SYSC 3303 - Final Project – Data Analysis

Data selection process:

Starting with the raw elevator time data for full building travel (from 1 -> 7 and 7 -> 1), the times were split into actual travel time and time spent onloading/offloading passengers (doors open to close).

- The mean of the travel time measurements and a 95% confidence interval were used to calculate an average travel time from floor to floor at **3.305s ± 0.535s**.
    - These measurements may be changed in the future if more elevator data is acquired to account for acceleration times, but iteration 1 will make use of that interval for floor-to-floor elevator movement in the getElevatorTransitTime(*) function.

Along with full distance travel, the data also gave floor to floor travel but included the time for doors opening and closing on each floor. The average speed here would be far slower than the continuous travel option as every floor involved acceleration on launch and slowed down to a stop on each floor.

Identifying the amount of time it took on each floor for a door to open and close gave much more data about loading/offloading times.

- The mean of the onloading/offloading time and a 95% confidence interval were used to find a range of **9.53s ± 1.61s** used in the getElevatorLoadingTime() function.
    - In contrast to the travel times, these times will likely not have to be revised as there is no need to account for acceleration or any other factors.