# **Data Analysis on Gun-sales and Mass Shootings in the USA**

## **Overview**

Gun Violence has become a major concern in the United States as there has been a rise in Mass-shootings in many different parts of the country. With an un-foreseen threat such as this, the question must be asked- Is there a pattern to this kind of behavior in the shooters? Why has the violence increased over the past 3 years?

To answer this and many more questions such as that, I would like to conduct a root-cause analysis on the Gun-sales and Mass-shootings in the USA as my fellowship project.

## **Data**

As a start, I have obtained data from various sources provided by Buzzfeed and conducted an exploratory analysis on the Datasets.

Dataset 1: [FBI’s NICS Criminal Background checks data](https://github.com/BuzzFeedNews/nics-firearm-background-checks) from their [website](https://www.fbi.gov/services/cjis/nics) provides a number of firearm checks by month, state and type. I have scraped the data from the source website which provides data as a PDF and converted it to a structured csv format using the code in Buzzfeed News repository

Dataset2: [Shootings data](https://github.com/BuzzFeedNews/2017-11-gun-sales-estimates/blob/master/data/shootings.csv) from this [source](https://www.motherjones.com/politics/2012/12/mass-shootings-mother-jones-full-data/) has a description of US Mass-shootings from the years 1982-2018.

## **Exploratory Data Analysis**

For my initial Analysis, I have used the information present in these two datasets to understand the pattern of events.

Please refer to these links for the Exploratory Data Analysis:

[Gun Sales over the years](https://github.com/raksha592/Data-Analysis-on-Gun-Violence/blob/master/Exploratory%20Data%20Analysis%20-%201.ipynb)

[Mass-shootings and other patterns](https://github.com/raksha592/Data-Analysis-on-Gun-Violence/blob/master/Exploratory%20Data%20Analysis-2.ipynb)

## **Future Goals**

With this understanding, I would like to dig more into this data to extract more patterns. I would like to scrape more articles/repositories related to Gun Violence and analyze the pattern of behavior of the shooters. Is there a specific age-group where in such behavior is more pertinent? Are there vulnerable areas in the US where in such violent behaviors are exhibited? If so, why?

I would like to use my time at the fellowship to understand the answers to these questions and conduct a complete analysis on events like these