

# 2018 Annual Report



This report summarizes the performance of the New York citibike program in 2018 based on analysis of ride information collected from the bikes themselves. Topics covered include the growth in rides taken, annual subscriber versus short-term customers, seasonal usage patterns, rider gender, rider age, and bike utilization.

The dataset goes back to the start of the system in 2013 and includes information on over 70 million citibike rides through the end of November 2018. The analysis in this report covers topics relevant to 2018 as well as trends that include the entire dataset.

Report prepared by Troy Bailey @2018

Tools used: Excel, Python, Jupyter Notebook, Tableau, In-Design

# system usage:

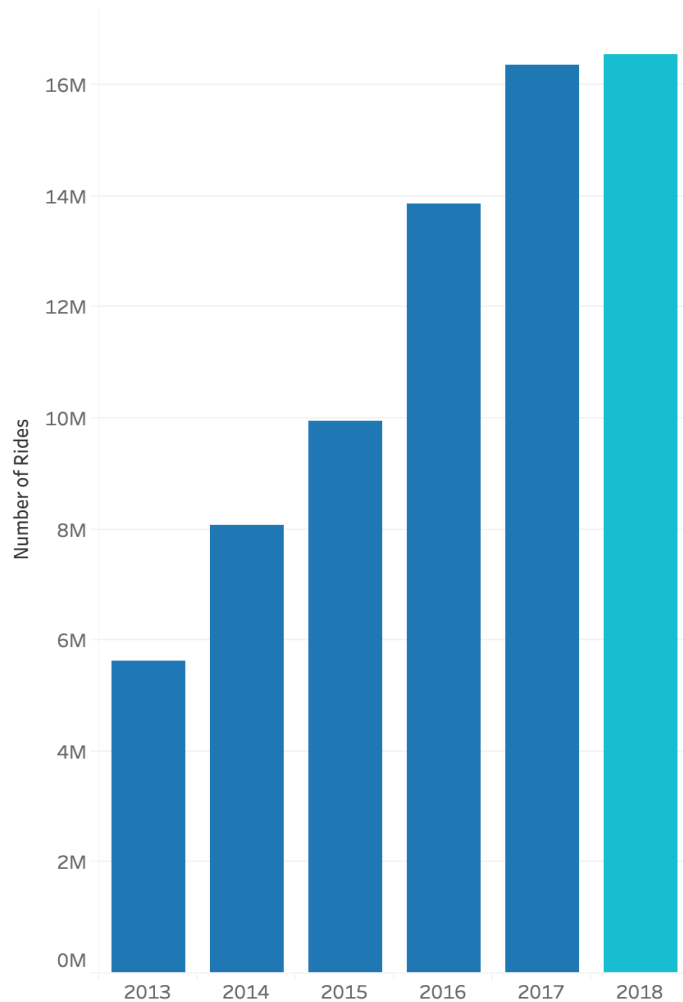
One key measure of the citbike program is the number of rides taken each year. The usage of the bikes has steadily increased over the life of the program. 2018 continued the growth trend but at a markedly reduced rate.

The chart to the right exaggerates the slow-down in growth as it only contains ride information through November of 2018 so that this report could be prepared for use during the December budgeting cycle.

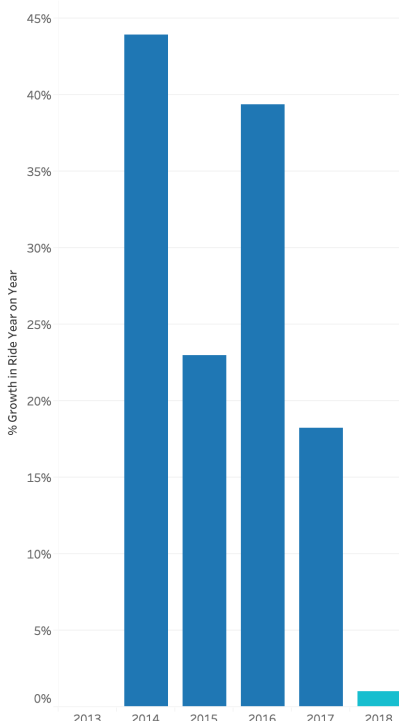
Similarly the Annual Ride Growth chart in the lower left shows only a 1 percent year on year growth rate due to the lack of December data. If however the ride count is compared based on January through November data for all years, we see that ride count grew at nearly 7 percent as shown in the Adjusted Annual Ride Growth chart in the lower right.

If the adjusted growth rate continues through the end of 2018, I estimate the program will end the year with a new high of 17.5 million rides.

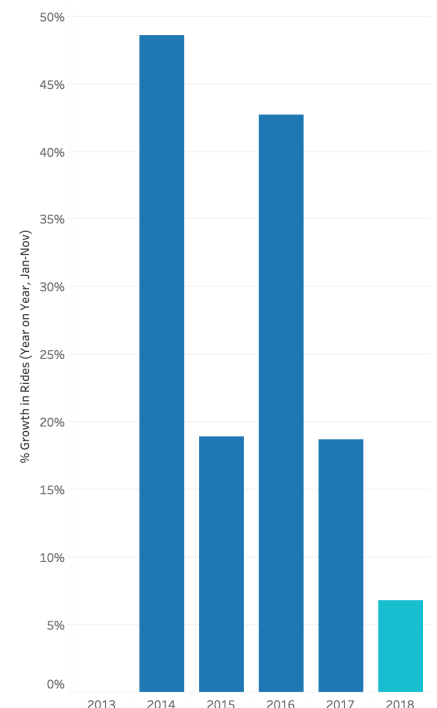
Total Annual Rides (2018: Jan-Nov)



Annual Ride Growth (YoY %)



Adjusted Annual Ride Growth  
(YoY %, all years Jan-Nov)

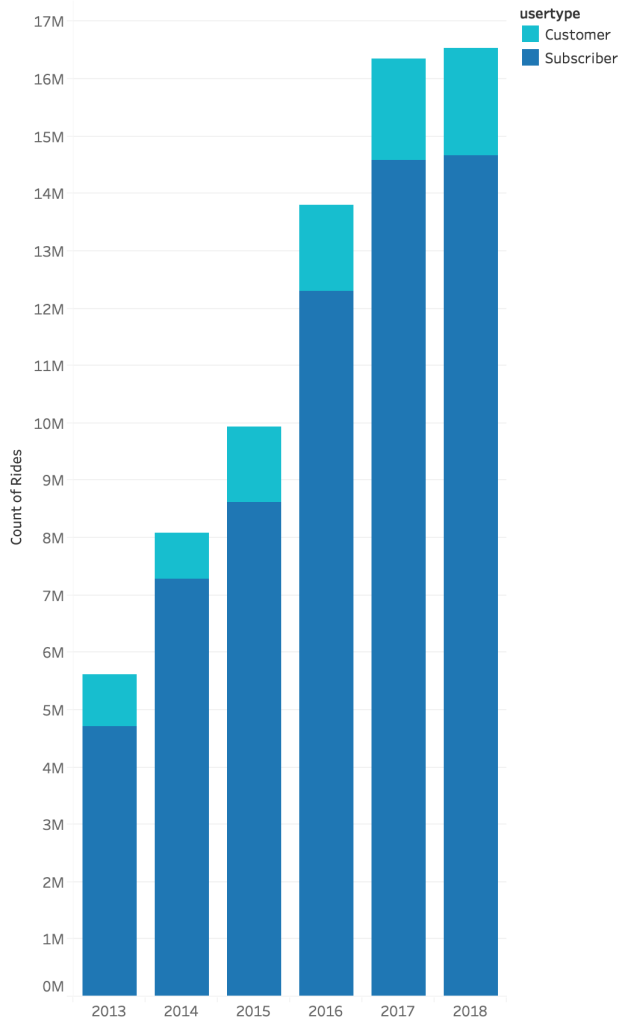


# user types:

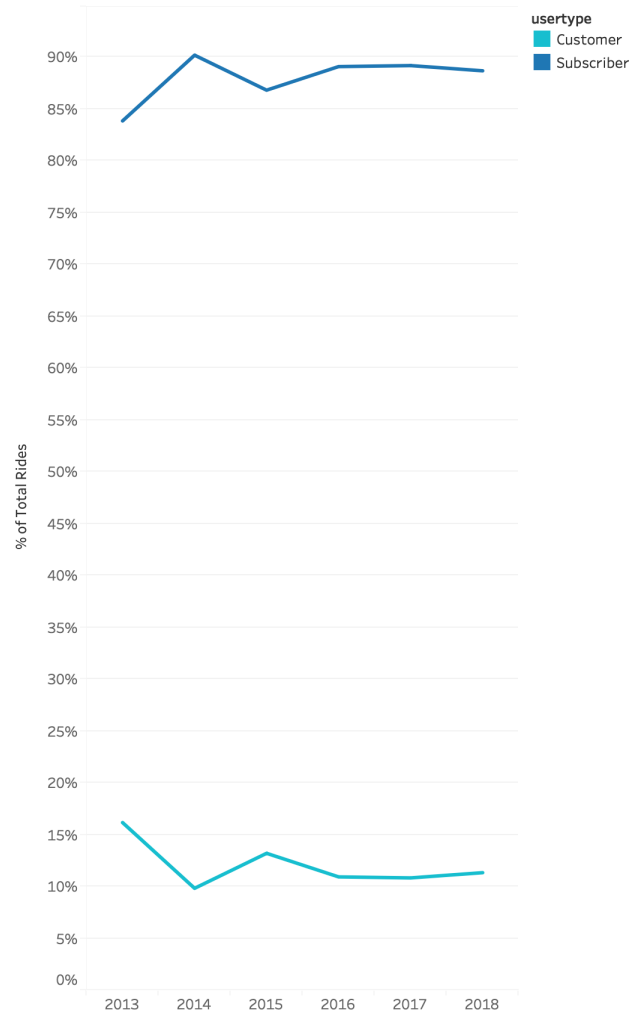
There are two modes by which riders may use the citibike program: annual subscription - those who pay a yearly fee to ride the bikes, and short-term customers - those who purchase a daily pass to ride the bikes. Since the beginning of the program most riders have chosen to purchase annual passes. The User Type Chart in the lower left of this page illustrates this preference.

Although the number of rides taken by short-term customers has grown over the years, so has the total number of rides taken. If we look at the chart in the lower right of this page, we can see that the user type has stabilized with nearly 90% of rides taken by annual subscribers and just over 10% of rides taken by day pass customers.

User Type

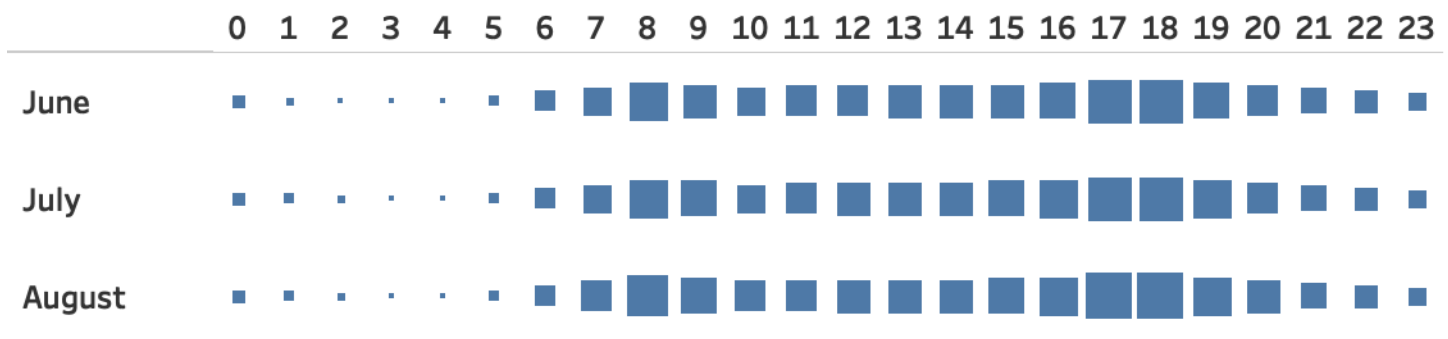


User Type - Percent of Total

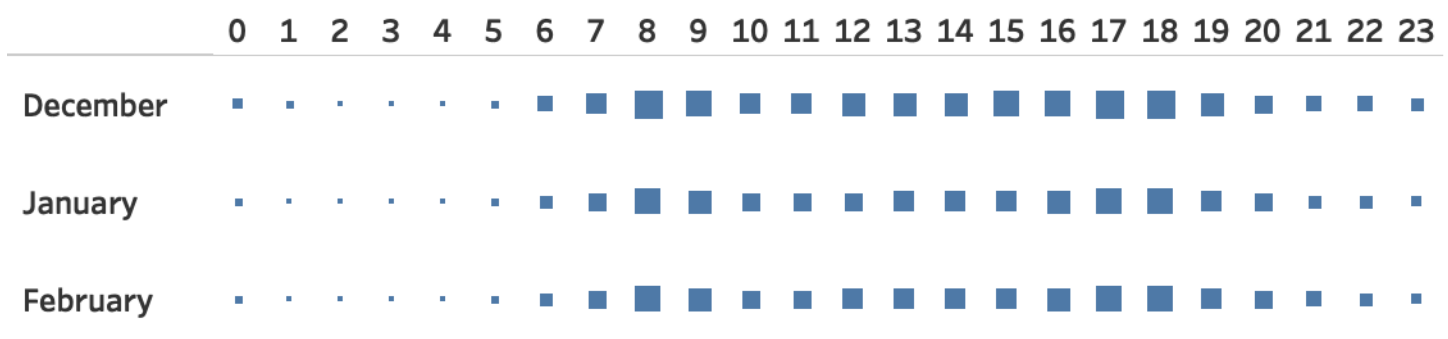


# peak use hours:

## Usage by Hour Started in Summer (Jun-Aug)



## Usage by Hour Started - Winter(Dec-Feb)



New York citibikes are used throughout the day and through out the year. However usage is not uniform and the use patterns are fairly predictable.

The peak hours of citibike usage mimic familiar city traffic levels: heaviest during work commute times, steady during midday and ebb in the early hours of the morning.

The winter usage levels follow a similar pattern to those in the summer, however winter usage is, not surprisingly, lower than summer usage with summer peaks being nearly 900,000 rides per hours and winter peaks just over 300,000