



# NYC Citibike Analysis

Since 2013, the Citi Bike Program has become the largest bike sharing program in the United States. However, in 2020, the unexpected COVID-19 pandemic hit us all, individuals and businesses alike, moving us into a new normal which has been constant ever since. It is important to model the behavior of trends in unpredictable years. The following analysis details the trends in the Citibike program ride data and rider demographics for further use.

## ***When did riders use Citibike in 2020?***

Citibike had a drop in usage during the initial lockdown months, and steadily increased as restrictions were loosening and essential businesses opened. In April specifically it is very noticeable. Its peak was in September, and decreased in the last quarter of the year.

Peak hours of Citibike usage align with work hours, with the most riders using the bikes between 4 and 6 pm, when most people are getting out of work. A small peak is also seen at 8 am, when most people are going to work. This can also be seen in trip duration, with work days accounting for shorter trips than weekends. In conclusion, Citibike riders used the bikes the most in the Summer and Fall months, during the evening. Data from lockdown months reflects the effects of the pandemic.

## ***Who were the riders in 2020?***

Millennials and early Gen Zers accounted for the most rides using Citibike, while also averaging the most distance per ride. Just the age group from 24 to 28 years old rode a bike more than 2 million times. From this group, more than 70% of riders were male, and overall, men use the service more than women across all age groups. Longer trips are made by younger people, with the youngest group averaging more than 6 minutes more per trip than the oldest age group. In addition, women tend to account for longer trips than men, while also covering more distance.

In addition to this, it is important to note that most used stations tend to be more centric and closer to city landmarks, touristic sites and business clusters. All of this is reflected in the Tableau file attached in the submission. Further analysis would be useful, as it is important to compare these trends to a control group, such as the year 2019 or 2018 in order to see if the difference between some of these trends can be attributed to normal population and usage trends or if the pandemic did have a strong effect.