

## **Dataset:** Gun Violence

### **Suggested Research Question:**

A mass shooting is defined as four or more people injured or killed, because of firearms, excluding the shooter. Was there a spike in mass shootings in any of the years 2014-2019? If yes, what could have contributed to it? Does the party in power at the federal level (Executive and Legislative branches of the government) affect the prevalence of mass shootings in any significant way?

### **Suggested Guiding Questions:**

#### **Guiding Questions - Easy**

1. Create summary statistics of the data to get a snapshot of the data - mean, median, standard deviation.
2. Create graphs of number of victims - killed or injured - by city/county, state, etc. Compare it with the graphs of your team members to get a snapshot across the years.
3. Create graphs to show distribution by state.
4. Repeat the previous item but with two other relevant variables of your choice.
5. Which state has the most gun violence? Which cities have the most gun violence?

#### **Guiding Questions - Intermediate**

1. Explore other visualizations that may be better suited to represent this data.
2. Are mass shootings more prevalent in blue states or red states or purple states? How does the political leaning of the state impact the number of gun violence victims (killed and injured combined)?

#### **Guiding Questions - Advanced**

1. Can you predict the zip code where the mass shooting occurred, given the city/county, state and year? Justify by building a predictive model to support your answer.
2. Is there any reliable data on the number of guns in the United States? How might that information change the conversation (i.e. more guns equals more shootings)?