## **About Blackhat Visualization**

The Visualization displays the locations of gun deaths on a map of US states and cities. The data used in the Visualization is of the year 2013 - 2014

The visual representation is intentionally inappropriate, overly complex and/or too cluttered for the audience. The source and provenance of the data is not clear to the viewer. The data has been transformed, filtered, or processed without normalization in an intentionally misleading way

The Visualization deceives the audience in many ways. The name and count for number of deaths in each state is not at all shown. It implies Texas and California are Dangerous states, but the reality may be different as the data is not normalized using population

## **About Whitehat Visualization**

This Visualization shows the number of deaths in each state of the United States of America. More deaths per population in that State are indicated by a darker shade of blue. Now, the visualization makes it obvious how many people died in each state. It also provides information on the number of deaths among men and women. Additionally, it provides information on deaths among specific age groups.

Using the pandas library, the data is <u>transformed</u> into JSON files. The deaths in each state were then visualized using a topojson map using D3. Because a state with a big population can have more deaths, I decided to normalize the picture based on population. Therefore, the number of fatalities may not be a reliable indicator of the severity of gun-related mortality in a given state. So I made the decision to use a metric, namely, deaths per population, to normalize the data. The zoomed in view of states have bubbles that reflect the male to female death ratio

The Blackhat Visualization suggested that Texas and California are dangerous, but when population is taken into account, it becomes evident that they are not too dangerous.