

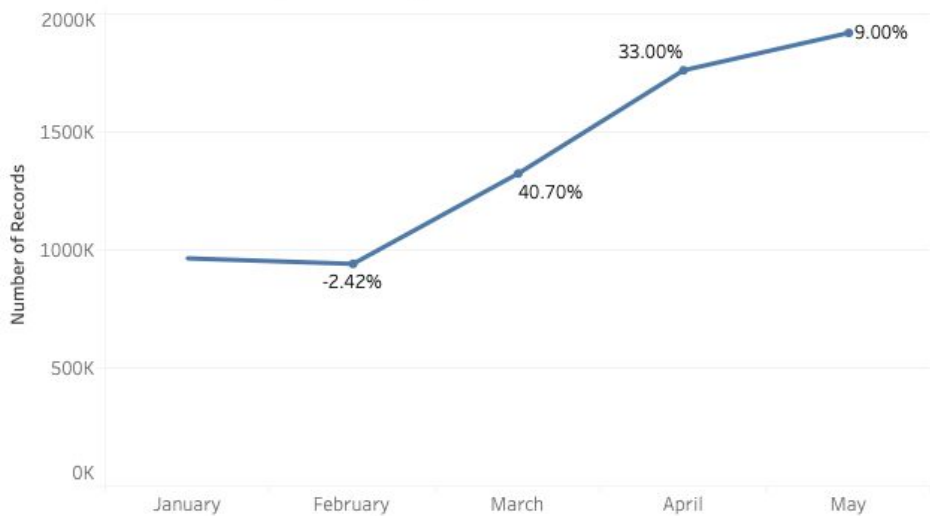
# Citi Bike Analytics - New York City

File created on: 7/6/19

Citi Bikes Analytics - New York City - January 2019 through May 2019

Overview	Dynamic Map Showing Bike Station Popularity	Number of Trips by Month	Citi Bike User Types	Citi Bike User Demographics	Bike Usage During the Day and Week	Most Popular Stations
----------	---	--------------------------	----------------------	-----------------------------	------------------------------------	-----------------------

Total Number of Trips %Change



Total Number of Trips

Month of St..	
January	965,505
February	942,153
March	1,325,595
April	1,763,101
May	1,921,723
Grand Total	6,918,077



As the warmer months approach, there's an increase in bike usage. Biking is more favorable when the temperature is higher and there's no snow around.

The average duration for each trip was just under 14 minutes. Trips are shorter than average during the weekdays and above the average on weekends.

There's over 12,000 bikes being used each month. The highest number of bikes being used occurred in April..

Trip Duration Weekday

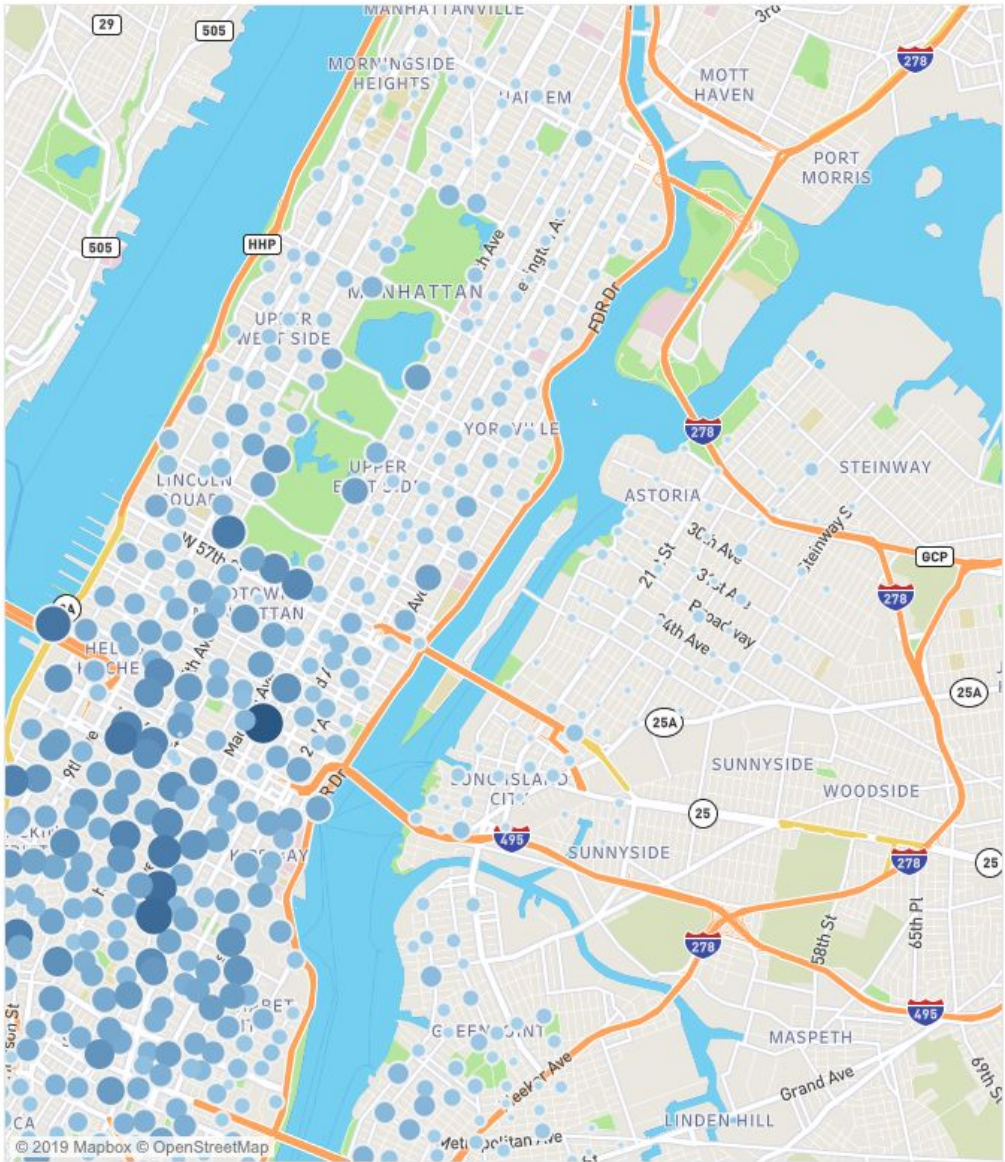


Number of Unique Bikes

Month	
January	12,642
February	12,620
March	13,964
April	14,455
May	12,893
Grand Total	15,264

Citi Bikes Analytics - New York City - January 2019 through May 2019

Overview	Dynamic Map Showing Bike Station Popularity	Number of Trips by Month	Citi Bike User Types	Citi Bike User Demographics	Bike Usage During the Day and Week	Most Popular Stations
----------	---	--------------------------	----------------------	-----------------------------	------------------------------------	-----------------------



This dynamic map shows the popularity of bike stations throughout the months along with the number of trips originating from that station.

Month  
May  
☐ Show history

Total Number of Trips

1,921,723

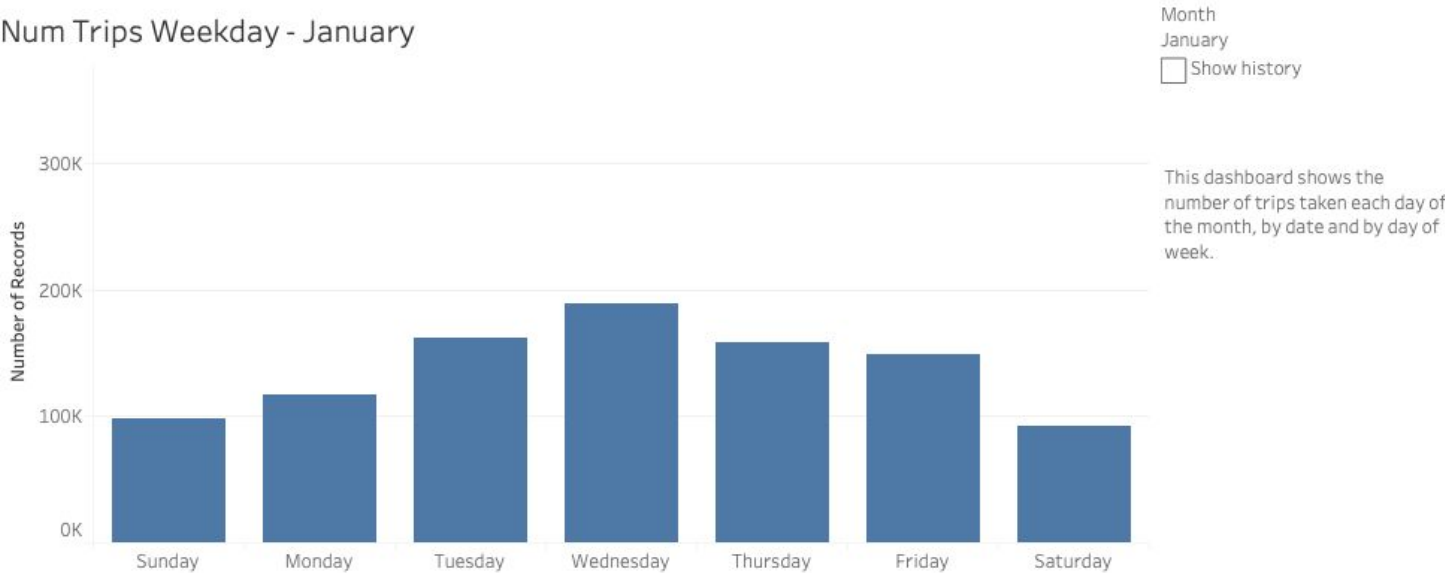
Number of Records

- 1
- 5,000
- 10,000
- 14,717

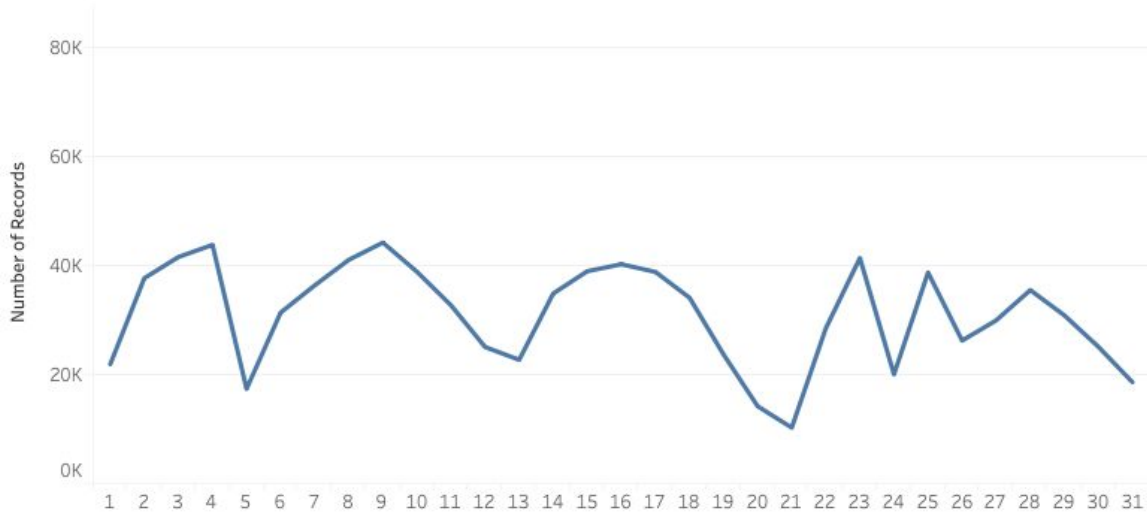
# Citi Bikes Analytics - New York City - January 2019 through May 2019

Overview	Dynamic Map Showing Bike Station Popularity	Number of Trips by Month	Citi Bike User Types	Citi Bike User Demographics	Bike Usage During the Day and Week	Most Popular Stations
----------	---	--------------------------	----------------------	-----------------------------	------------------------------------	-----------------------

Num Trips Weekday - January



Number Trips by Day - January



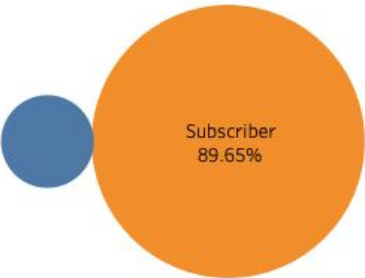
# Citi Bikes Analytics - New York City - January 2019 through May 2019

Overview	Dynamic Map Showing Bike Station Popularity	Number of Trips by Month	Citi Bike User Types	Citi Bike User Demographics	Bike Usage During the Day and Week	Most Popular Stations
----------	---	--------------------------	----------------------	-----------------------------	------------------------------------	-----------------------

A majority of the users were subscribers. The number of subscribers decreased slightly in February but increased each month since March.

Bike usage was most popular among users between 25 and 35 years of age.

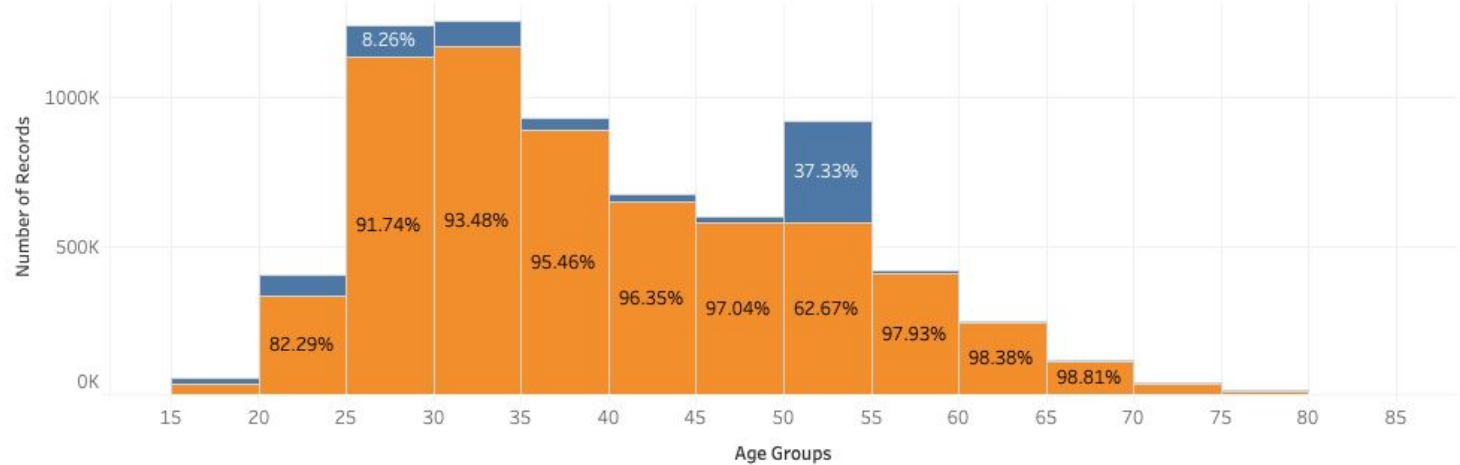
User Types



User Types Over Time



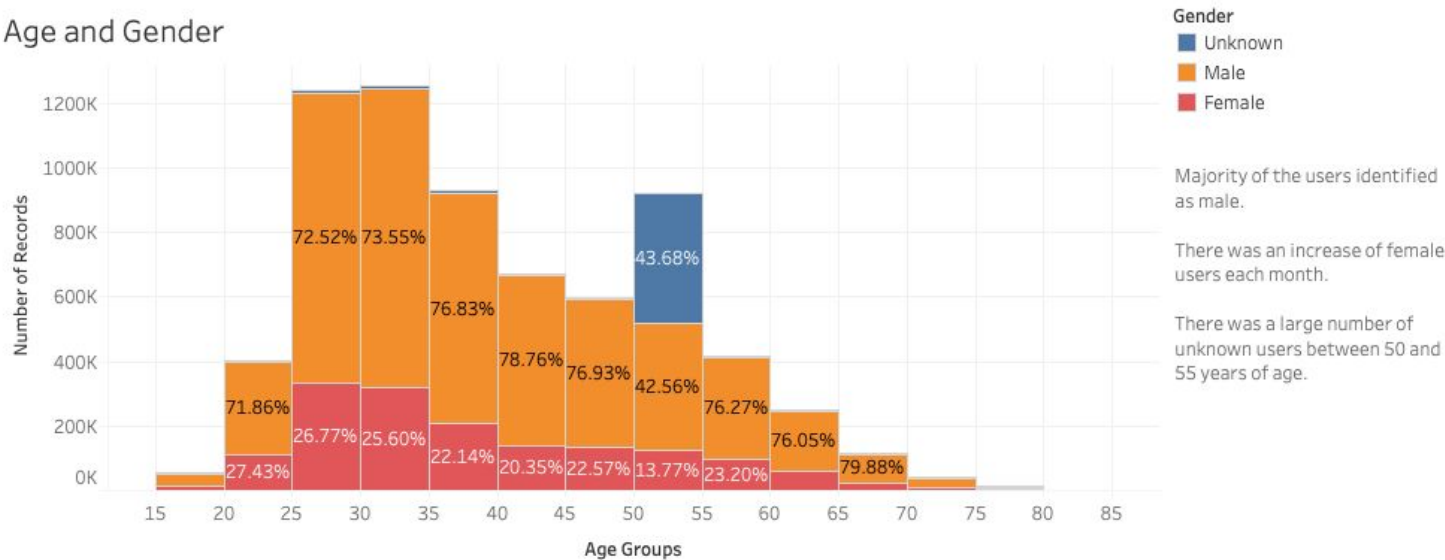
Age and Users



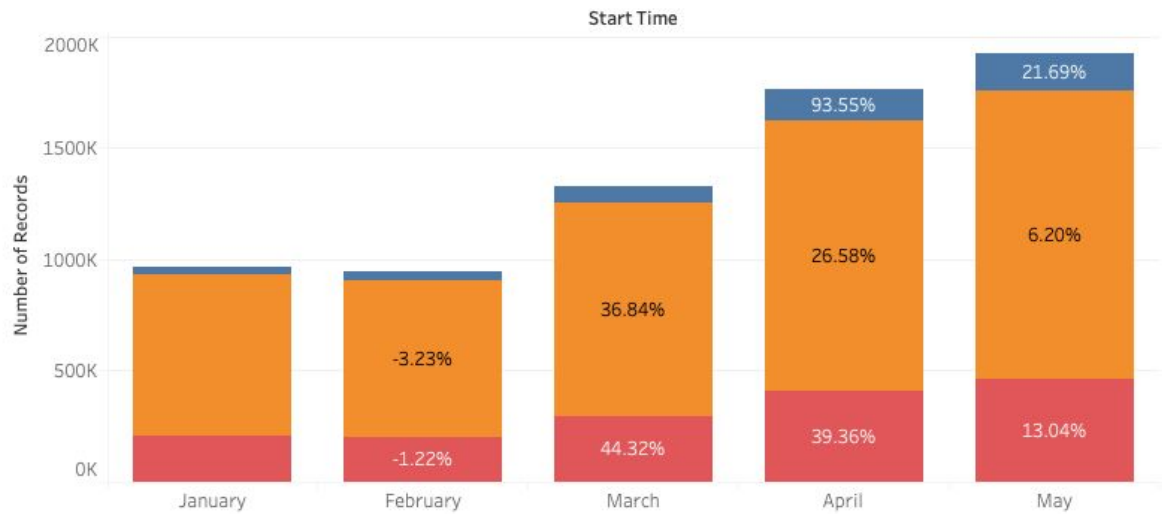
Citi Bikes Analytics - New York City - January 2019 through May 2019

Dynamic Map Showing Bike Station Populari..	Number of Trips by Month	Citi Bike User Types	Citi Bike User Demographics	Bike Usage During the Day and Week	Most Popular Stations	Least Popular Stations
---	-----------------------------	----------------------	--------------------------------	---------------------------------------	-----------------------	---------------------------

Age and Gender



Gender Over Time

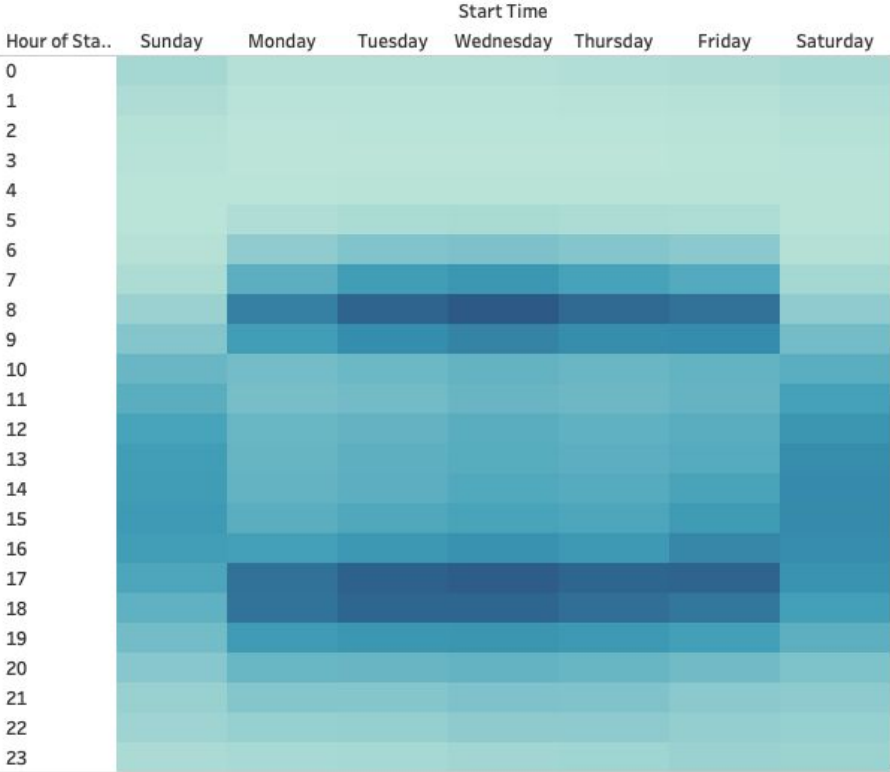




# Citi Bikes Analytics - New York City - January 2019 through May 2019

Number of Trips by Month	Citi Bike User Types	Citi Bike User Demographics	Bike Usage During the Day and Week	Most Popular Stations	Least Popular Stations	Most Used Bikes
--------------------------	----------------------	-----------------------------	------------------------------------	-----------------------	------------------------	-----------------

Weekday and Hour Heat Map



Number of Records  
873 122,370

During the weekdays, there's more usage during peak hours 7am-9am and 4pm-7pm. During the weekends, there's pretty even usage throughout the day between 10am-5pm.

# Citi Bikes Analytics - New York City - January 2019 through May 2019

Number of Trips by Month	Citi Bike User Types	Citi Bike User Demographics	Bike Usage During the Day and Week	Most Popular Stations	Least Popular Stations	Most Used Bikes

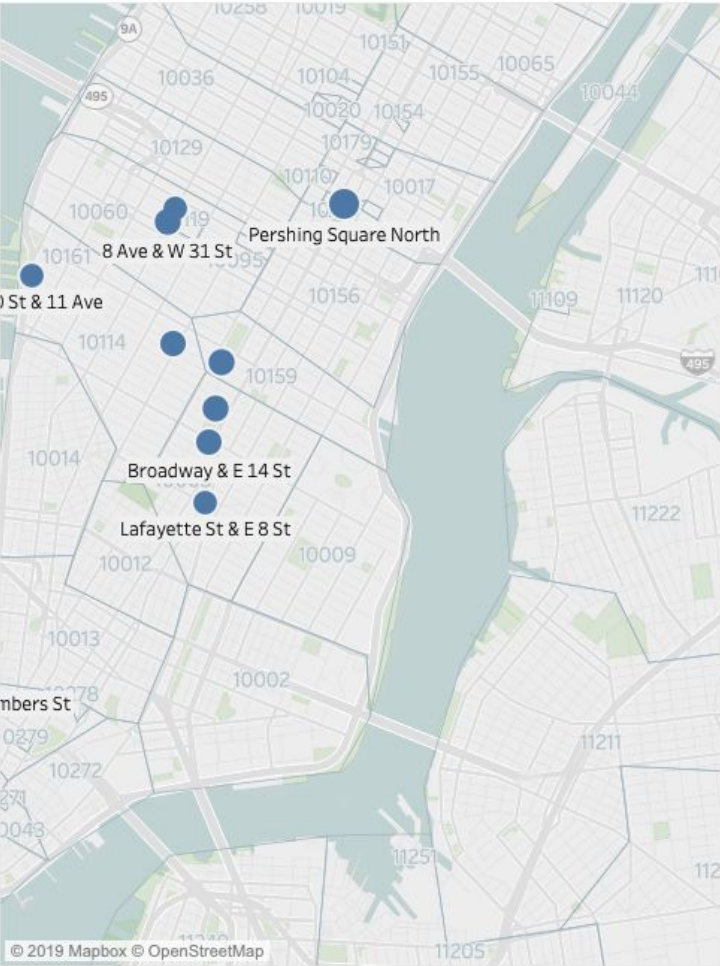
The most popular stations to start and end trips tend to be transportation hubs - Penn Station, Grand Central, Union Square L train, Central Park, Chelsea Pier, and Staten Island Ferry.

Four of the popular stations all run along Broadway.

Top 10 Start Stations



Top 10 End Stations





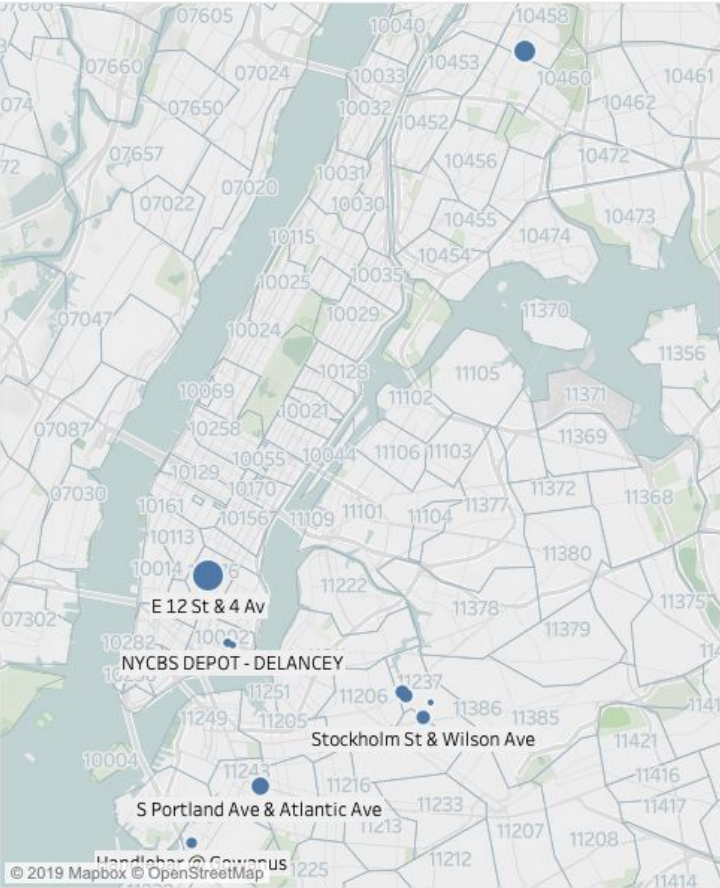
# Citi Bikes Analytics - New York City - January 2019 through May 2019

Number of Trips by Month	Citi Bike User Types	Citi Bike User Demographics	Bike Usage During the Day and Week	Most Popular Stations	Least Popular Stations	Most Used Bikes

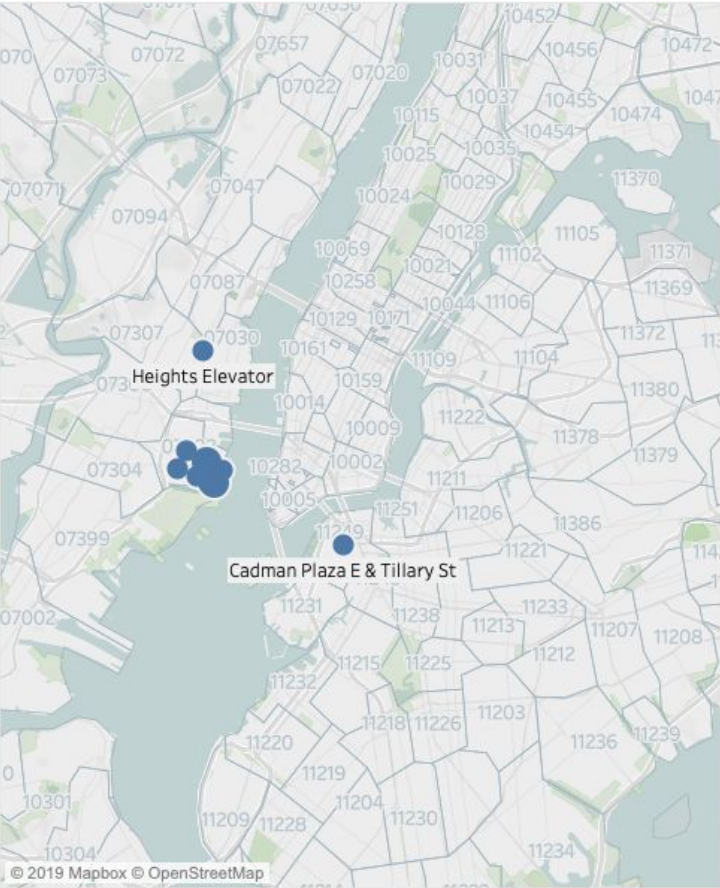
The least popular stations to start a trip are mostly in Brooklyn. The least popular stations to end a trip are in New Jersey. This may suggest that not many users bike across the bridge and mainly use the bike within Manhattan. Citibike also has a set of bikes in Jersey City.

Oddly, there's a "null" station identified in the Bronx with 37 recorded trips starting from there.

Bottom 10 Start Stations



Bottom 10 End Stations

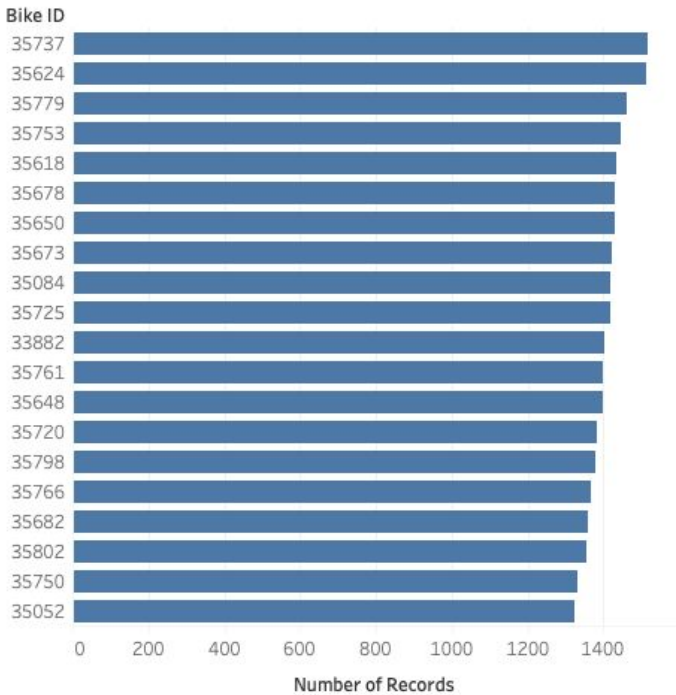


Citi Bikes Analytics - New York City - January 2019 through May 2019

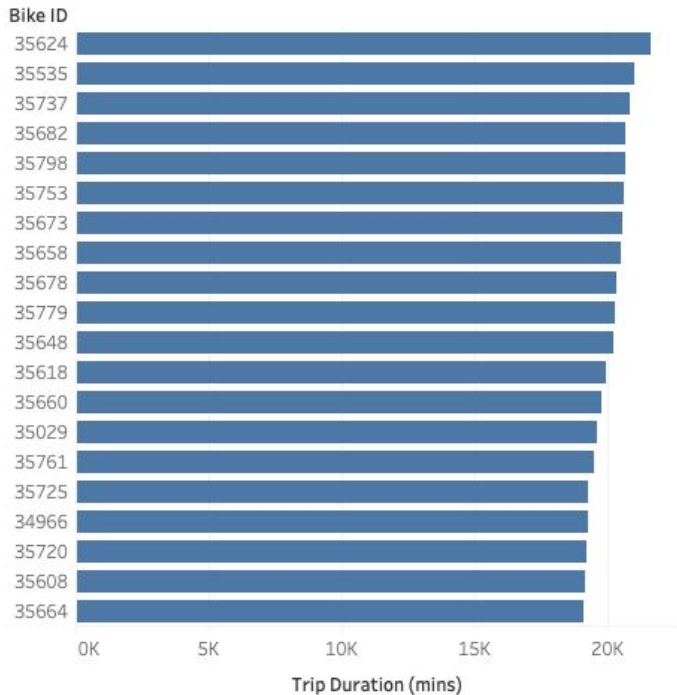
Number of Trips by Month	Citi Bike User Types	Citi Bike User Demographics	Bike Usage During the Day and Week	Most Popular Stations	Least Popular Stations	Most Used Bikes
--------------------------	----------------------	-----------------------------	------------------------------------	-----------------------	------------------------	-----------------

We can consider bikes that have high usage to be likely due for repair or inspection. This can be defined as bikes that have been used for the most trips or for the most time. Here are the top 20 most used bikes determined by number of trips and the top 20 most used bikes determined by trip duration.

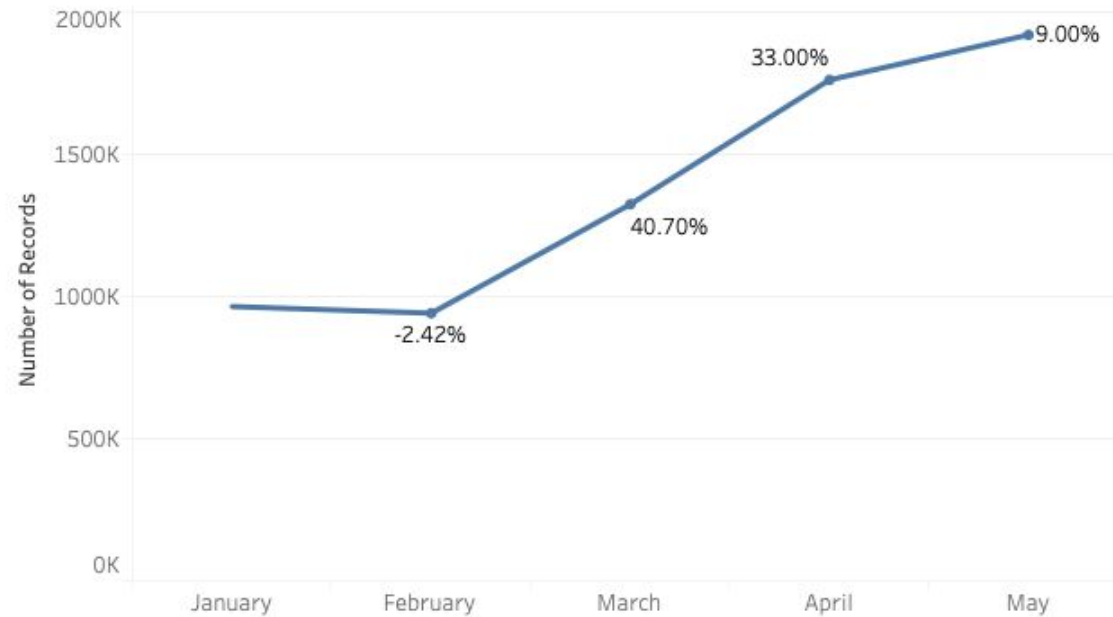
Bike ID Usage by Trips



Bike ID Usage by Duration



## Total Number of Trips %Change



## Total Number of Trips

Month of St..	
January	965,505
February	942,153
March	1,325,595
April	1,763,101
May	1,921,723
Grand Total	6,918,077

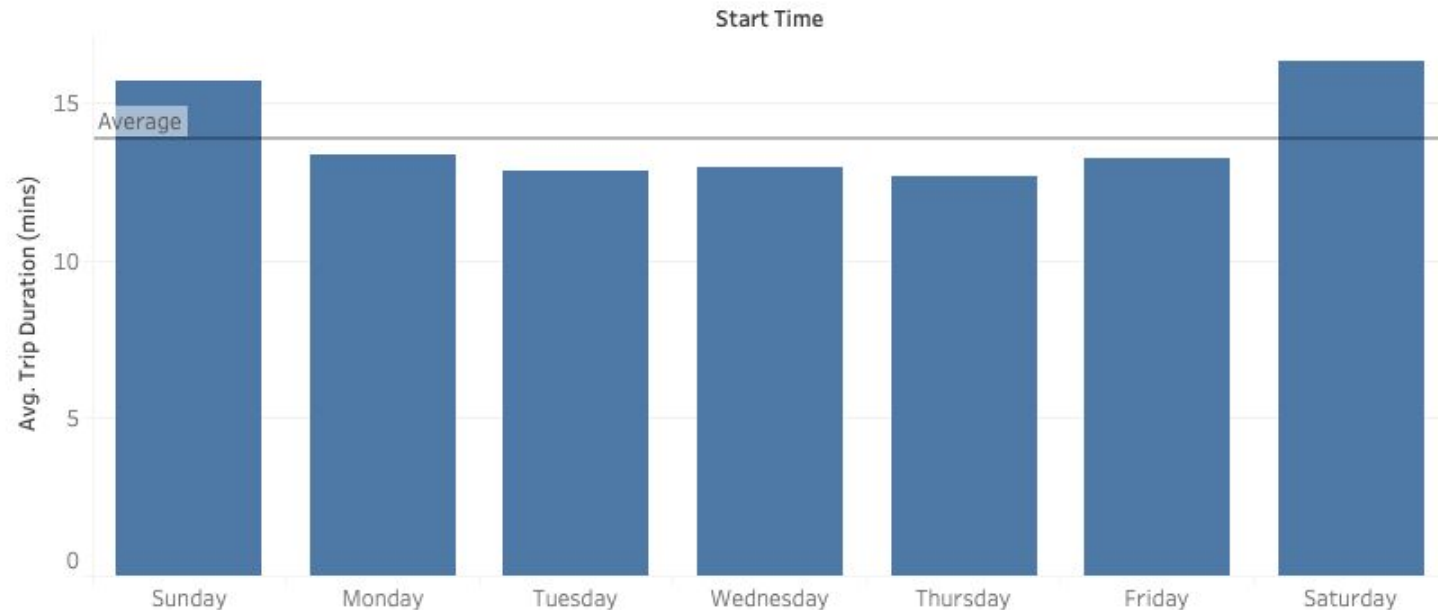


As the warmer months approach, there's an increase in bike usage. Biking is more favorable when the temperature is higher and there's no snow around.

The average duration for each trip was just under 14 minutes. Trips are shorter than average during the weekdays and above the average on weekends.

There's over 12,000 bikes being used each month. The highest number of bikes being used occurred in April..

## Trip Duration Weekday



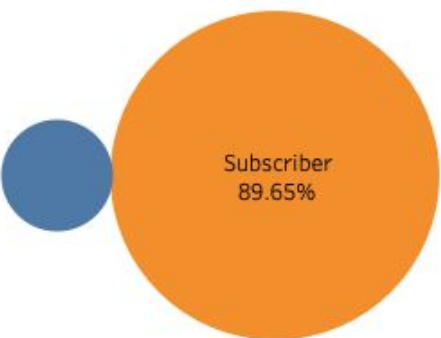
## Number of Unique Bikes

Month	
January	12,642
February	12,620
March	13,964
April	14,455
May	12,893
Grand Total	15,264

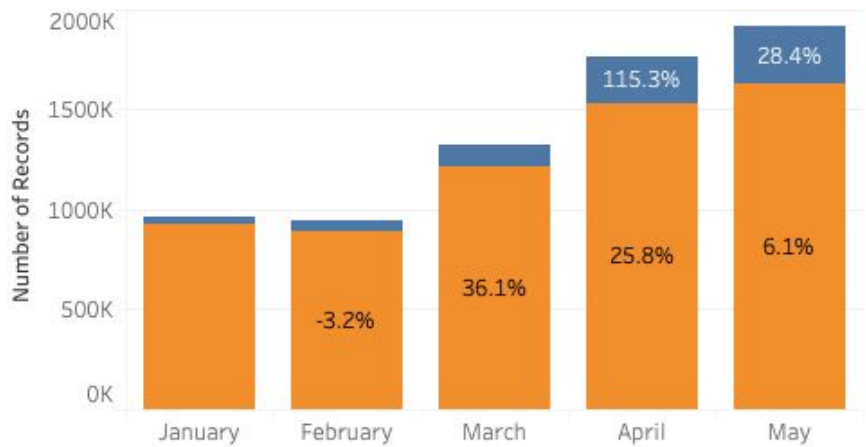
A majority of the users were subscribers. The number of subscribers decreased slightly in February but increased each month since March.

Bike usage was most popular among users between 25 and 35 years of age.

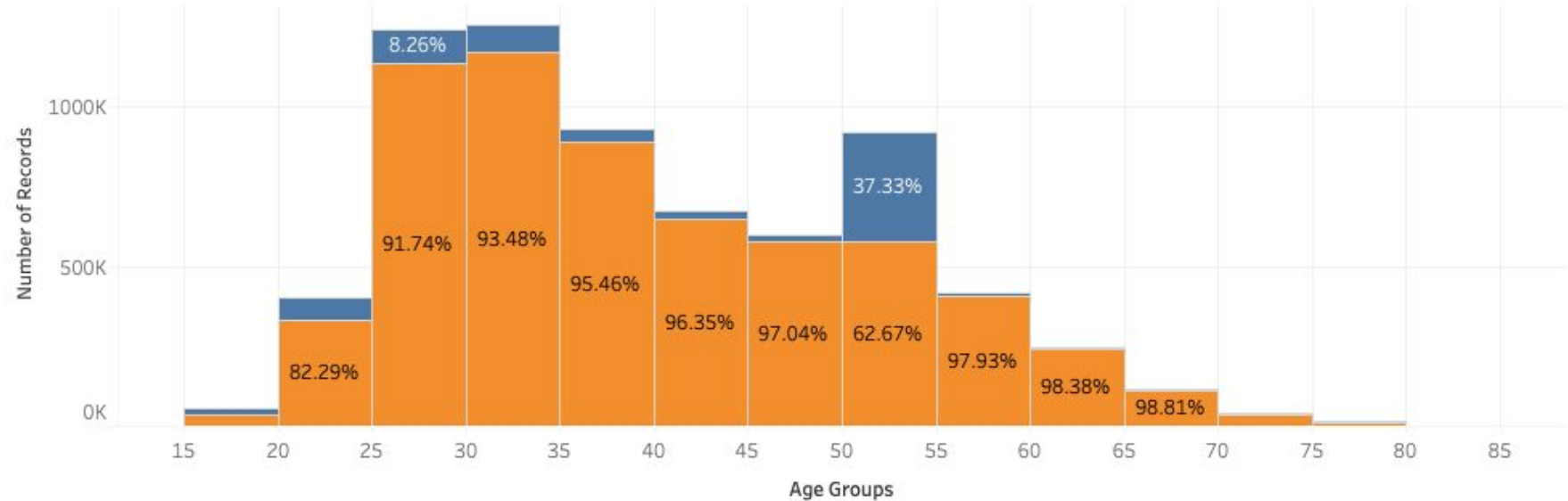
User Types



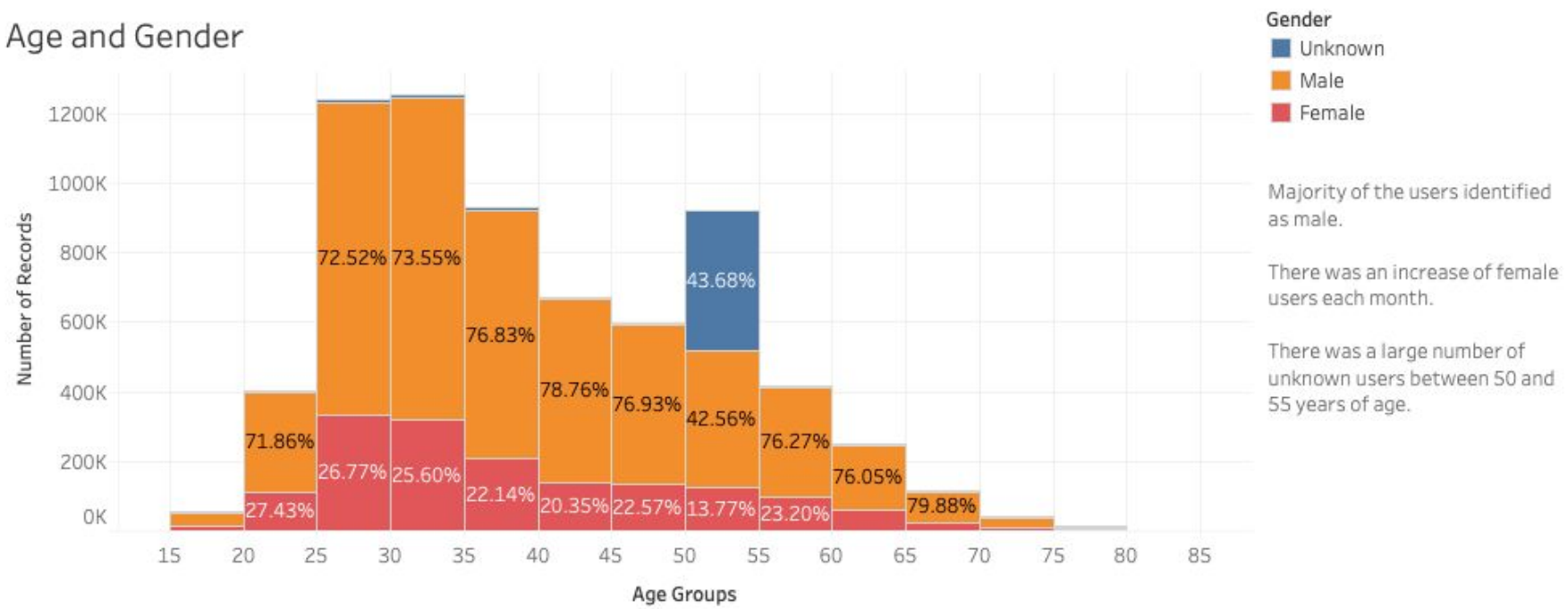
User Types Over Time



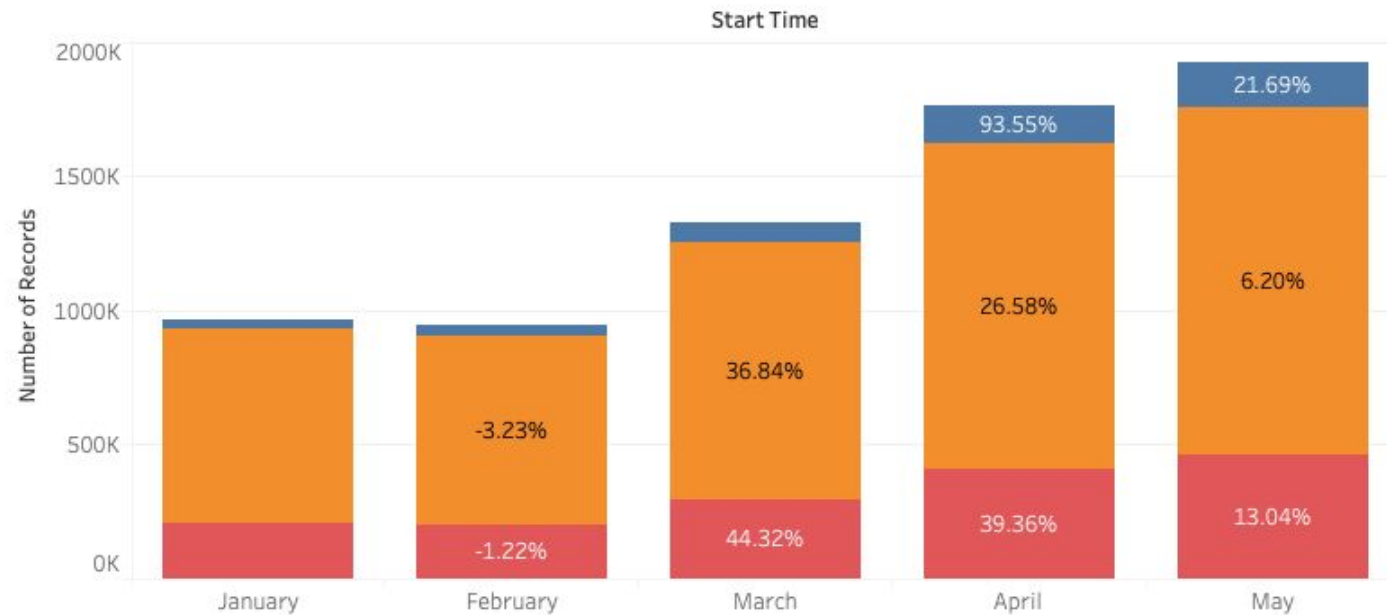
Age and Users



## Age and Gender

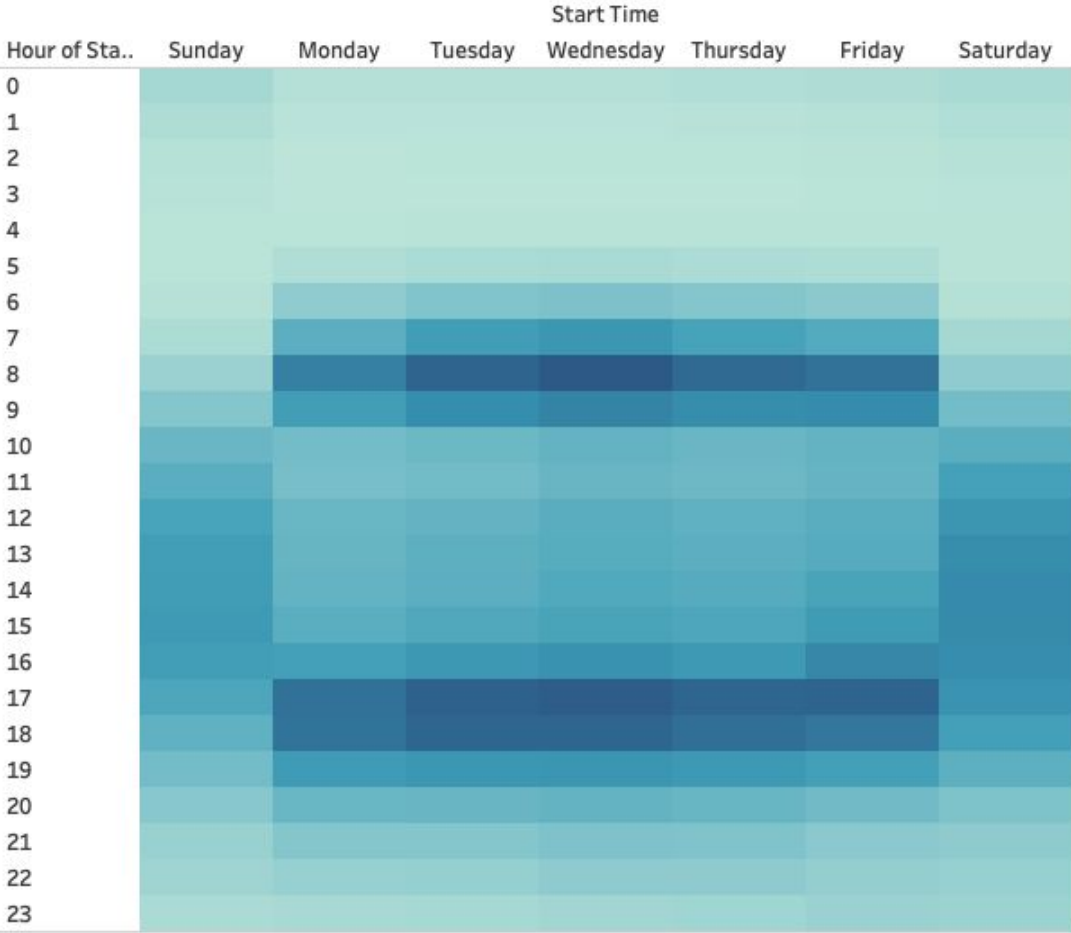


## Gender Over Time





Weekday and Hour Heat Map



During the weekdays, there's more usage during peak hours 7am-9am and 4pm-7pm. During the weekends, there's pretty even usage throughout the day between 10am-5pm.

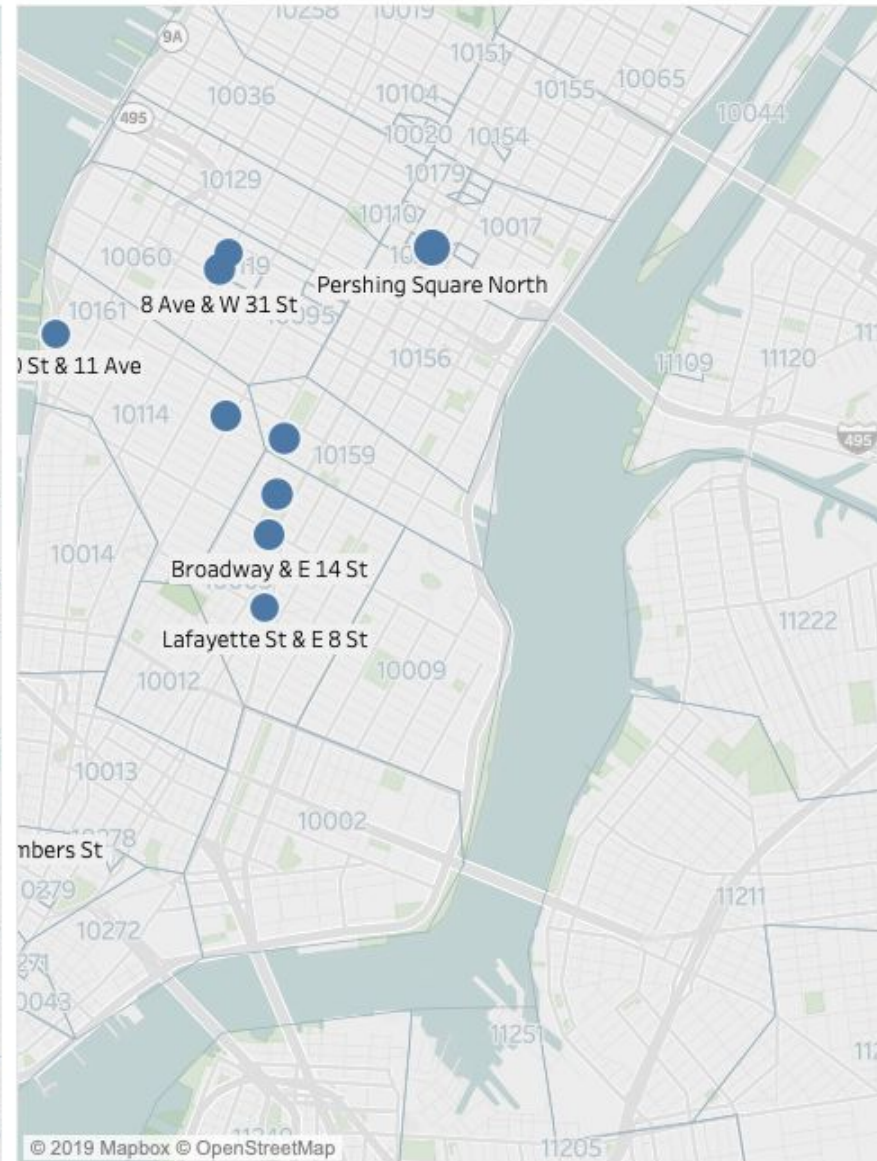
The most popular stations to start and end trips tend to be transportation hubs - Penn Station, Grand Central, Union Square L train, Central Park, Chelsea Pier, and Staten Island Ferry.

Four of the popular stations all run along Broadway.

## Top 10 Start Stations



## Top 10 End Stations

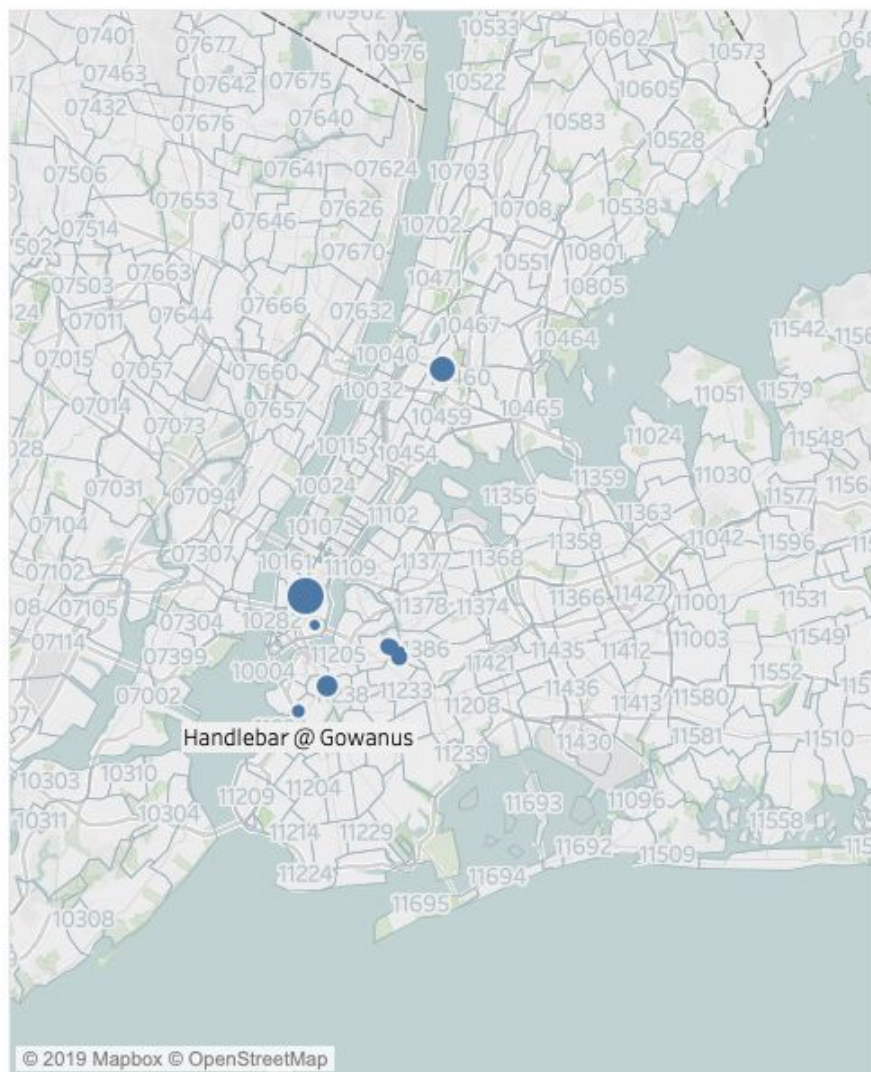




The least popular stations to start a trip are mostly in Brooklyn. The least popular stations to end a trip are in New Jersey. This may suggest that not many users bike across the bridge and mainly use the bike within Manhattan. Citibike also has a set of bikes in Jersey City.

Oddly, there's a "null" station identified in the Bronx with 37 recorded trips starting from there.

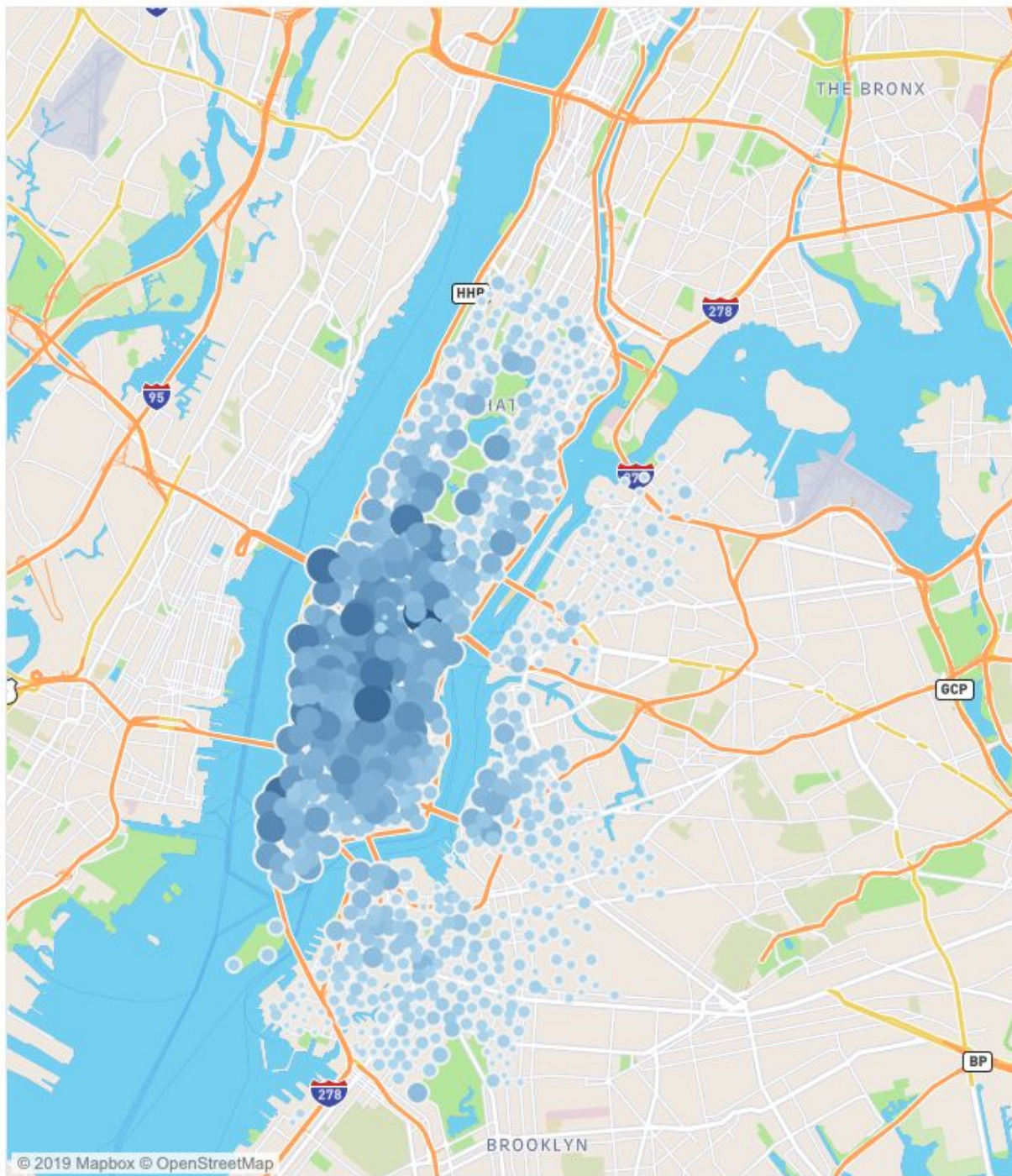
### Bottom 10 Start Stations



### Bottom 10 End Stations







This dynamic map shows the popularity of bike stations throughout the months along with the number of trips originating from that station.

Month

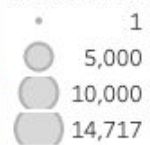
May

☐ Show history

### Total Number of Trips

1,921,723

### Number of Records

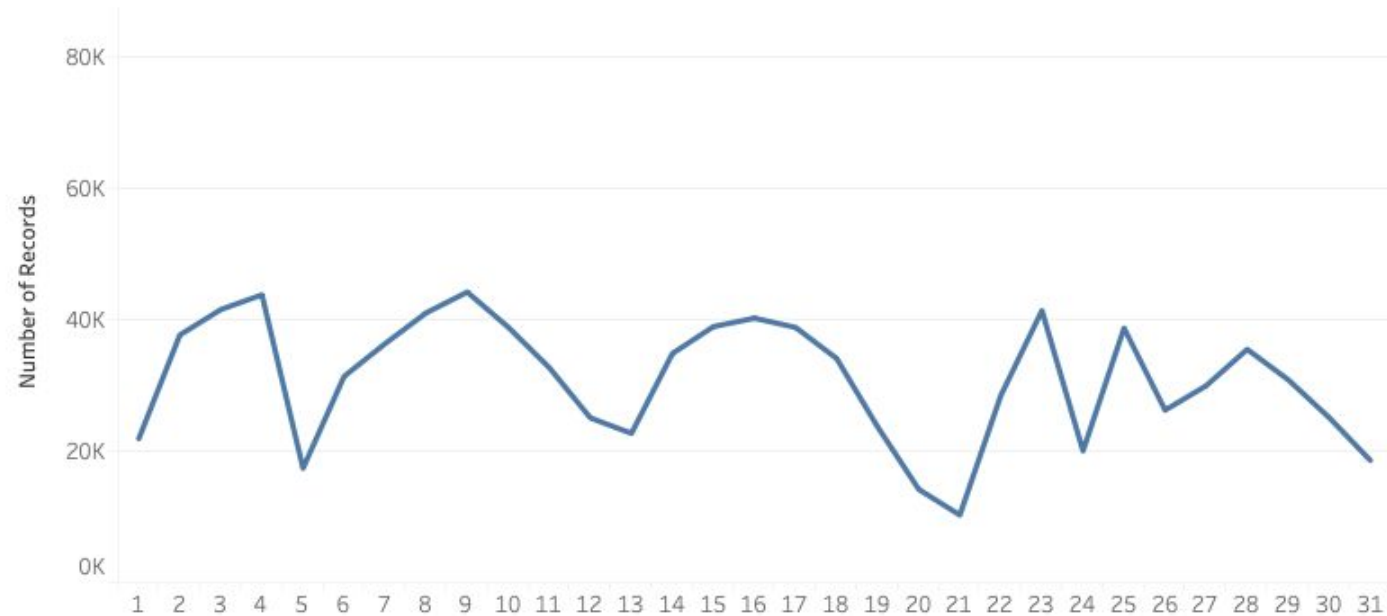


### Num Trips Weekday - January



This dashboard shows the number of trips taken each day of the month, by date and by day of week.

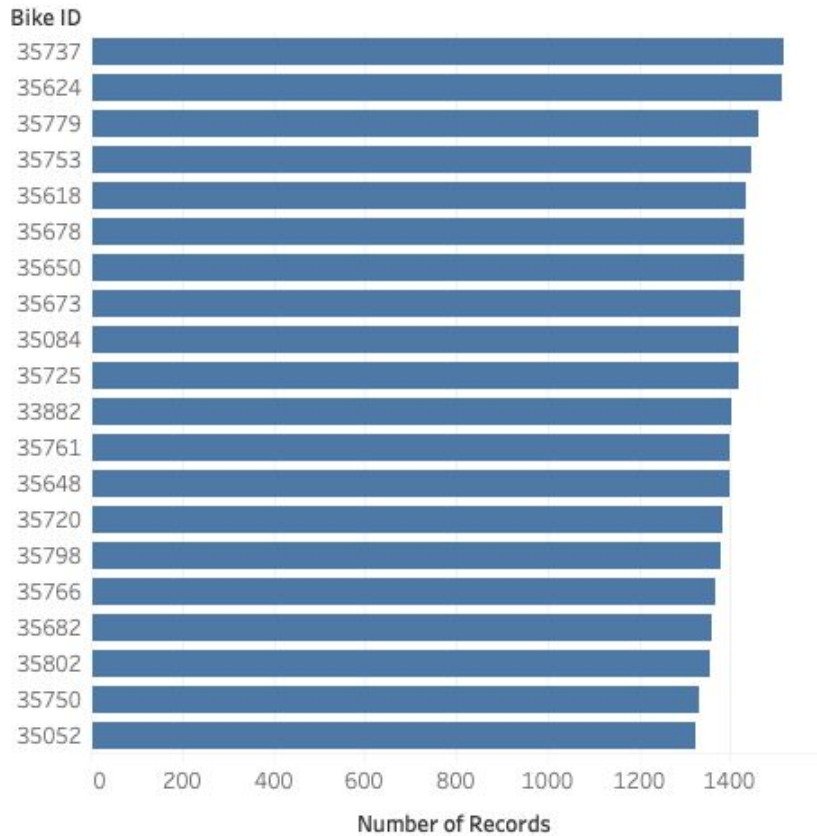
### Number Trips by Day - January



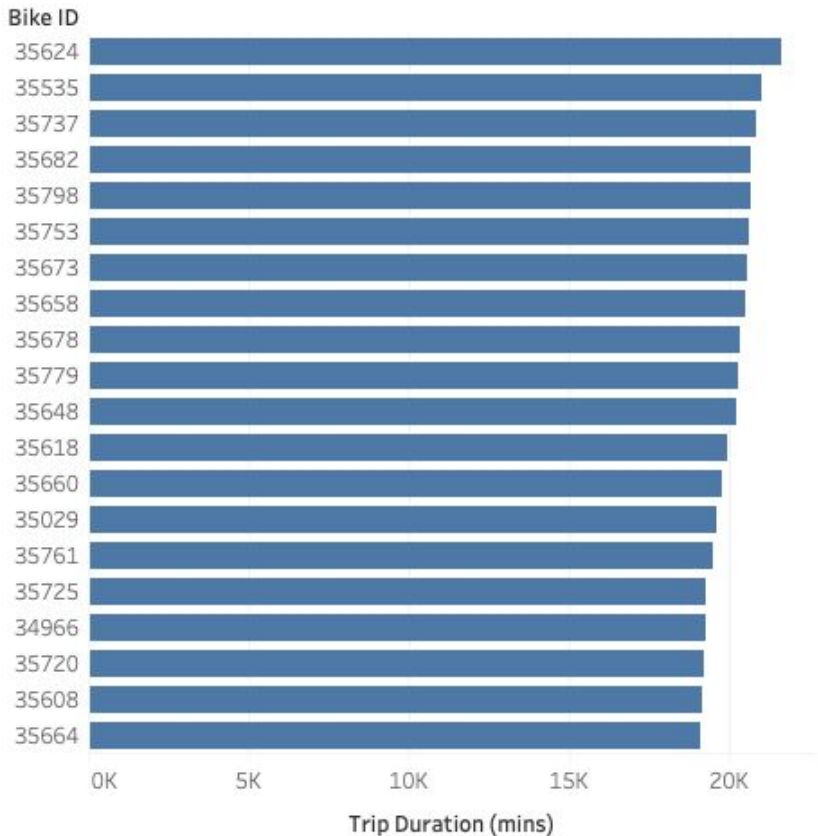


We can consider bikes that have high usage to be likely due for repair or inspection. This can be defined as bikes that have been used for the most trips or for the most time. Here are the top 20 most used bikes determined by number of trips and the top 20 most used bikes determined by trip duration.

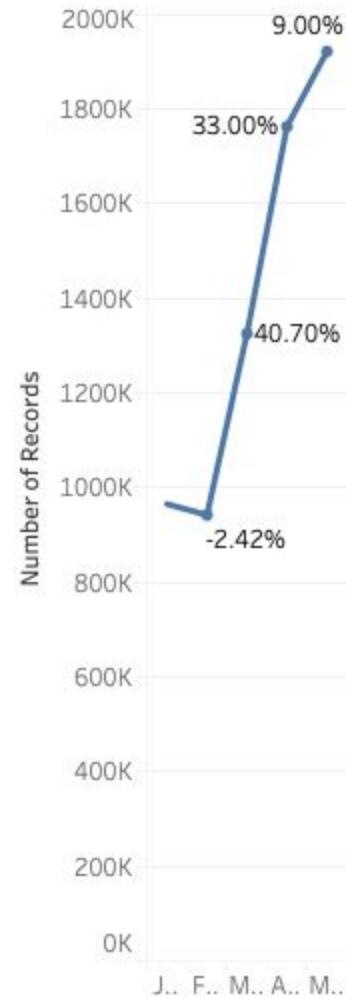
Bike ID Usage by Trips



Bike ID Usage by Duration



## Total Number of Trips %Change



The trend of sum of Number of Records for Start Time Month. The marks are labeled by % Difference in Number of Records.

## Total Number of Trips

Month of St..	
January	965,505
February	942,153
March	1,325,595
April	1,763,101
May	1,921,723
Grand Total	6,918,077

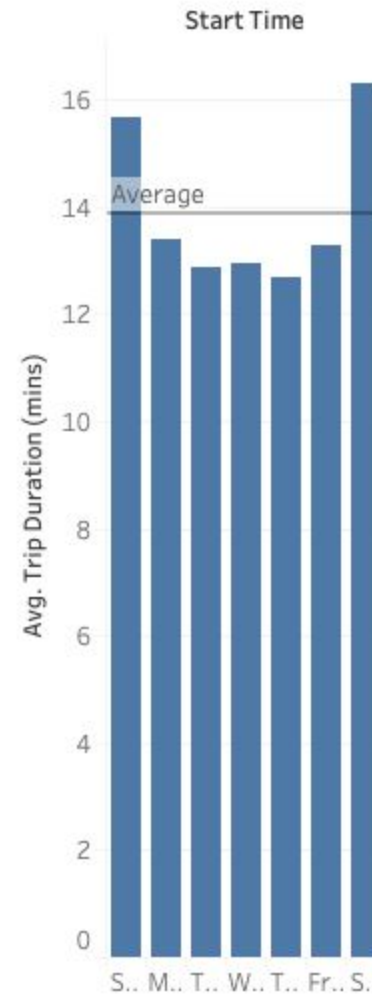
Sum of Number of Records  
broken down by Start Time  
Month.

## Number of Unique Bikes

Month	
January	12,642
February	12,620
March	13,964
April	14,455
May	12,893
Grand Total	15,264

Distinct count of Bike ID  
broken down by Month.

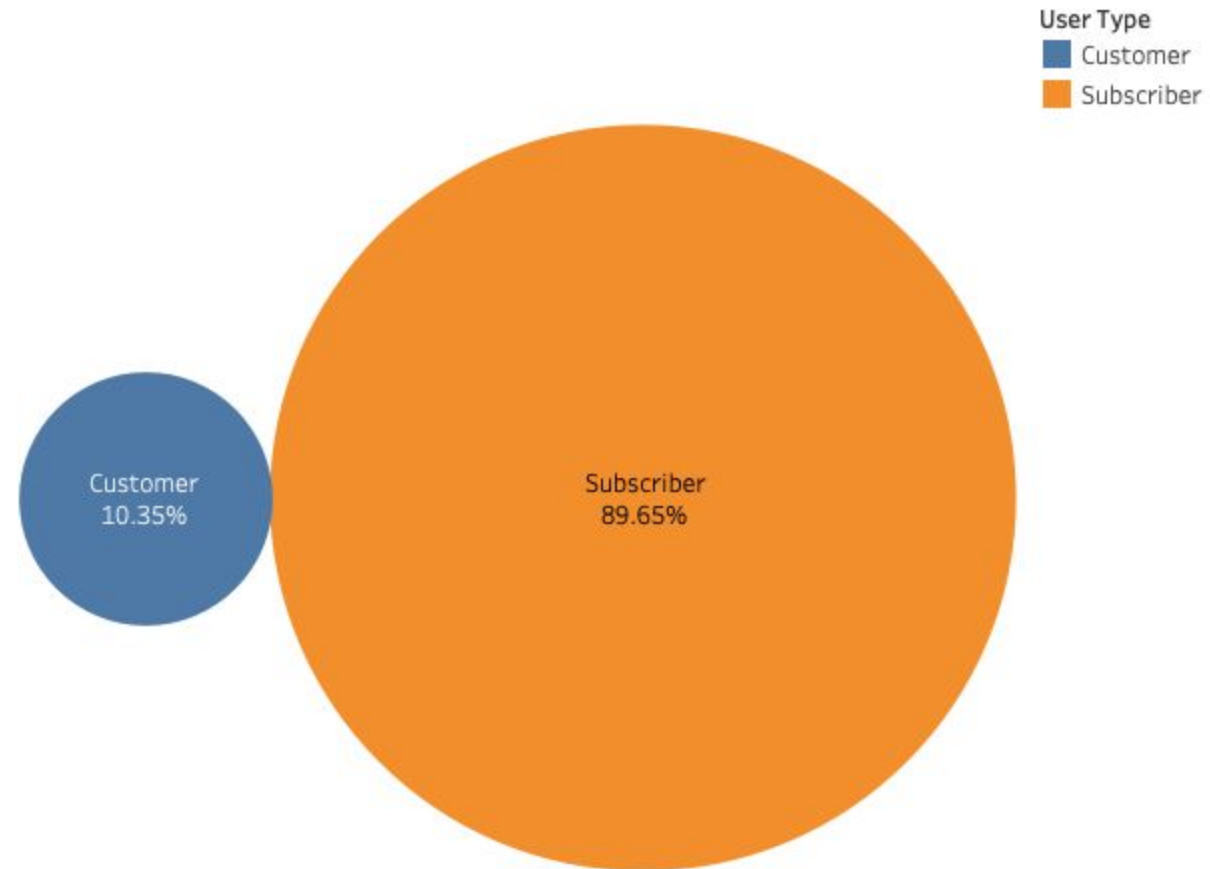
## Trip Duration Weekday



Average of Trip Duration (mins) for each Start Time Weekday. The data is filtered on Month, which keeps April, February, January, March and May.

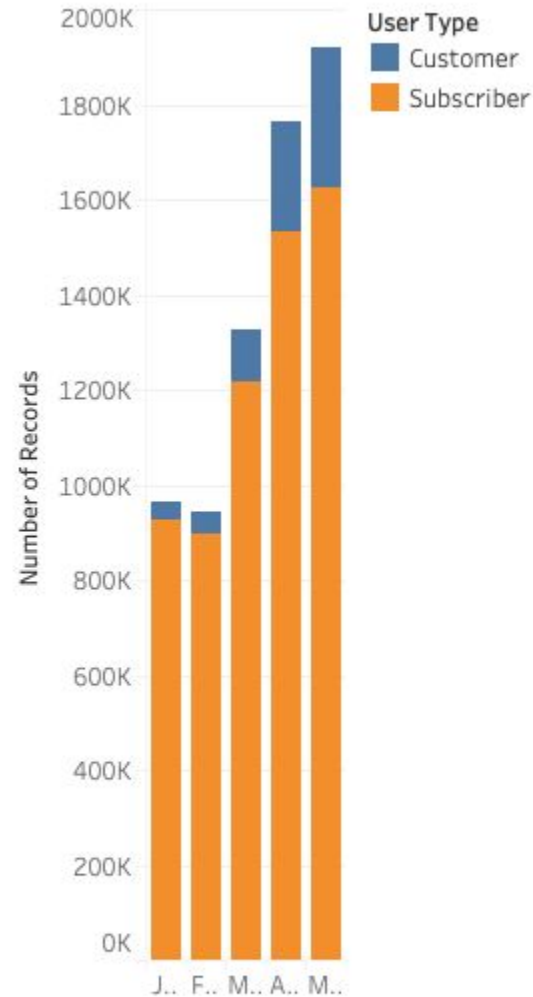


## User Types



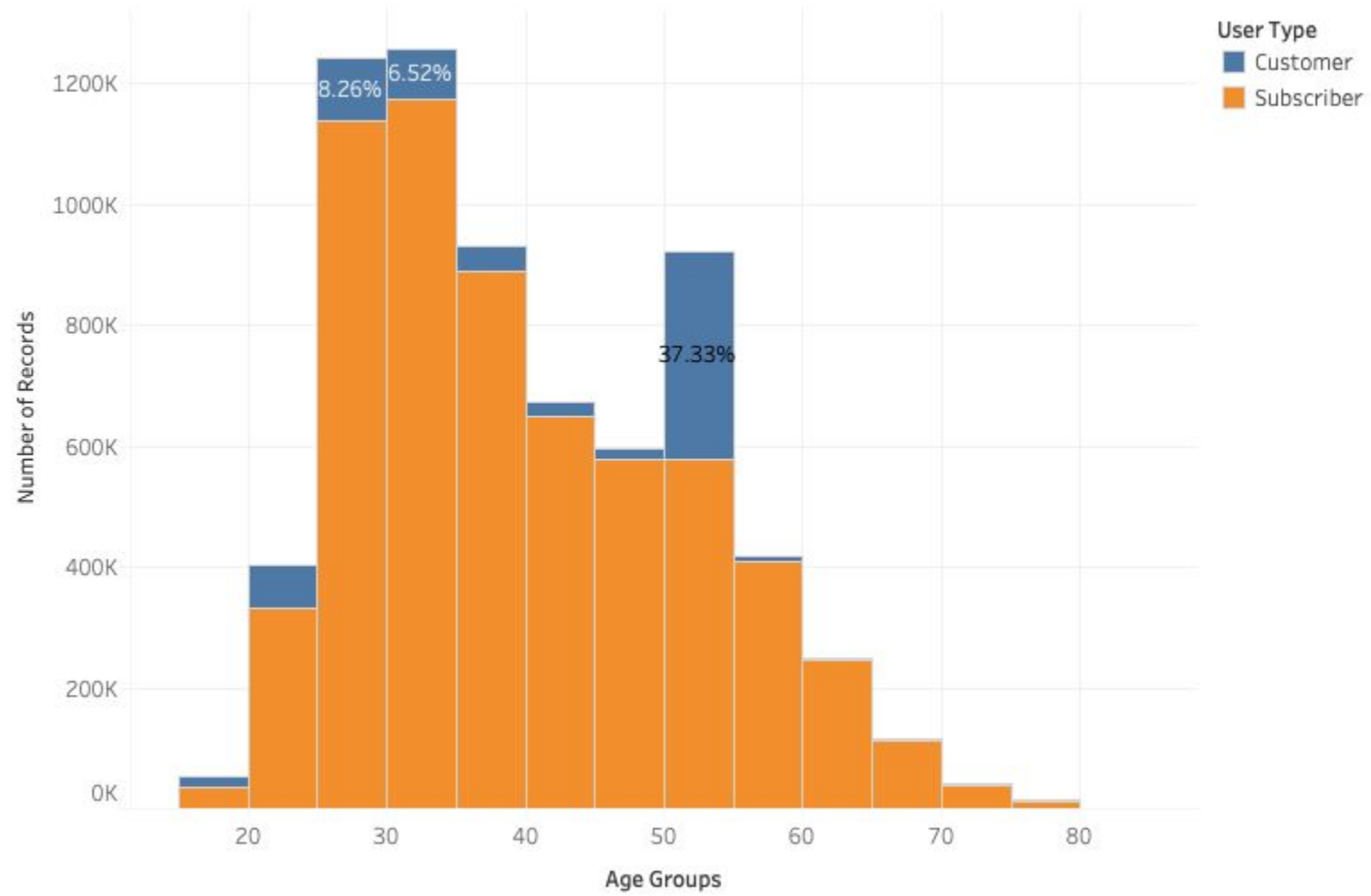
User Type and % of Total Number of Records. Color shows details about User Type. Size shows count of User Type. The marks are labeled by User Type and % of Total Number of Records.

# User Types Over Time



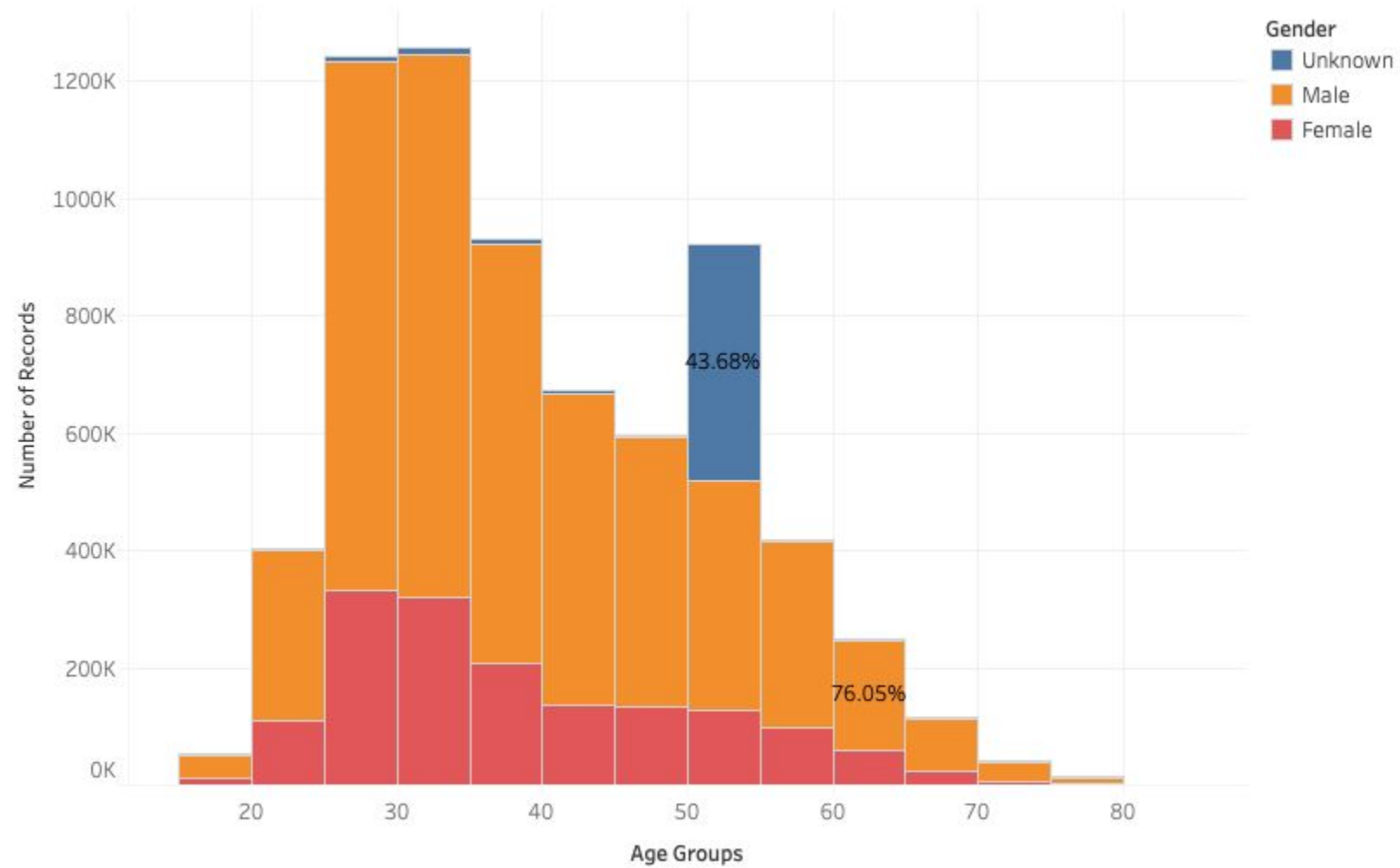
Sum of Number of Records for each Start Time Month. Color shows details about User Type. The marks are labeled by % Difference in Count of User Type.

## Age and Users



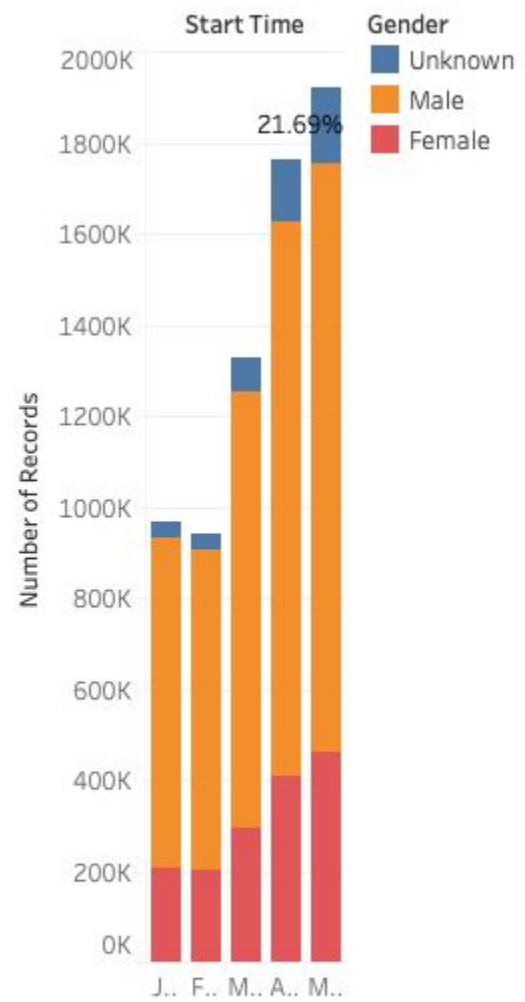
The trend of sum of Number of Records for Age Groups. Color shows details about User Type. The marks are labeled by % of Total Count of User Type.

## Age and Gender



The trend of sum of Number of Records for Age Groups. Color shows details about Gender. The marks are labeled by % of Total Count of Gender.

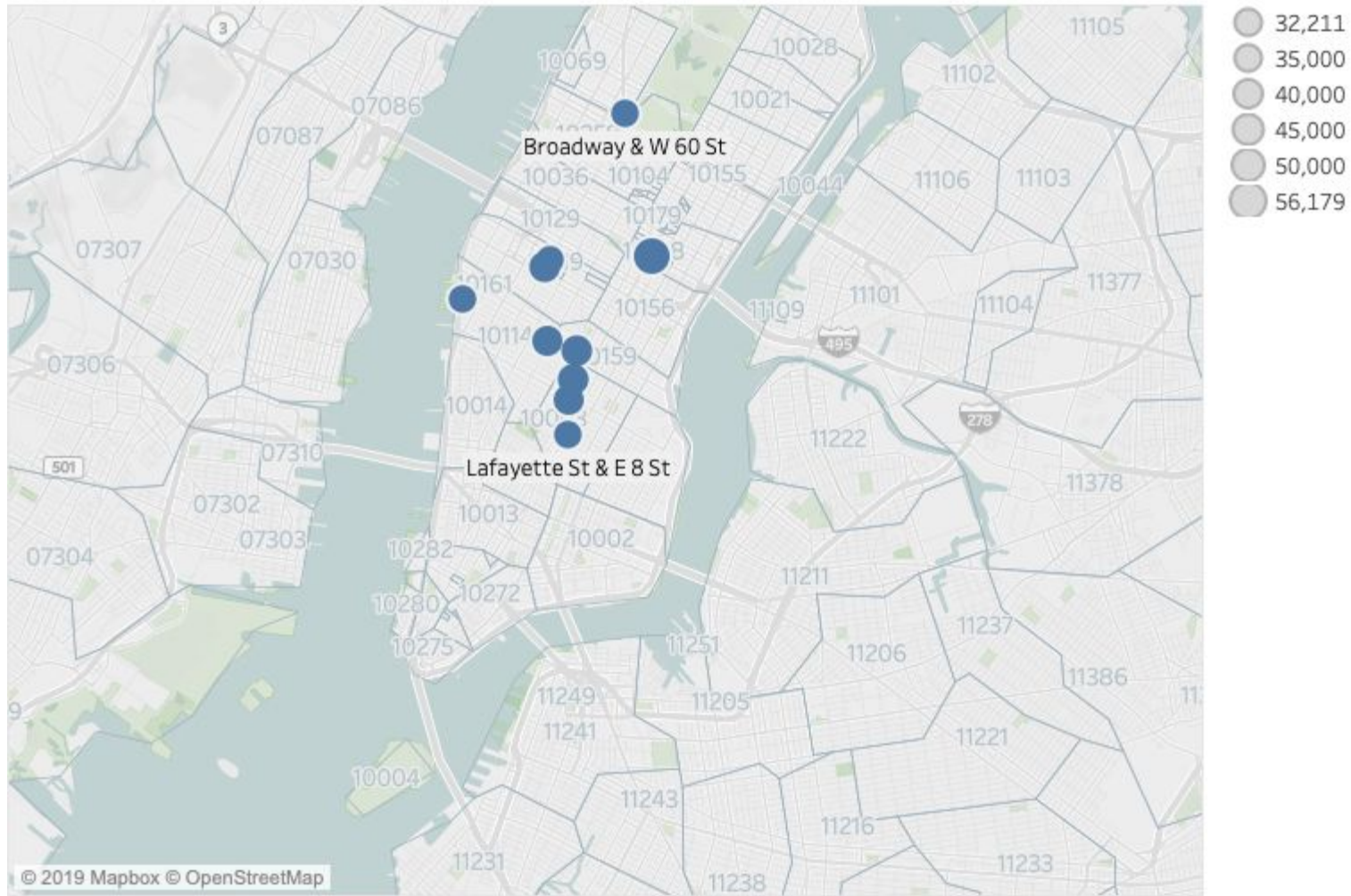
# Gender Over Time



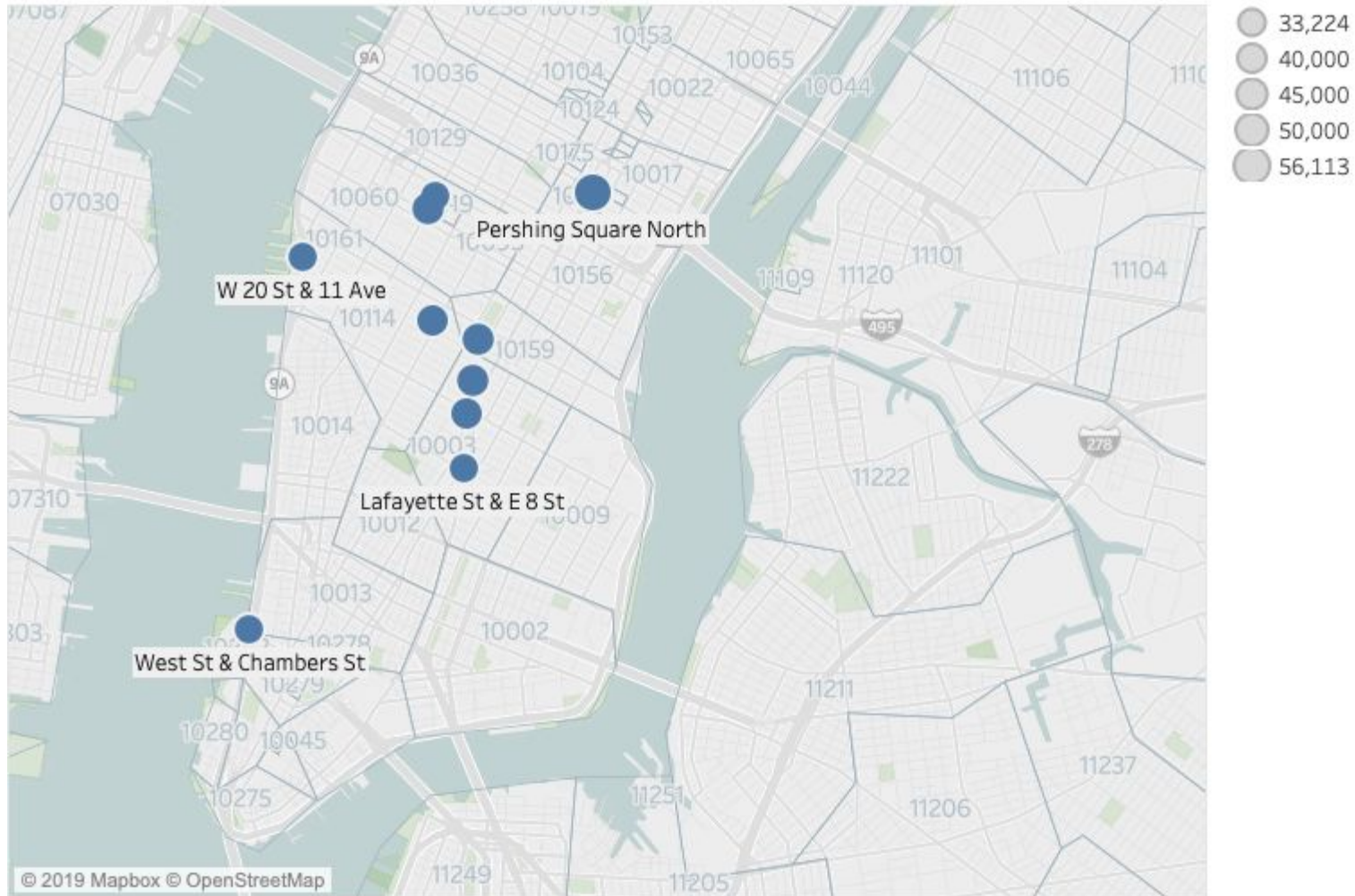
Sum of Number of Records for each Start Time Month. Color shows details about Gender. The marks are labeled by % Difference in Count of Gender. The view is filtered on Gender, which keeps Unknown, Male and Female.



## Top 10 Start Stations

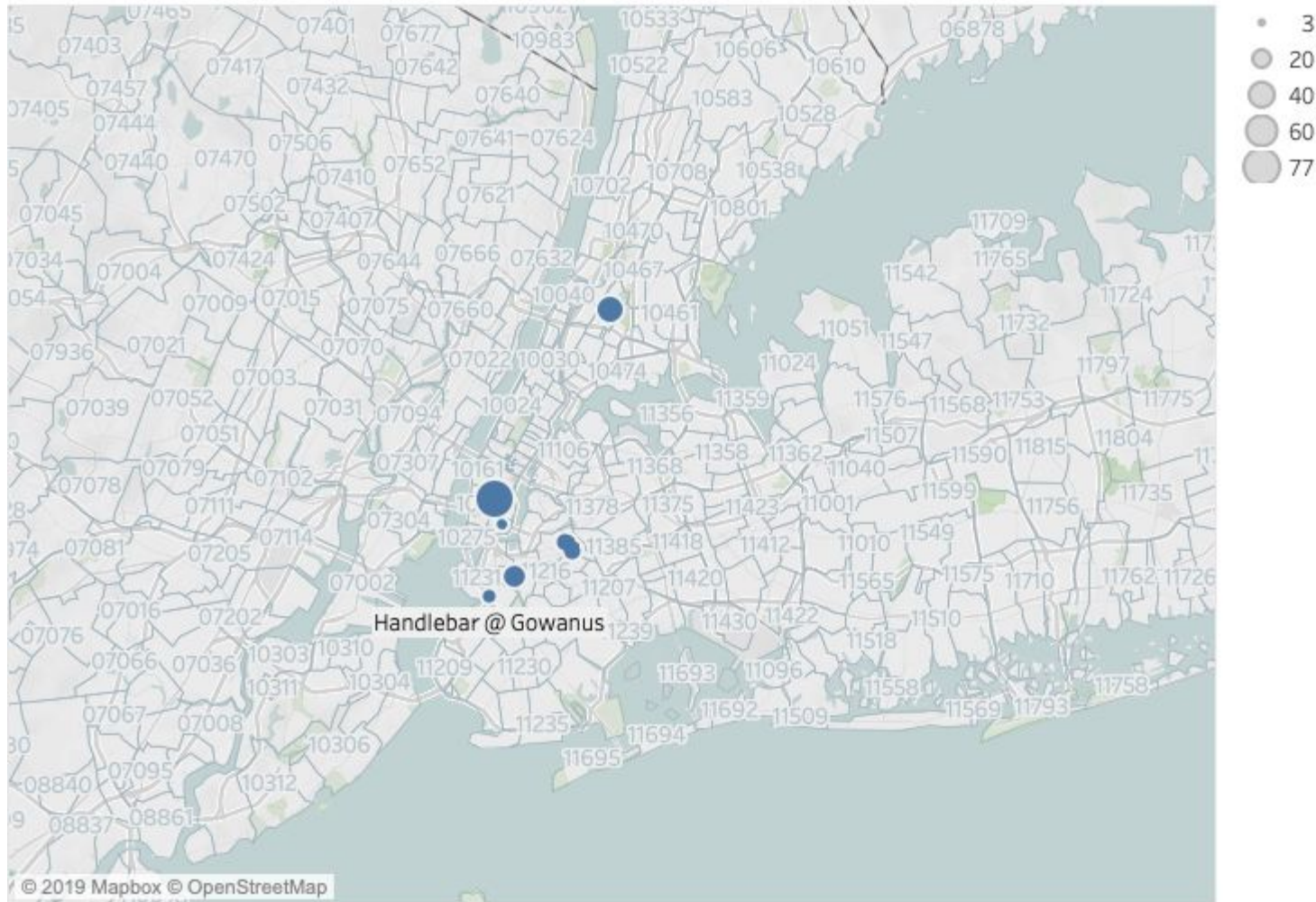


## Top 10 End Stations





## Bottom 10 Start Stations



Map based on average of Start Station Longitude and average of Start Station Latitude. Size shows sum of Number of Records. The marks are labeled by Start Station Name. Details are shown for Start Station Name. The data is filtered on In / Out of Bottom 10 Start Stations, which keeps In.

## Bottom 10 End Stations



Map based on average of End Station Longitude and average of End Station Latitude. Size shows sum of Number of Records. The marks are labeled by End Station Name. Details are shown for End Station Name. The data is filtered on In / Out of Bottom 10 End Stations, which keeps In.

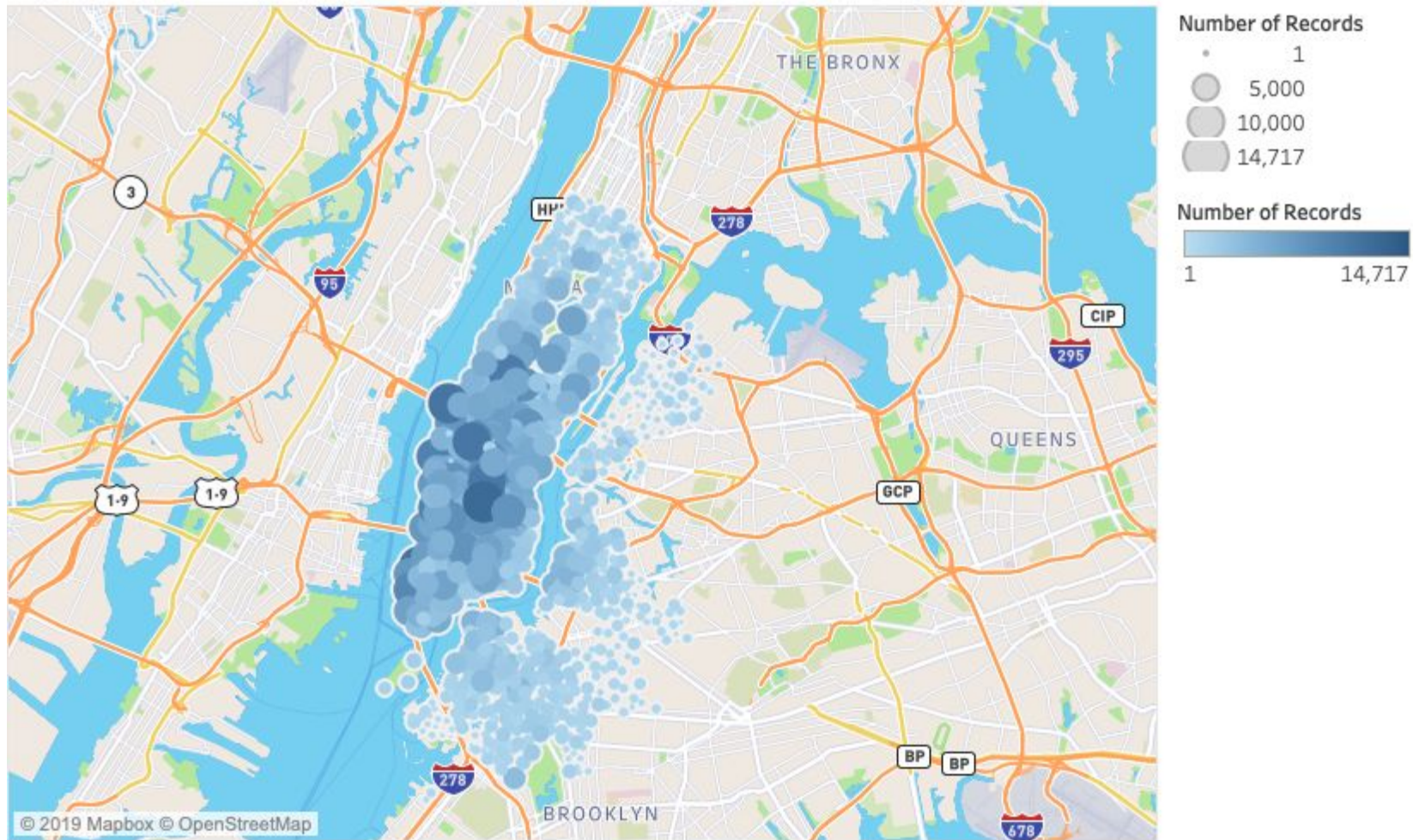
Total  
Trips -  
Jan-  
uary

965,505

Sum of  
Number of  
Records. The  
view is  
filtered on  
Month, which  
keeps April,  
February,  
January,  
March and  
May.



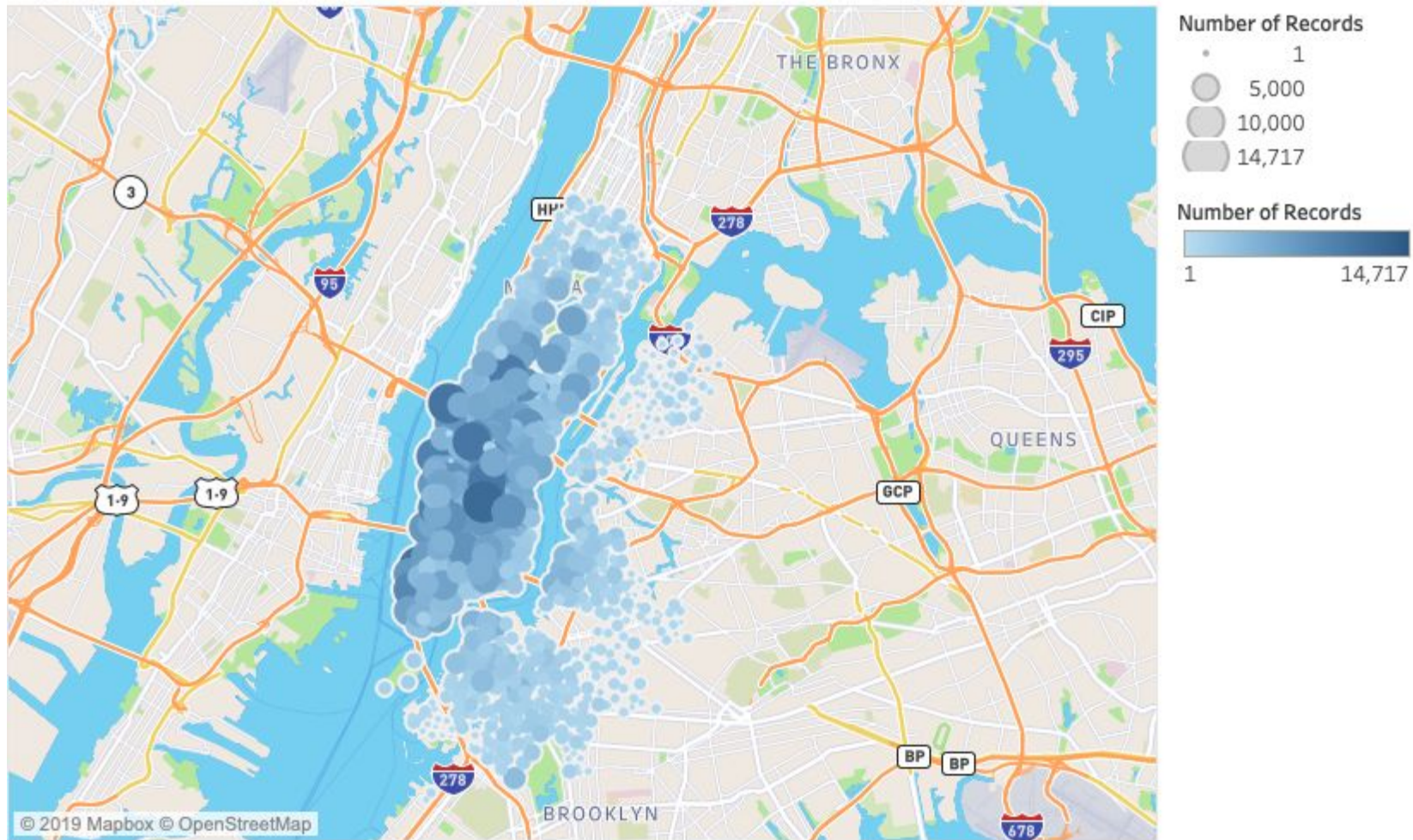
## Bike Stations - May



Map based on average of Start Station Longitude and average of Start Station Latitude. Color shows sum of Number of Records. Size shows sum of Number of Records. Details are shown for Start Station Name. The view is filtered on Month, which keeps April, February, January, March and May.

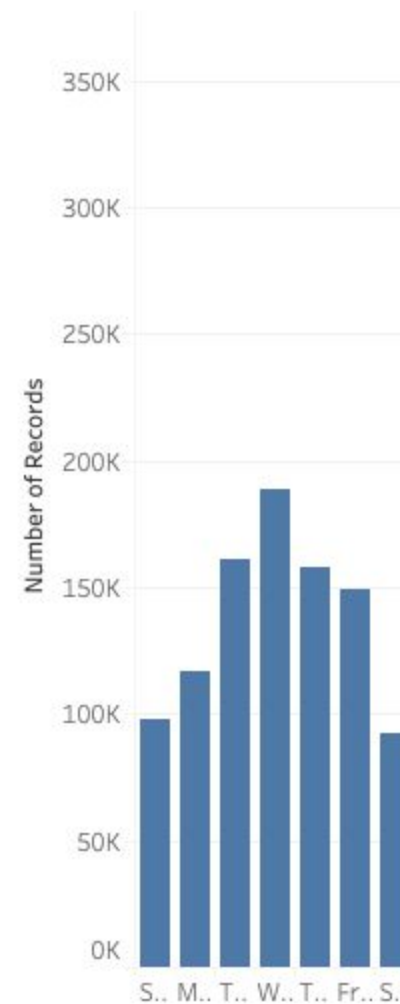


## Bike Stations (2) - May



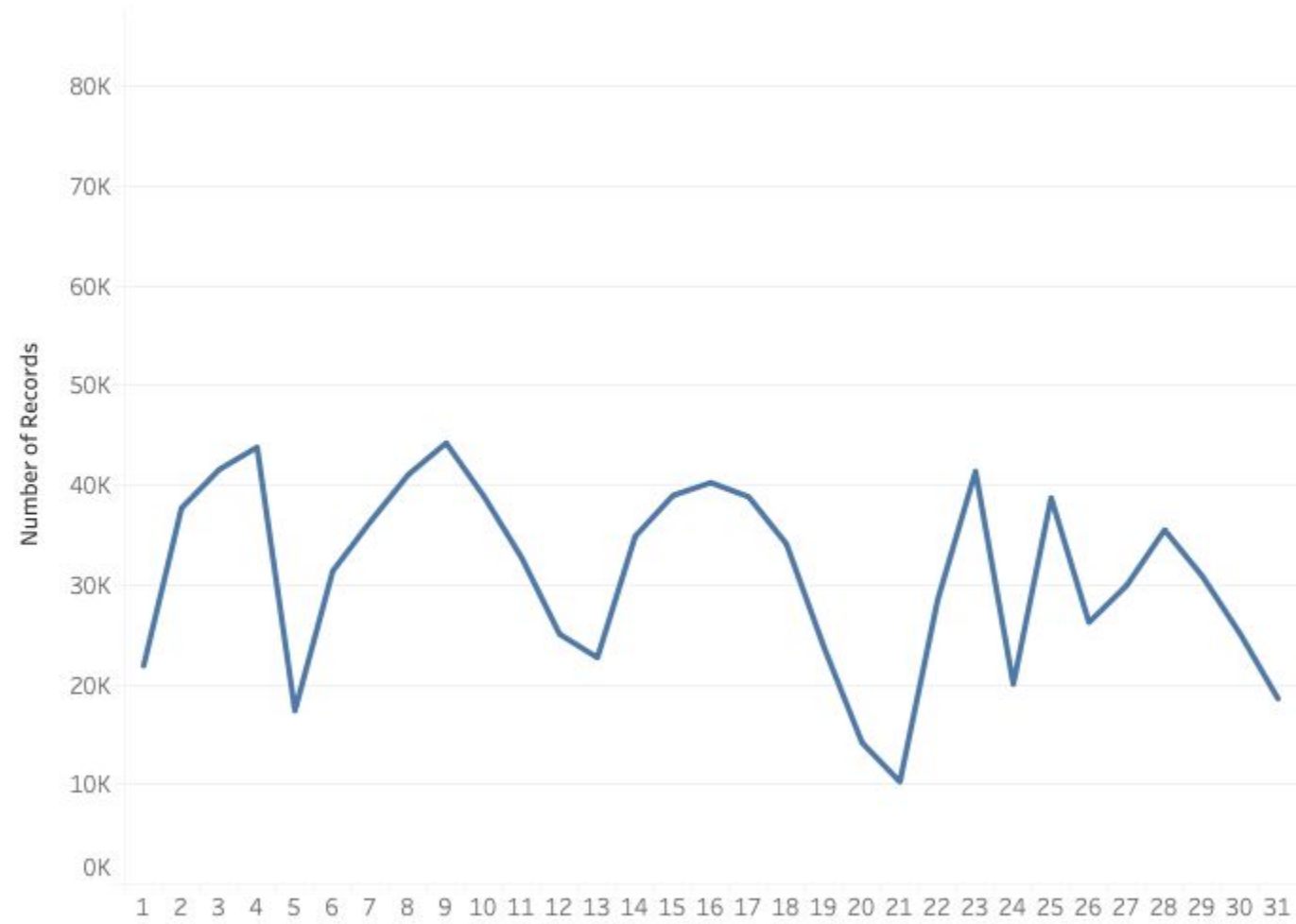
Map based on average of Start Station Longitude and average of Start Station Latitude. Color shows sum of Number of Records. Size shows sum of Number of Records. Details are shown for Start Station Name. The view is filtered on Month, which keeps April, February, January, March and May.

## Num Trips Weekday - January



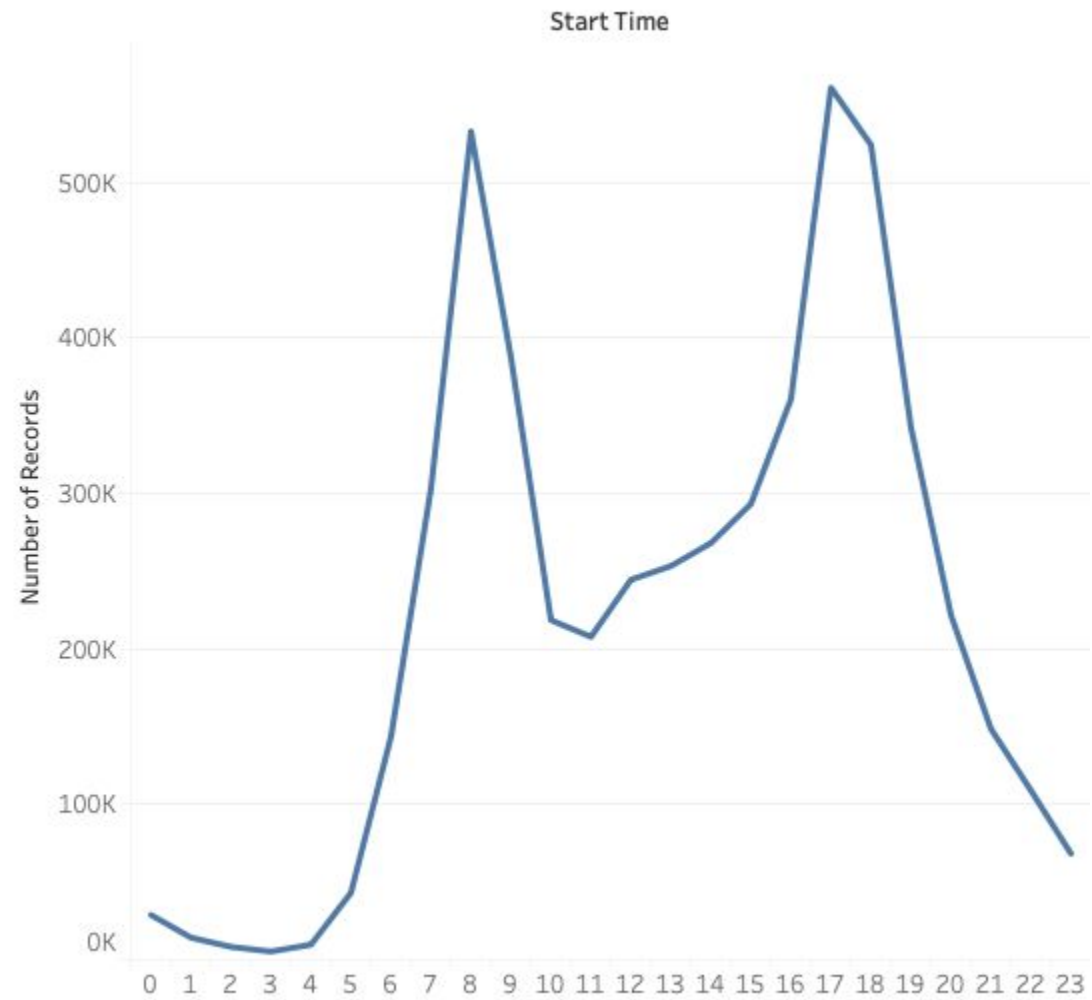
Sum of Number of Records for each Start Time Weekday. The view is filtered on Month, which keeps April, February, January, March and May.

## Number Trips by Day - January



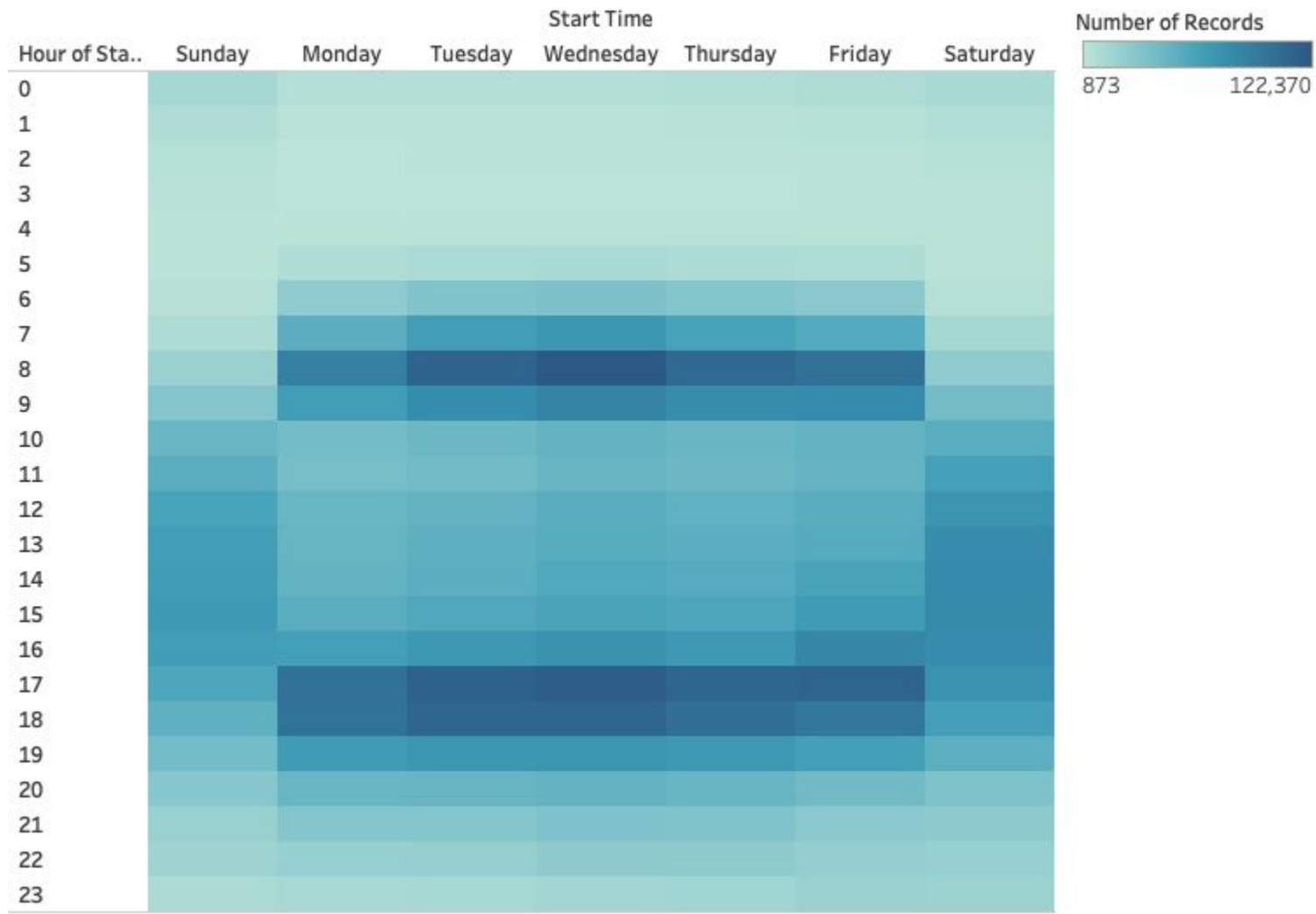
The trend of sum of Number of Records for Start Time Day. The view is filtered on Month, which keeps April, February, January, March and May.

## Number Trips by Hour



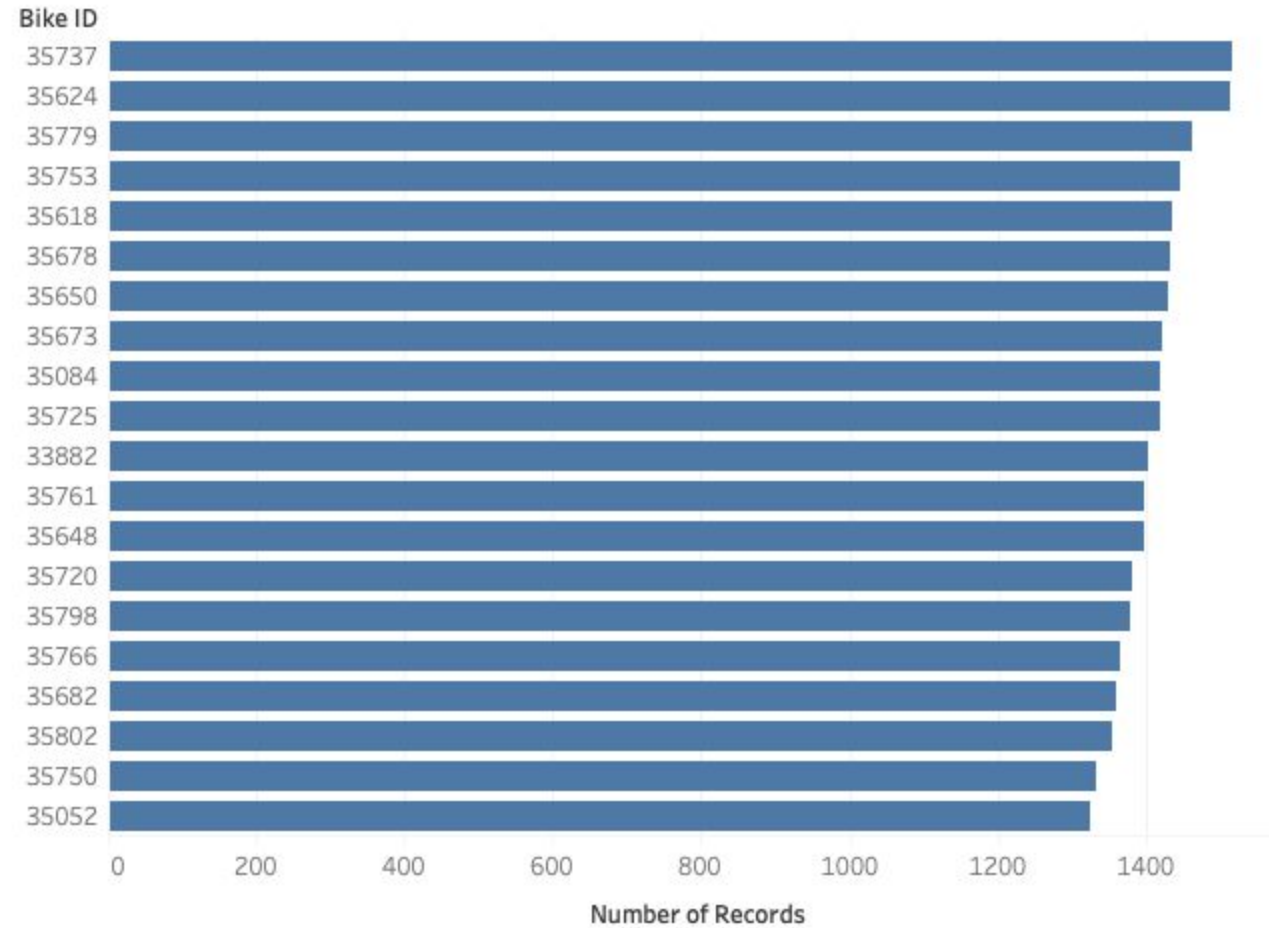
The trend of sum of Number of Records for Start Time Hour. The data is filtered on Start Time Weekday, which keeps Monday, Tuesday, Wednesday, Thursday and Friday.

## Weekday and Hour Heat Map



Sum of Number of Records (color) broken down by Start Time Weekday vs. Start Time Hour.

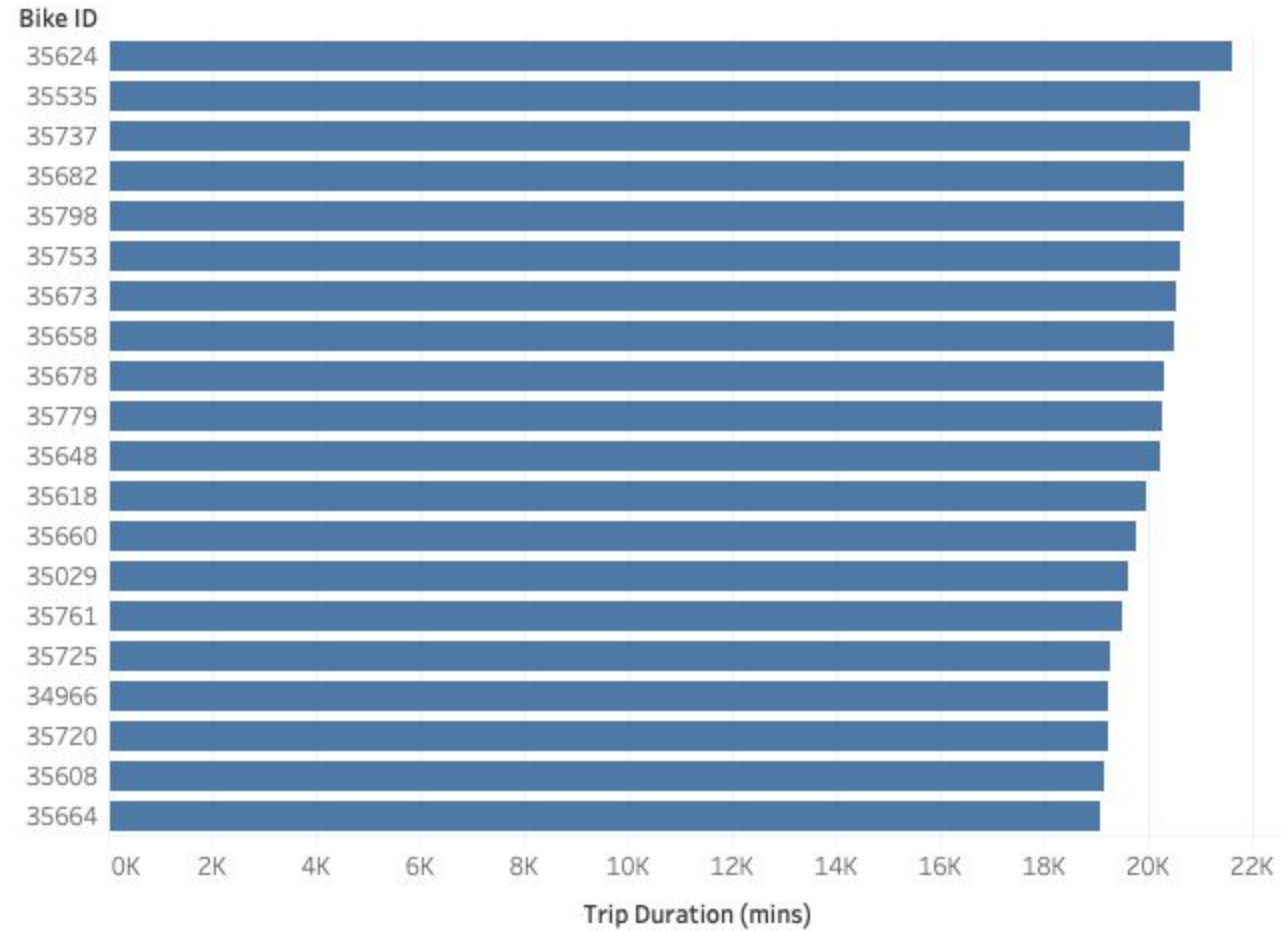
## Bike ID Usage by Trips



Sum of Number of Records for each Bike ID. The data is filtered on In / Out of Top 20 Bikes Used by Num Trips, which keeps In.



## Bike ID Usage by Duration



Sum of Trip Duration (mins) for each Bike ID. The data is filtered on In / Out of Top 20 Bikes Used by Duration, which keeps In.