Redesign 1:

In the article, chart for point number 16 shows control gun ownership vs protect right to own guns before and after major shootings. I wanted to take a more holistic view and see the trend for these two points over a decade. This analysis would provide more information about support of "control gun ownership" and "protect right to own guns" instead of just 3 data points as provided in the article.

I started with gathering data from various online sources. Following the link, the survey and chart 16, I found the data at Pew Research website (link http://www.people-press.org/2012/07/29/july-26-29-2012-weekly-survey/).

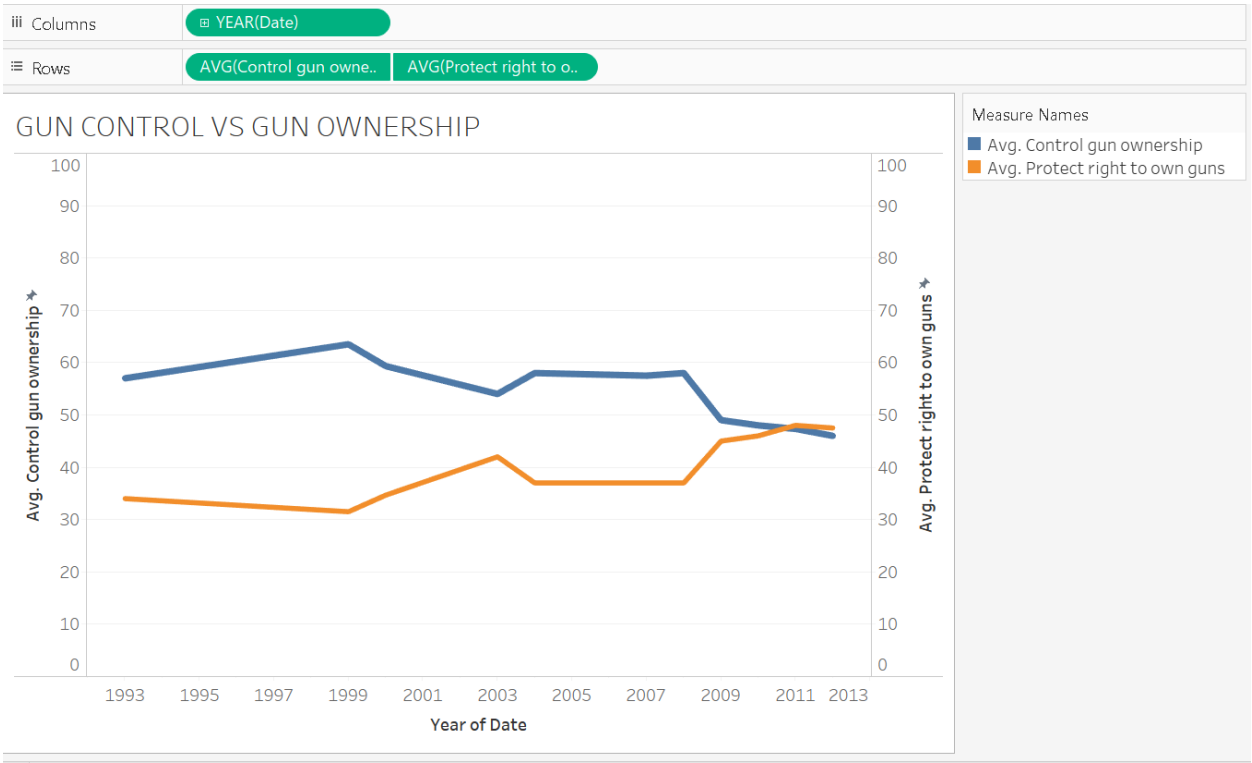
DATA FILE: July 26-29 2012 topline.pdf (https://drive.google.com/open?id=1WGBdYsFsrCldV5ge-F1HbabK247Eycew) PEW 24: What do you think is more important – to protect the right of Americans to own guns, OR to control gun ownership? Attributes: Protect right to own guns, Control gun ownership, Month & Year.

Data was converted from PDF to Excel so that it gets loaded to Tableau.

The data was then averaged by year in Tableau and was plotted over time. As we can see from the plot, surveyed people for support of "control gun ownership" show a decreasing trend overtime whereas people for support of "protect right to own guns" showed an increasing trend. Eventually both are seen converging.

LINK:

https://public.tableau.com/profile/sikhardas#!/vizhome/Redesign_1_0/GUNCONTROLVSGUNOWNERSHIP?publish=yes



Future Enhancements:

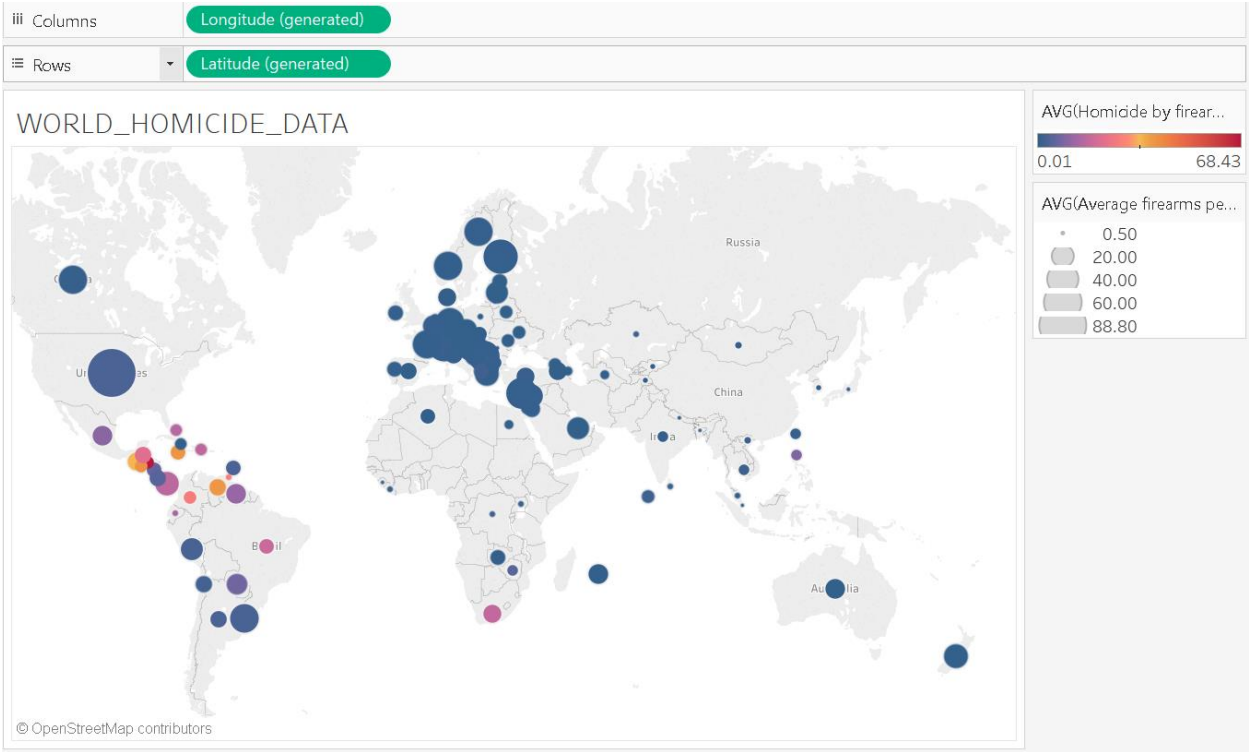
1) Producing similar visualization using open source tools such as Python or D3.js
2) I would like to add more information about the number of firearms being sold over the years and add that information to this plot to provide more insight in case this trend shows any correlation with that.
3) It would also be interesting to see what the trend for the above plot would be now (since 2013 till date).

Redesign 2:

In this the redesign I wanted to simplify chart for point number 6 in the article. That chart looks overcrowded because a lot of data is concentrated at left bottom. To make the point of comparing "average firearms per 100 people" and "homicide by firearm rate per 100,000 population" more intuitive we can put the data point in a bar chart side by side by country. This would provide much clearer comparison.

For this redesign, following the links in the article I did some internet research and found data at (https://docs.google.com/spreadsheets/d/1chqUZHuY6cXYrRYkuE0uwXisGaYvr7durZHJhpLGycs/edit#gid=0). The data in the sheet had missing information and few data points were 0. Those data points were removed as part of cleaning the dataset. In the final dataset , I have kept only three columns Country/Territory, Homicide by firearm rate per 100,000 pop and Average firearms per 100 people. [The final dataset after cleaning is available as COUNTRY_GUN_DATA.xlsx at (https://drive.google.com/open?id=1WGBdYsFsrCldV5ge-F1HbabK247Eycew)]

As the data was at the country level I first thought about creating a tableau worksheet with a world view with one factor represented by intensity of color and another by size of bubble on the country but that was also not giving a clearer picture.



A simpler country comparison bar chart with both factors side by side provided a clear picture as seen in the link and screen shot below.

LINK: https://public.tableau.com/profile/sikhardas#!/vizhome/Redesign_3/COMPARISION?publish=yes

From the above, we see that US is an outlier both in terms of number of firearms and number of firearms death.

Future Enhancements:

1) Producing similar visualization using open source tools such as Matplotlib (Python) or D3.js
2) Another point of interest would be to see how strict gun laws are in these countries. If we can relate that information here, we can do some correlation analysis.

Redesign 3:

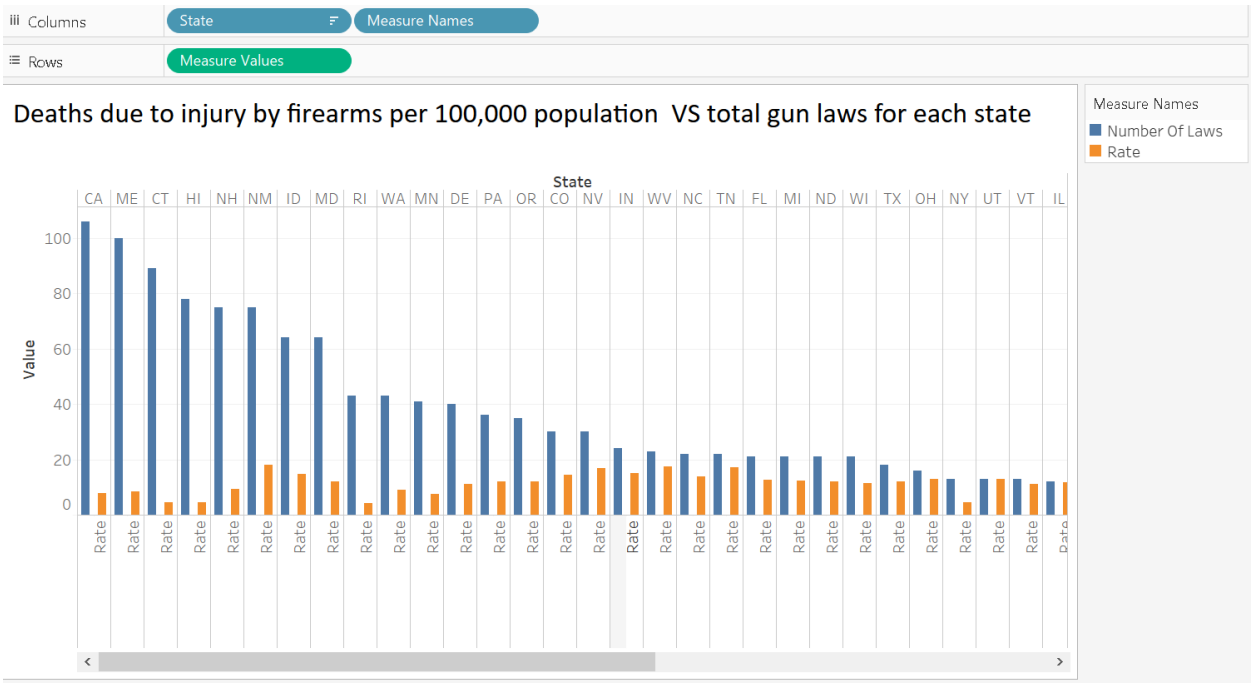
Another redesign that I thought would make the article more interesting was redesigning map in point 8 of the article where comparison is made on "States with at least 1 firearm law designed to protect children in place" and "Number of deaths due to injury by firearms per 100,000 population". The map is superimposed and does not provide a clear picture and also it just compares one firearm law.

To make this comparison more holistic I tried to find data on overall firearm laws for each of the US States. I got data for state wise number of firearm laws at https://www.statefirearmlaws.org/table.html ;This data provides more detailed information about each state and what gun laws are applicable there and state-wise firearm death rate at https://www.cdc.gov/nchs/pressroom/sosmap/firearm_mortality/firearm.htm

For this redesign I have only considered total gun laws for each state and compared that with the "Number of deaths due to injury by firearms per 100,000 population". [The final dataset after cleaning is available as FIREARMS2016.xlsx at (https://drive.google.com/open?id=1WGBdYsFsrCldV5ge-F1HbabK247Eycew)]

When the data is plotted we can see there is a relationship between the two except for few outlier states.

LINK:
https://public.tableau.com/profile/sikhardas#!/vizhome/RUN_RATE_VS_GUN_LAWS/GUN_RATE_GUN_LAWS?publish=yes



From the above, we see the maximum gun laws are in California and it has one of the countries minimum Number of deaths due to injury by firearms per 100,000 population. On the other hand, states such as "" which have minimum gun laws have maximum Number of deaths due to injury by firearms per 100,000 population.

Future Enhancements:

1) Producing similar visualization using open source tools such as Matplotlib (Python) or D3.js
2) Doing an analysis and plotting for various different laws categories present in the data and see any kind of relationship.

All data sets are available at this shared google drive link: https://drive.google.com/open?id=1WGBdYsFsrCldV5ge-F1HbabK247Eycew