Analysis of Gun Violence throughout United States

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Objectives

- Analyze the occurrences of different types of gun violence
  - Mass Shootings
  - School Shootings
  - Officer Shootings
- What are we concerned about?
  - The trend of gun violence over time
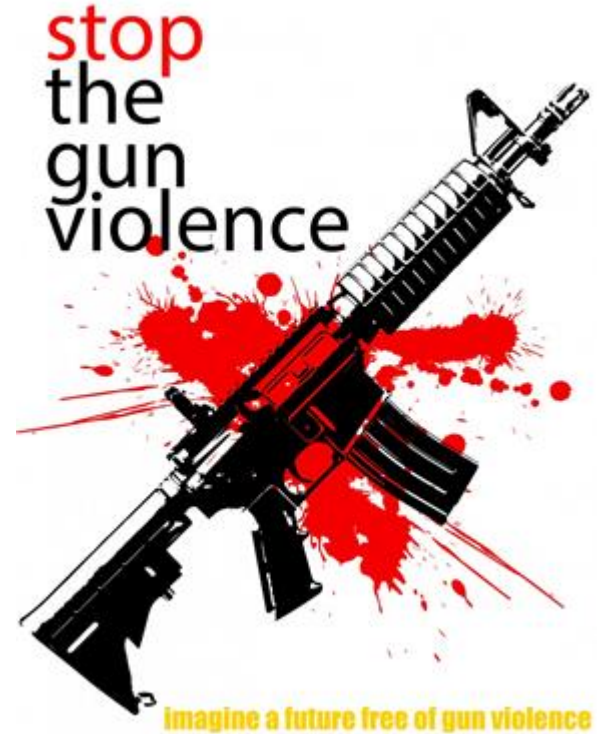 - State-wise distribution of gun violence
  - Causes

Data Set

2014-2018 Mass shootings and officers shootings data including date, state, city and casualties.

School shootings data from 2014, including date, state, city and school type.

List of school shootings in the United States.

Methodology

- Web Scraping
  - Scraped data using Selenium and BeautifulSoup
- Data Filtering
  - Analyzed the occurrence of gun violence over recent years and different states using Numpy and Pandas
- Data Visualization
  - Used matplotlib and plotly to visualize the data

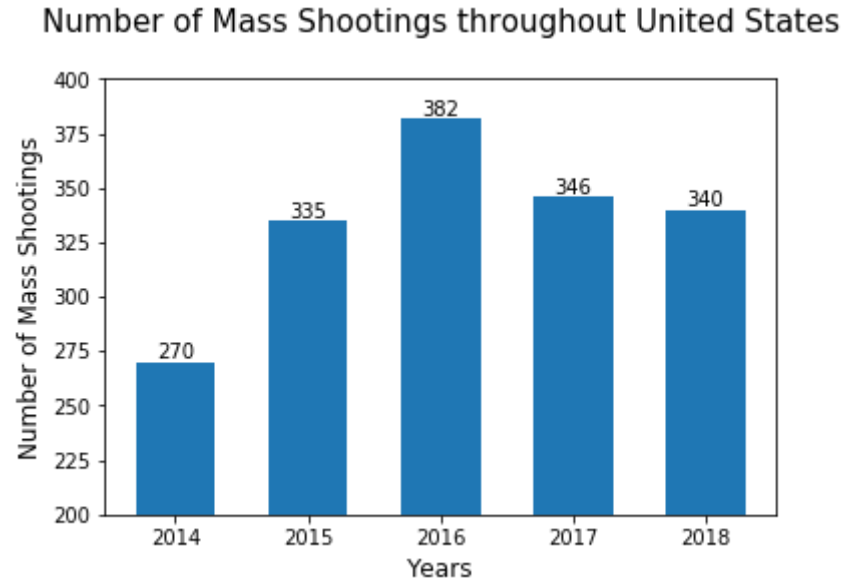# Mass Shootings throughout United States

- 2016 had the maximum number of incidents of Mass Shootings.

- So, was 2016 the worst year for Mass Shootings?

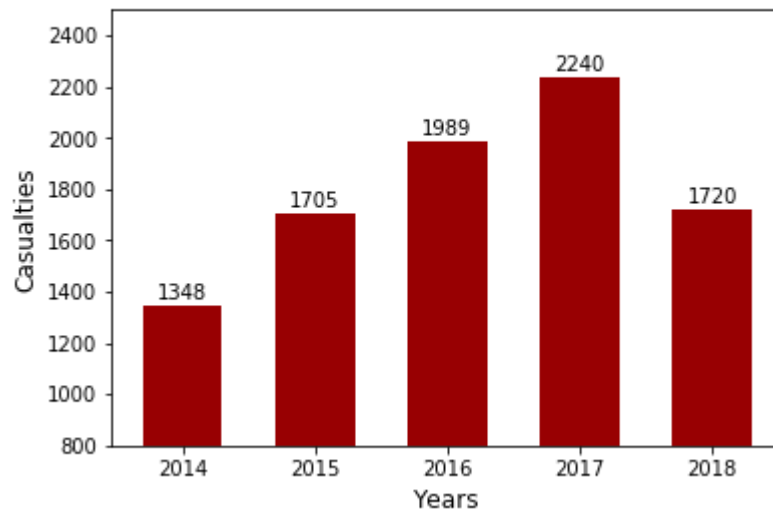Number of Mass Shootings throughout United States

Mass Shootings throughout United States

- 2017 had the maximum number of casualties due to Mass Shootings.

- So, was 2017 the worst?

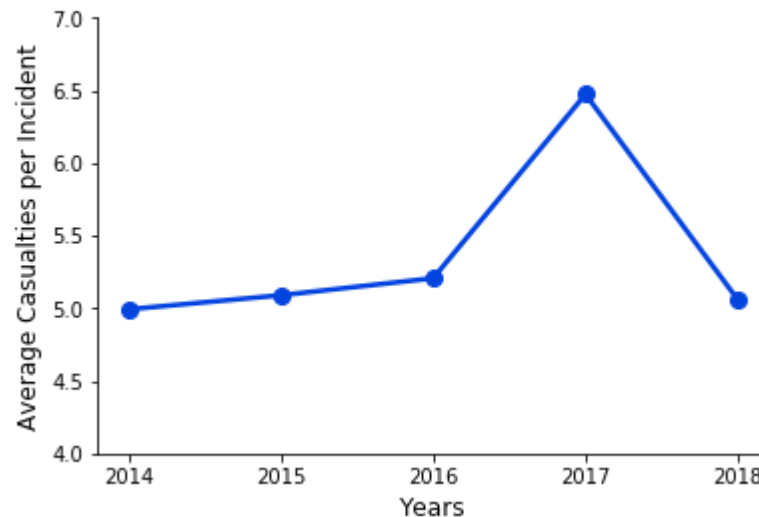Casualties of Mass Shootings throughout United States

Mass Shootings throughout United States

- The ratio of casualties per incident increased by nearly 1.5 going from 2016 to 2017.
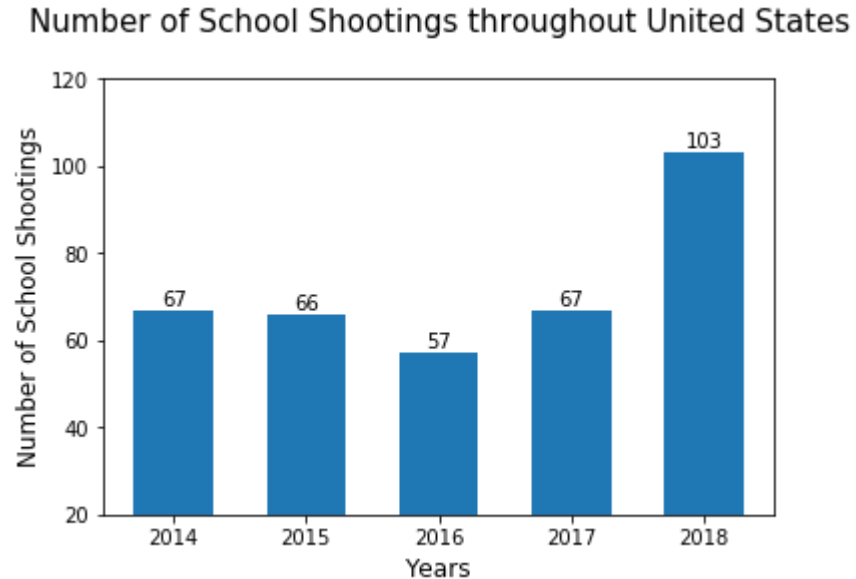
- Why so?

Average Number of Casualties per Incident of Mass Shootings

School Shootings throughout United States

- The number of School Shootings throughout United States were more or less constant till 2018.

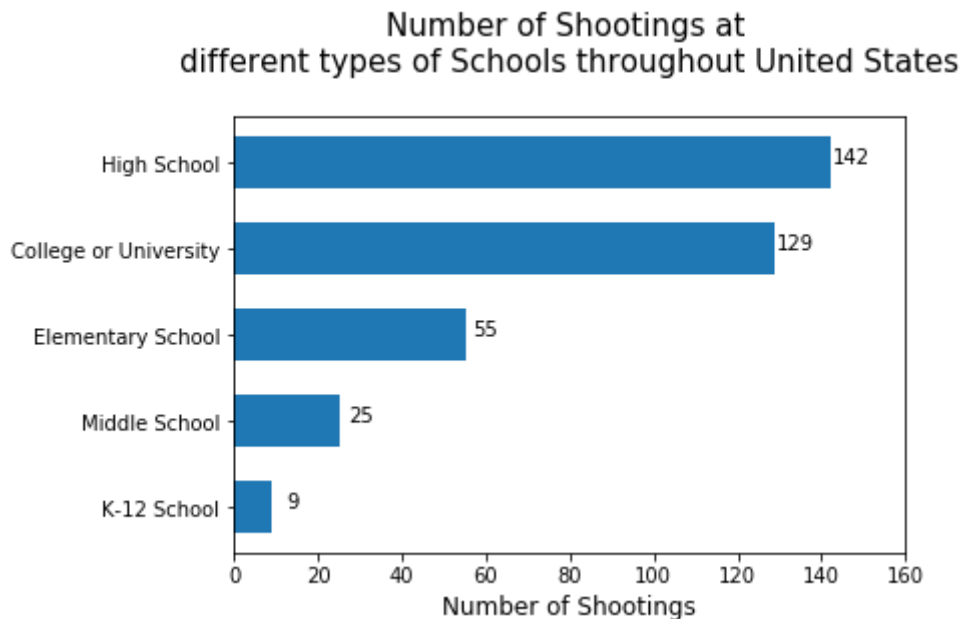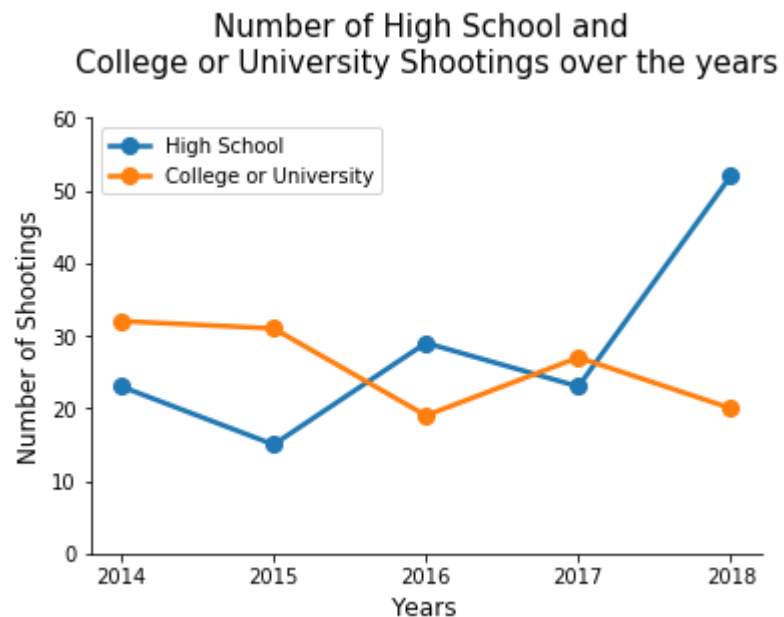- According to BBC, 2018 was regarded as the worst year for school shootings.

Number of School Shootings throughout United States

School Shootings throughout United States

- High Schools and College/University have the most incidents of gun violence.

Number of Shootings at different types of Schools throughout United States

School Shootings throughout United States

- While the number of shootings at College/University, there was a steep increase in those numbers for High Schools.

- Why so?

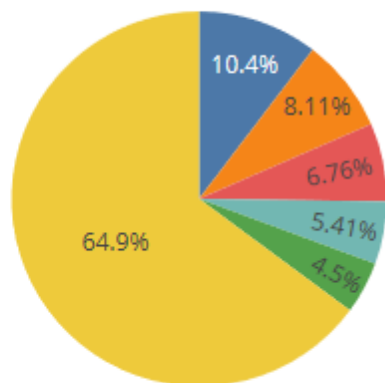Number of High School and College or University Shootings over the years
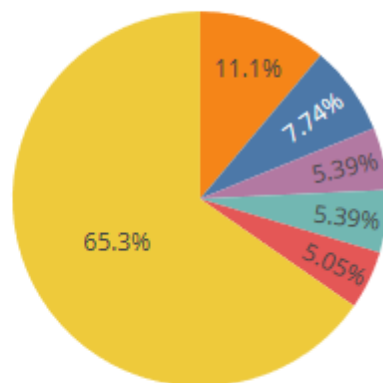
Officer Shootings throughout United States

- National Public Radio claims that Texas and California had the most incidents of Officer Shootings in 2018
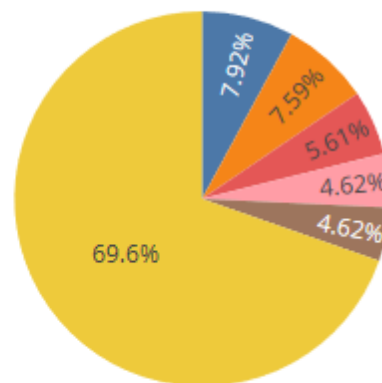
- Is it actually true?
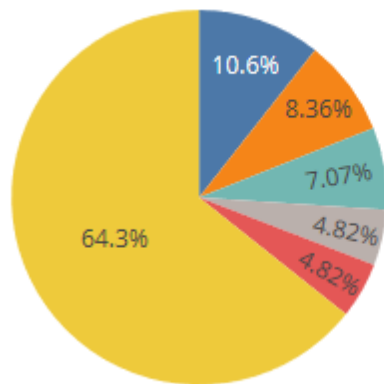
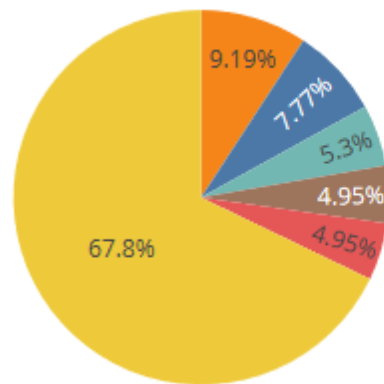Distribution of Officer Shootings that occurred over time

Conclusion

- 2017 was the worst year in terms of mass shootings in the history of United States.

- There is a sudden increase in the number of incidents of gun violence in high schools in 2018 as compared to other years.

- Texas and California are the top two states when it comes to police officers being shot.

- We need stricter laws when it comes to distribution of guns.

Thank you!