The Effect of the New York Shutdown on Citi Bike in Jersey City

1.       How has the New York shut down affected Citi bike in the Jersey City area?

a.       This data is from December 29th 2019 to May 30th. In this period, we see an interesting change in the number of Citi bike riders as well as the average duration of trips taken. Starting in late February, Citi bike trips dropped from a peak of 6200 rides to a 1500 by the end of March. This is likely due to the rise in COVID-19 infections during this period as New York became the epicenter of the COIVD-19 pandemic. During the same period, Average trip length increased from 425 seconds to 752 seconds, and it continues to rise.  It is possible that the number of riders decreased due to concerns of catching COVID-19 however, the people who could not shelter in place may have needed an alternative to subways and cabs. This means the average rider would need to use a Citi bike where they previously would have used a transportation means more suited to longer distances.

b.       Around the time New York was becoming the pandemic epicenter, subscriber rides dropped severely, however as more time goes on people are slowly returning to numbers like that of the pre COVID-19 world. Additionally, rides of customers who have not subscribed have increased dramatically from Pre-COVID-19 numbers. It is possible that more commuters are turning to Citi bike as a lower risk means of transportation as the city opens back up.

2.       Where are the riskiest Citi Bike Stations? (COVID-19)

a.       The population over the age of 65 is most at risk of serious complications from COVID-19. This dashboard identifies where our at-risk population is picking up Citi Bikes as well as how busy those stations are. By finding the percentage of riders over the age of 65 and where the pick up Citi Bikes we can target decisions to protect Citi Bike riders. Over the time of December 29th to May 30th, Astor place has had the highest density of 65+ riders around 10%. The density of 65 and older riders has decreased with not a single station exceeding 4%.  As the city reopens, high risk stations such as Astor Park and City Hall need extra attention to ensure social distancing and sanitization are carried out.

b.       A further split of the high-risk users shows that they are primarily male. However, in the highest risk station this trend is kicked with 38% of riders over the age of 65 being female.