

Assignment6 Crime analytics

Yvonne Hua

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More crimes happened during night hours and the crime rate distribution is different by district in San Francisco during 2014 summer.

As is shown in Figure 1, total crime counts in San Francisco is slightly higher during later hours in a day, comparing to early morning hours. By eyeballing, there are also more large outliers after 5PM. Which day of the week doesn't seem to affect total crime counts, while Southern district has significantly higher crime counts than other districts.

Figure 1 : Total SF Crime Count in Different Time of A Day

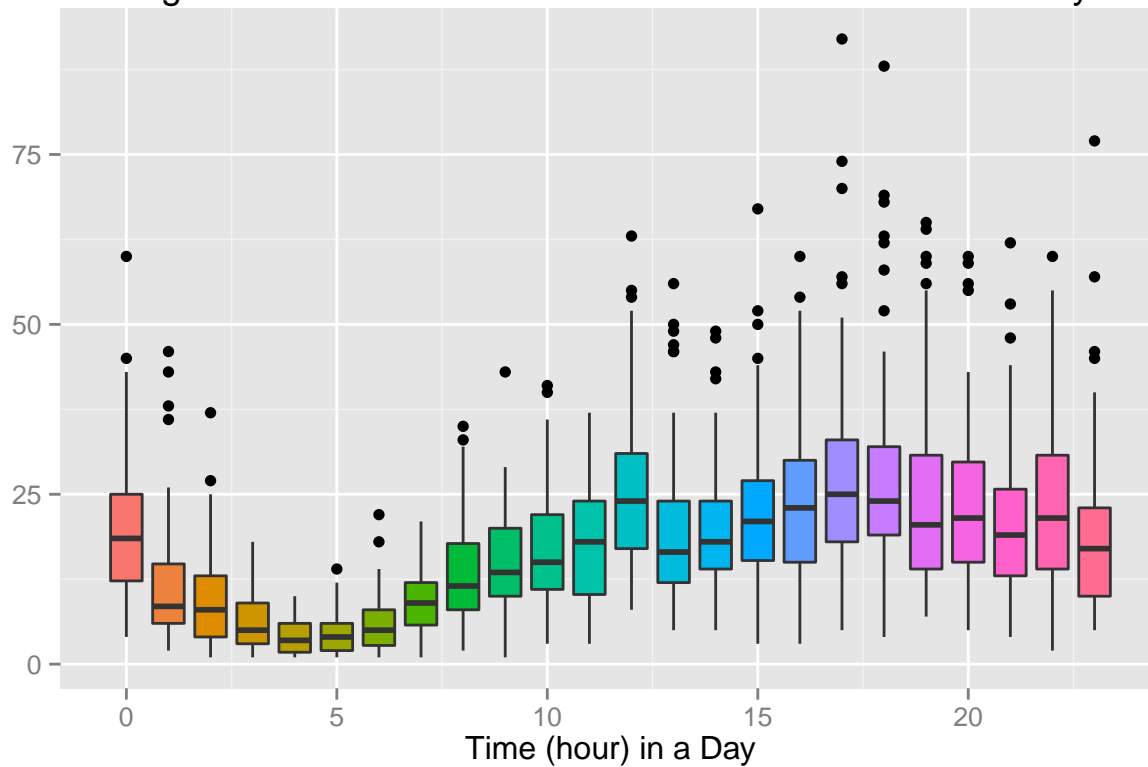


Figure 2A: Total SF Crime Count on Different Days of A week

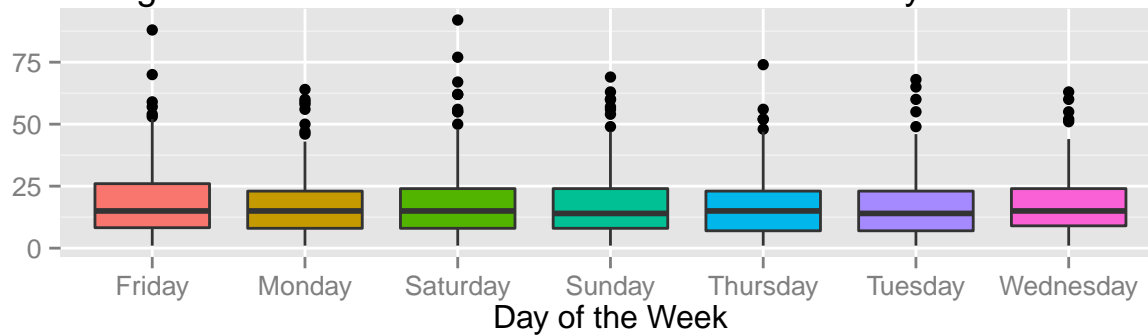
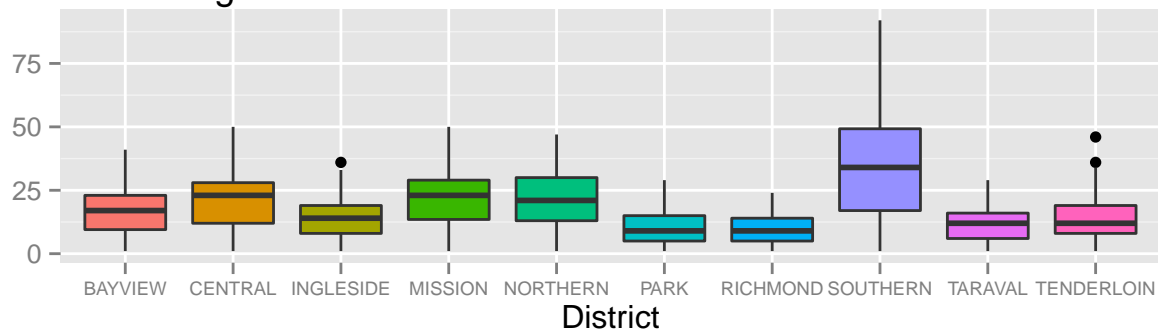


Figure 2B: Total SF Crime Count in Different District



Comparing San Francisco and Seattle's crime count distribution during different time of a day.

When plotting the crime numbers in different time of a day by the locations, we can see that the general trend line is going up - the later time of a day, the more crime there tends to be. Yet the Southern district in SF has a steeper slope than the rest 9 districts. Seattle, on the other hand, has a more uniform crime number distribution in its five precincts, though it seems to be slightly bifurcated. The East precinct's crime rate doesn't change much by time.

The limitation of this analysis is that only time of a day and locations are controled. I did not take into account additional information such as weather, or the crime category, which may be important stratification factors. As for Figure 3, since the number of the locations (district in SF and precinct in Seattle) are different, and the total crime numbers are different, it is only a rough comparison of the two cities.

