

Introduction

What is this dataset?

The dataset I used is the Suicides data by the World Health Organization, the data contain information like age, gender and country for suicided people from 1985 to 2016.

Where did you get it from?

I got it from Kaggle Public Dataset, you can also find it on World Health Organization (WHO) official website.

Why did you choose this particular data?

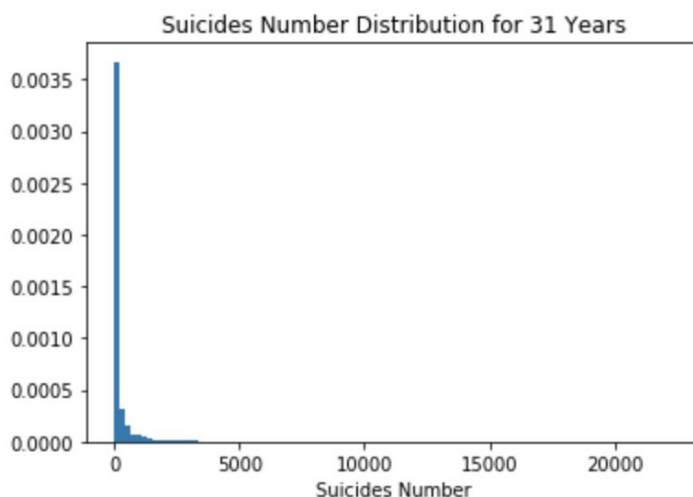
First I saw from WHO that the suicide rate decreased during the past ten years for all countries except western countries, and US suicide rate was the highest, I want to check it by myself. Second I used to have anxiety disorder and I was in mad mood, so I want to investigate why people suicide, do high pressure, specific age or country really affect it?

What types of questions were you hoping to explore with this data?

What factors affect suicide?

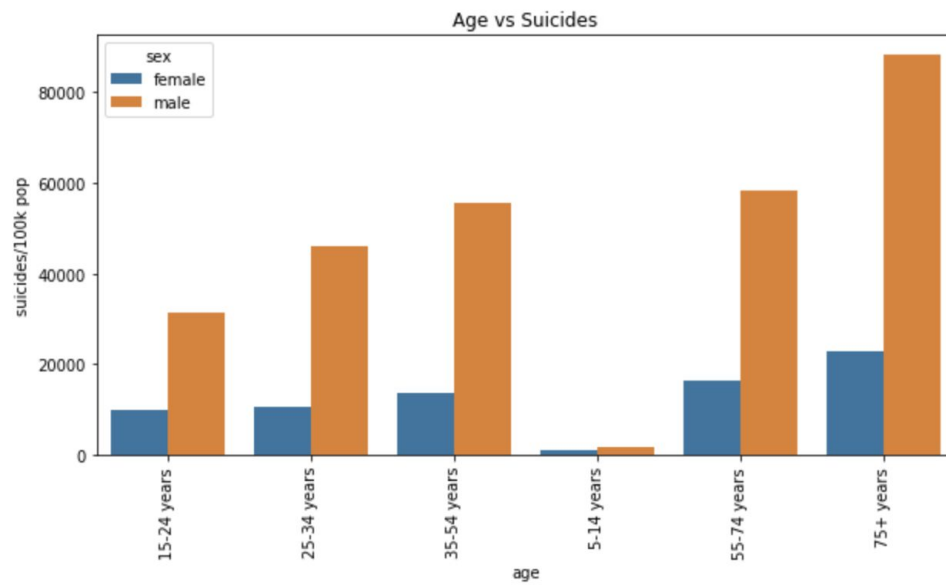
Summary of Data

Histogram



This is the total suicide number for each country for 31 years, many countries have low suicide number but some are very large.

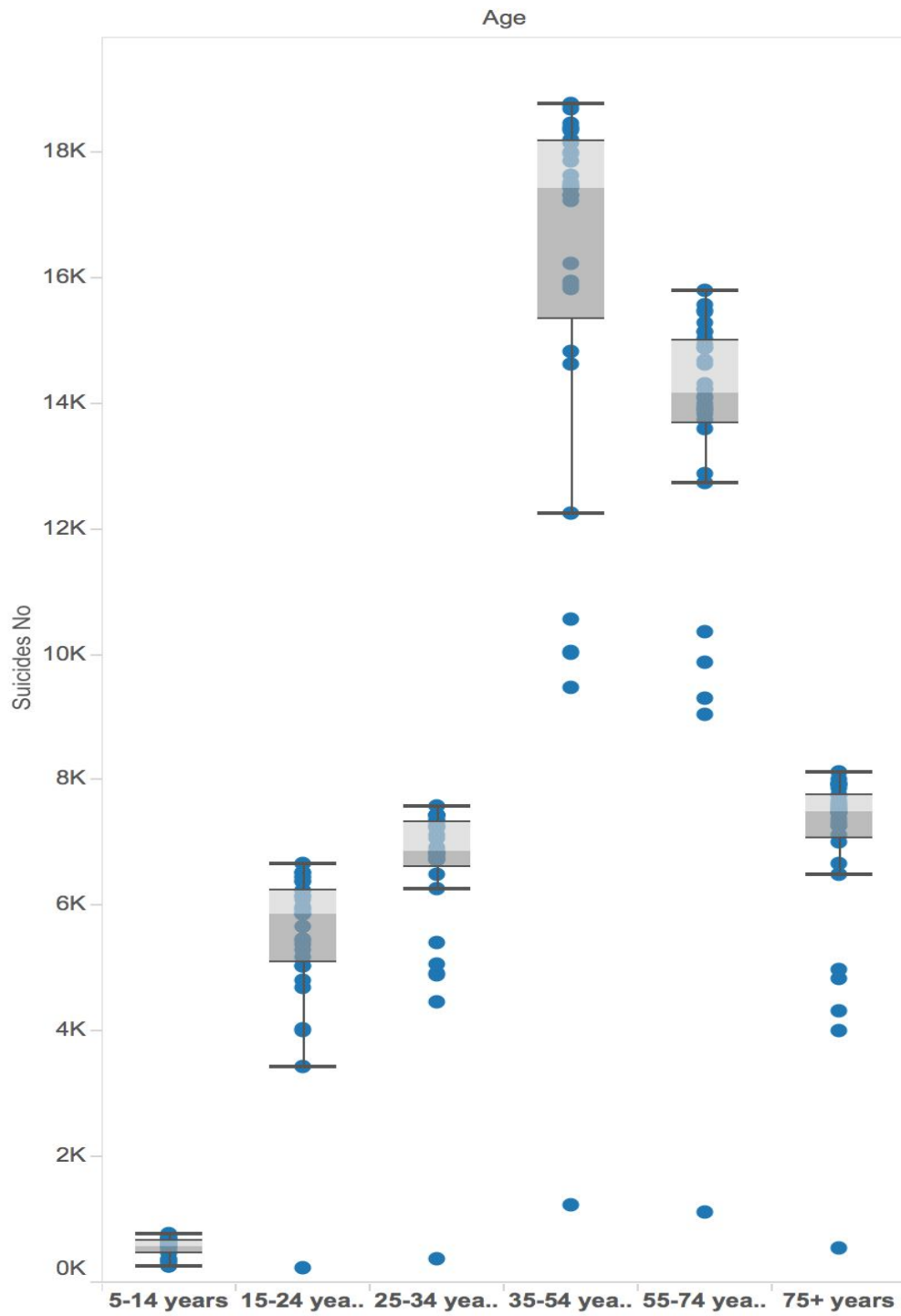
Barplot



This is the barplot shows the suicide number among all recodes for different age groups and gender. I can't make the x-axis legend horizontal because it will overlap.

Boxplot

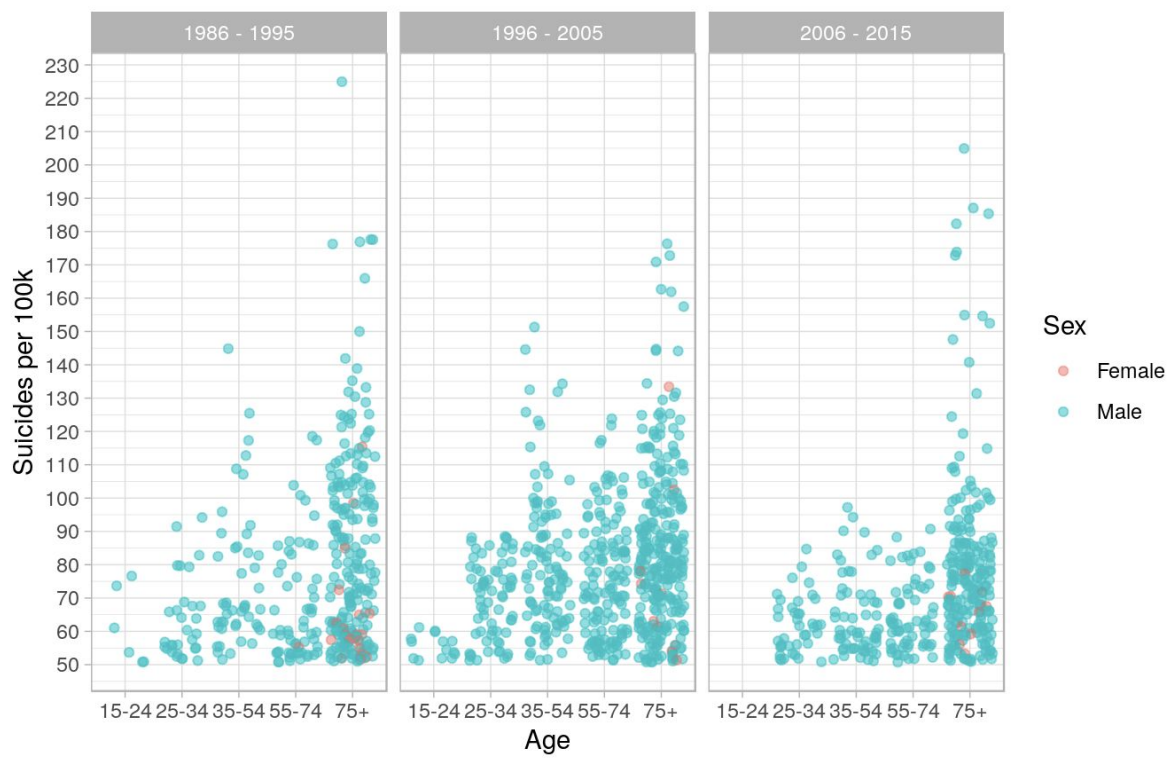
Years and Ages -



Scatterplot

5% Most At-Risk Instances in History

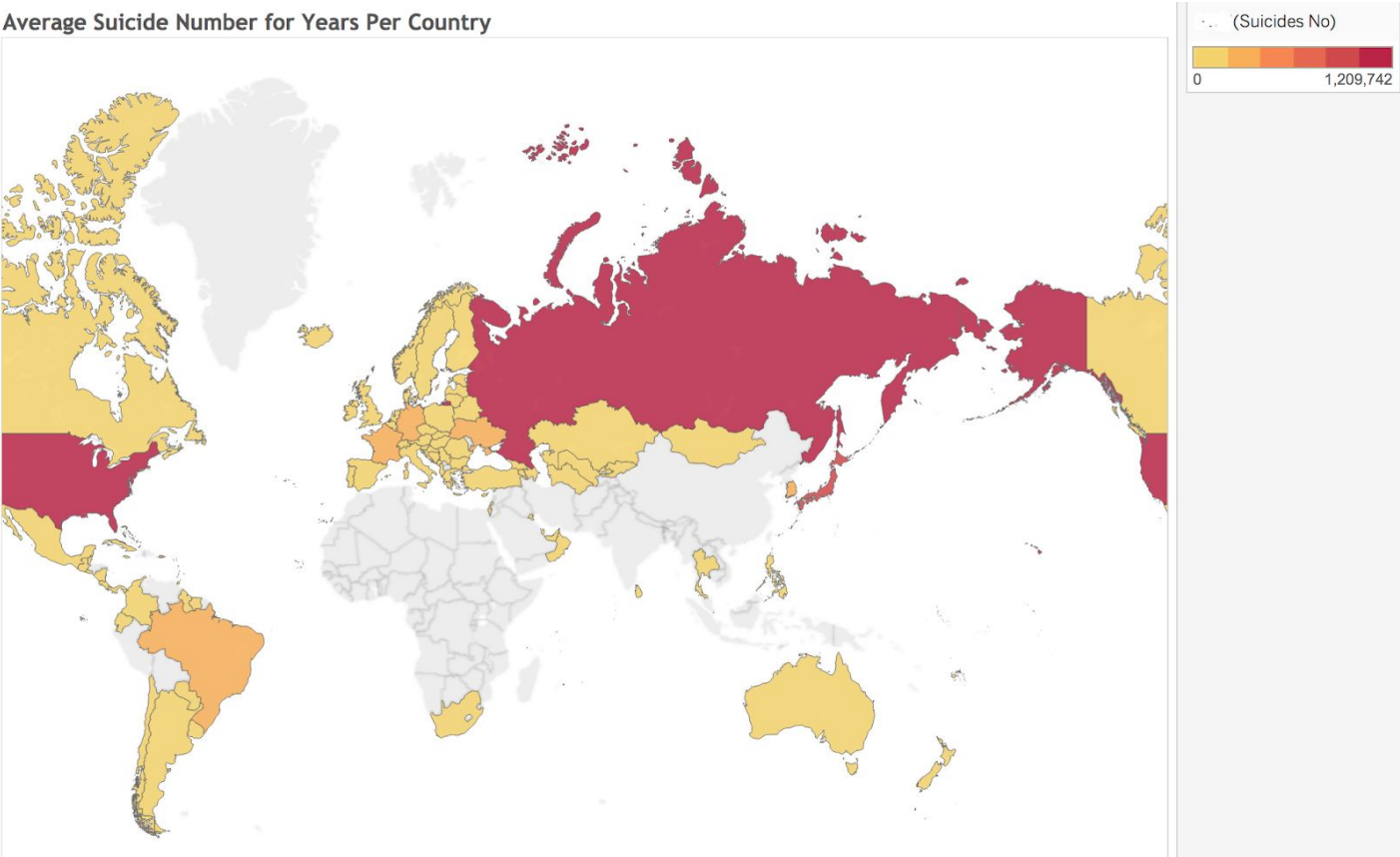
Instances by Decade, Age, & Sex



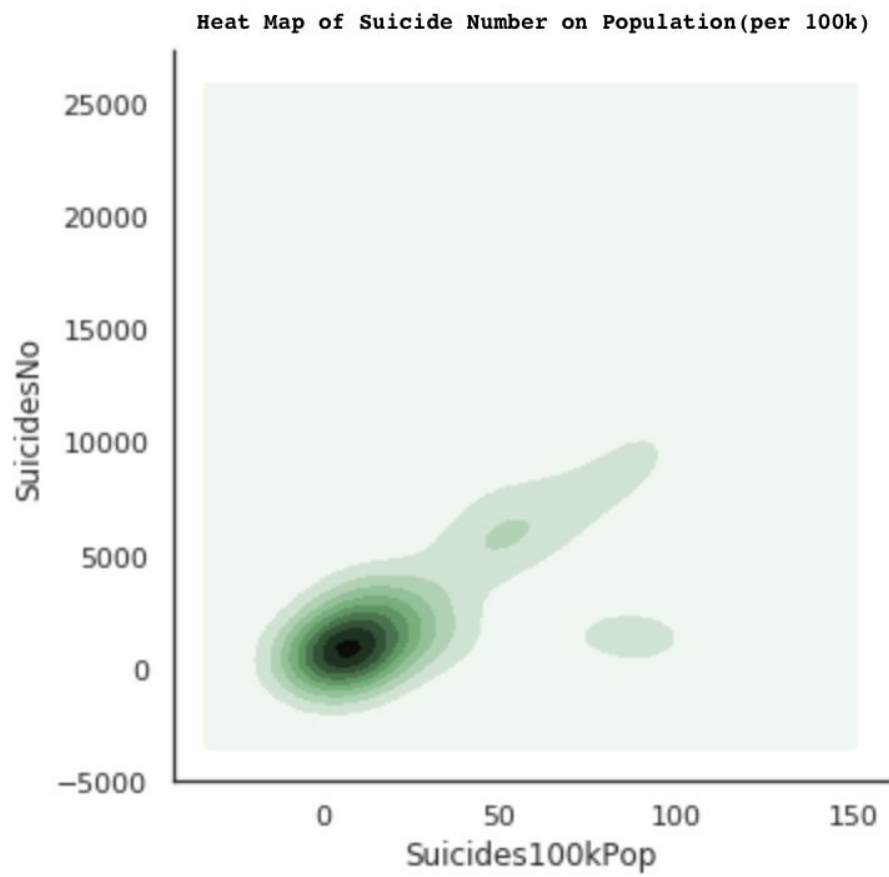
Basically, the same idea as the barplot, but separated by 3 decades to dig the time effect.

Chloropleth Map

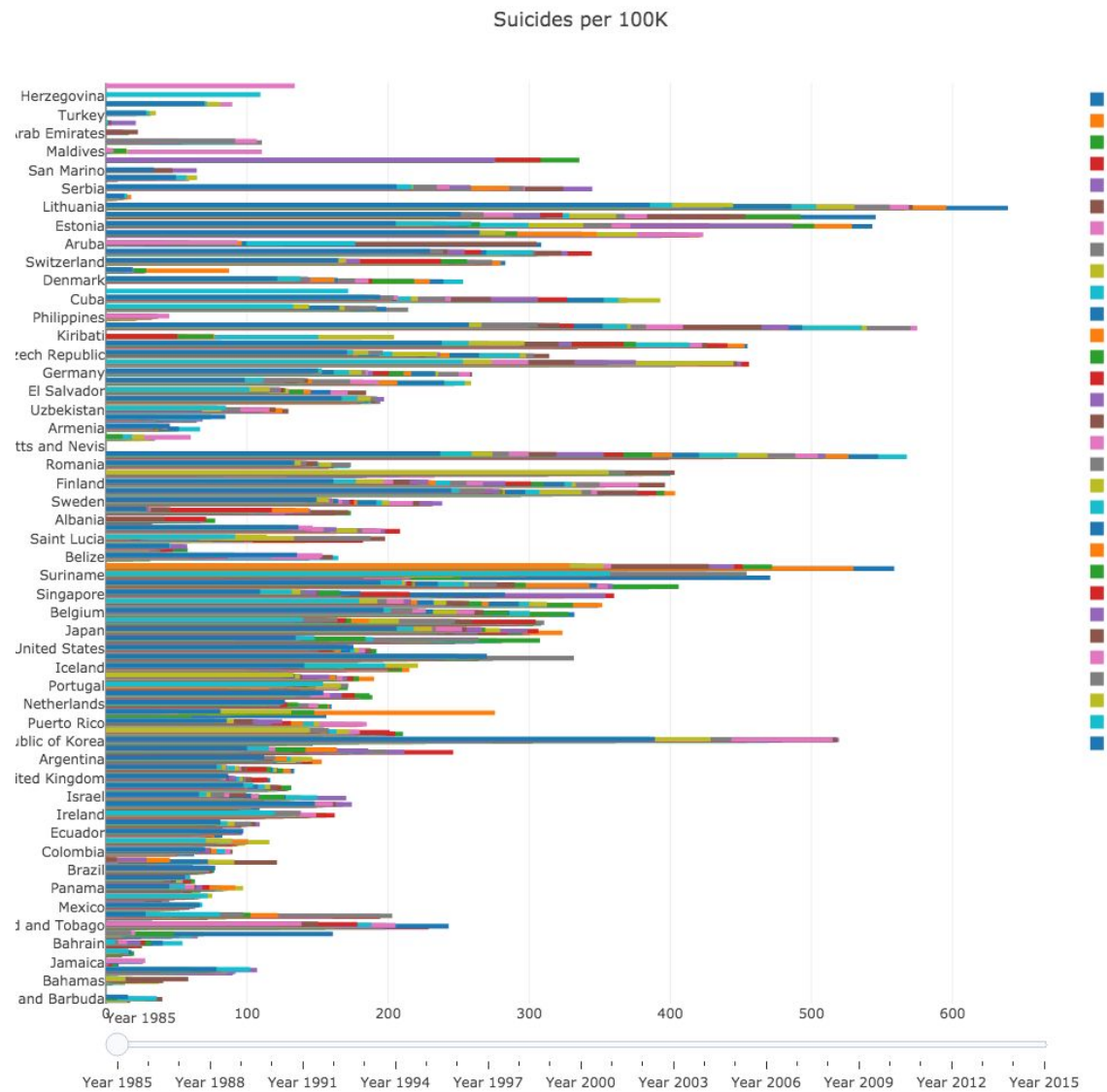
Average Suicide Number for Years Per Country



Heat Map

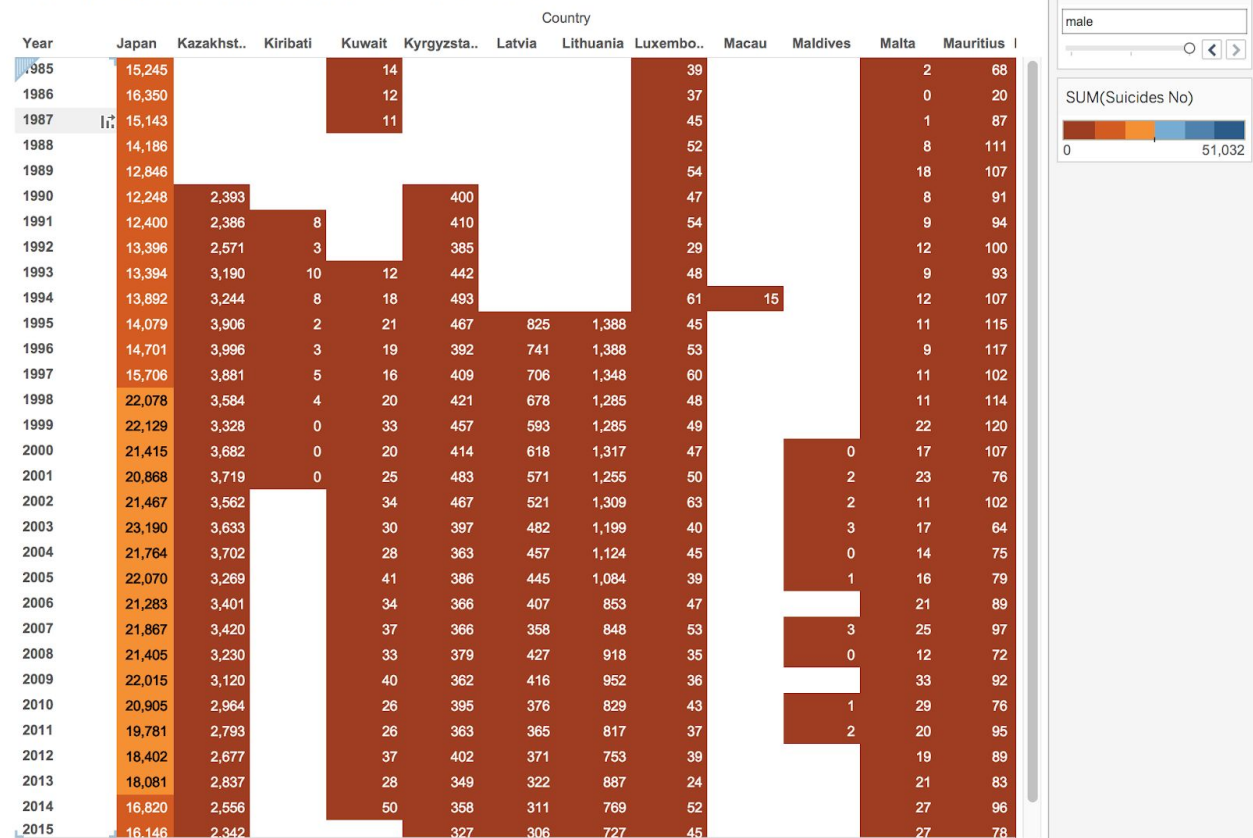


Stacked area

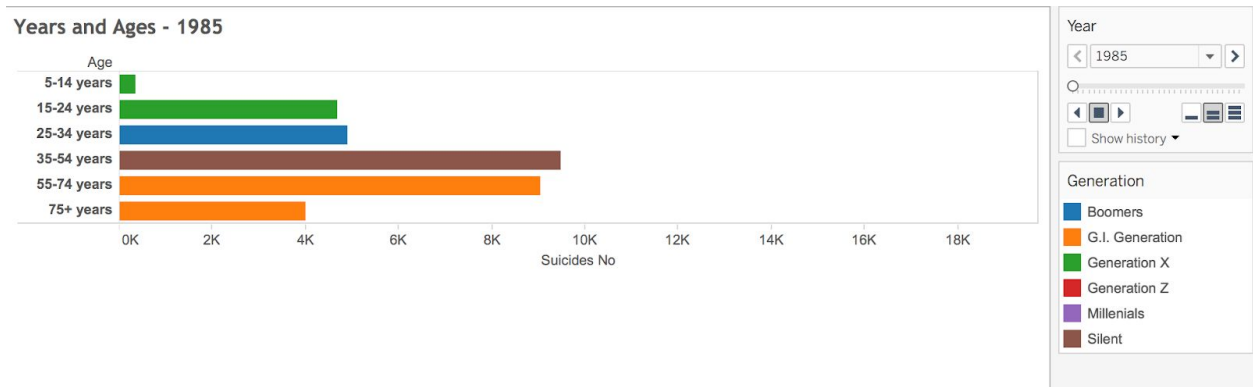


Treemapping

Treemapping plot for suicide nubmer from 1985 to 2018



Interactive plot



See the tableau file for more detail of the dynamic interactive plot

Bubble Map

The bubble map is dynamic (gif) so I upload it to dropbox

(<https://www.dropbox.com/s/5ryshmjnrp72x9/bubbleMap.gif?dl=0>)

But the gif is small, you can directly check my storyline tableau file.

As a result, you can see from above plots, the suicides rate is highly associated with gender, age and a country's GDP. In general, the higher the GDP, the higher the suicides rate, that kind of explains why US, Japan had an increasing suicides rate during the past ten years, I guess the reason is people are under high pressure in those countries. Also the gender effect is significant, the man have almost twice as suicide rate as women, I would claim the reason is similar that man have higher life or work pressure. One thing astonished me is the age effect, I thought people age from 25 to 55 would have a larger suicide rate because they need to work and they have more pressure. But the truth is elders have the most suicide rate, I guess the reason is philosophical desire to die.

Storyline

The first thing I checked was suicide rate for western countries since articles argued that only they had increasing suicide rate. The geographical plot showed that from 2005 to 2016, US suicide number per 100k population did increased. Then I saw that Japan and Russia suicide rate also increased. I realized they were all leading countries among the world, then the bubble plot showed the higher the GDP, the higher the suicide rate for a country. It was not about western countries but about a country's GDP. Russia, however, was the only country that had a high GDP but low suicide rate. Then I checked the age and gender effect. I found that in general, the older the people, the higher suicide rate, and Russia people's average age was lower than other countries. Also I checked the gender ratio for Russia, the man to women was 0.87 where the other countries were about 1. Inspired from this, I checked the gender effect and found that the man have a higher suicide rate than woman, and I think that is why Russia is so special.

Please check my Tableau file for more details:

<https://github.com/tqi2/suicide-data-vizualization/blob/master/tableau/Sucide%20Rates.twbx>

Appendix

[Python Scripts](#)

[R Code](#)

[Tableau files](#)

Link to GitHub

<https://github.com/tqi2/suicide-data-vizualization>

Citations

“[R] Suicide Rates (in-depth) - Stats & Insights” Kaggle,
<https://www.kaggle.com/lmorgan95/r-suicide-rates-in-depth-stats-insights>