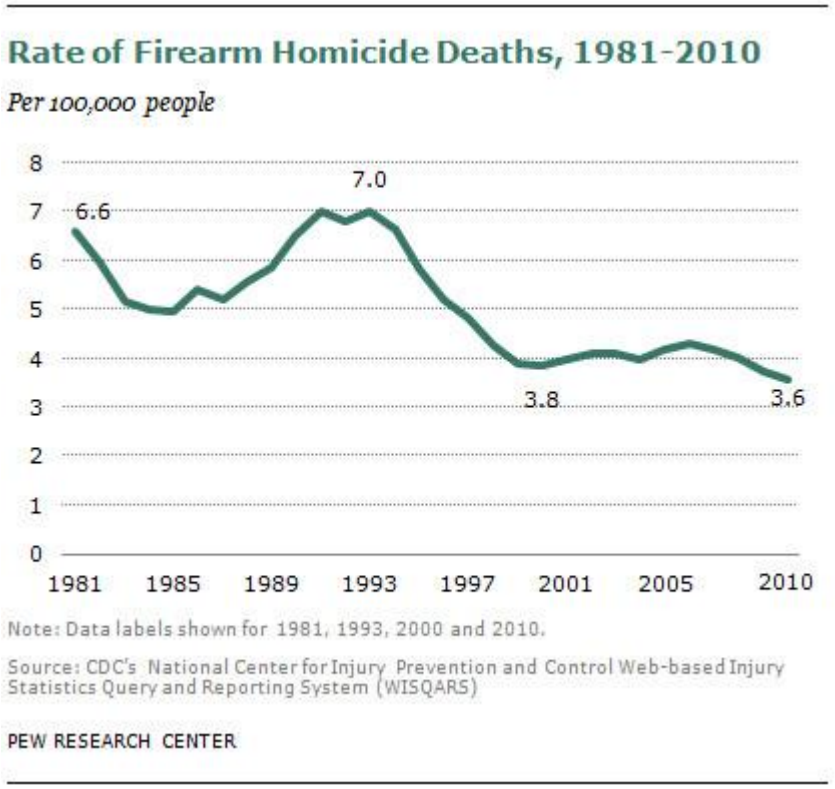
Making-of

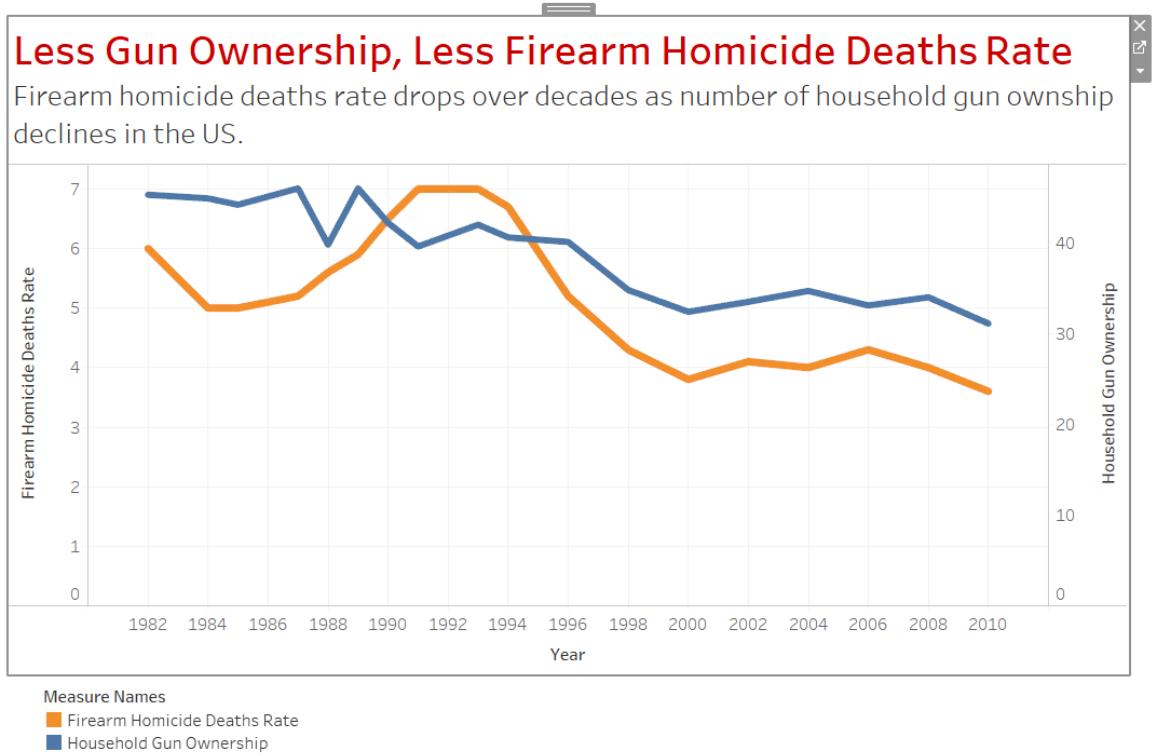
Jun Xing

Finding 1:Less Gun Ownership, Less Firearm Homicide Deaths Rate

Original Version:



After Re-design:



Data source: GSS POLL

- Idea:

The original version only points out the firearm homicide deaths rate is declining overtime in the visualization. The author then explained how it's not about "more guns have deterred crimes" by wordings. But actually, it sounds farfetched and difficult to understand from the visualization. So, my idea on this re-design starts from how to logically solve this contradiction. My answer to this is "what if we can prove that there are fewer people owning a gun?". If less gun ownership is true, the declining firearm homicide deaths rate will sounds reasonable for the anti-gun arguments.

- Data Source:

Took me a long time to find the original firearm homicide deaths data on p39 of a report: http://assets.pewresearch.org/wp-content/uploads/sites/3/2013/05/firearms_final_05-2013.pdf

And also I found a household gun ownership poll that shares a close trend with firearm homicide deaths rate data on p5 of this report: http://www.norc.org/PDFs/GSS%20Reports/GSS_Trends%20in%20Gun%20Ownership_US_1972-2014.pdf

So the key point for data searching is you must find a similar trend!

- Data Cleaning:

Since there is no available download options for those datasets, I manually recorded them into a csv file. And I noticed that there's some missing years for the household gun ownership data, so I deleted the those years for firearm homicide deaths rate as well.

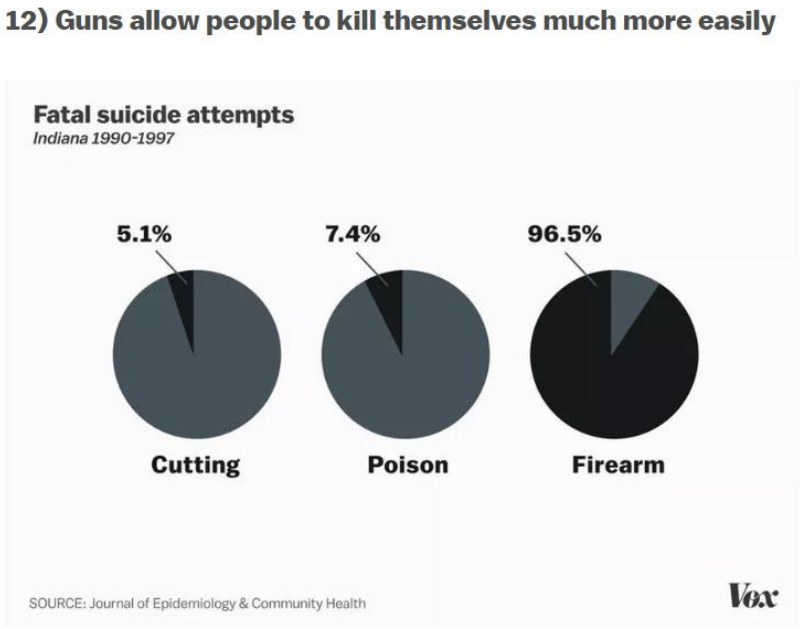
- Tableau:

Load the data into dual lines graph.

Then put it into a dashboard to add line color notes and data source.

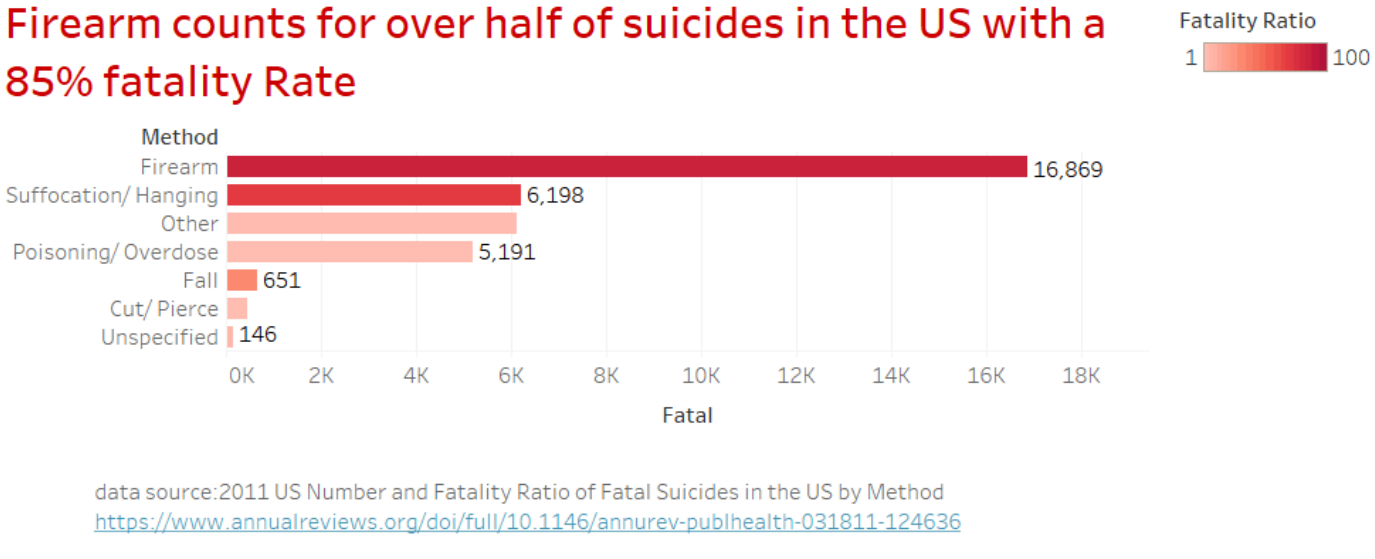
Finding 2:Firearm counts for over half of suicides in the US with a 85% fatality Rate

Original Version:



Estelle Caswell/Vox

After Re-design:



data source:2011 US Number and Fatality Ratio of Fatal Suicides in the US by Method
https://www.annualreviews.org/doi/full/10.1146/annurev-publhealth-031811-124636

- Idea:

The original version points out the firearm is a deadly method for suicide. But it sound quite obvious. Of course people know that you are more likely gonna die if you put a gun to your head. If you want to prove firearm is the most deadly method for suicide, besides the fatal rate, you can also prove it took most lives compared with other methods. So, it is not just about fatal rate, it is also about the horrible scale.

- Data Source:

https://www.annualreviews.org/doi/full/10.1146/annurev-publhealth-031811-124636

- Data Cleaning:

Since there is no available download options for those datasets, I manually recorded them into a csv file.

- Tableau:

Load the data into line graph.

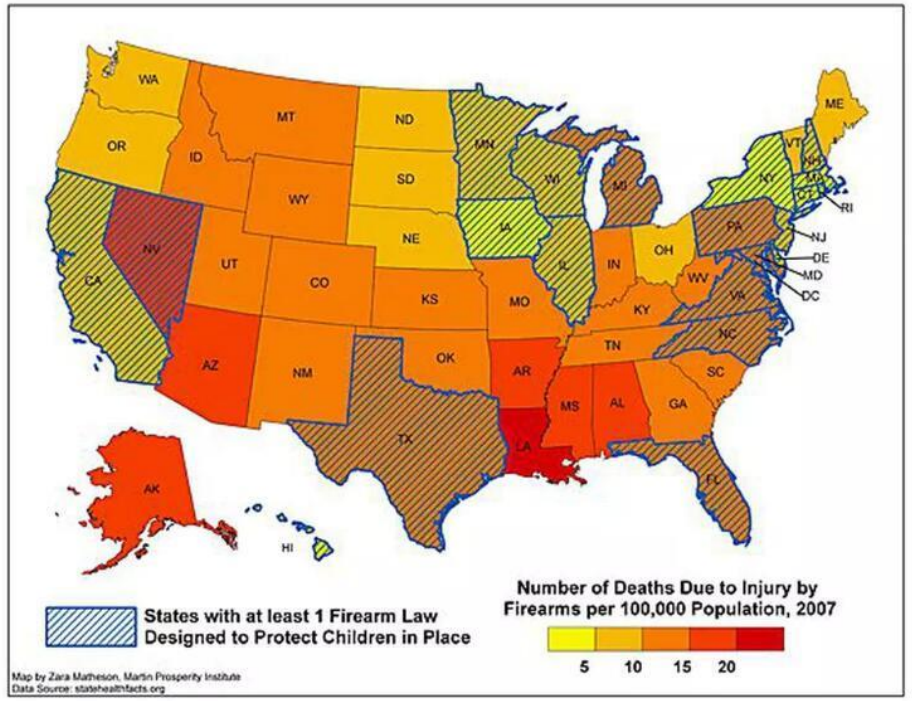
Since we want to include both the scale and ratio into one graph, I use fatal rate for color variation.

Then put it into a dashboard to add variation color notes and data source.

Finding 3:National Firearm Regulation can roughly save 129,360 lives every year.

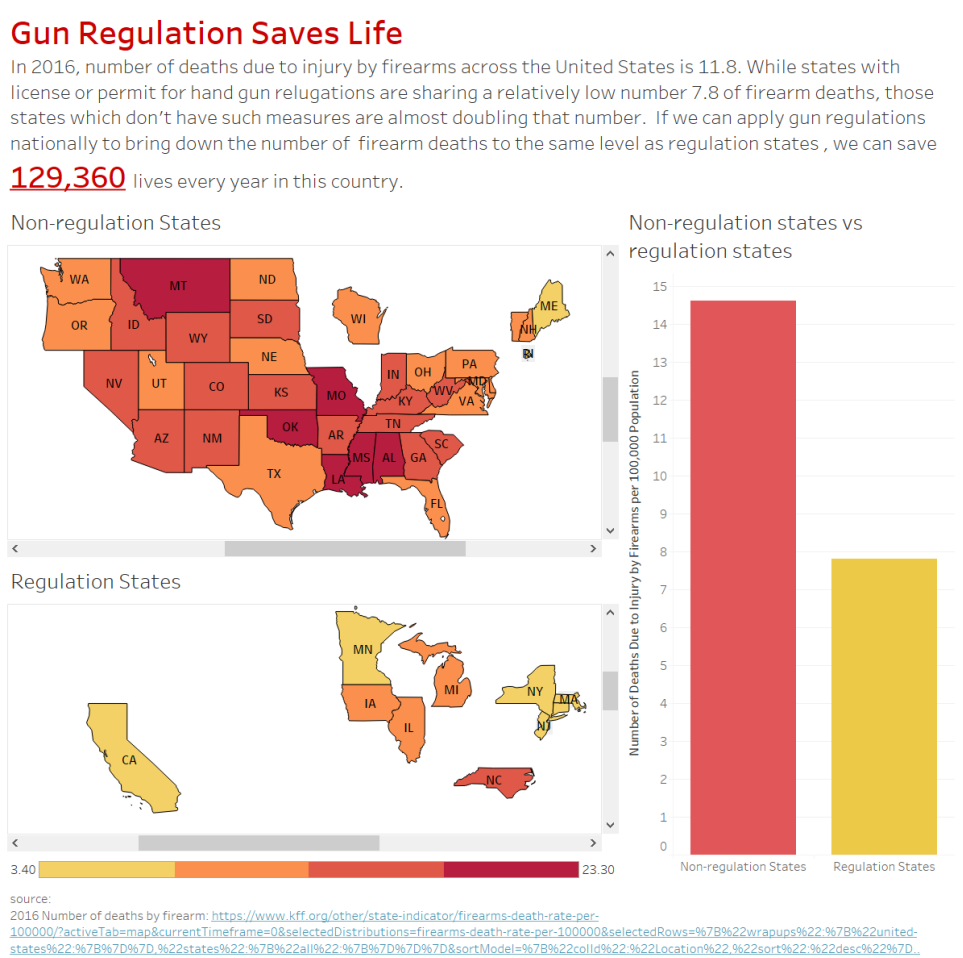
Original Version:

8) States with tighter gun control laws have fewer gun-related deaths



Zara Matheson/Martin Prosperity Institute

After Re-design:



- Idea:

The original version points out the states with tighter gun control laws have fewer gun-related deaths. Personality, I think this graph has 2 main problems: 1. The blue filter is difficult to read. 2. it uses child protection law which does not relevant enough for gun control regulation.

My idea for the re-design is:

1. Use an action filter (a custom shape) to filter out regulation states vs non-regulation states.

2. Compare the average gun-related deaths for different regulation levels.

3. Use requirements of license or permit for hand gun instead of the current children protection laws since it is more relevant and the contraction is more obvious.

4. Tighter regulation will lead to fewer gun-related deaths sounds too obvious. I will add the number of the number of life can be saved per year to make the whole thing more emotionally attach with readers.

- Data Source:

2016 Number of deaths by firearm:

https://www.kff.org/other/state-indicator/firearms-death-rate-per-100000/?activeTab=map&currentTimeframe=0&selectedDistributions=firearms-death-rate-per-100000&selectedRows=%7B%22wrapups%22:%7B%22united-states%22:%7B%7D%7D,%22states%22:%7B%22all%22:%7B%7D%7D%7D&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22desc%22%7D

Regulation states with license or permit for hand gun:
https://www.theguardian.com/world/interactive/2013/jan/15/gun-laws-united-states

- Data Cleaning:

I downloaded 2016 Number of deaths by firearm csv file from the website above.

After that, I manually generated a new column for the states short and a Boolean column for regulation states according to the data above.

Calculate the average and generate a new csv file for the different regulation levels.

- Tableau:

Load the data into Tableau

Set the states as map states.

Put the longitude into columns and latitude into rows.

Choose map graph.

Set map options as a white ground.

Put state shorts into labels and change the text.

Change the map color and range settings

Add group filters from Boolean

Duplicate graphs for different regulation levels

Load different average numbers for different regulation levels into a bar graph

Then put it into a dashboard to edit layouts and add variation color notes as well as data source.

Save life calculation: If the national gun-related deaths drops from current 11.8 to gun regulation states level 7.8, it will be roughly 33.9% decline nationally. Times the population we can figure out we can save 129360 lives every year.

Road map:

For Finding 1:
Nothing much if there is no feedback from professor.

For Finding 2:
To make the visualization more Creative and lively,
add custom shape icons for different Method of suicide fatal ratio.

For Finding 3:
Add the action filter (a custom shape) to filter out regulation states vs non-regulation states.
May I will try d3 on this as well.