DATA_608 Knowledge and Visual Analytics
Final Project Proposal
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Introduction:
Gun Violence has a devastating impact on the American people. It is now the second leading cause of death for American children. Compared to other high-income countries, American children and young adult are 21 times more likely to be killed with guns. On average 51 children and teens shot every day. I want to create a visualization that shows gun violence in the US from 2014-2019 using the data collected from the Gun Violence Archive.

Data Source:
The source of the data to create a visualization on gun violence is the Gun Violence Archive (https://www.gunviolencearchive.org/reports). The archive provides some data sets to download via their website. I was able to obtain 2014-2019 data on Mass Shootings. The datasets have approximately 1500 observations and seven variables. According to the Gun Violence Archive (GVA), Mass Shootings are a purely statistical threshold which is defined if only 4 or more shot or killed, not including the shooter. It would be exciting to look beyond mass shootings and review data at the incident level. GVA is a not for profit corporation formed in 2013 to provide online public access to accurate information about gun-related violence in the United States. GVA collect and check for accuracy, comprehensive information about gun-related violence in the U.S. and then post and disseminate it online. The mission of GVA is to document incidents of gun violence, and gun crime nationally to provide independent, verified data to those who need to use it in their research, advocacy or writing.

Project Submission: I like to do some statistical analysis on gun violence and visualize those results by creating table, graph, and chart using R, Python, SQL software tools. I will also create ShinyR app that will provide the viewer with a better understanding of gun violence or mass shootings in the US. I will use 'sp', 'maptools', 'rgdal', 'mapview', 'gmap', 'mapmate', and 'rgeos' packages in R. I like to take the street addresses provided in the dataset and query them to google API using `ggmap`. I will also like to animate the map to plot time using the `gganimate`, `animation`, `mapmate` or another similar kind of packages.

Source:

https://everytownresearch.org/impact-gun-violence-american-children-teens/

https://www.gunviolencearchive.org/reports