

## Criminology for Dummies

- There are various factors that play critical role in increasing crime rate.
- We have tried to look out for patterns that can help us to make inferences and correlations between increased crime rate and temporal and spatial aspects of the crime.
- Through these patterns we can estimate the how crimes take place and why do they take place in the first place.
- We will look first look at the temporal aspect analyzed by us:
  - When we group all the crimes which took place from 2010 to 2015 we see an interesting format:
  - For each year we can see that almost every seventh day we get a spike in the number of crimes and that day is mostly Friday. Also, we get a dip with every seventh day and that day is mostly Sunday.
  - The above pattern gives us a hint of sharp increases and decrease in crime rate as a function of time.
  - However, we did find few anomalies in above correlation when there are spikes on other days than Friday which can be due to noise or they may be real incidents.
  - We tried to drill down on those aberrational spikes to look for other information to find out if these spikes can be explained.
    - Other information:
      - Weather
      - Holiday
      - News (To check any popular or disturbing events took place)
- When we looked at Spatial aspect of NYPD crime report below are the insights which we can make from the data:
  - We correlated the given crime report with the outside data that gives a measure of diversification among the people living in a particular region
  - The visual representation of the data gives the relationship of crime with respect to diversification.
  - If we look at the graph we can infer that