

For this analysis, one percent of random data from each month of the 2019 datasets was used to create the visualizations. While looking at the map, one trend that can be seen is that the steady increase in the number of trips per starting location through to October. Once the filter hits November and December, the trips start to decrease by each location. This is most likely due to the winter months, and weather playing a factor, that there is a reduction in the number of trips. As the months increase through the Spring to Fall months, there is an increase in the number of trips taken at locations near the water. Specifically, when looking at the month of September, one can see the peak of trips taken at those locations. When filtering by gender, while Males overall have a trend of more trips, the trip start locations are more condensed into the center of the city, whereas Female customers are more evenly spread out across the major city.

On the second page, there is a line graph comparing birth years by average trip duration and a bar graph comparing the start time by months to the average trip duration and then split by customer type. Customers are defined as Customers because they purchased a 24hr or 3-Day pass, or Subscribers and they purchased an annual pass. Overall, on the line graph, Men with a birth year of 1950 and 1954 have two major spikes in average trip duration, while Women's average duration is more evenly distributed. As for the bar graph, January and April have the highest average trip durations. Across all the months, the average trip duration is greater for Customers than Subscribers. Lastly, when filtering by Male and Female, Females overall have a higher Trip Duration Average than Males, but Males have a spike in a greater Average Trip Duration for April than Females. This could be caused by the two main spikes seen in the male line charts.

On the final page, there is a line graph showing the Average Trip Duration per BikeID, and a bar graph showing the number of trips per gender and then split by the customer type. When looking at all BikeID's, there are a few bikes that are used more than others. With this observation, these bikes will most likely need to be repaired more because of the overuse. On the bar graph, overall, men are showing a trend of using the bikes almost three times more than women. Then, when filtering down by gender, specifically selecting Male, most of the tall spikes on the line graph, are still tall. Therefore, it appears that men are using these bikes more for longer durations rather than women. In conclusion, while looking at this snippet of the data, most customers appear to be Subscribers of CitiBike, preferring to have an annual pass over a 24hr or 3-day pass.