|  |  |
| --- | --- |
| Technical report: MidPOINT  Gun Crimes in America | Analysis of the American Gun Crimes. American gun laws appear to be out of control. Is this true, or are their gun laws the easy blame for high crime rates? Are states with stricter approaches to gun laws achieving lower crime rates? Are crime rates influencing the states happiness rates?  Charlene Moore  Data Analytics x15412048@student.ncirl.ie BSc (Hons) in Technology Management |

Contents

[**1** **BIBLIOGRAPHY** 0](#_Toc532220078)

## **BIBLIOGRAPHY**

* <https://www.macmillanihe.com/studentstudyskills/page/choosing-appropriate-research-methodologies/> (used this page to help me choose what type of research methodology I am using for my project and to gain an understanding on the different ones I can chose between) [website, online]
* (Kaggle, 2018) `Dataset’s`, Public [Online] Available at: <https://www.kaggle.com/datasets?sortBy=relevance&group=public&search=crime&page=1&pageSize=20&size=sizeAll&filetype=fileTypeAll&license=licenseAll> (Accessed: 29 Sep 2018)
* (Pyle D, no date) [Book online.] `Data Preparation for Data Mining` <https://books.google.ie/books?hl=en&lr=&id=hhdVr9F-JfAC&oi=fnd&pg=PR17&dq=facets+of+data+mining&ots=6gdS7NHtcs&sig=4zW6TgTUtmu1AWB5r_iVhtX4WrI&redir_esc=y#v=onepage&q=facets%20of%20data%20mining&f=false>

Contents

[**1** **BIBLIOGRAPHY** 0](#_Toc532292735)

[Executive Summary 1](#_Toc532292736)

[Introduction 1](#_Toc532292737)

[Background 3](#_Toc532292738)

[Bibliography 3](#_Toc532292739)

# Executive Summary

Since the mass shooting last October 1st, 2017, in Las Vegas I have concerns about the gun laws in America, as do many others. Being on the Las Vegas strip that day opened my eyes to the gun crimes that are happening all over the world, particularly America who have legalised gun laws. Some states in America have more restricted approaches to their gun laws than others. My Question is why? Why not all have these restrictions? What factors contribute to these restrictions being put in place over other states? Do these restrictions have a positive or negative impact on the gun crime rate?

I, as I am sure many others do, always preached “get rid of legalised guns in America”. But now after the mass shooting in Las Vegas, I have thought about it more and in fact I don’t know if it is even possible to illegalise them after all this time without causing more damage than better. I don’t know if illegalising guns will impact the gun crime rates for the better? Is taking away guns from the innocent, giving power to the perpetrators? Many people hear about gun crimes and think what I used to think, “illegalise guns”. This may very much so be the answer, but I personally don’t know enough facts to draw that conclusion. But hopefully after this analysis I and any readers of this report can gain a better insight into the gun laws in America. Ideally, I would hope that this report would be even good enough for law enforcements to make predictions regarding crime occurrences or locations in the future.

# Introduction

This project will provide an analysis on gun crime rates in California, Illinois, Texas and Ohio. An examination of their gun laws, population, their law enforcements, poverty, education and any other factors that might impact their crime rates will be interpreted into my analysis to determine if there are trends or relationships. Statistical tests will be conducted to determine these relationships. A combination of t Tests and an Anova test will be conducted to determine if there are significant differences between variables. In order to conduct these statistical tests, I must first ensure the data is normal distributed. I will do this by using descriptive statistics to determine the mean, mode, median, skewness, Kurtosis etc, these will guide me on if the data is normal distributed or not.

These tests will then provide me with the tools needed to create a model to help make predictions on crime. These predictions will be the time of year most likely to have high crime rate in certain states. A summary of what might contribute to these predictions will be provided, along with graphs to display my prediction. Another prediction will be where crime might happen. I will use past locations to help forecast future predictions. This is of benefit to the law enforcements in the areas, to try and prevent crime. Statistics like this might also be of benefit to people moving homes and seeking information on the area. If crime rate is high and predicted to get higher, then this might help with their decision of location to relocate. Which brings me to another analysis I hope to conduct later in this project. I plan to compare house prices in areas, to the crime rate. It would be interesting to know if crime rate influences the price of houses in an area. Another cool analysis might be to see if the happiness levels of a state is related to the crime rate in a state. I would determine this by comparing crime rates, with considering their gun laws, and the happiness rate with other states that the gun laws are more restricted. Would the happiness levels be higher I wonder? Or is there in fact no relationship what so ever? Gaining insight into datasets, comparing other datasets is excited and very intriguing. I hope I can gain valuable insights that benefit people looking to know more on crime rates and potentially provide a tool that can help lower crime rates in the future by predicting time and places of crime. The insight into whether gun laws have an impact on crime rates will certainly be my focus for this project to provide some knowledge to those forming opinions on gun laws, on whether they think restricted approaches are significantly different to states with a less restricted approach regards to crime rates.

Visualisation software tools such as Tableau and r packages will be used to visually display my results from my analysis on a dashboard for those with no technical background as I hope this project is “user friendly” to all user groups. The beauty of software tools like Tableau’s dashboard, it is interactive, meaning you can filter the data with the click of a button to visually see the data on appropriate charts to gain insights into the data.

With Technology only getting bigger, data is massive in comparison to years ago. Data is being made more accessible, and public for analysis. Due to this, many other analysts like me have thought of analysing gun crimes. However, data is being updates daily. Statistics are changing. Different variables are being tested each time. I consider my analysis unique to the fact that I am interpreting happiness rates, house prices and other external factors into my analysis. Yes, there is similar out there. But different tools are used, different languages such as Python. I consider other similar analysis out there as a tool for testing, and confirmation of my analysis to be right or visa versa, confirming others analysis. By providing this confirmation of results, it provides you, my readers more confidence in my analysis. I will include and comparisons I discover through out my report. Please note any of my results I will provide evidence of processes top achieve the results, just like any work I have obtained from other sources, I will provide references to the original source. Please not that my analysis is based on data obtained from datasets on sources such as Kaggle and GVA.

Gun crimes a topic that reading one article containing convincing evidence can be very persuasive. In fact, I have changed my mind throughout this project already on what I think. It’s a tough issue to study, and to be sure of your conclusion to come to. I hope this project provides more evidence to help form your own conclusion on how guns should be controlled. It will be interesting to know what mine is at the end of this analysis. And of course, to know what yours is, if it changes or not. As of now I think, what’s the harm in restrictions out in place to lower the number of citizens handing a firearm. Surely it has an impact and saves lives. But then have these restrictions proven to be beneficial? Are they allowing the criminals access and making it harder for the innocents to defend themselves? I don’t know, lets try gain clarity I say.

# Background

“America’s affair with guns is unique in the developed world”, they stand alone when it come to guns. Not only does the US have more guns than any other country in the world, it also has far more gun deaths than any other developed nation.” (Lopez, 2017)

TALK ABOUT GUN CRIME PREDICTIONS ETC... LAW ENFORCEMENTS ETC

Include Cognitive map maybe mapping problems

# Project Scope

The Scope of this project is to analyse datasets to provide the tools to develop a Model to help predict the location and time of gun crimes in America. My analysis will focus on specific states/ My selection of states is based on how much data I have on each state that is relevant for my analysis, along with their gun laws and other factors like population, education and happiness levels of a state will be included in my analysis. I tend to set aside some time towards the end of my project to explore external factors that might be influenced by crime rate such as housing prices in an area along with happiness levels in a state. I have included this in my project plan as I have included them in the scope of this project.

To conduct this analysis, I will need to look at data repositories such as Kaggle, Data.gov etc.

# Bibliography

Lopez, G. (2017). *The research is clear: gun control saves lives.* Washington: Vox Media. Retrieved December 2018, from https://www.vox.com/policy-and-politics/2017/10/4/16418754/gun-control-washington-post