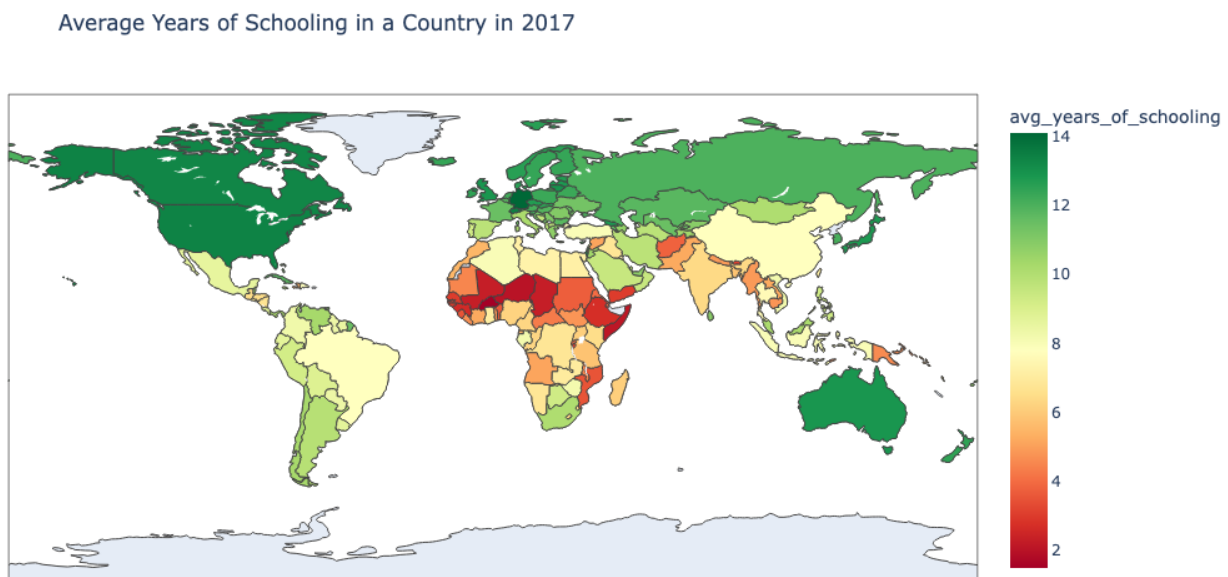Conor McGirr

INFSCI 1520: Information Visualization Final Project

<u>Looking at Schooling Around the World Throughout History</u>

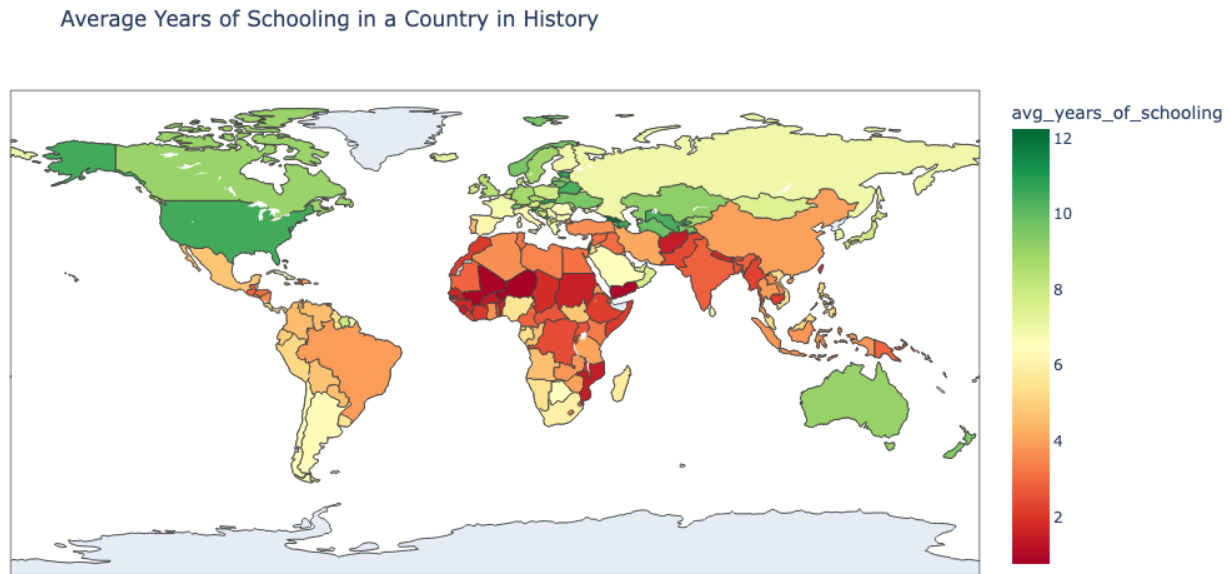Figure 1: Average Year of Schooling in their First Year in 2017

Average Years of Schooling in a Country in 2017

Legend Explained:
- The bar on the right goes from red to green depending on the average years of schooling in the country. The red signifies the bad schooling, and the green signifies good schooling.
- This is the most up to date figure around the world.
- Dark Green 12+ year average.
- Light Green is 10 years average.
- Yellow is 7 to 9 years average.
- Light Red 5-6 years average.
- Red is less than 4 years average.

Significance of the Figure:
- Visual to see how the western world is ahead of the rest of world.
- Africa right around the Sahara Desert has the least amount of schooling around the world.
- India and China for how competitive they are known to be, don't have has as high of years of schooling.
    o   Must be with how big their population is and diverse their work field is.
- South America is light green.
- Germany is the darkest at 14 years average.

Figure 2: Average Year of Schooling in the World

Average Years of Schooling in a Country in History

Legend Explained:
- This is the average of the entire dataset for every country in the world for all of history.
- Dataset is from 1870-2017. Nearly 350 years of data.
- Dark Green 12 year average.
- Light Green is 10 years average.
- Yellow is 7 to 9 years average.
- Light Red 5-6 years average.
- Red is less than 4 years average.

Significance of the Figure:
- Proves historical accurate.
- Western world is better than Africa and Asia.
- Australia and Canada were British territory so it makes sense they are similar to them.
- Makes sense that there are so many reds compared to Figure 1 because school was a big western movement.

Conor McGirr

Data and method text describing the data and method used in this process:
- I used pandas, and plotly as my main python data methods.
- I had to pip install plotly to create the maps.
  - o I found the program online when looking for how to create a heat map.
- Title and legend for all visualizations are tuned individually to give a better, aesthetic look.

Why this project is significant:
- Education from the world is a large topic. Looking at this you can see which countries value education over others.
- The heat map also gave a visual appealing view to see how spread out the education was and see which continents struggled compared to others.
- Looking at Africa and South Asia compared to Western Europe and America it is clear to see which countries excel in the education department.
- This data set had 170 countries over the course from 1870 to 2017.

Github- https://github.com/cmcgirr/INFSCI1500-Final-Projecy
Data Set- https://www.kaggle.com/datasets/fredericksalazar/average-years-of-schooling-since-1870-2017