I decided to look at trip duration measures from Sept-Nov 2019 to see if we could find anything meaningful from the data.

First, I looked at the difference in trip duration between subscribers to CitiBike and regular customers to examine usage behaviors. In fact, it appears the average duration for customers is significantly higher than that for subscribers. Subscribers are likely more invested in not keeping bikes for unnecessarily long, while one-off customers may have less concern for etiquette or costs with longer trip durations. This was not entirely unsurprising, but the large gap was worth note. Maybe it’s not worth pushing a subscription service? That question would be worth analysis.

Next l looked at hour of start time vs. trip duration. Surprisingly, the 3AM hour has a high peak for longest trip duration. Perhaps that is due to early commuters with long commutes. Less surprisingly, longer trip durations start to rise and peak again in evening rush hour, with busy roads and commutes home. The main surprise was a sharply higher trip duration in early morning hours. Is there anything we can do to gain favor with these customers?

I also looked at median trip duration for each start station and end station. We could examine this data further to see if we need more bikes at our busiest locations. Surprisingly, there were a few end locations that jumped out as having particularly high median trip duration. Maybe the city should examine if we need more buses or public transit to service those areas, where our bikes are needed for longer.

I have also included a map showing the location of stations, with a dot size representing longest trip durations originating from that station.\