**Tableau Viz/Storytelling**

**My Analysis**

**1. Change in proportion of Short-term Customers and Annual Subscribers**

I used the Citibike Data history log of trips from April -June 2016. In the Tableau Viz that I created, we can see from the first graph that it shows the proportion change of short-term customers and annual subscribers from week to week.

In the Week of April 3, Annual Subscribers are at 199.2% in comparison to the Short-term Customers at 18.9%. Week of April 10, Annual Subscribers drop to 37.3% while the Short-term Customers spike up to 240%. Week of April 17, they both went down, but Short-term customers were still higher at 93% versus 23%.

The lowest points for Annual Subscribers were at -22.4% week of May 1 and -28.4% week of May 24. The smallest proportion change for Short-term Customers was at -55% week of May 1 and -45.3% Week of June 19.

Week of May 8, Short-term Customers went up to 116.7%, and Annual Subscribers went up by 48%. The trend here, we see more participation in the Citibike Program of the Short-term Customers overall than the Annual Subscribers except in the week of April 3 where Annual Subscribers were at 199% and Week of June 5 at 69%.

I also used a trend line to see if they will differ in proportion. The trend line is very similar except lower for the Subscribers than the Customers. The Percent difference in the number of records shows 0.0141879 for the Short-term Customers and 0.0135786 for Annual Subscribers.

Conclusion: I can conclude that the proportion of Short-term Customers and Annual Subscribers change weekly but have similar trend and that Short-term Customers participate the most in the Citibike Program

**2. Top 10 Stations in the City at the Start and End of the Journey**

Using the same Citibike Data, I created a bar graph that pulled out the top 10 stations based on the start and end journey with the number of records.

Here we see that the 10 stations are the same but in a different order at the end journey based on the number of records (return of Citibikes). Lafayette St and E 8 Street still stayed in position 5 both at the start and end journey. We can also see that we have a higher number of records of return to these station at the end journey. Perhaps this may be due to secure access to drop off Citibikes at these stations to get more options for another transport home. If you get a Citibike from another station, you can return the Citibike to any choice station that is convenient for you hence the top 10 popular stations.

**Two unexpected phenomena in the data with its analysis**

**1. Increase Female Ridership over Timespan Viz**

The first unexpected phenomena that I came across was in this graph. It is evident that the male gender participates the most in the Citibike Program compared to the female gender in April, May, and June. The male gender uses this program three times as much as the female gender, which I was not expecting. The number of records for the male gender in these months were above 600k while the female gender’s number of records was barely above 200k. It also showed that there was a slight increase in female ridership from April to June.

**2. Trip Duration by Age Viz**

The second unexpected phenomena that I came across was in the Trip Duration by the Age bar graph. First, we establish again that more males participate in the Citibike Program than females. However, a unique phenomenon I found was that those female and male born between 1983 – 1990 (Ages 26 – 33) use the Citibike Program the most.