Crime in Portland, Oregon, 2004-2014: A summary of trends

1. Introduction: Overview of purpose and motivation, summary of findings

Over the past several decades, public awareness of crime has increased significantly. Those who do follow the news are exposed to a constant iteration of story after story about illegal activity, local, national, and global. This growing awareness and concern over crime comes at a time where, in many places in the United States, crime rates are actually falling and law enforcement is more effective than ever before in protecting citizens from criminal activity.

Crime can be broadly categorized as follows:

* Personal Crimes are those which involve harm to the physical or mental state of a person. These can include assault, battery, false imprisonment, kidnapping, homicide, and rape.
* Property Crimes are those which involve actions that prevent another person from using or enjoying their property. These can include larceny, robbery, burglary, arson, embezzlement, forgery, false pretenses, and receipt of stolen goods.
* Inchoate Crimes are those which are started, but not completed. These can include any attempted crimes, solicitation, and conspiracy.
* Statutory Crimes are those which violate any statute. These can include personal and property crimes, and can be in violation of federal and state statutes. Examples include drunk driving and selling alcohol to a minor.[[1]](#footnote-2)

Interestingly, the different types of crimes do not occur with equal frequency among different subpopulations in the United States. For example, young urban minorities are more likely to be arrested for personal and property crimes than other groups. This kind of crime is likely to be reported by local media. Other types of crime, including embezzlement, are committed more frequently by people of high economic standing, and is less likely to be investigated or reported.[[2]](#footnote-3)

In regards to the first statement, several studies have been done around the issues of criminal motivations, and the various factors that influence changing levels of criminal activity over time. In 2002, Gould, Weinberg and Mustard[[3]](#footnote-4) examined data from the 1980s and 1990s to try to identify correlations between broad economic trends and changing crime rates. They found that when economic markers were good (low unemployment, higher relative wages), certain criminal activity rates did decrease. In particular, the authors argued that young unskilled men (who commit most higher-visibility crime), were more likely to commit property crimes during times of economic difficulty, including difficult job markets. Interestingly, the unemployment rate actually had a less significant effect than low wages in this regard. This points to the possibility that crime is largely motivated by economic forces. This point is further strengthened by the fact that changes in the economic climate did not have a statistically significant effect on rates for personal crimes such as murder and rape, which are seldom committed with an economic motive.

This project investigates data gathered by the City of Portland Police from 2004-2014. Several categories of crime are investigated, from each of the categories listed above. It is hoped that the investigation will reveal insights into crime rates in Portland, and whether the broad statements made above regarding different subpopulations committing different kinds of crime are supported by the data available. It is also hoped that geographic data can be made visible, at least in regards to the various neighborhoods throughout the city, if not to the street level.

1. Summary of available literature and journal articles, as well as various media contributions to the public understanding of crime in Portland. Items from bibliography follow:
   1. Methods for calculating crime indices: Cahill, M. E., & Mulligan, G. F. (2003).
   2. Nationwide crime trends: Johnson, C. (2016, September 19).
   3. Examining crime rates vs. economic opportunities: Gould, E. D., Weinberg, B. A., & Mustard, D. B. (2002).
   4. Robbery rates and racial segregation: O’Flaherty, B., & Sethi, R. (2007). Also Akins, S. (2003).
   5. The “Ferguson Effect”: Pyrooz, D. C., Decker, S. H., Wolfe, S. E., & Shjarback, J. A. (2016).
   6. Importance of locality in predicting crime trends: Cahill, M. E. (2004).
   7. FBI Releases Crime Statistics for Oregon and Washington.
   8. Violent crime in Portland, including geographic information: Cahill, M., & Mulligan, G. (2007).
   9. Korn, P. (2013, October 31). The Rose City's homicide drought.
2. Report of findings from data sources, highlighting major trends over time and by location.
   1. Disclose sources of data used:
      1. <http://www.civicapps.org/datasets>
      2. <https://www.portlandoregon.gov/bps/62635>
      3. <https://www.pdx.edu/crime-data/>
   2. Crime in total, then broken into broad categories: property crime vs. violent crime
      1. Scatter plots:
         1. Total reported Portland crime 2004-2014
         2. Reported property crime 2004-2014
         3. Reported violent crime 2004-2014
   3. Further scrutiny of specific types of crime in question: robbery, burglary, etc. versus assault, homicide, etc. Is it possible to determine how much of this crime was committed by repeat offenders?
      1. Bar charts, stacked bar charts:
         1. Property and violent crime 2004-2014
         2. Property crime alone, including subcategories: Shoener, N. (2017, March 21).
         3. Violent crime alone, including subcategories: Shoener, N. (2017, March 21).
      2. Possibility of identifying repeat offenders? How would this be done given the data available?
   4. Trends in various types of crime over time: has there been an increase or decrease in residential burglary, for example? Can these trends be correlated to any economic markers? Was there any particular spike after the events in Ferguson, Missouri?
      1. Scatter plots:
         1. Trends in various types of crime, 2004-2014. It may be possible to do this with a single graphic, however, using several might improve readability.
         2. Look for a relationship between any economic markers and crime rates: how are crime rates related to major economic trends? Where could data on these economic trends be located?
         3. Look for any unusual activity immediately after Ferguson (after August 9, 2014): this is toward the end of the available data, any change may not be apparent.
   5. Trends in various types of crime over geographic location.
      1. At first this may be limited to which precinct was involved in the various crimes, but depending on availability of information it may be possible to actually represent crime data on a city map and look for general patterns and areas of interest.
      2. Sub-maps may be an option here as well. Can these trends by location be correlated to any economic markers? For example, average house sale price in the neighborhood?
3. Comparison of Portland data to that reported in the summary of the literature above. Does the data from Portland agree with the findings from the studies done by those authors, for example? Is the local media in Portland giving an accurate picture of crime in the city?
4. Conclusion and summary of major results or findings. Possible avenues for further investigation, or other data that might inform future research.

1. Shoener, 2017. [↑](#footnote-ref-2)
2. Crossman, 2017. [↑](#footnote-ref-3)
3. Gould, et. al. 2002. [↑](#footnote-ref-4)