5. Outcomes of Task 1, 2

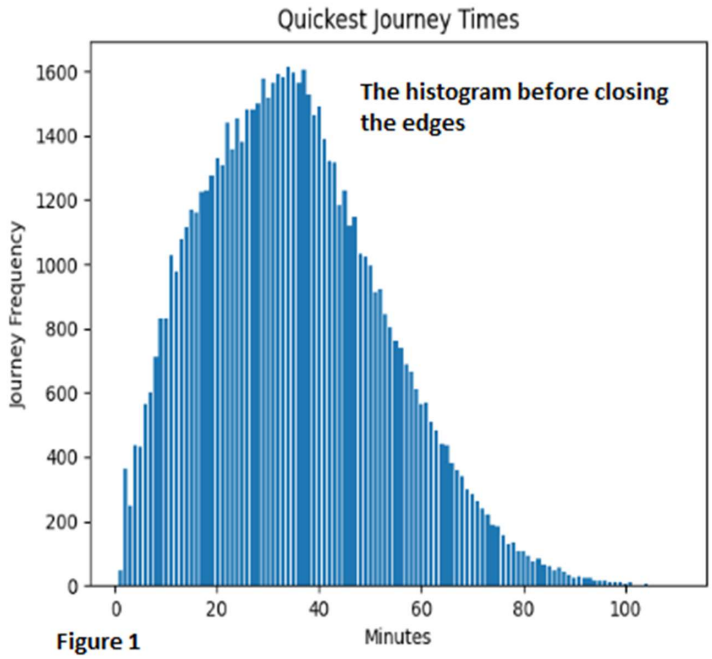

Figure 1

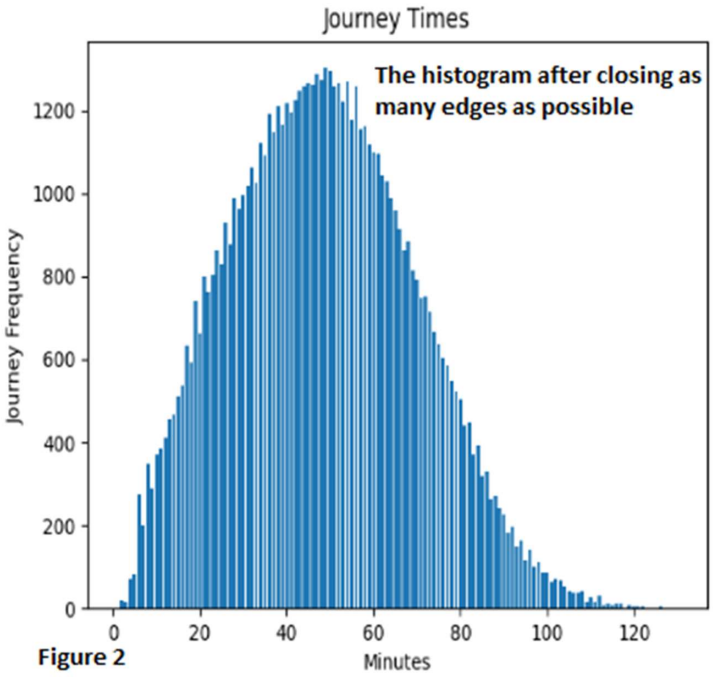

Figure 2

Figure 1 and Figure 2 are histograms showing the quickest journey times of the London underground.

Looking at it from an overall perspective, figure 1 provides the bar chart of (quickest) journey times between each pair of stations, while figure 2 provides the quickest journey times between each pair of stations after closing as many stations as possible. For example, the quickest 600 journeys can be completed in 5 minutes with the London tube, as shown in figure1. However, in figure 2, 600 journeys can be completed in 18 minutes. When looking at the graphs as a normal distribution curve, we can see that the mean has shifted to the right, meaning that the average journey time has increased after the closures. The spread of data has also increased, as shown in figure 1, where the journey times span from 2 minutes to just over 100 minutes, while in figure 2, the span increased from 2 minutes to over 120 minutes, meaning that even the longest journeys have been disrupted and closures have increased overall journey time. Additionally, the journey frequency peak has decreased from 1600 to around 1300 from figure 1 to figure 2 graph. This reiterates that the spread of time in figure 2 is larger than that in figure 1, journey times have overall increased, and the standard deviation of journey times is larger in figure 2 compared to figure 1.