<u>Citi Bike, NY Data Analysis</u>

An analysis was done of Citi Bike system usage from data collected in June 2020 and January 2021. While not exactly the best use of data, the purpose was to look at data obtained during the COVID19 pandemic.

Overall, the data suggests that Citi Bike system users (regardless of user type) are predominantly male. The top 10 start and end locations are all in Jersey City, New Jersey (rather than New York City), and the peak use time is 6pm. This suggests that the bikes are most used for the commute home from work by individuals who work in New York City, but live in the much more affordable state of New Jersey. Because there is a not an equally large peak time during what would be the 'morning commute,' it appears that commuters use a means of transportation other than Citi Bike in for the morning commute (subway, car, bus, walking, etc). There are two additional distinct usage peaks, which are: 8am (morning commute), and 1pm (lunch). Due to the fact that the peak times are so short in duration, it's most likely that distinct trips are short in time or duration (or both). The average trip duration data (in minutes) seems to support that most trips are very short.

Among users (of all types), there are multiple distinct peaks of ages which are: 19, 52, 64, and 72. This could be that 19-year-olds and 52-year-olds use the bike system for work-related purposes, whereas the older crowd perhaps use the bikes for recreational/health purposes. For both genders, the age of maximum use (regardless of user type) seems to be in the late 20s and early to mid 30s. Despite this, the bottom 10 end points all have 1 rider each. One of these destinations, for example, is 5th Avenue and East 88th Street – and in looking at the map, it seems unusual that an intersection located near the Guggenheim Museum Store, a shopping center, churches, and Central Park would be such a rare destination. The obvious answers are again alternative means of transportation, age-related discrepancies (perhaps the area is frequented by older citizens), or due to the specificity of the data, perhaps a more frequented destination is close by. The intersection is certainly a tourist area – which would be why the bike use there is so scant.

Resources used:
https://www.citibikenyc.com/system-data
https://s3.amazonaws.com/tripdata/202006-citibike-tripdata.csv.zip
https://s3.amazonaws.com/tripdata/202101-citibike-tripdata.csv.zip