

An Assessment of the Gun Violence in the United States

The purpose of the project is to assess the gun violence in the United States. There is currently a significant increase in the number of gun and violence across the US. Gun violence is a significant and major issue in the United States, with firearms being a leading cause of majority death and injury in U.S both suicidal and homicide.

Objective: To clearly understand the spread of guns violence across the states within the United States including its root cause.

Limitation of the study: The study is restricted to cities in the United States and information is collected from databases on gun violence in United States and various websites on internet relating to such.

Methods

- Python
- Tableau
- SQL
- Data Wrangling
- Machine Learning
- Regression Analysis

GitHub

Tableau:<https://public.tableau.com/app/profile/chilufya.chama/viz/storytellingongunviolence/Story1>

Causes of gun violence in various states within US

As seen in the graph opposite California has the highest number of gun violence and crimes despite having stricter rules due to the influx of other state members with weaker gun regulations. This is seconded by Texas, Florida, Illinois, Ohio, Georgia etc. Major causes would be attributed to:

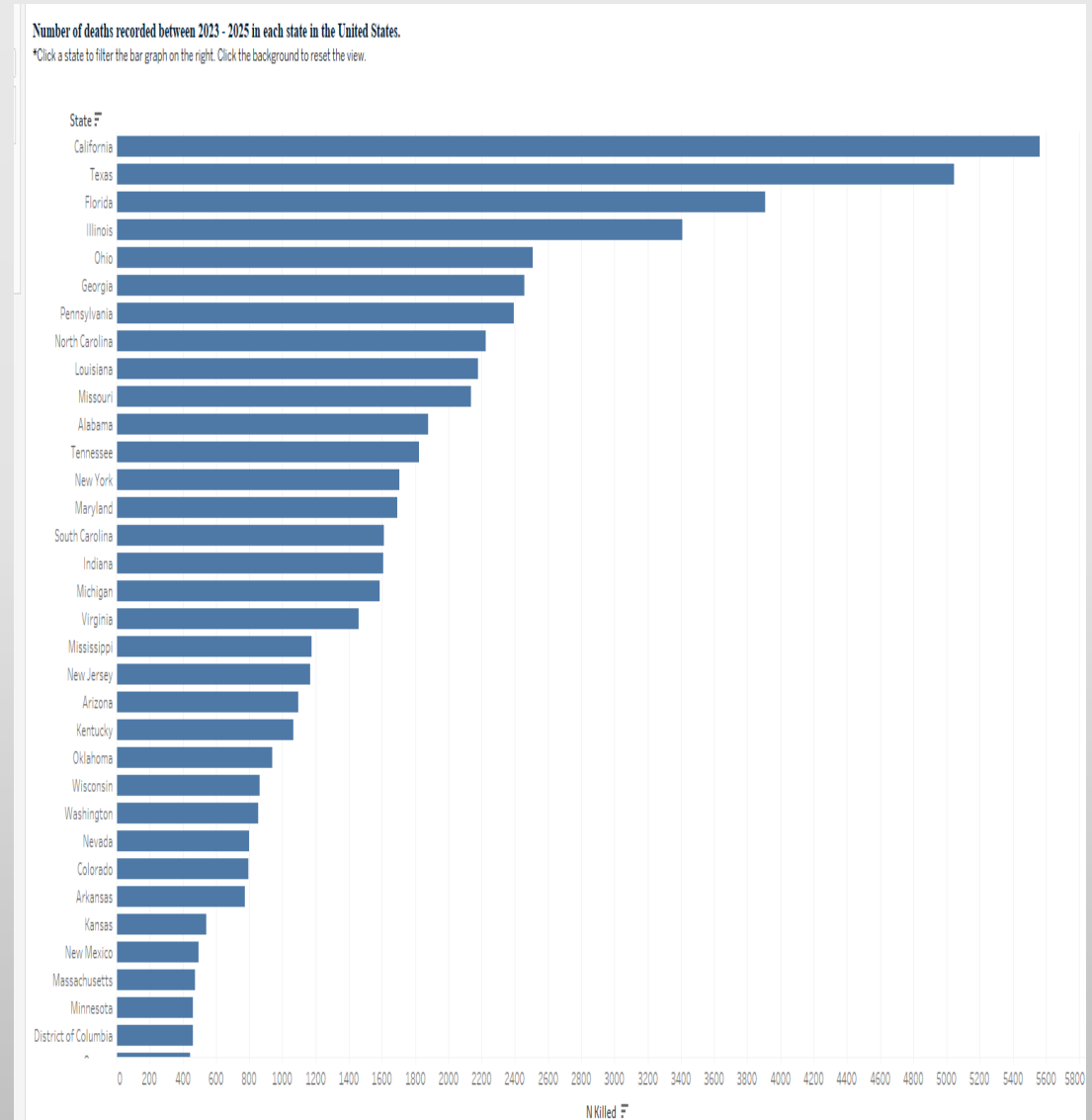
Firearms Sourced from Other States: A significant number of firearms discovered traces their background from nearby states with weak regulations

Population Density and Urbanization: The population density in California is high and as such certain communities experience a disproportionately high rate of gun violence cases due to various factors involved.

Economic inequality: Disproportionately high rate of gun violence due to high poverty levels, racial segregation, lack of opportunities and the presence of illicit markets

Limitations of Existing Laws: while California has good laws, they are not a complete solution where red flags laws or gun confiscation laws (under GVRO) are underutilised.

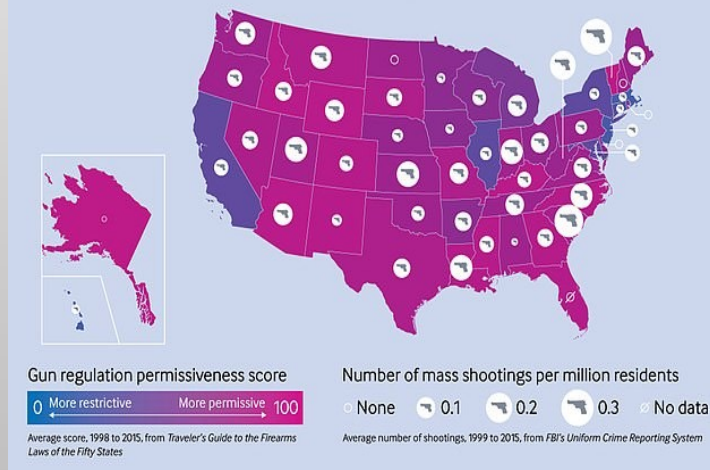
The reasons stated above for California are equally applicable for the other states with the high gun violence.



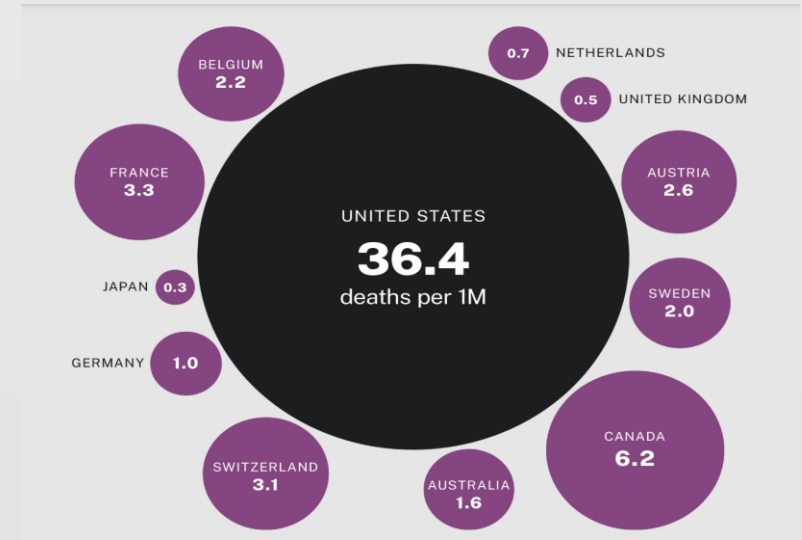
Understanding gun violence in US

Specifically, states with more relaxed gun control laws and higher rates of gun ownership tend to experience more mass shootings. This disparity appears to be growing between states with restrictive versus permissive gun law

Mass Shootings Are More Common in States With Permissive Gun Laws

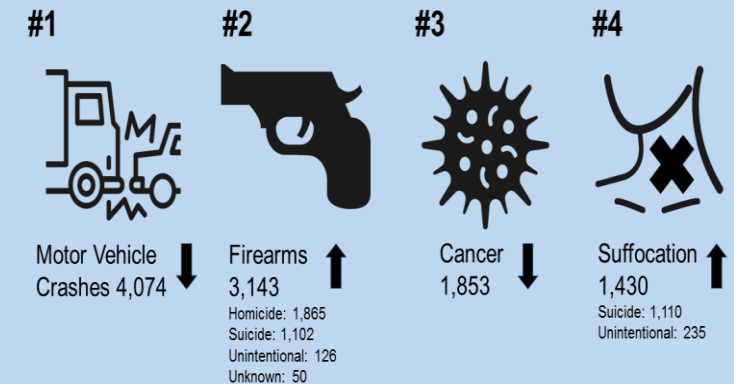


Compared to other European countries with gun violence the US is leading as seen in the graph opposite. The US experiences far more firearm-related deaths, particularly homicides, and has a much higher rate of gun ownership.



A study done in Michigan 2016 ranked firearms to be the second leading cause of deaths amongst the children and adolescent. This ranking has been consistent for the last 17 years. This rate is far much higher compared to other countries.

Top Causes of Death for U.S. Children & Adolescents: 2016 total deaths and 10-year death rate trend



Cunningham et al, NEJM, Dec. 2018, DOI:10.1056/NEJMs1804754
 Source: CDC WONDER data for youth ages 1-19

Gun ownership vs Gun suicide relationship

Scatterplot of gun deaths per 100,000 population, versus household firearm ownership rate, by state.

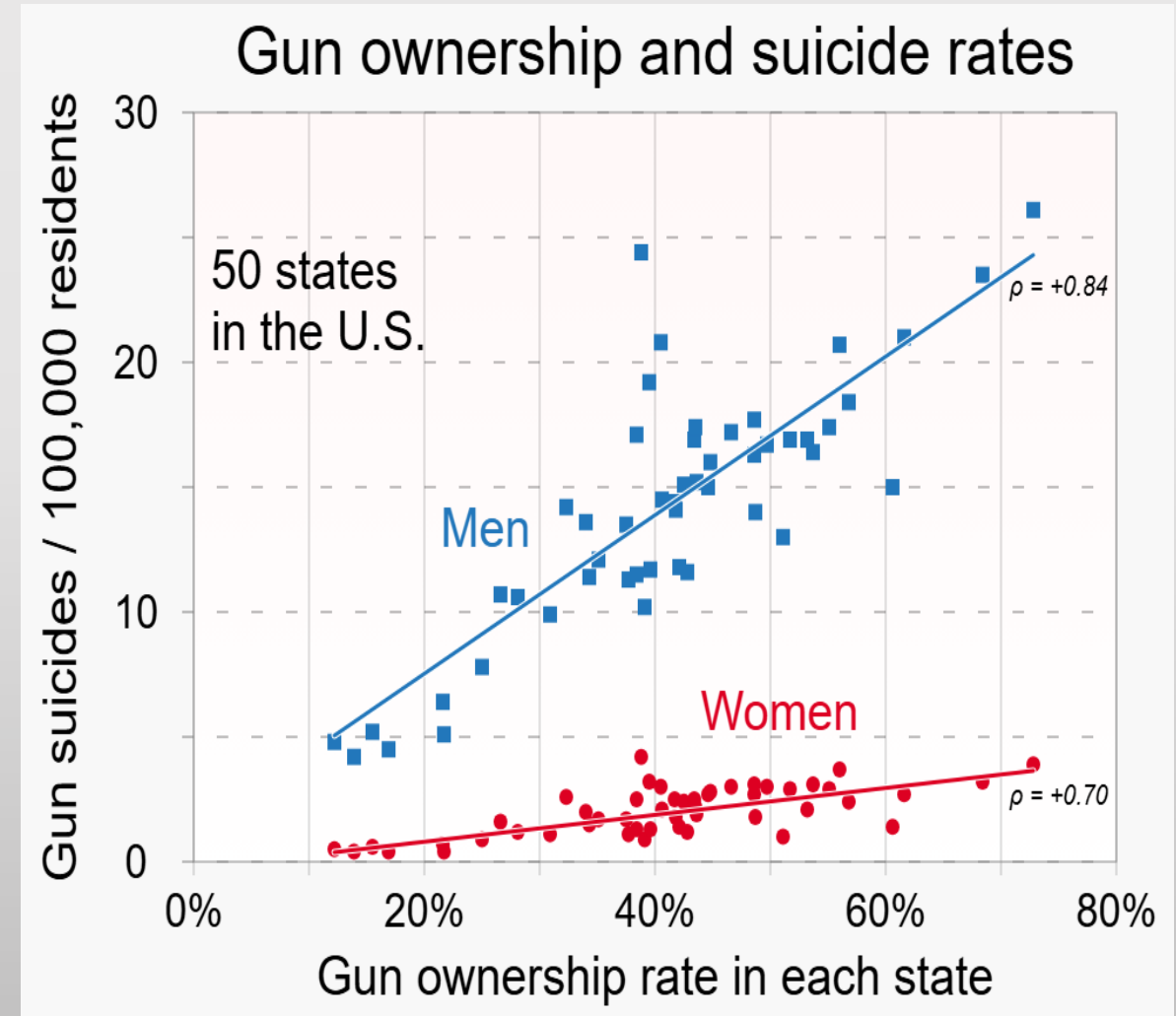
Positive correlation between gun ownership and gun suicides. The more guns owned, the more the deaths recorded.

Fewer guns generally correlate with less gun violence, as research indicates a connection between firearm availability and rates of homicide and suicide

Both suicide and homicide deaths are prominent amongst the men as opposed to the women.

Key takeaways

- Restricting access to firearms for high-risk individuals
- Promoting safe storage practices
- Prevent Gun Trafficking
- Eliminate loopholes in existing laws, such as the "Charleston loophole," which allows gun sales to proceed before background checks are completed



Strategy on combating gun violence in the US



Protest against gun violence



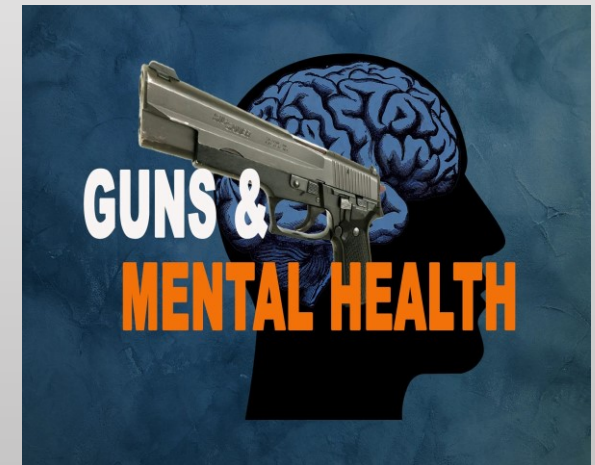
Community Violence Intervention (CVI) Programs



Ban and regulate gun weapons



Strengthening gun violence laws



Mental health programs and support