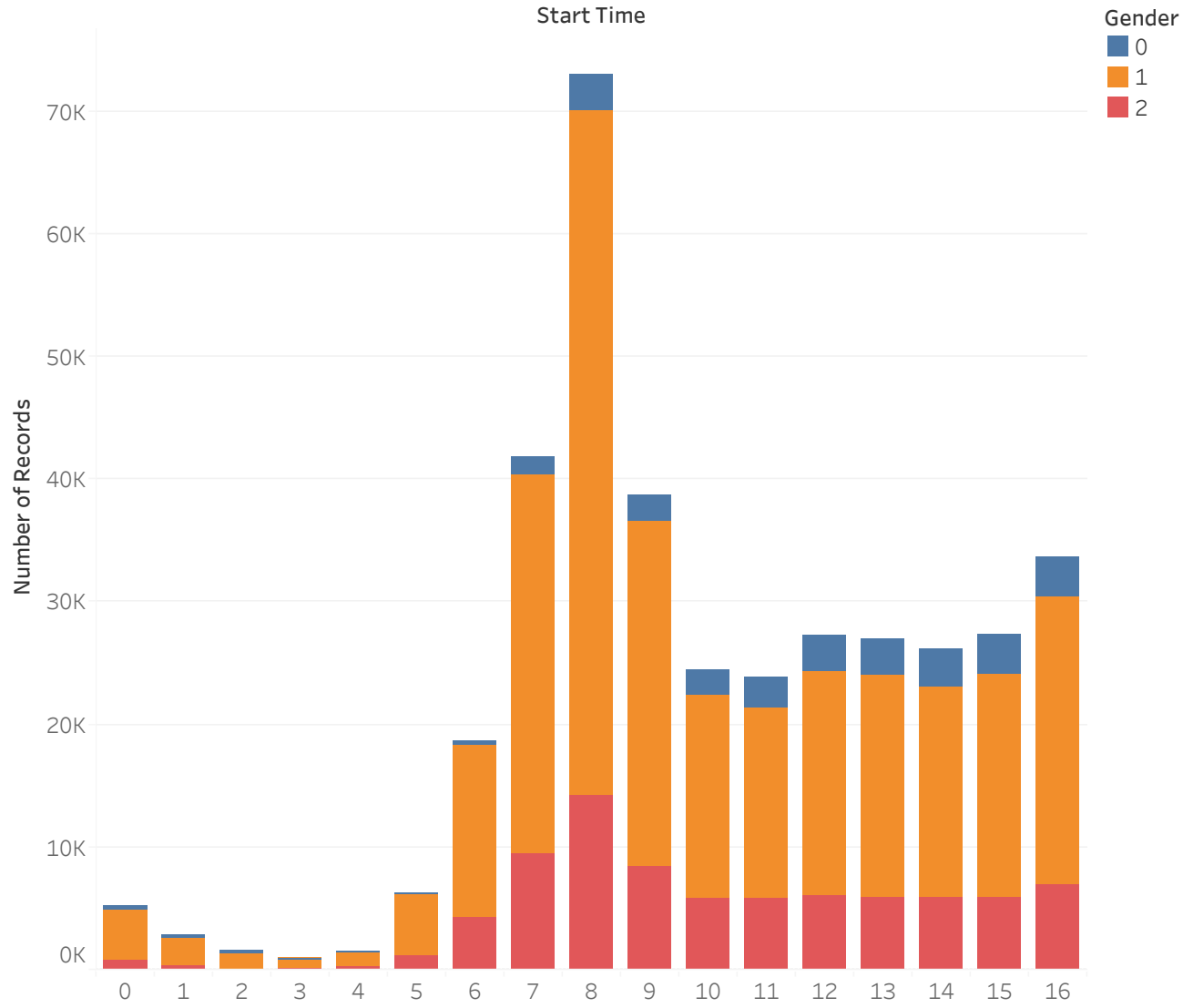
Trip Duration by Month and Gender



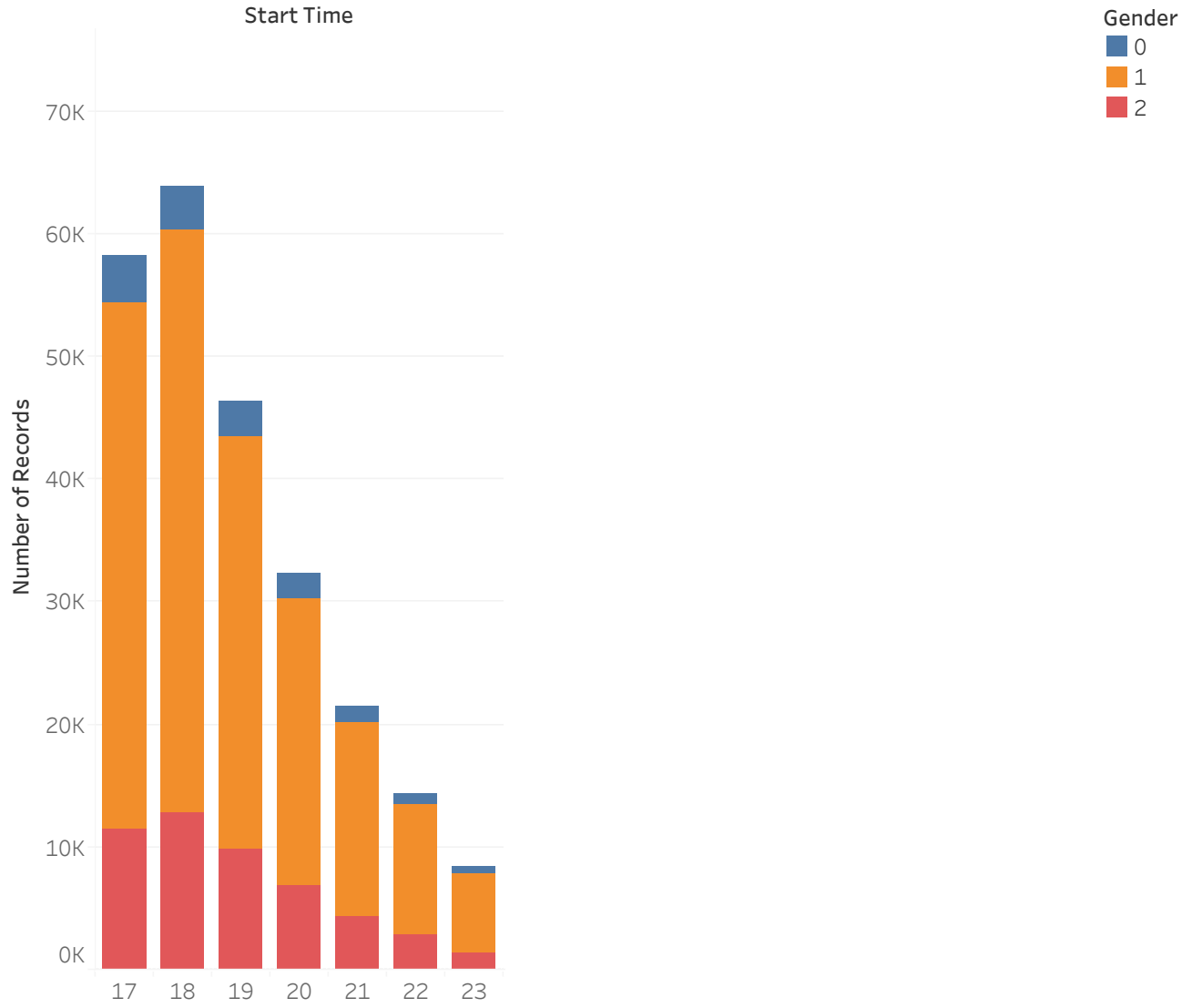
Average of Trip Duration(Minutes) and sum of Trip Duration(Minutes) for each Months. Color shows details about Gender.

Trip Start Time By Gender



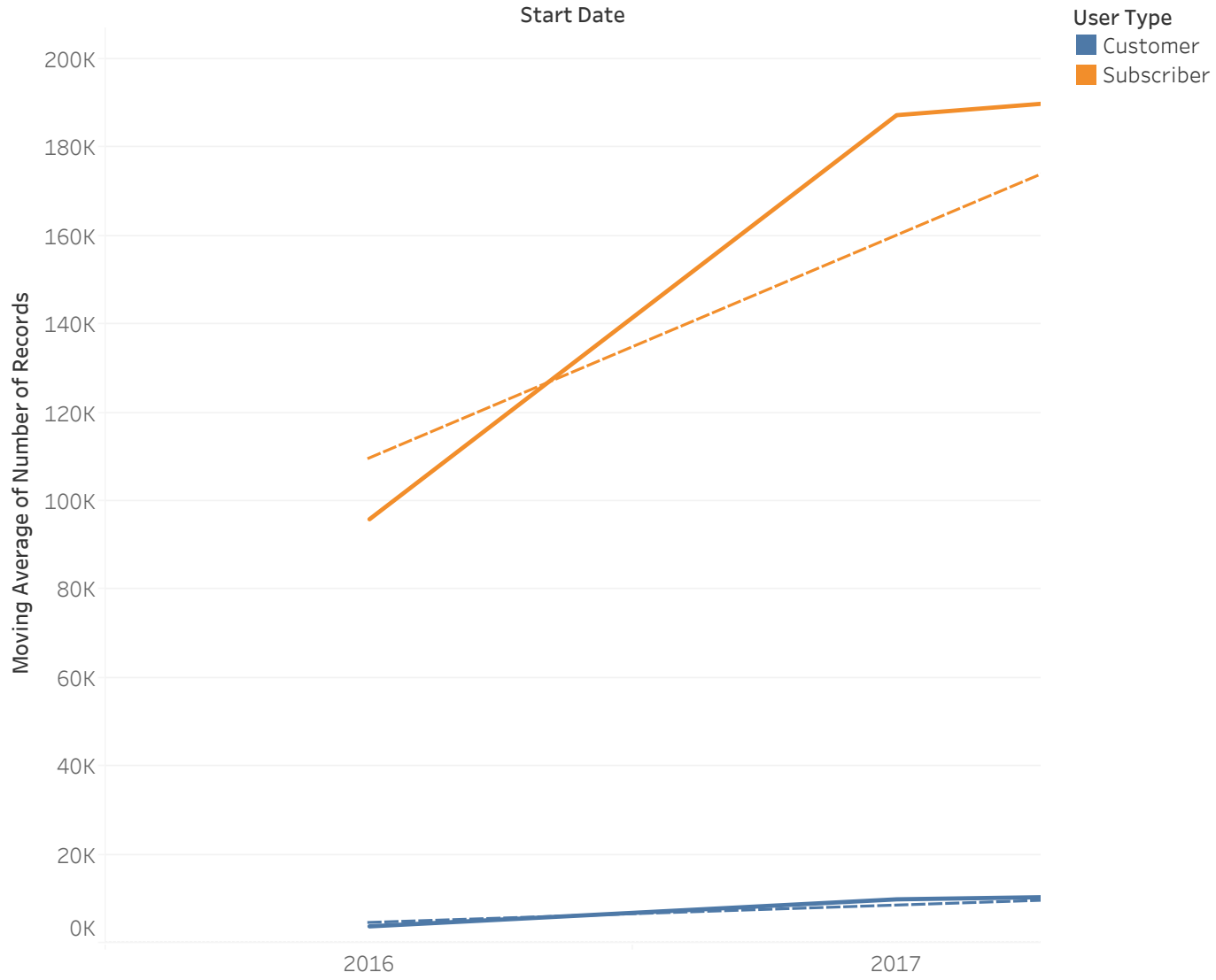
Sum of Number of Records for each Start Time Hour. Color shows details about Gender.

Trip Start Time By Gender



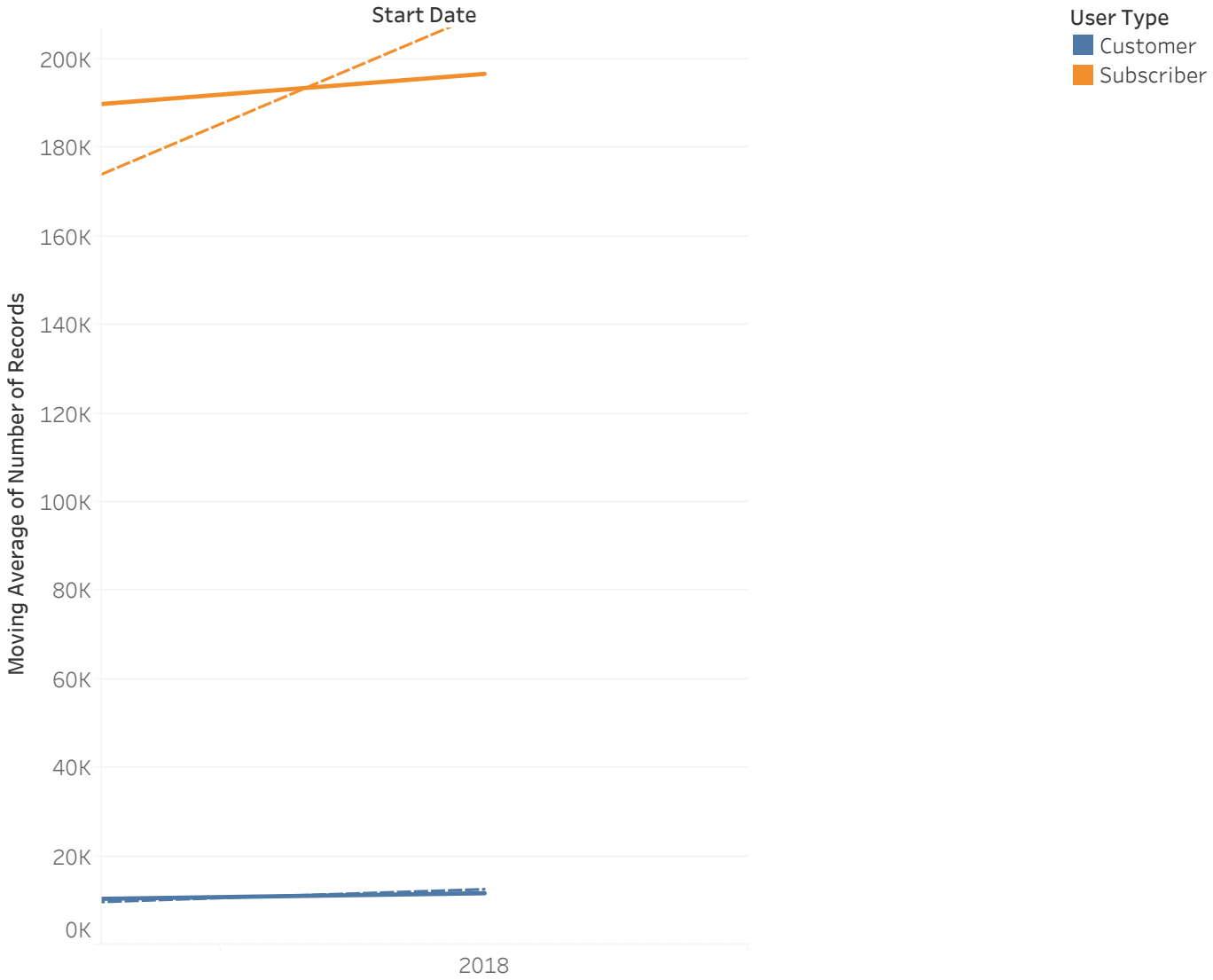
Sum of Number of Records for each Start Time Hour. Color shows details about Gender.

Total Increases in Membership



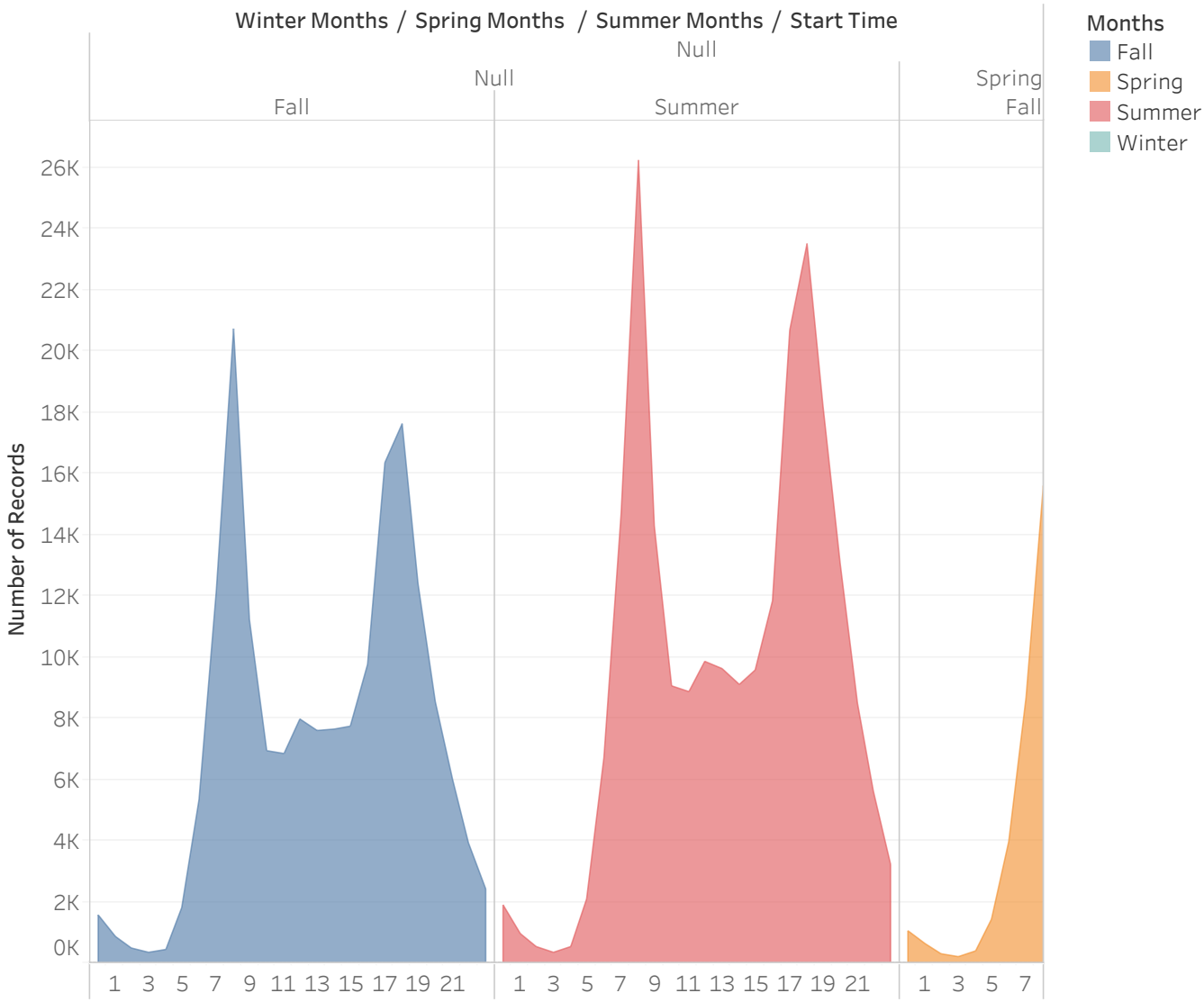
The trend of Moving Average of Number of Records for Start Date Year. Color shows details about User Type. The view is filtered on User Type, which keeps Customer and Subscriber.

Total Increases in Membership



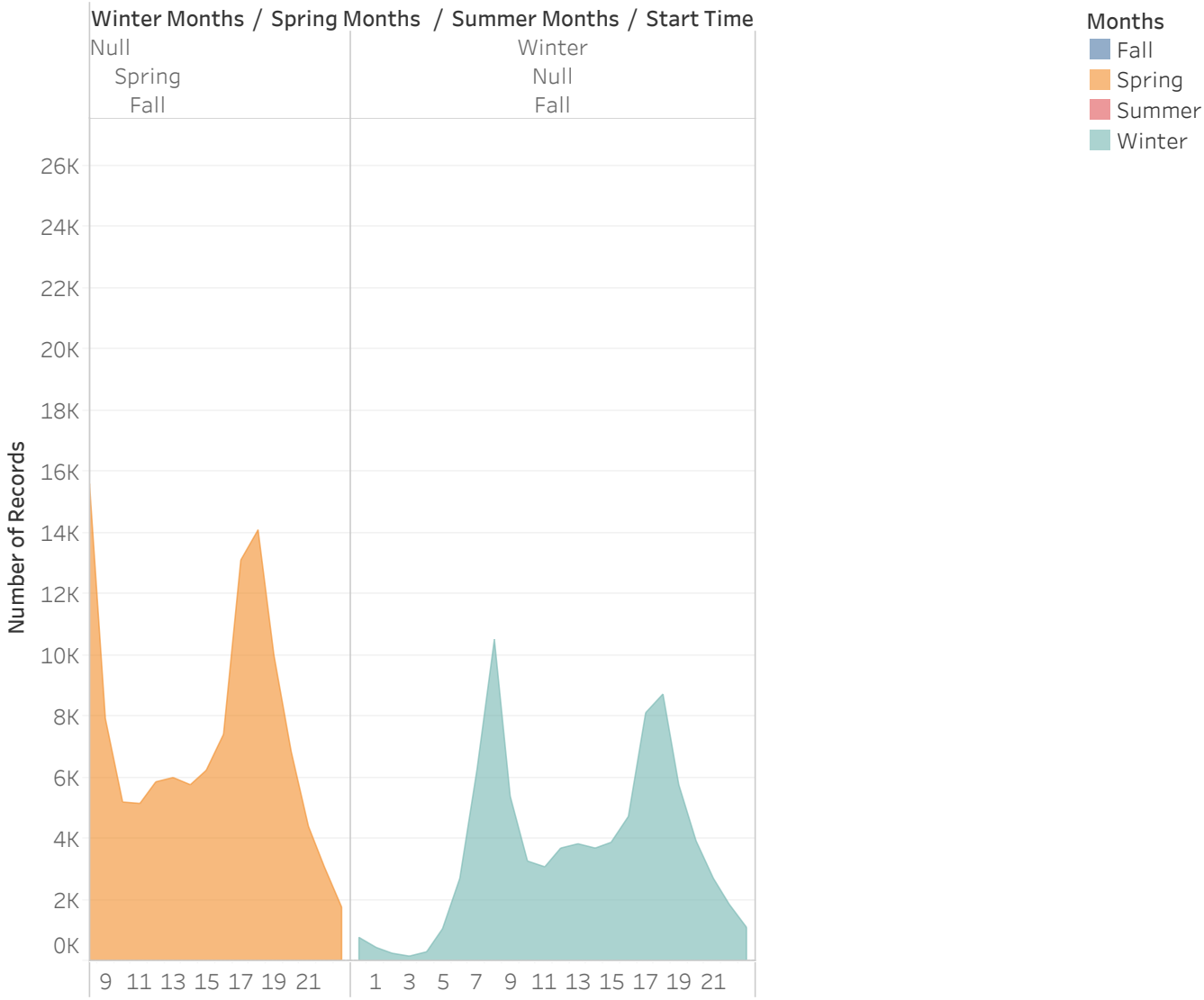
The trend of Moving Average of Number of Records for Start Date Year. Color shows details about User Type. The view is filtered on User Type, which keeps Customer and Subscriber.

Month - Start Times



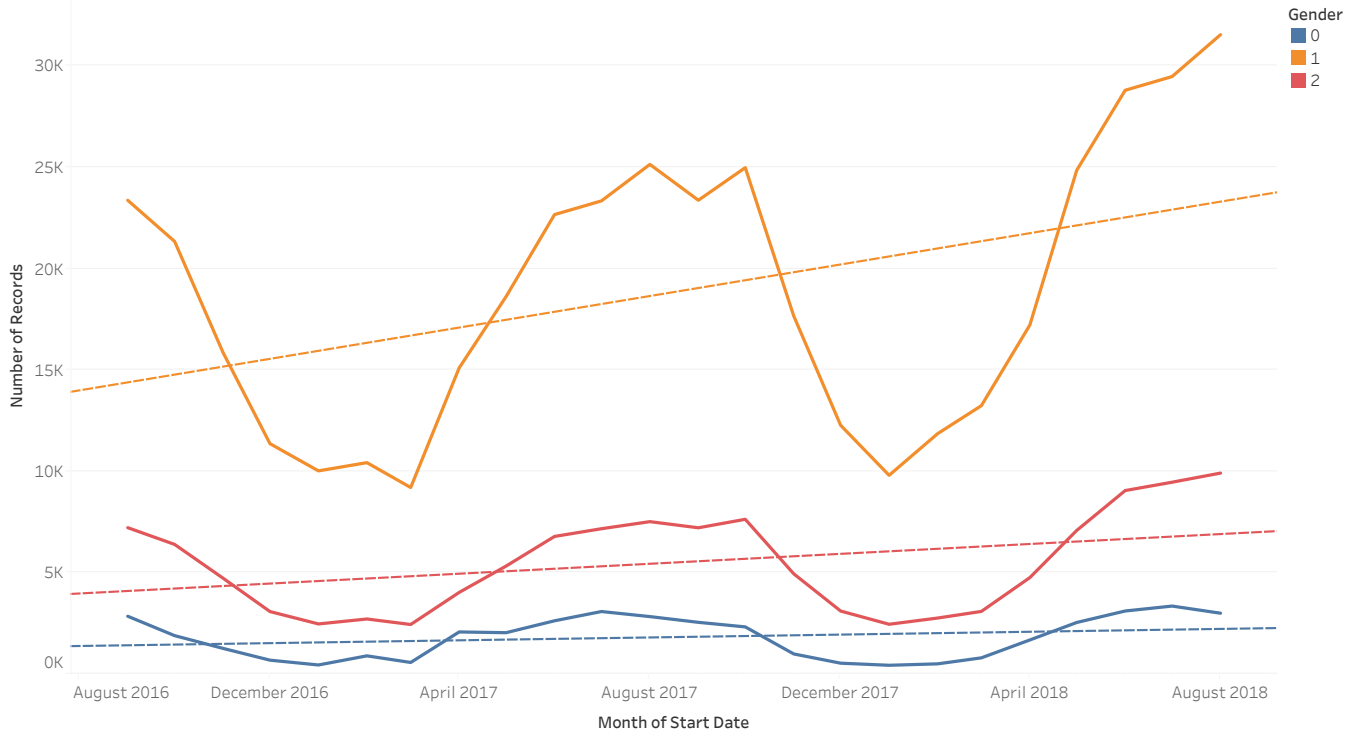
Sum of Number of Records for each Start Time Hour broken down by Winter Months, Spring Months and Summer Months. Color shows details about Months.

Month - Start Times



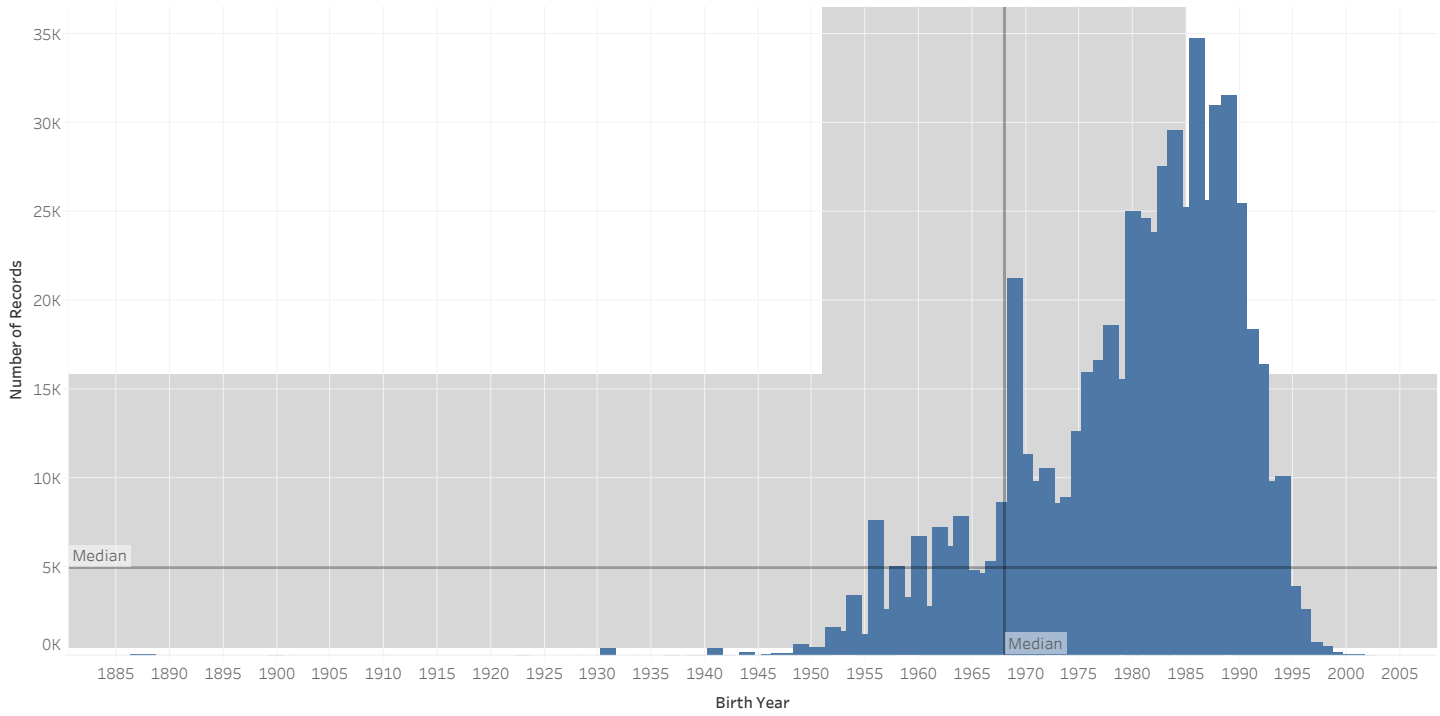
Sum of Number of Records for each Start Time Hour broken down by Winter Months, Spring Months and Summer Months. Color shows details about Months.

Increases by Gender



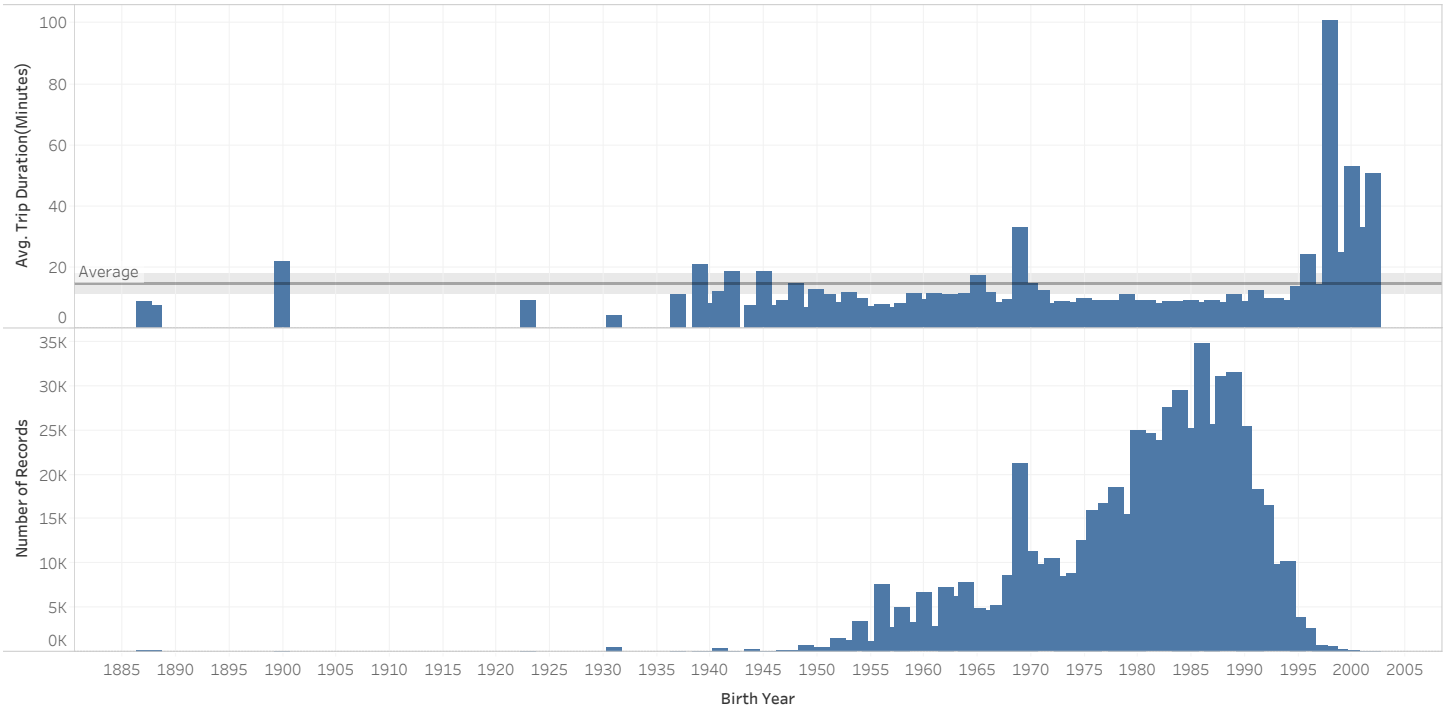
The trend of sum of Number of Records for Start Date Month. Color shows details about Gender.

Ages



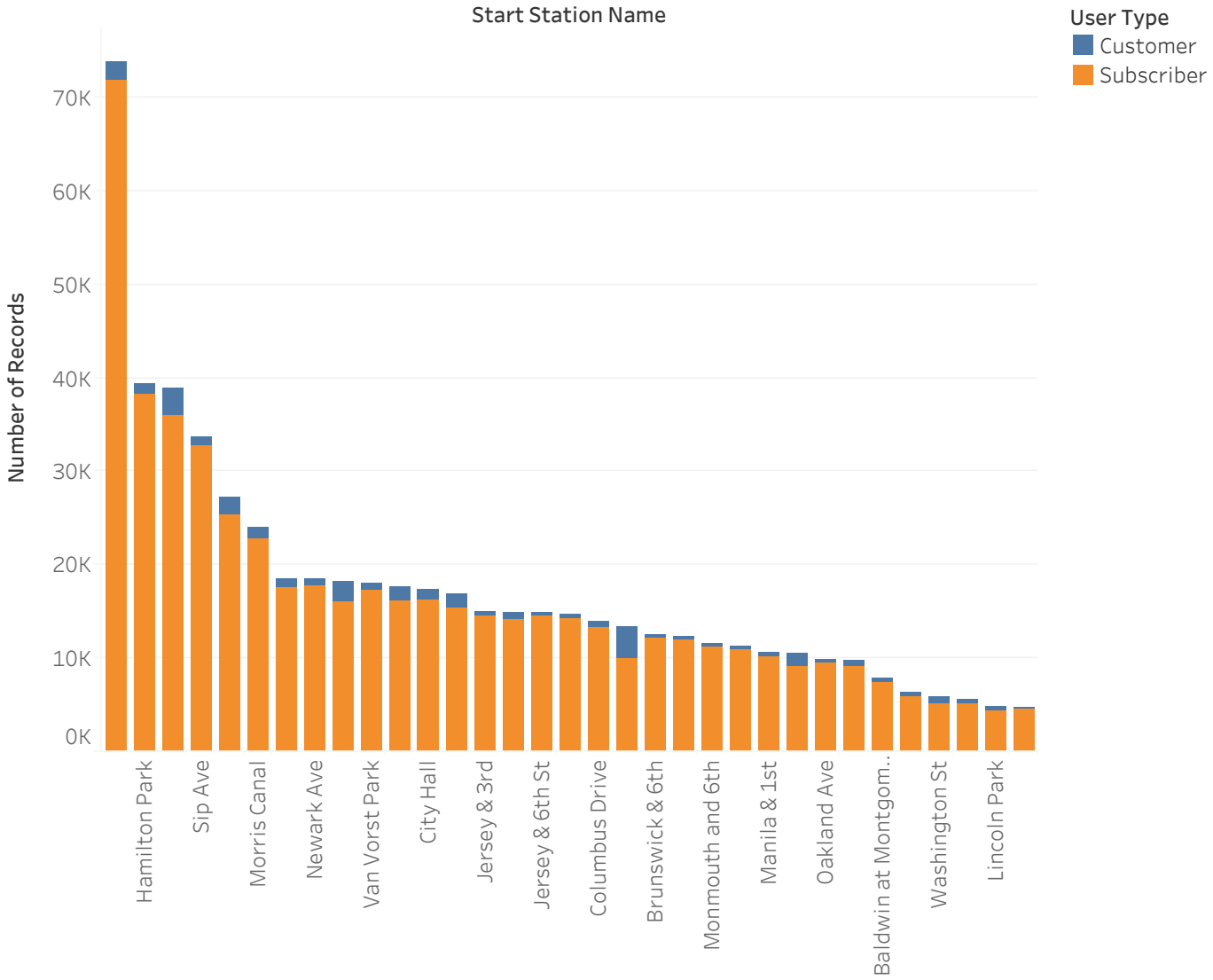
The plot of sum of Number of Records for Birth Year.

Birth Year - Records and Duration



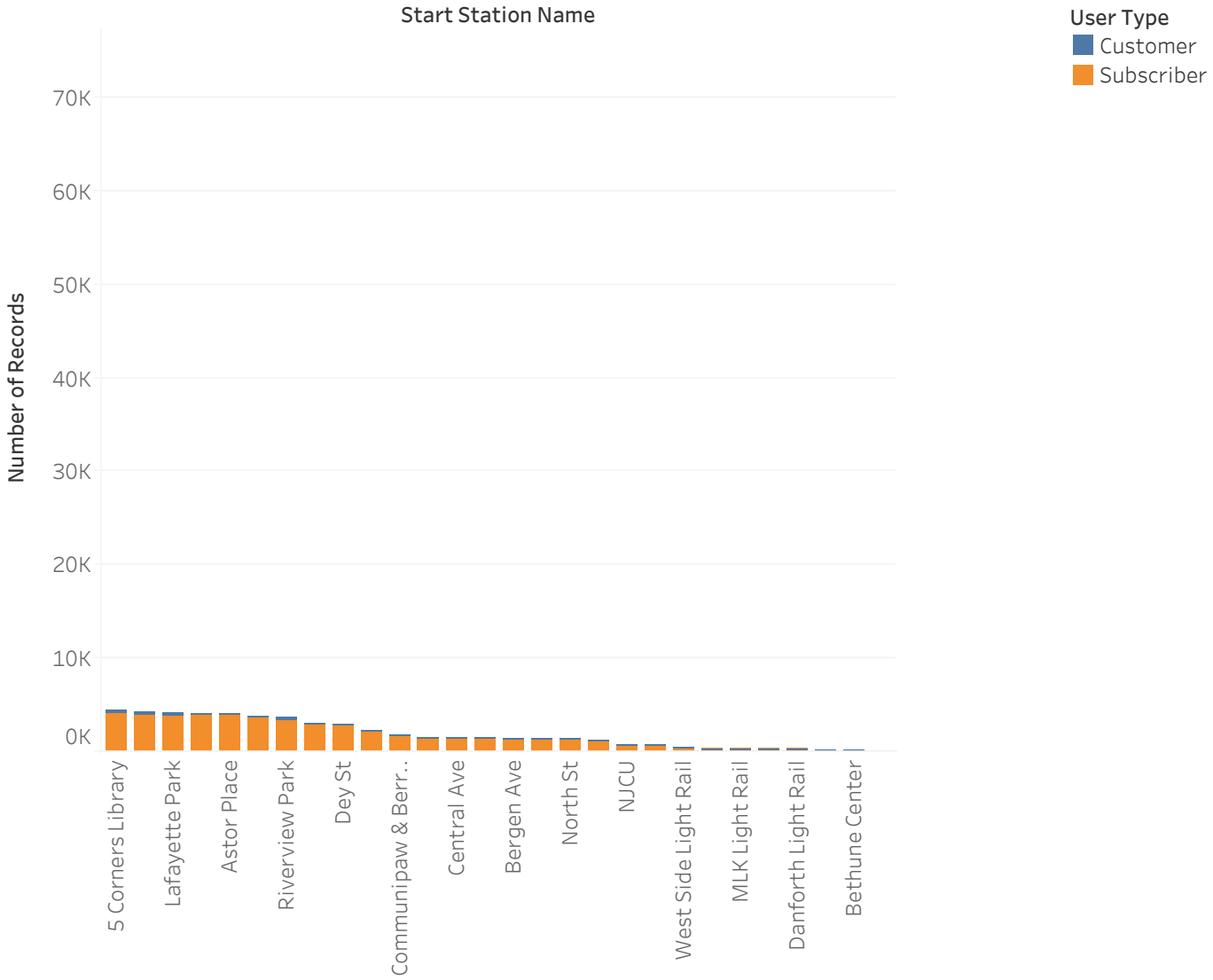
The plots of average of Trip Duration(Minutes) and sum of Number of Records for Birth Year.

Start Station by User Type



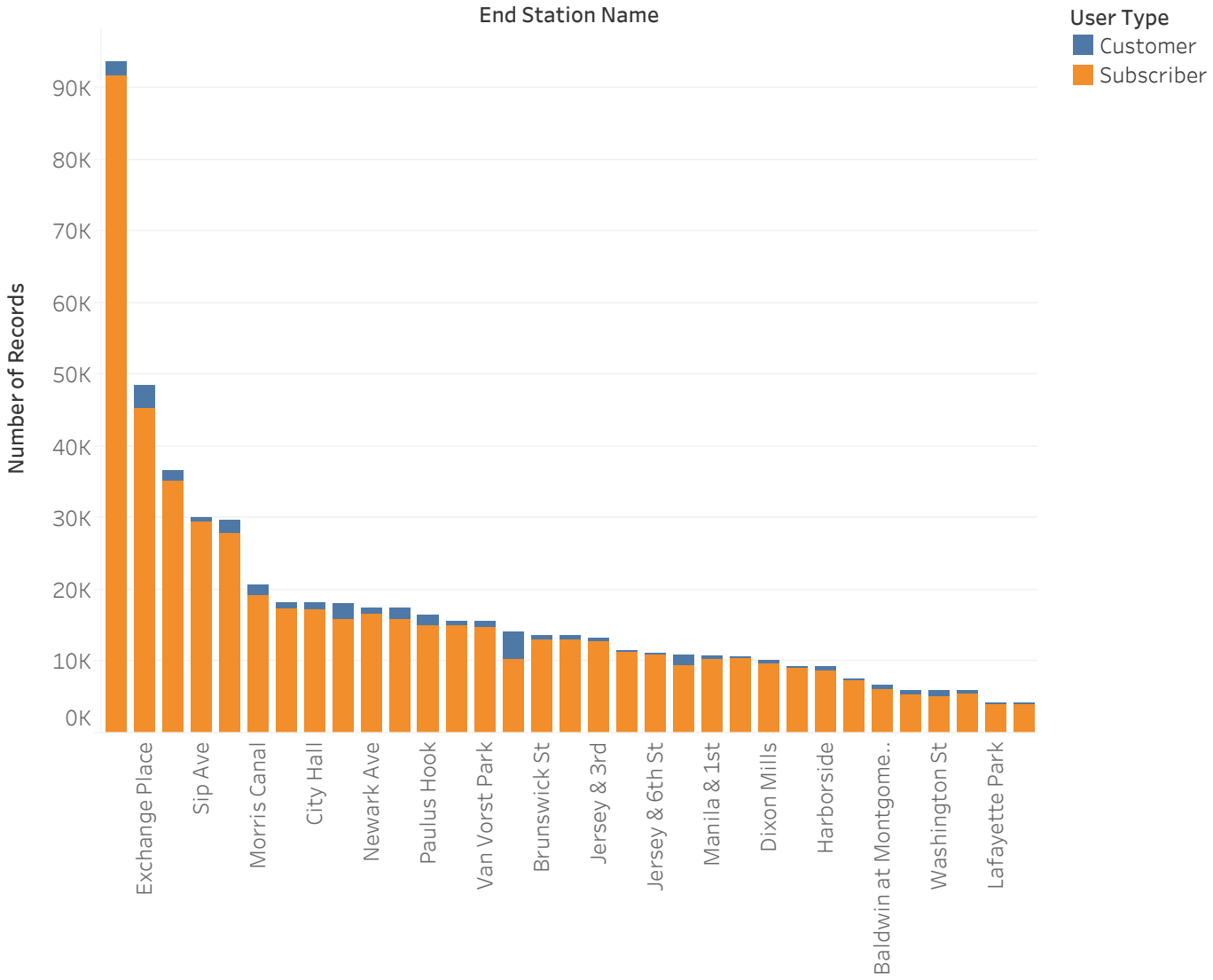
Sum of Number of Records for each Start Station Name. Color shows details about User Type. The view is filtered on User Type, which keeps Customer and Subscriber.

Start Station by User Type



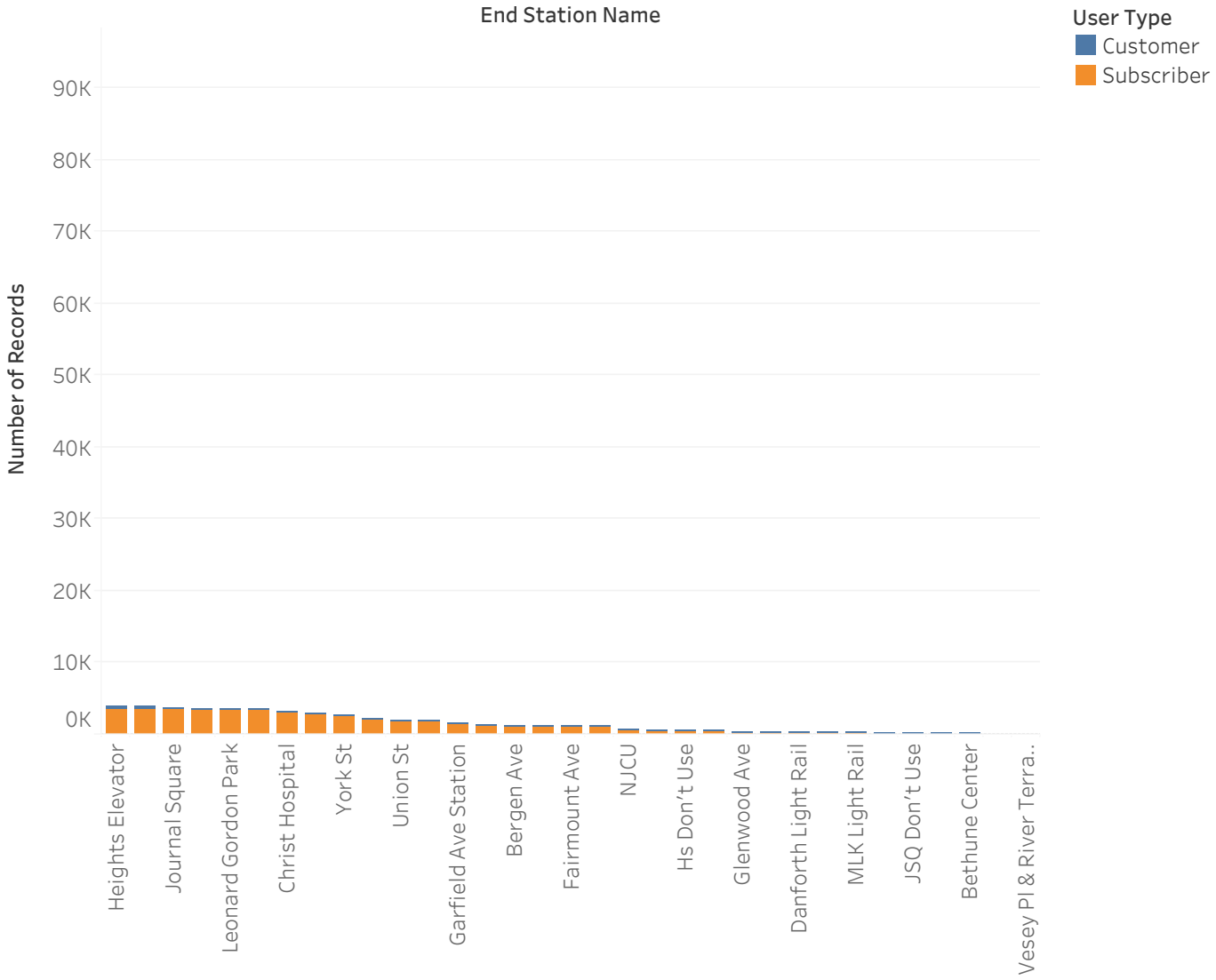
Sum of Number of Records for each Start Station Name. Color shows details about User Type. The view is filtered on User Type, which keeps Customer and Subscriber.

End Station by User Type



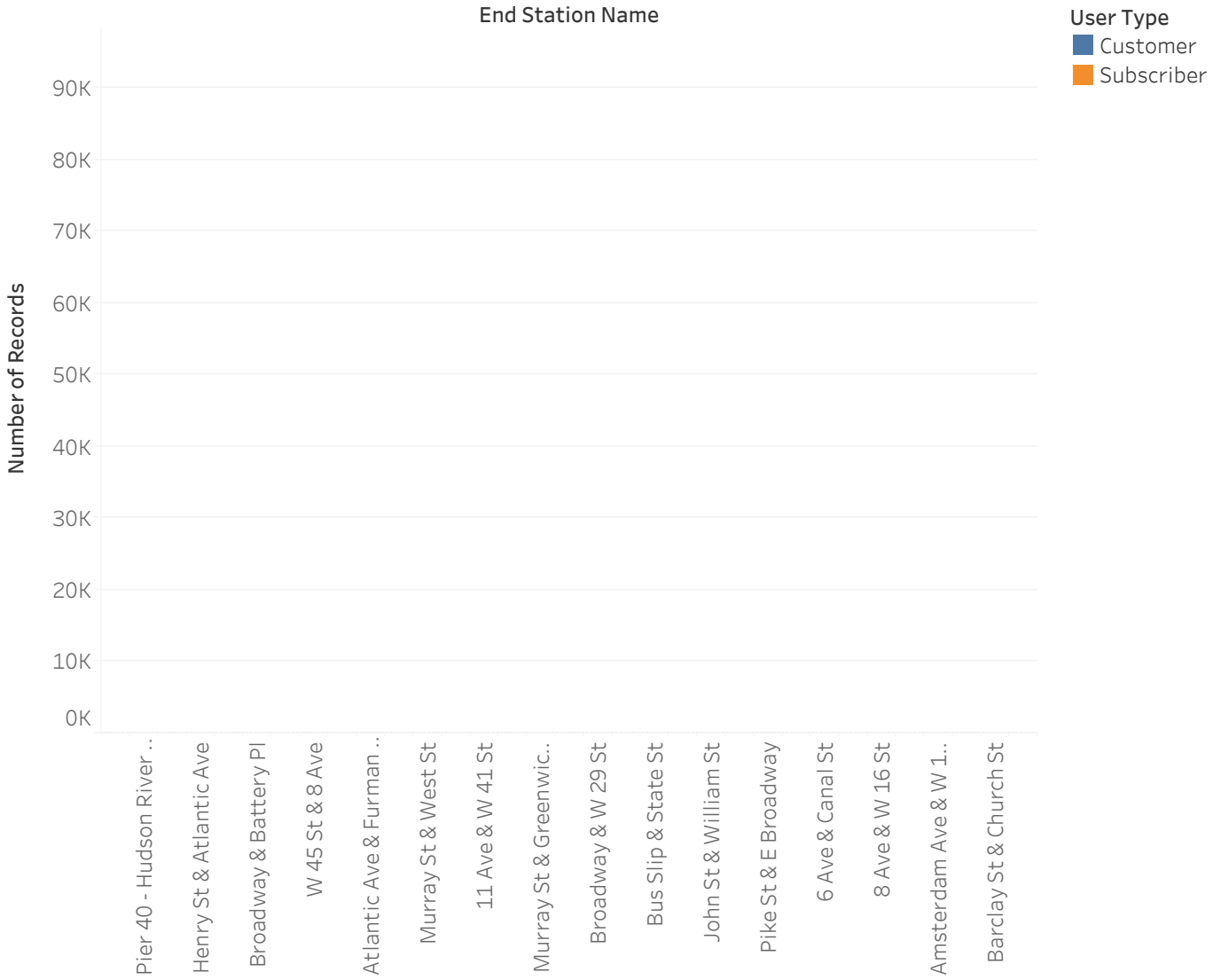
Sum of Number of Records for each End Station Name. Color shows details about User Type. The view is filtered on User Type, which keeps Customer and Subscriber.

End Station by User Type



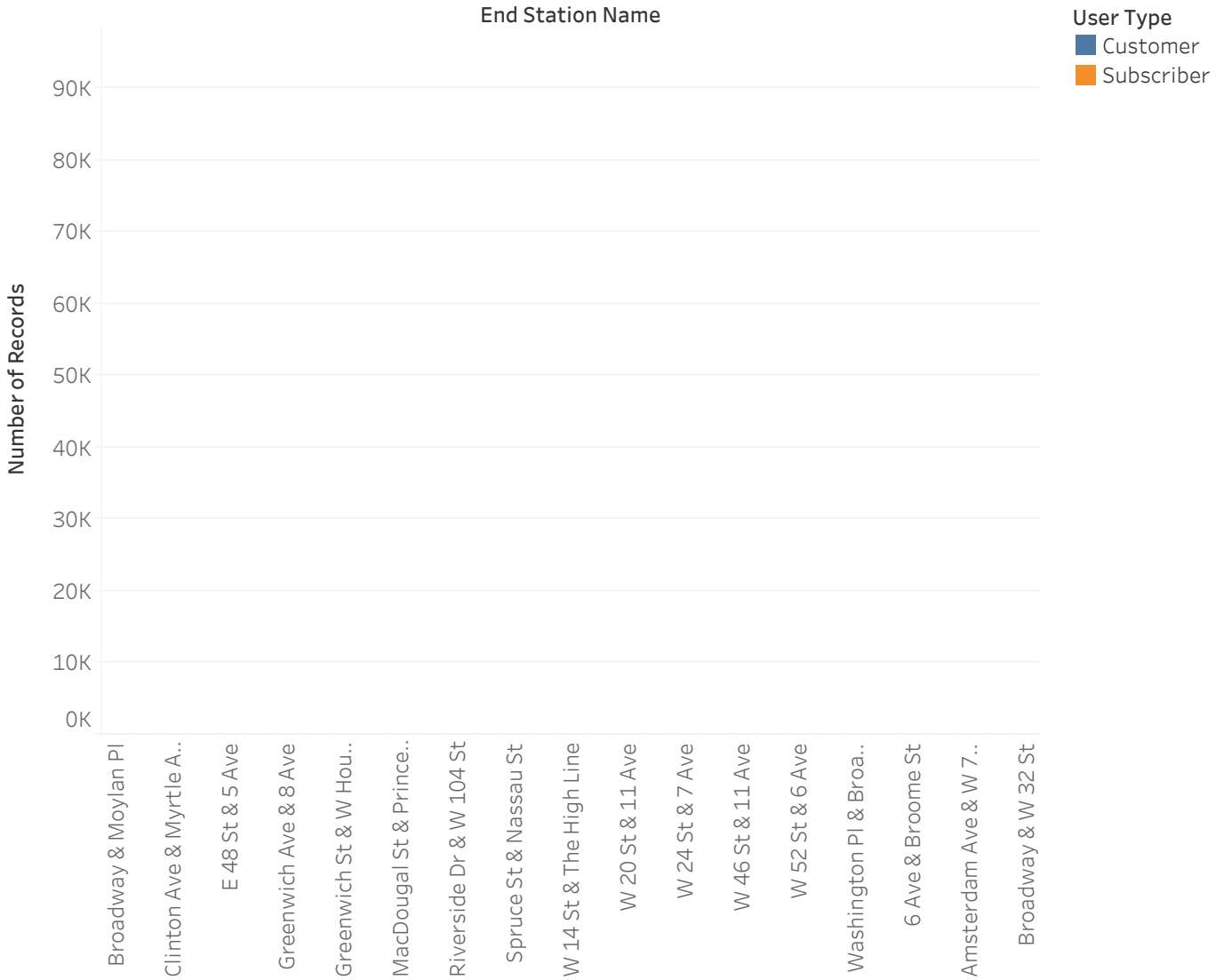
Sum of Number of Records for each End Station Name. Color shows details about User Type. The view is filtered on User Type, which keeps Customer and Subscriber.

End Station by User Type



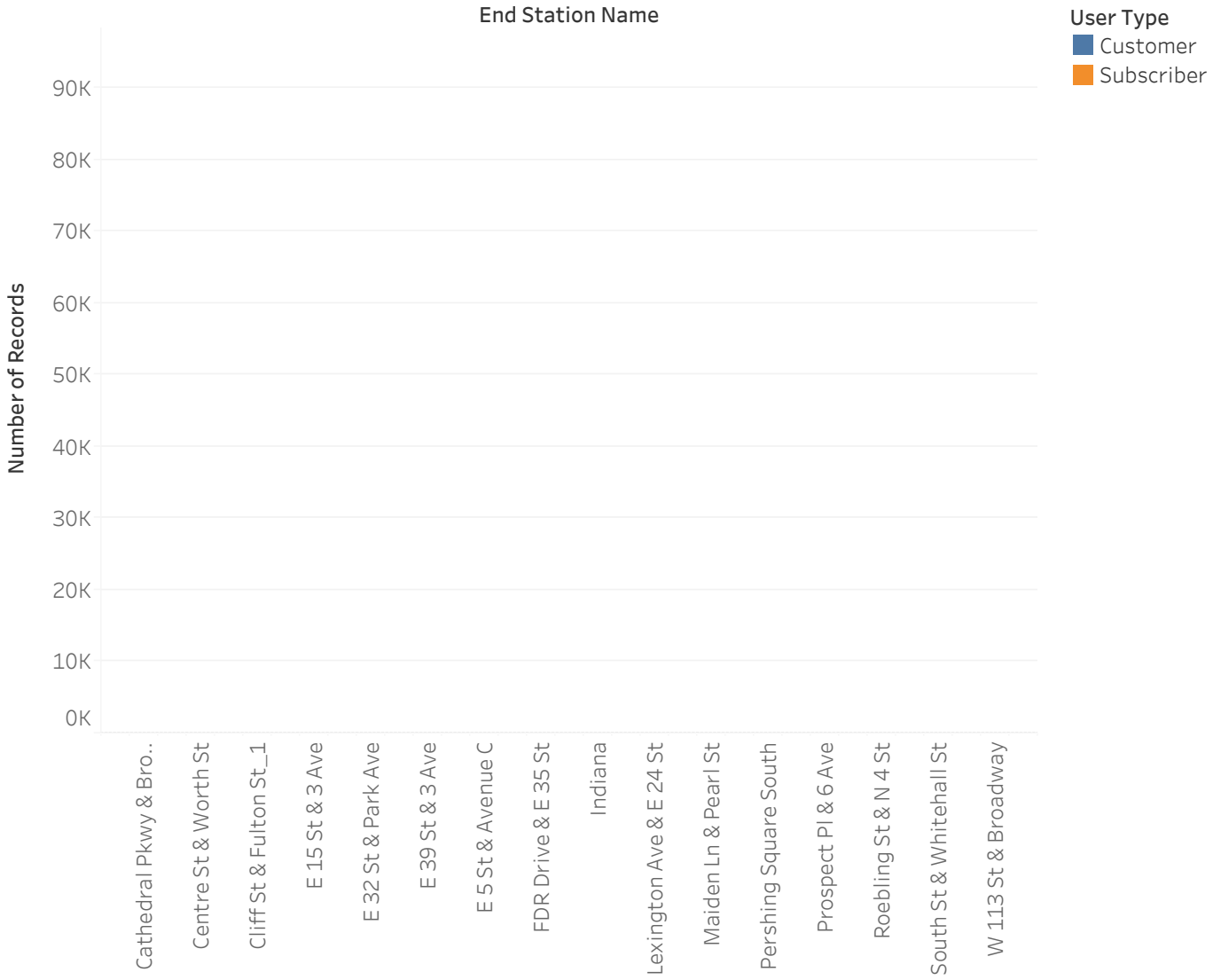
Sum of Number of Records for each End Station Name. Color shows details about User Type. The view is filtered on User Type, which keeps Customer and Subscriber.

End Station by User Type



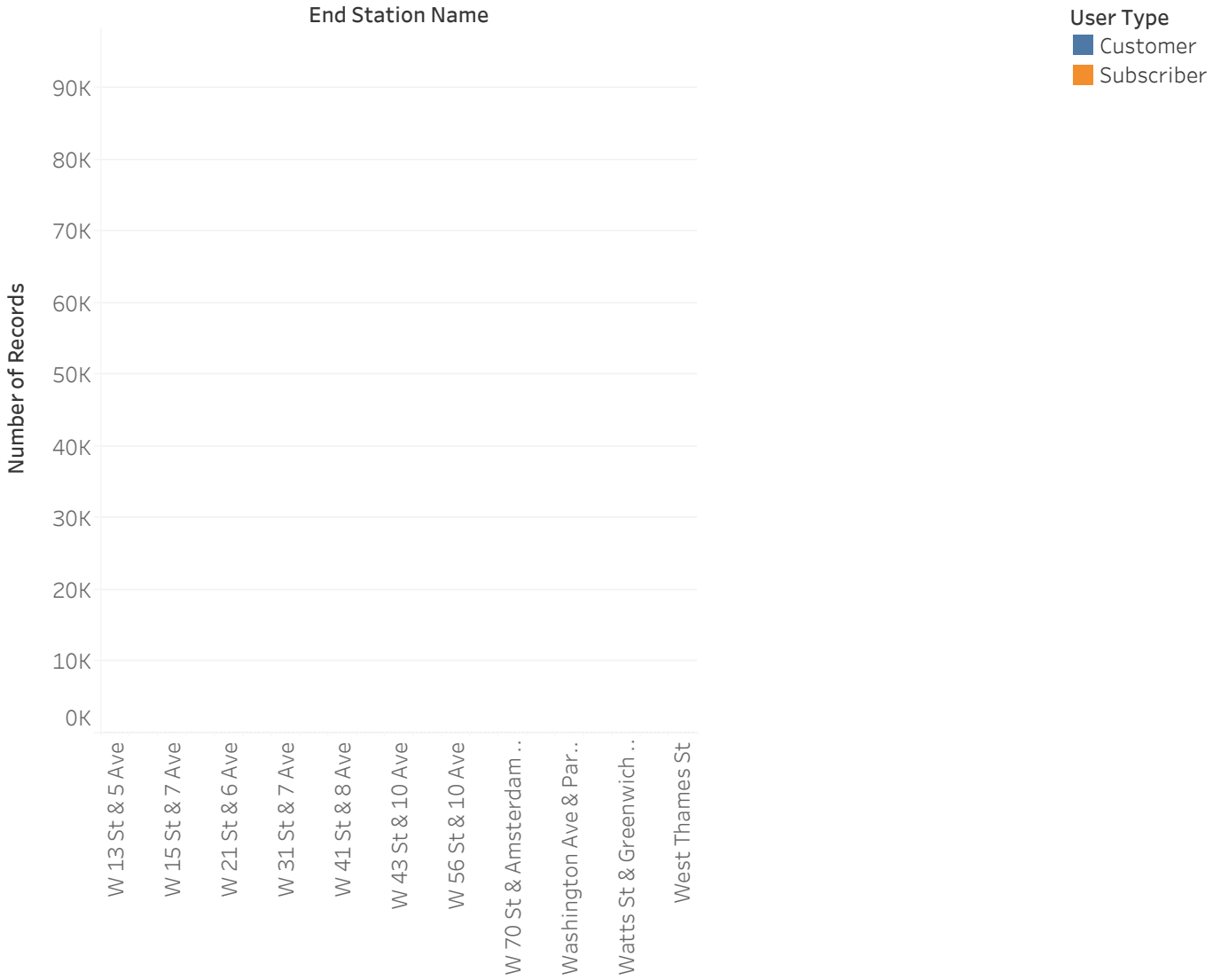
Sum of Number of Records for each End Station Name. Color shows details about User Type. The view is filtered on User Type, which keeps Customer and Subscriber.

End Station by User Type



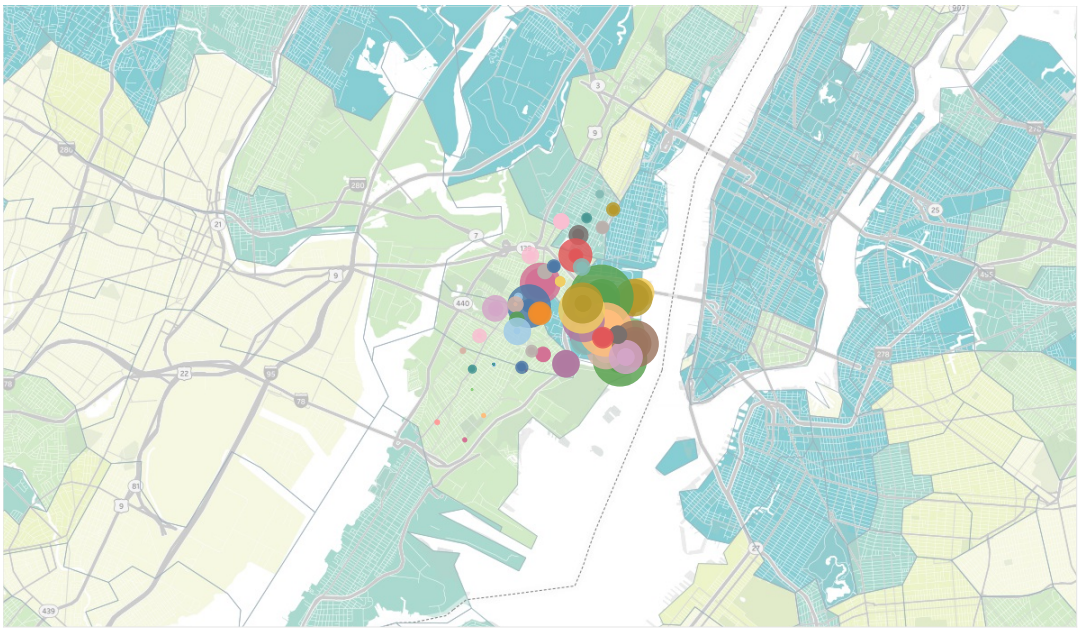
Sum of Number of Records for each End Station Name. Color shows details about User Type. The view is filtered on User Type, which keeps Customer and Subscriber.

End Station by User Type



Sum of Number of Records for each End Station Name. Color shows details about User Type. The view is filtered on User Type, which keeps Customer and Subscriber.

Start Station Popularity Map



Map based on average of Start Station Longitude and average of Start Station Latitude. Color shows details about Start Station Name. Size shows sum of Number of Records. Details are shown for Zipcode. Map coloring shows 2018 Per Capita Income by Zip Code. The view is filtered on Start Station Name, which keeps 61 of 61 members.

2018 Per Capita Income

- 0 to 27,000
- 27,000 to 31,900
- 31,900 to 36,800
- 36,800 to 44,800
- 44,800 to 194,000

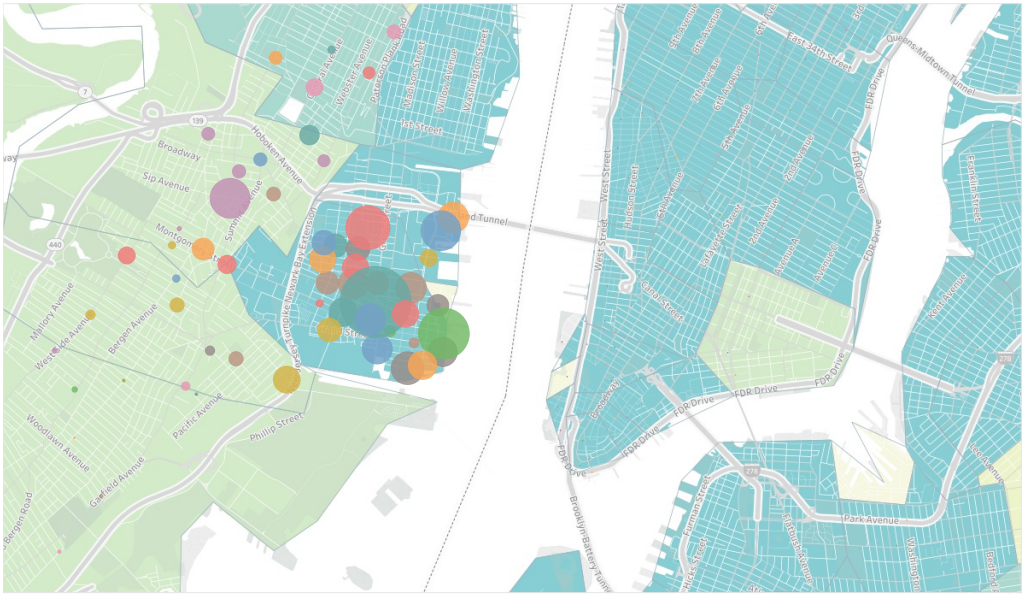
Number of Records

1
5,000
10,000
14,916

Start Station Name

- 5 Corners Library
- Astor Place
- Baldwin at Montgomery
- Bayside Park
- Bergen Ave
- Bethune Center
- Brunswick & 6th
- Brunswick St
- Central Ave
- Christ Hospital
- City Hall
- Columbia Park
- Columbus Drive
- Communipaw & Berry Lane
- Danforth Light Rail
- Dey St
- Dixon Mills
- Essex Light Rail
- Exchange Place
- Fairmount Ave
- Garfield Ave Station
- Glenwood Ave
- Grand St
- Grove St PATH
- Hamilton Park
- Harborside
- Heights Elevator
- Hilltop
- Jackson Square
- JC Medical Center
- JCBS Depot
- Jersey & 3rd
- Jersey & 6th St
- Journal Square
- Lafayette Park
- Leonard Gordon Park
- Liberty Light Rail
- Lincoln Park
- Manila & 1st
- Marin Light Rail
- McGinley Square
- MLK Light Rail
- Monmouth and 6th
- Montgomery St
- Morris Canal
- Newark Ave
- Newport PATH
- Newport Pkwy
- NJCU
- North St
- Oakland Ave
- Paulus Hook
- Pershing Field
- Riverview Park
- Sip Ave
- Union St
- Van Vorst Park
- Warren St
- Washington St
- West Side Light Rail
- York St

End Station Popularity Map



Map based on average of End Station Longitude and average of End Station Latitude. Color shows details about End Station Name and Zipcode. Size shows sum of Number of Records. Map coloring shows 2018 Per Capita Income by Zip Code. The view is filtered on End Station Name, which excludes Indiana, JSQ Don't Use and WS Don't Use.

2018 Per Capita Income

- 0 to 27,000
- 27,000 to 31,900
- 31,900 to 36,800
- 36,800 to 44,800
- 44,800 to 194,000

Number of Records

1
20,000
40,000
60,000
80,000
93,747

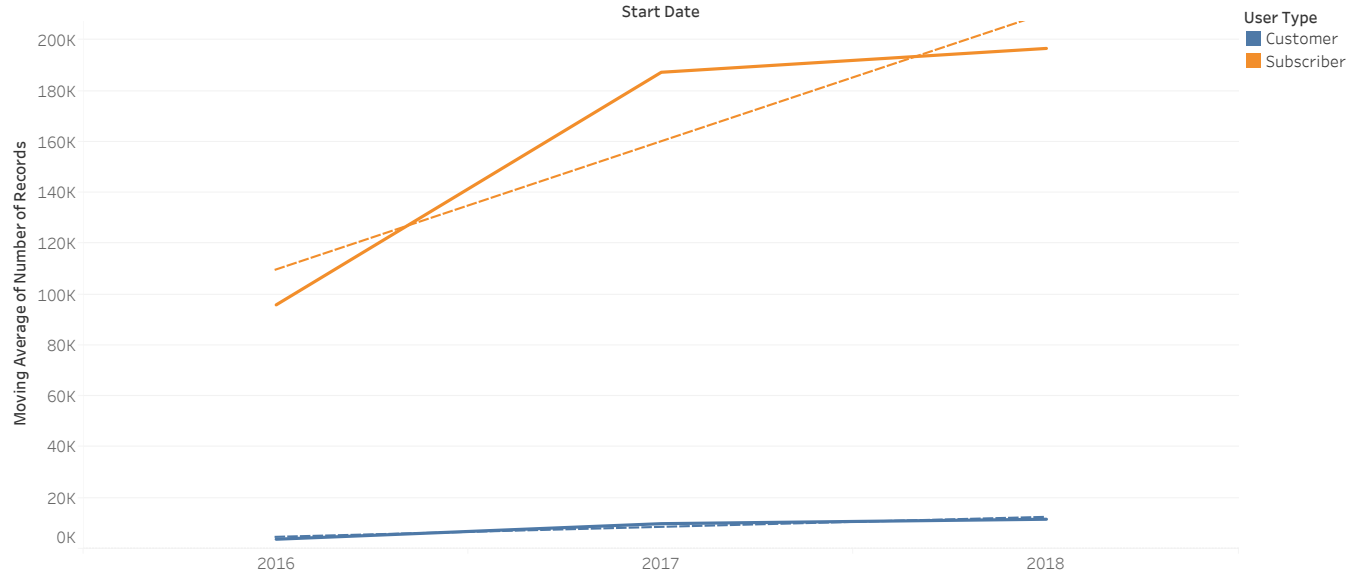
End Station Name, Zipcode

- 5 Corners Library, 00041
- 6 Ave & Broome St, 00041
- 6 Ave & Canal St, 00041
- 6 Ave & Spring St, 00041
- 6 Ave & W 33 St, 00041
- 8 Ave & W 16 St, 00041
- 8 Ave & W 52 St, 00041
- 11 Ave & W 41 St, 00041
- 12 Ave & W 40 St, 00041
- Allen St & Rivington St, 00041
- Amsterdam Ave & W 66 St, 00041
- Amsterdam Ave & W 73 St, 00041
- Amsterdam Ave & W 125 St, 00041
- Astor Place, 00041
- Atlantic Ave & Furman St, 00041
- Baldwin at Montgomery, 00041
- Bank St & Washington St, 00041
- Barclay St & Church St, 00041
- Barrow St & Hudson St, 00041
- Bayside Park, 00041
- Bergen Ave, 00041
- Bethune Center, 00041
- Broadway & Battery Pl, 00041
- Broadway & Moylan Pl, 00041
- Broadway & W 24 St, 00041
- Broadway & W 29 St, 00041
- Broadway & W 32 St, 00041
- Broadway & W 36 St, 00041
- Broadway & W 38 St, 00041
- Broadway & W 58 St, 00041
- Brunswick & 6th, 00041
- Brunswick St, 00041
- Bus Slip & State St, 00041
- Cathedral Pkwy & Broadway, 00041
- Central Ave, 00041
- Central Park S & 6 Ave, 00041
- Central Park West & W 68 St, 00041
- Centre St & Worth St, 00041
- Christ Hospital, 00041
- Christopher St & Greenwich St, 00041
- City Hall, 00041
- Cliff St & Fulton St_1, 00041
- Clinton Ave & Myrtle Ave, 00041
- Columbia Park, 00041
- Columbia St & Kane St, 00041
- Columbus Drive, 00041
- Communipaw & Berry Lane, 00041
- Danforth Light Rail, 00041
- Dey St, 00041
- Dixon Mills, 00041
- Duane St & Greenwich St, 00041
- E 3 St & 1 Ave, 00041
- E 4 St & 2 Ave, 00041
- E 5 St & Avenue C, 00041
- E 7 St & Avenue A, 00041
- E 15 St & 3 Ave, 00041
- E 32 St & Park Ave, 00041
- E 33 St & 5 Ave, 00041
- E 39 St & 3 Ave, 00041
- E 47 St & Park Ave, 00041
- E 48 St & 5 Ave, 00041
- Essex Light Rail, 00041
- Exchange Place, 00041
- Fairmount Ave, 00041
- FDR Drive & E 35 St, 00041
- Franklin St & W Broadway, 00041
- Fulton St & Broadway, 00041
- Garfield Ave Station, 00041
- Glenwood Ave, 00041
- Grand St, 00041
- Greenwich Ave & 8 Ave, 00041
- Greenwich Ave & Charles St, 00041
- Greenwich St & Hubert St, 00041
- Greenwich St & W Houston St, 00041
- Grove St PATH, 00041
- Hamilton Park, 00041
- Harborside, 00041
- Heights Elevator, 00041
- Henry St & Atlantic Ave, 00041
- Hilltop, 00041
- Hs Don't Use, 00041
- Hudson St & Reade St, 00041
- Jackson Square, 00041
- JC Medical Center, 00041
- JCBS Depot, 00041
- Jersey & 3rd, 00041
- Jersey & 6th St, 00041
- John St & William St, 00041
- Journal Square, 00041
- Lafayette Park, 00041
- LaGuardia Pl & W 3 St, 00041
- Leonard Gordon Park, 00041
- Lexington Ave & E 24 St, 00041
- Liberty Light Rail, 00041
- Liberty St & Broadway, 00041
- Lincoln Park, 00041
- Little West St & 1 Pl, 00041
- MacDougal St & Prince St, 00041
- Maiden Ln & Pearl St, 00041
- Manila & 1st, 00041
- Marin Light Rail, 00041
- McGinley Square, 00041
- Mercer St & Spring St, 00041
- MLK Light Rail, 00041

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..

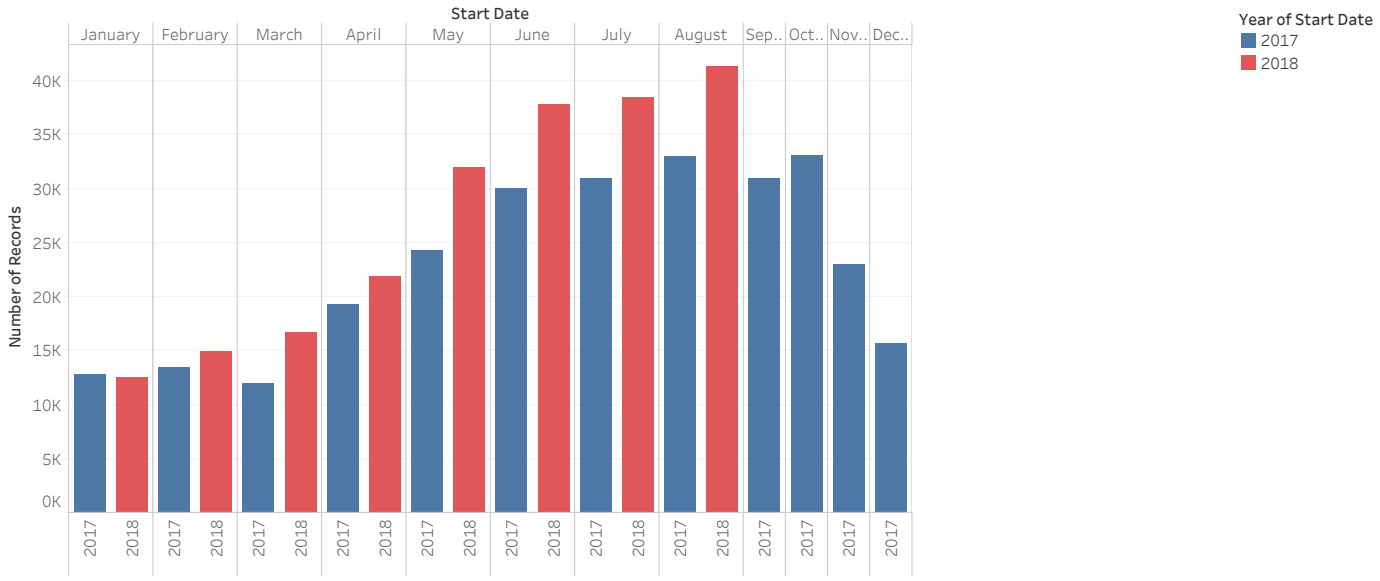


Citi Bike Analysis

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..

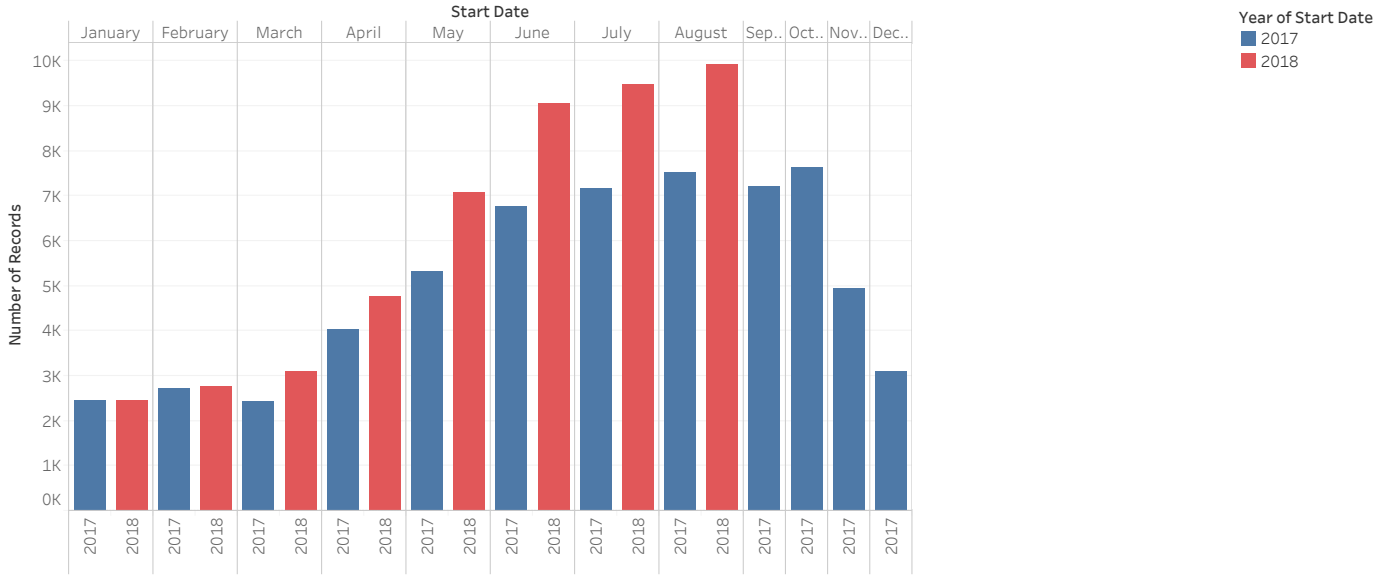


Citi Bike Analysis

Year over Year growth is a valuable way to compare growth in records from the previo..

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.

Now that we know that overall growth is up, I wanted to see how membership for Genders h..

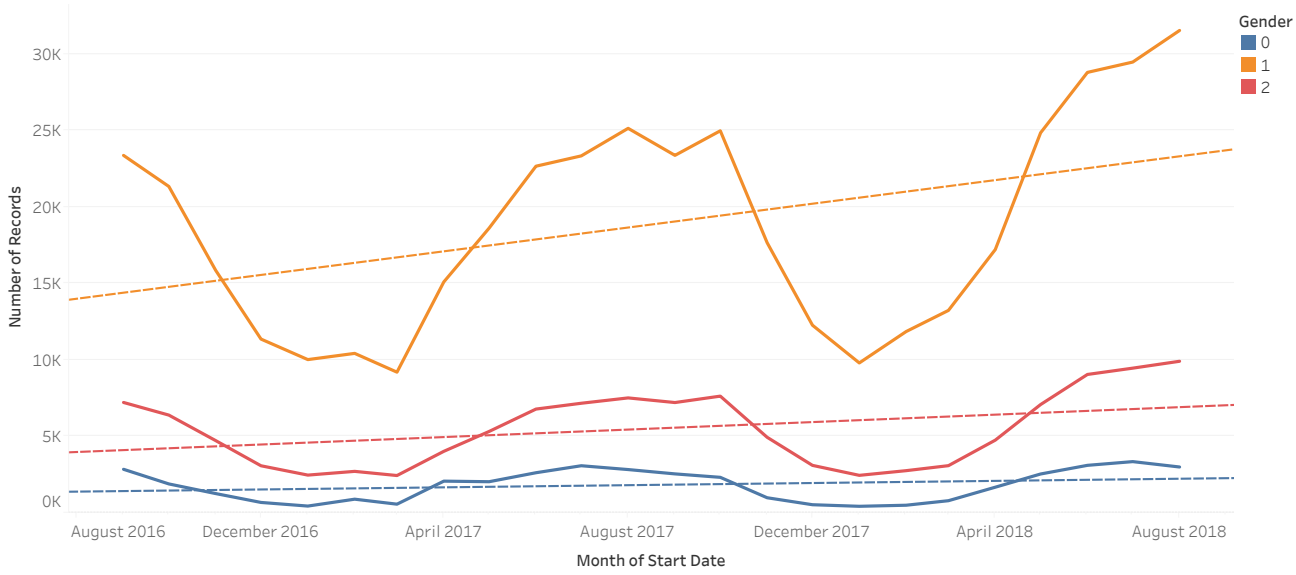


Citi Bike Analysis

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

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.

I was curious to see what age groups are most frequently using the Citi Bikes. Here we can see tha..

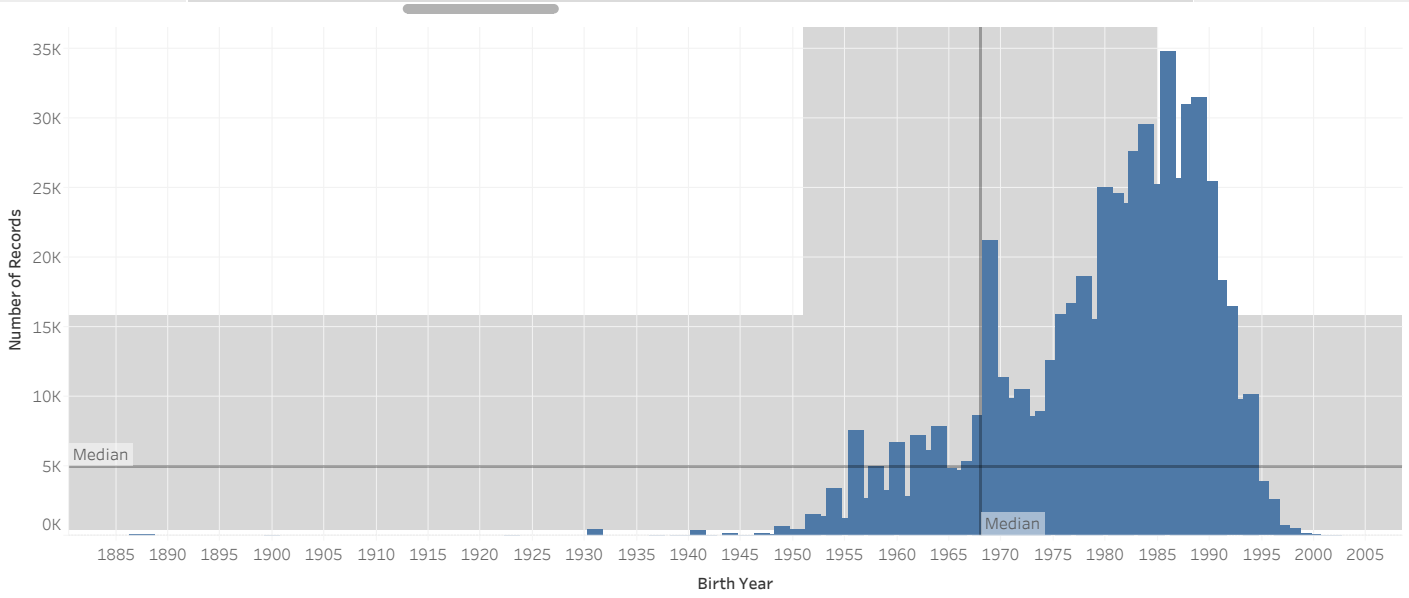


Citi Bike Analysis

Now that we know that overall growth is up, I wanted to see how membership for Gender..

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.

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

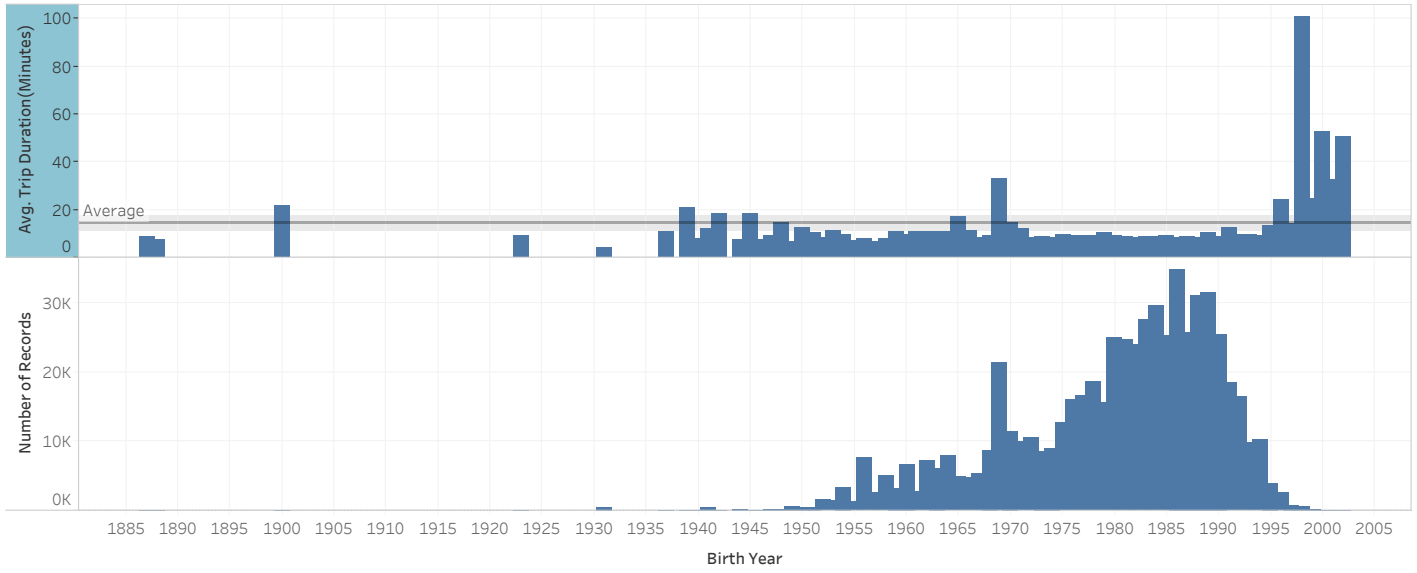


Citi Bike Analysis

I was curious to see what age groups are most frequently using the Citi Bikes. Here we can see t..

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.

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

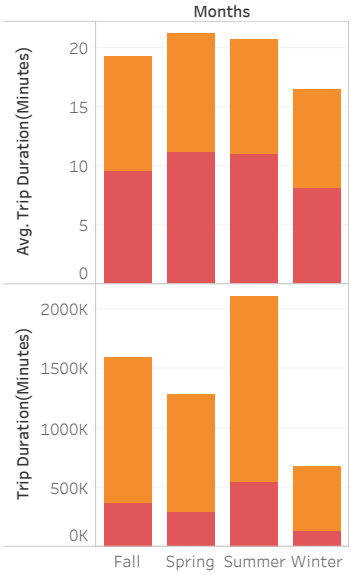


Citi Bike Analysis

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 ..

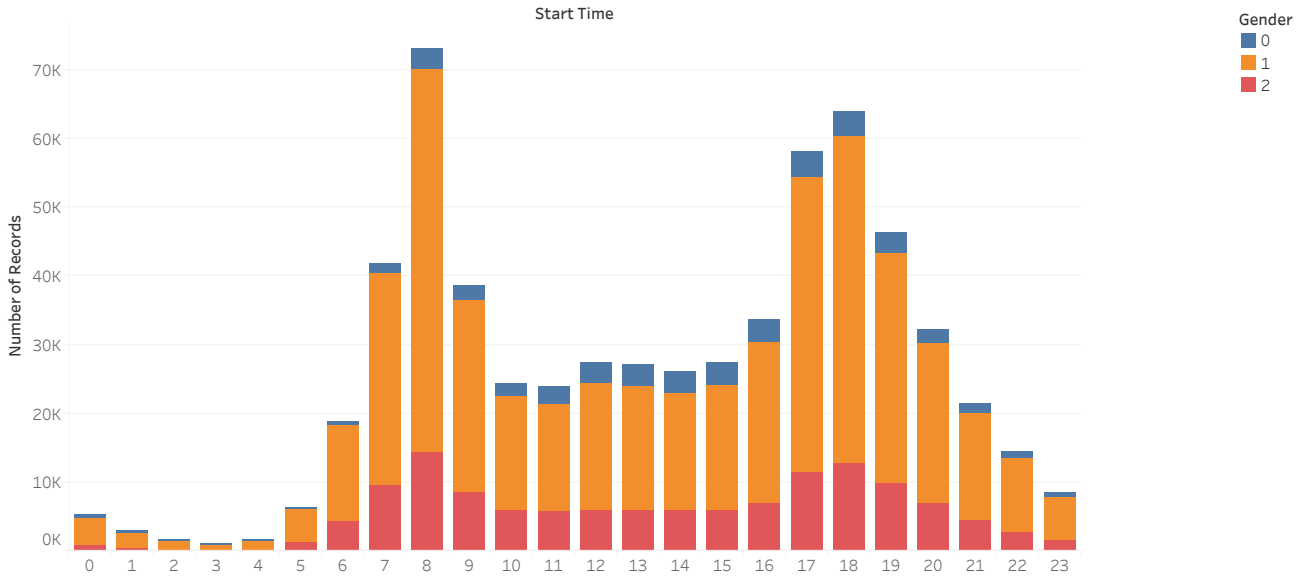


Citi Bike Analysis

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..

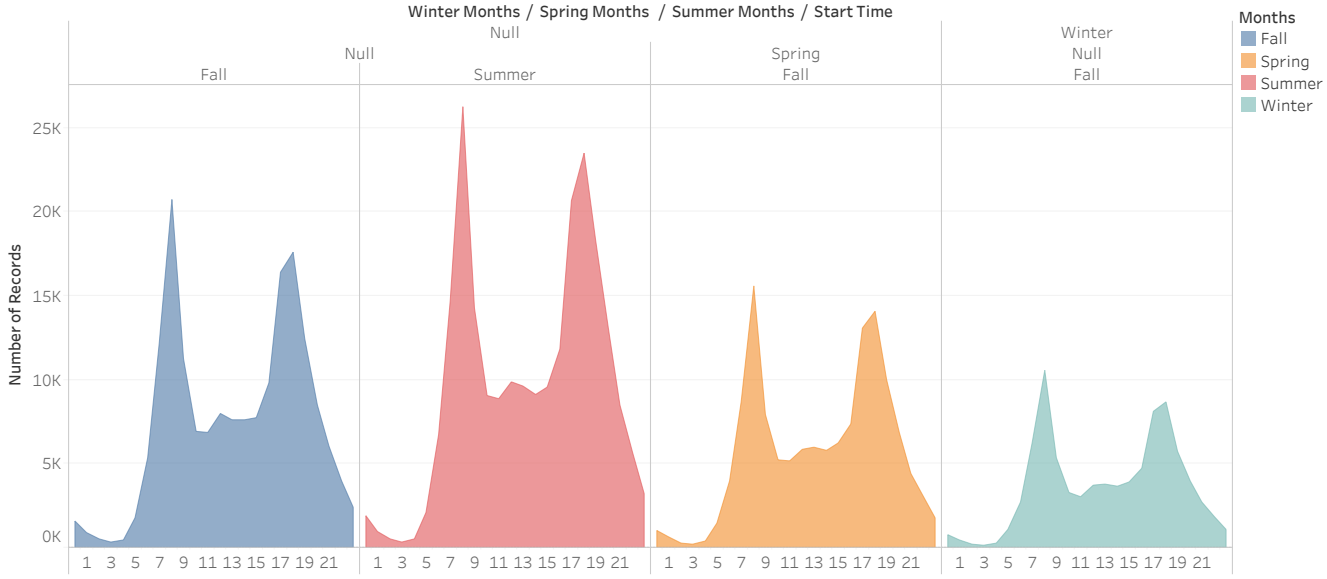


Citi Bike Analysis

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

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.

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

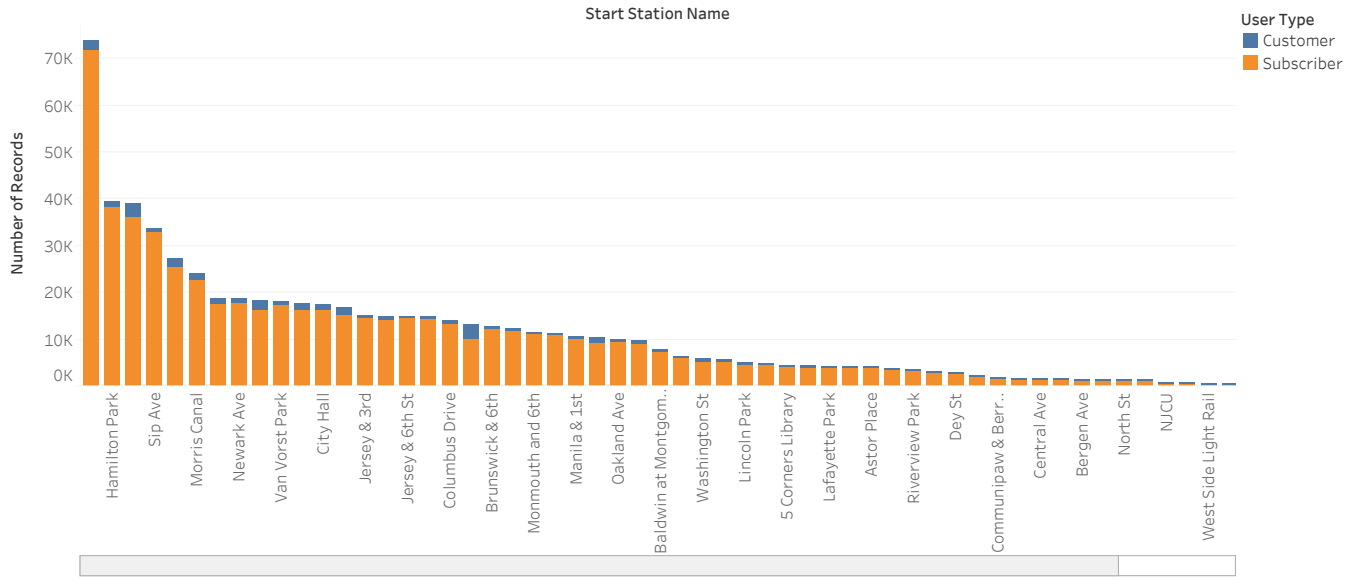


Citi Bike Analysis

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

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 ..



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.

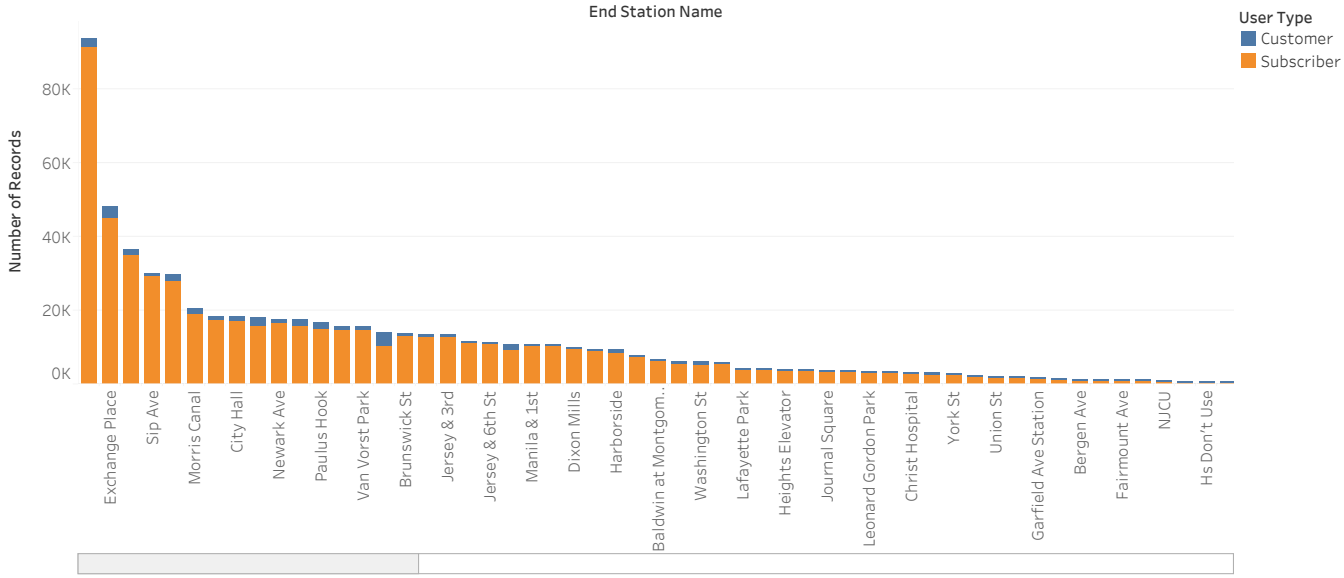
There appears to be consistency between starting/ending stations with GROVE Station being..

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.

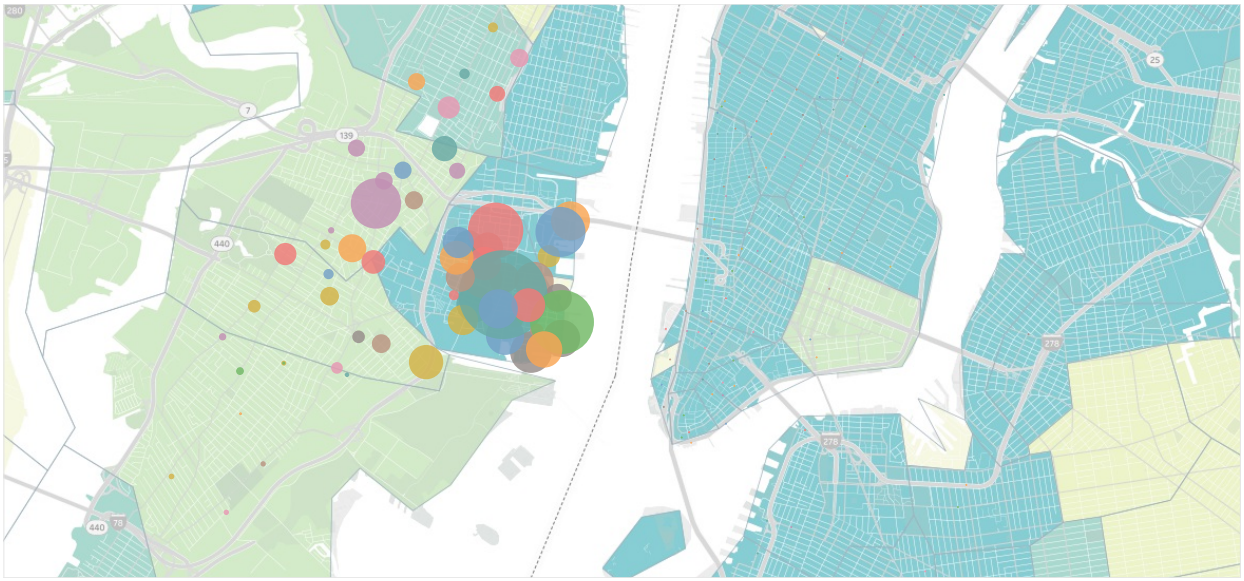
The starting/end station popularity is consistent. People appear to rely on specific stations every da..



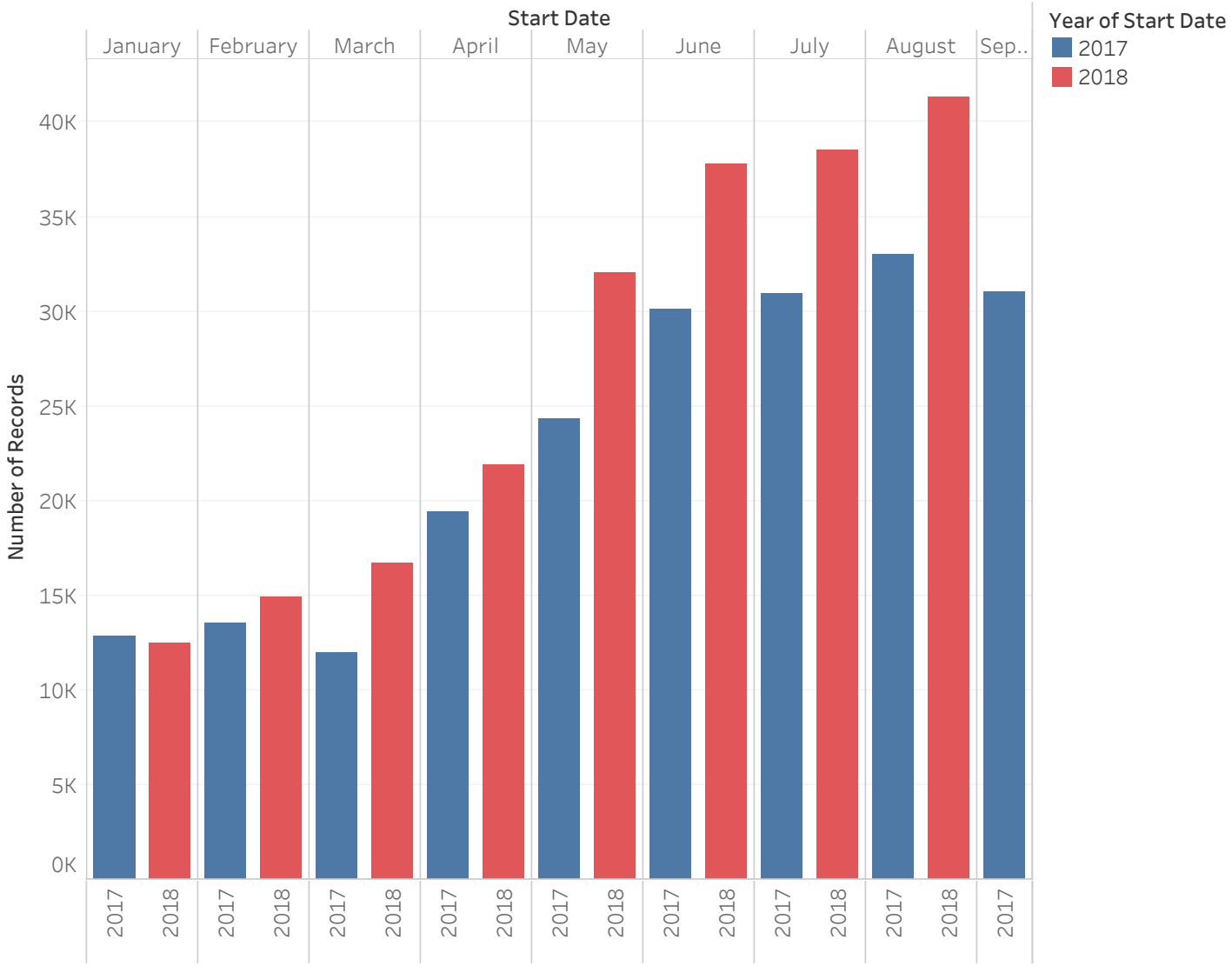
Citi Bike Analysis

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.

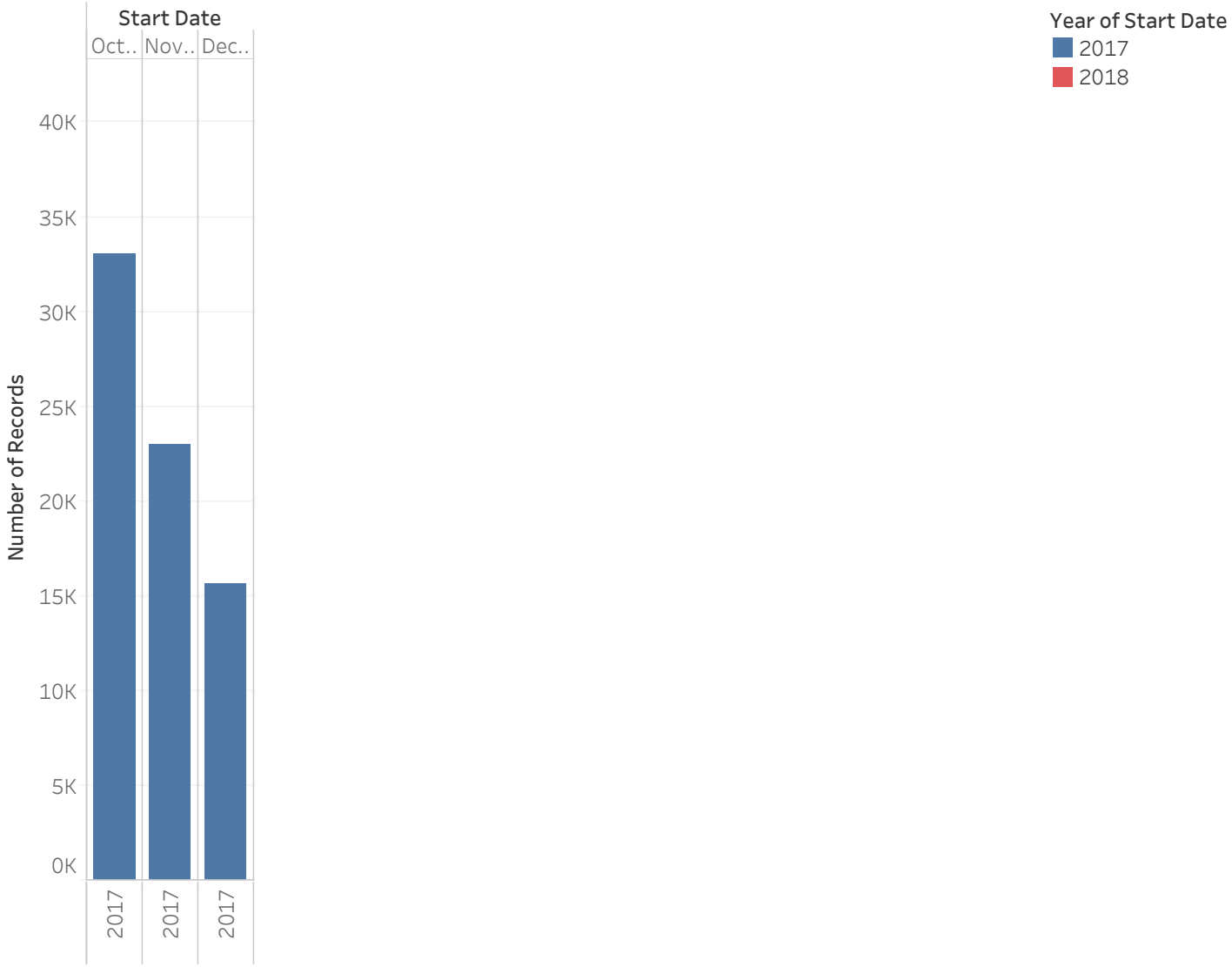


YOY Growth



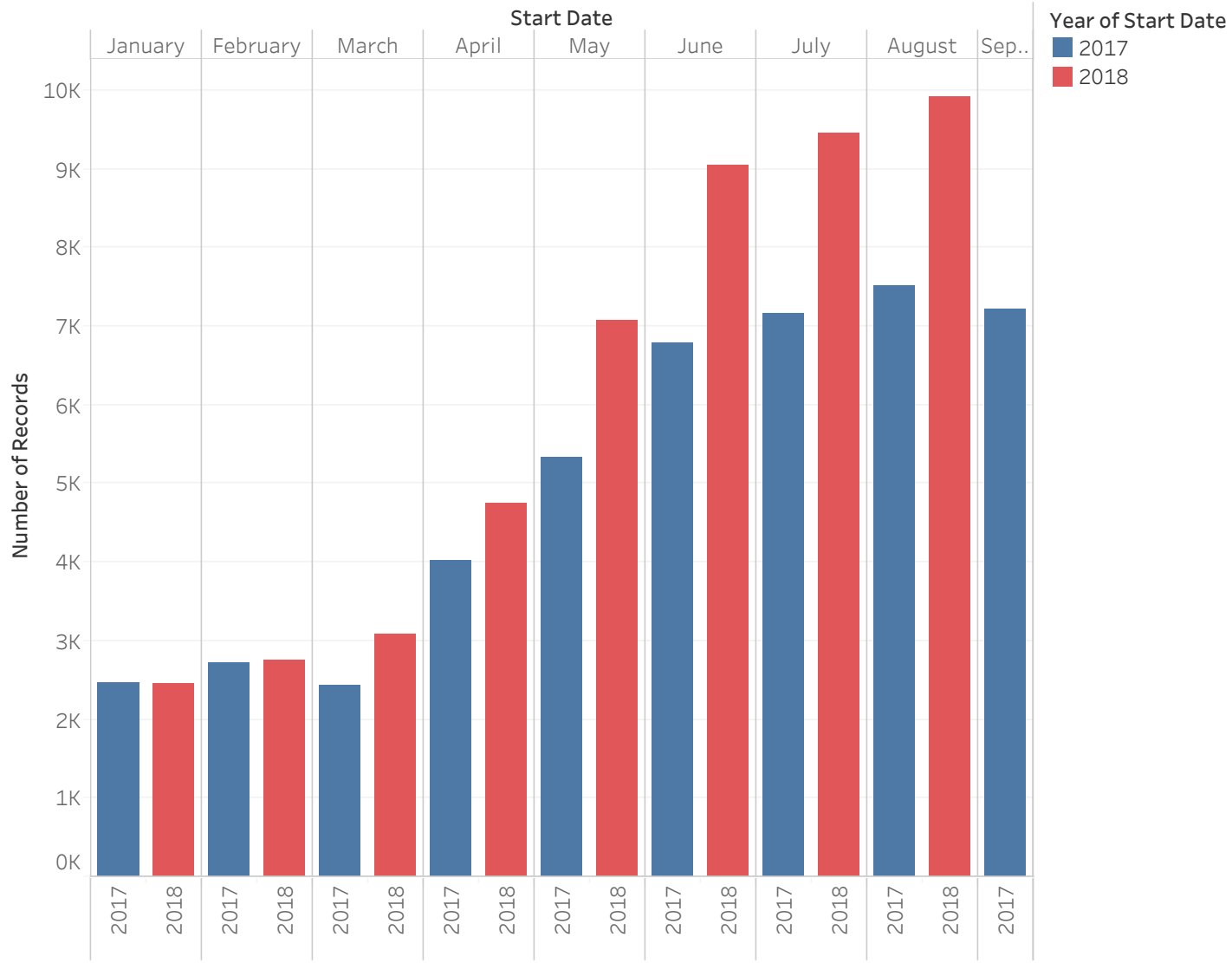
Sum of Number of Records for each Start Date Year broken down by Start Date Month. Color shows details about Start Date Year. The data is filtered on User Type, which keeps Subscriber. The view is filtered on Start Date Year, which keeps 2017 and 2018.

YOY Growth



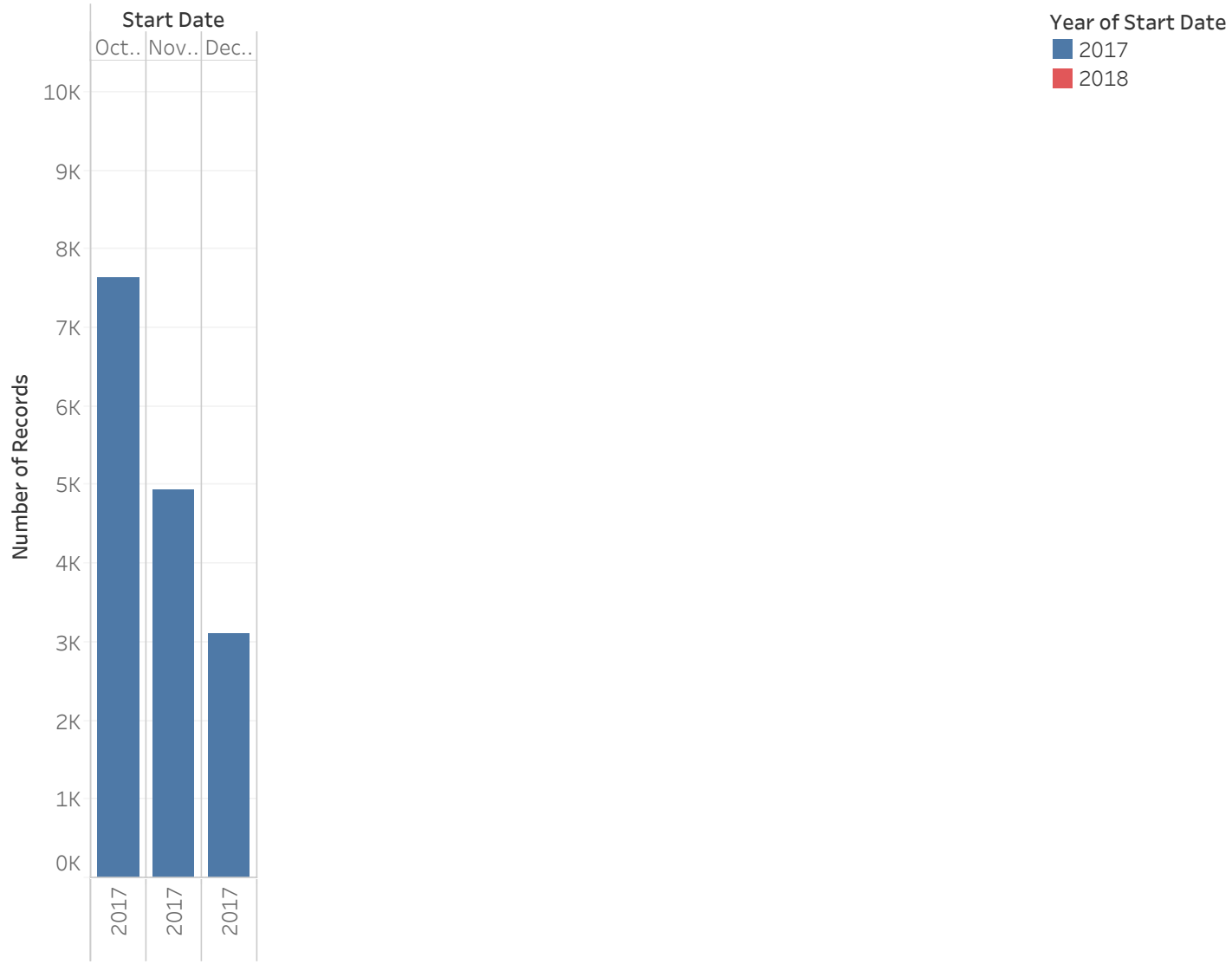
Sum of Number of Records for each Start Date Year broken down by Start Date Month. Color shows details about Start Date Year. The data is filtered on User Type, which keeps Subscriber. The view is filtered on Start Date Year, which keeps 2017 and 2018.

YOY by Gender



Sum of Number of Records for each Start Date Year broken down by Start Date Month. Color shows details about Start Date Year. The data is filtered on Gender, which keeps 2. The view is filtered on Start Date Year, which keeps 2017 and 2018.

YOY by Gender



Sum of Number of Records for each Start Date Year broken down by Start Date Month. Color shows details about Start Date Year. The data is filtered on Gender, which keeps 2. The view is filtered on Start Date Year, which keeps 2017 and 2018.

Sheet 14

Age	
20	100.87
18	52.66
16	50.91
49	32.95
17	32.76
19	24.72
22	24.15
118	21.55
79	20.78
73	18.67
76	18.58
53	17.20
70	14.59
48	14.46
21	14.14
23	13.45
68	12.36
27	12.25
47	12.09
77	12.01
52	11.44
65	11.36
59	11.20
57	11.19
54	11.08
81	10.89
55	10.85
56	10.84
29	10.78
67	10.73
39	10.69
25	9.85
43	9.72
64	9.67
26	9.66
58	9.55
50	9.31
42	9.26
24	9.22
40	9.21
33	9.17
38	9.16
71	9.16
95	9.09
41	9.08
31	9.02

Average of Trip Duration(Minutes) broken down by Age. The view is filtered on Age, which excludes Null.

Sheet 14

Age	
37	9.02
35	8.89
131	8.78
34	8.74
28	8.66
45	8.65
30	8.54
32	8.53
51	8.52
66	8.46
44	8.43
46	8.24
36	8.23
78	8.11
60	8.01
62	7.81
72	7.60
74	7.51
130	7.40
63	7.12
61	6.64
69	6.63
87	3.93

Average of Trip Duration(Minutes) broken down by Age. The view is filtered on Age, which excludes Null.