

Project Step 4

Introduction

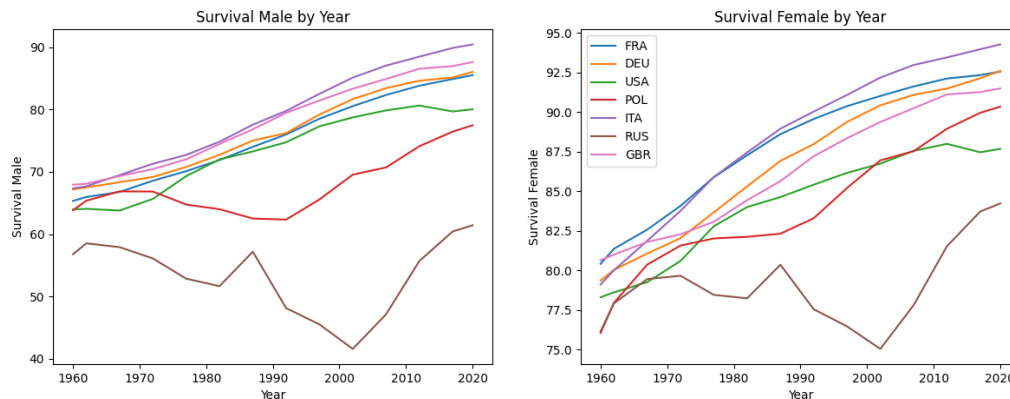
My project is titled "Life Expectancy and Inequality" where I will develop a database application to analyze inequality in life expectancy between countries and genders. A secondary objective of the application is to explore the relationship between life expectancy and population in different countries. The GitHub repository for the project:

<https://github.com/turalnovruzov/cs306-project>. **I will have every step in different branches for easier browsing and grading experience. Please refer to the branch "step4" to see my project's state when I finished Step 4.**

Visuals

You can reach the Python code in "Step 4/main.py" and the plot images in the folder "Step 4/plots"

Visual 1



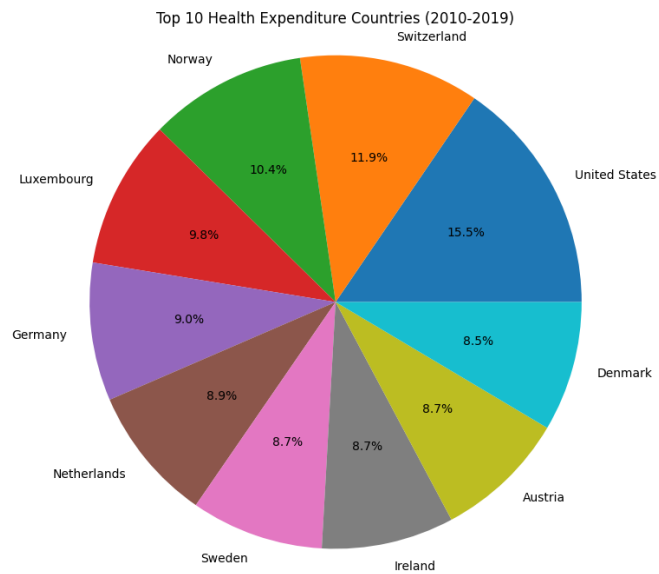
In this visualization, survival rates for males and females are compared across the years. Only a number of countries have been focused on. We can see that Russia's trend is different than the other countries and very unusual. This could be due to historic (wars, plagues, etc) reasons or improper data collection.

Visual 2



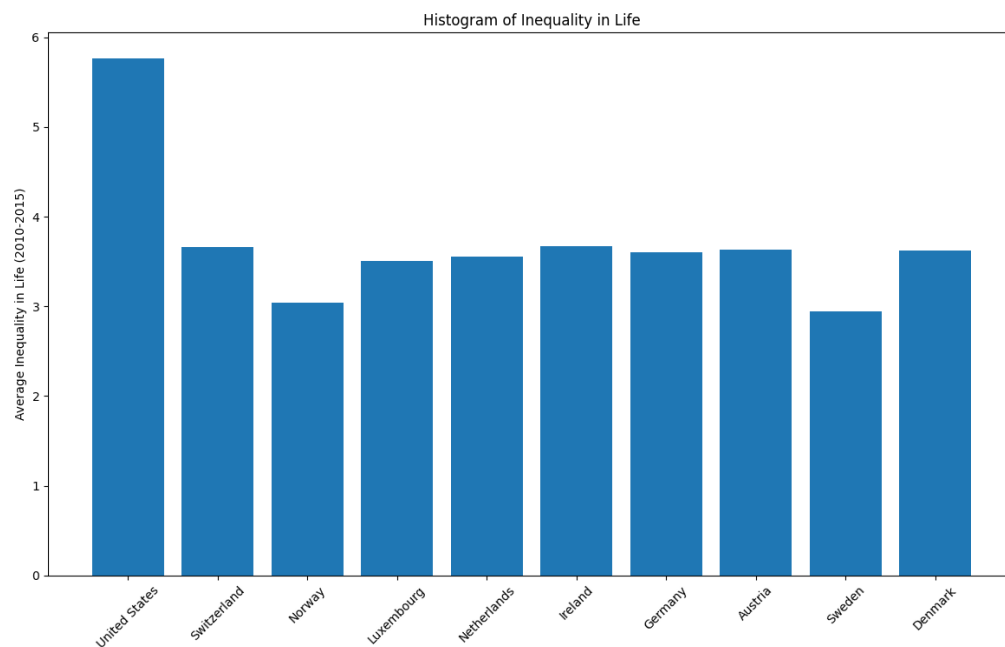
The second visualization shows the relationship between average life expectancy and average health expenditure between 2010 and 2014. We can see a trend where the higher the health expenditure, the higher the life expectancy is.

Visual 3



The pie chart highlights the top 10 countries with the highest health expenditure between 2010 and 2019.

Visual 4



Lastly, the histogram displays the average inequality in life values for these top 10 health expenditure countries between 2010 and 2015. This series of visuals help to understand the trends in health expenditure and the impact it has on life expectancy and survival rates across the represented countries.