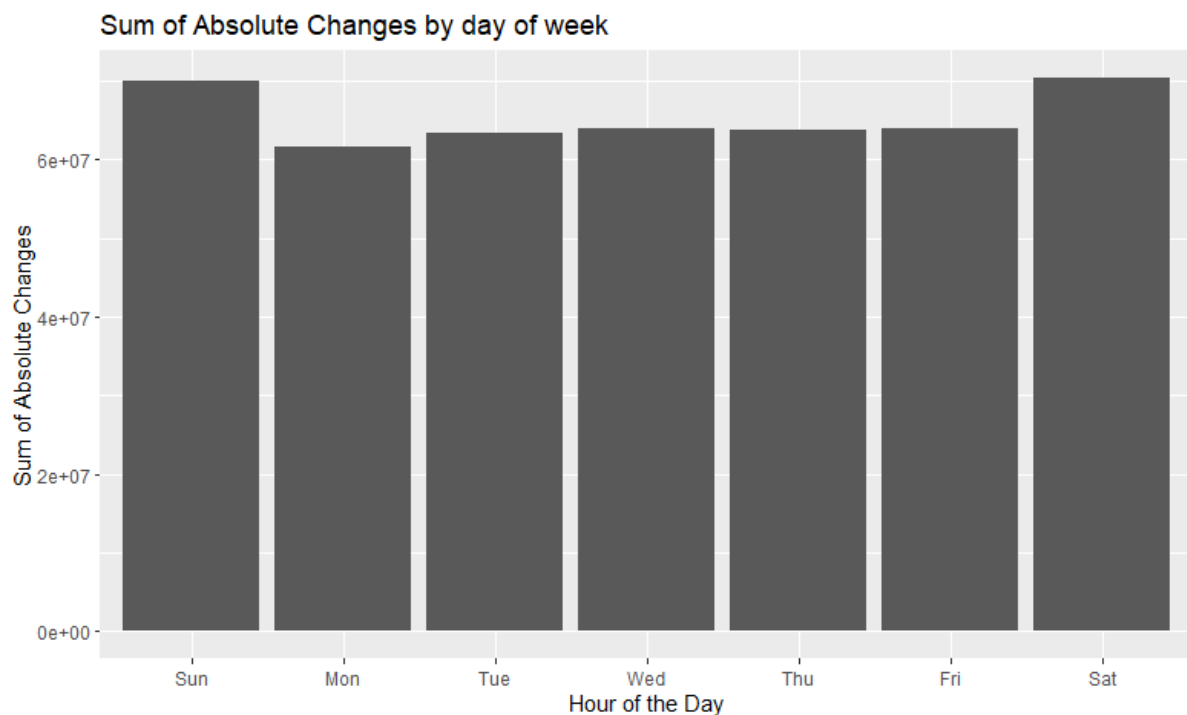


Which days are best if roadworks must be completed during the day?

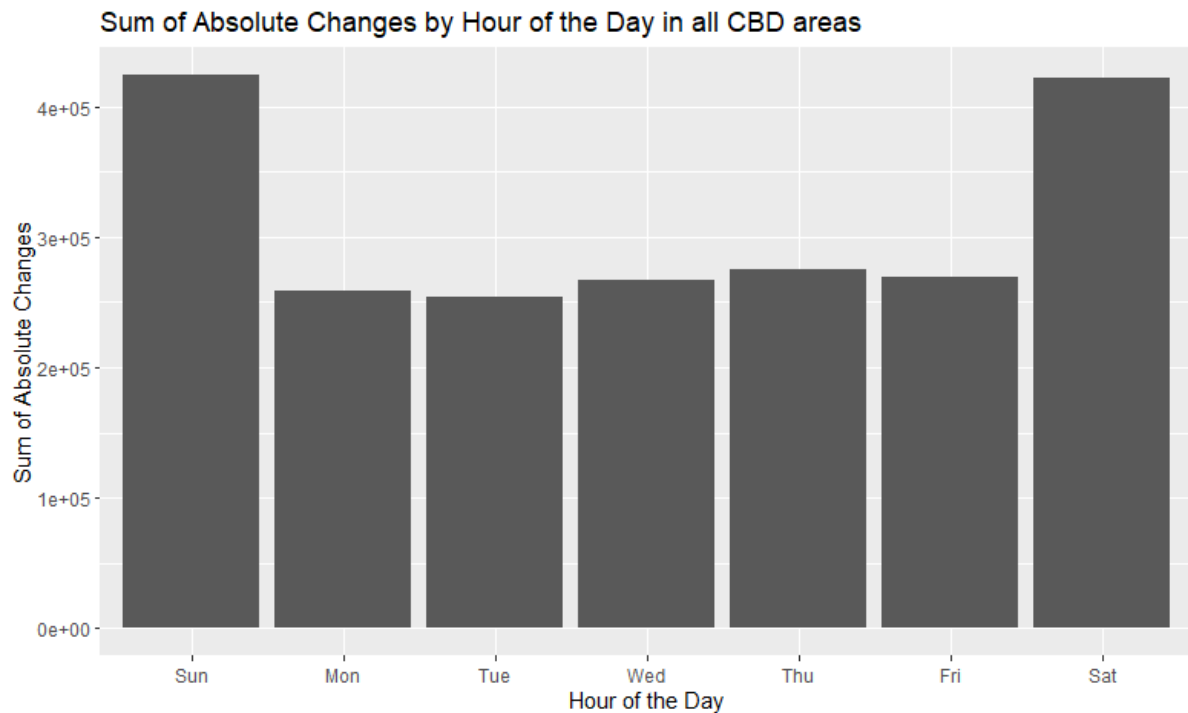
The aim is to find days of the week where it would cause minimal disruption to traffic, businesses, and the local community and provide a safer environment for the workers. We have analysed population movement patterns across all areas using telecommunications data as well as focusing on the CBD areas in order to identify days of the week with less movement to enable more efficient and lesser disruptive roadworks.

The following graphs plot population movement by day of the week measured by sum of absolute changes in population. This brings out how much movement is happening into and out of the areas over the course of the week.



Sum of Absolute Changes by day of Week (All Areas) (Figure 1)

This suggests that Sunday and Saturday are the days of the week that demonstrate the largest amount of movement, where lots of people are coming into or leaving an area. In contrast, the weekdays, Monday through to Friday, tend to have smaller, and rather consistent, number of changes. This would tend to suggest that during the weekdays, people are moving into and out of areas in a relatively regular manner, perhaps due to standard movements to and from work.



Sum of Absolute Changes by Day of the Week (CBD Areas) (Figure 2)

The trend of all areas carries over into the CBD areas, however, movement is even more extreme on weekends. During the week, the population flow on the roads within CBDs is significantly lesser and also much steadier.

Considering all types of movement data, the days of the week most suitable for daytime roadworks across all regions including CBDs are from Monday to Friday. This is due to the fact that the flow of movement is usually more predictable and at a lower level during the weekdays, thus ensuring there will be less pressure on the flow of traffic. Significant roadworks must also be avoided on Saturdays and Sundays, especially in the CBD areas, since these are the days with high population movements. Additional flow in the traffic may delay it significantly and interfere negatively with the weekend activities both for the citizens and also businesses.

Therefore, the recommendation is that significant road works should be done on weekdays Monday to Friday, across all areas, for easy and less disruptive operations. The more stable weekday traffic patterns show better conditions for good roadworks management. In that regard, the weekends should be avoided as they are the days associated with the highest levels of movement.