CitiBike Challenge Findings

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**PHENOMENON #1 Busiest Stations are Situated Closest to New York City**

Mapping trip data for each station shows an interesting trend. The dataset contains trip information for citibike stations in Jersey City, and the stations located closest to the Holland Tunnel are the busiest. Presumably, residents use the stations close to the tunnel to commute into New York City for work. The average trip duration is also smaller for stations close to the Holland Tunnel, while trip duration gets larger for stations further away. The busiest stations are close to NYC, and are frequented by customers looking for a quick bike commute into the city. Presumably, customers that rent a bike further away from the tunnel have a longer trip before they cross into New York City for their commute or sightseeing trip. To confirm this explanation, please notice that stations further from the Holland Tunnel experience more traffic on evenings and during the weekend, while stations closer to the Holland Tunnel are busiest on the weekday during rush hour.

**PHENOMENON #2 Increased Number of Trips vs Decreased Avg Duration During 2020**

The citibike data for 2021 also shows that the number of rides taken has increased each month during 2021. During this timeframe, the national trend was a workforce returning to the workplace after months of working from home or not working at all. The data also shows that the average trip duration has decreased each month during 2021. This can be explained by the increased frequency observed in short commute rides into New York City. A quick look at the map confirms that stations close to the Holland Tunnel experienced a huge uptick in traffic during 2020. Since rides from these stations tend to be the shortest (these stations are popular because the ride into the city is shortest), as they increase in frequency, it drives down the overall average trip duration.