

Visualizing Life Expectancy: 2000-2016

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Description of Dataset:

Column Name	Attribute Type	Description
Country	Categorical	Name of the country
Year	Quantitative	Life expectancy data for a given year
All	Quantitative	Average life expectancy of all population
Male	Quantitative	Average life expectancy of all male population
Female	Quantitative	Average life expectancy of all female population

Source: <https://www.who.int/gho/database/en/>

Source: <https://data.worldbank.org/indicator/SP.DYN.LE00.IN?end=2017&start=2001>

Purpose of the Visualization:

The purpose of the visualization is to compare and contrast the countries with the highest average life expectancy. It also does a similar analysis w.r.t the countries with the lowest average life expectancy. Having this visual allows us in understanding the difference between the life expectancy of a given country with that of the global. This visualization has been done for the years 2000-2016.

Description of the Visualization:

Each bar is split into multiple cells such that it represents 1 year. The reason of choosing a tiled bar chart over a bar chart is that we can read values more precisely by counting the cells. With the traditional bar charts, we sometimes have to estimate the size of the bar by judging its distance from the x-axis which might lead to inaccuracies.

In this visualization we can choose years between 2000 and 2016, and toggle between the top 10 and the bottom 10 countries.

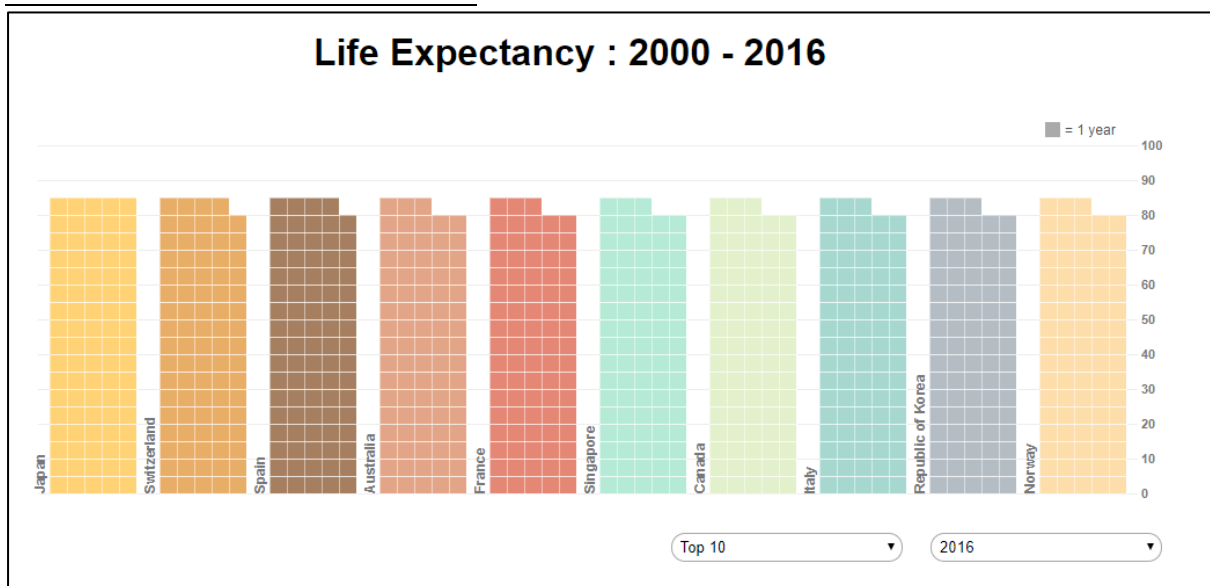
The visualization helps answer the following queries:

- What are the top 10 countries with the highest average life expectancy? Japan, Singapore, Canada, Italy, France, Australia (developed nations)
- In which year did Singapore break into the top 10? 2001.
- Which country has the highest average life expectancy? Japan. And it has remained so over the past decade. This is no surprise as the demographic crisis of Japan is well known and has been dubbed the country with a 'super-aging' society [1]. It almost 10 years more than the global life expectancy of 72.2 years.
- Which region of the world has the lowest average life expectancy? The sub-Saharan region of Africa has the lowest life expectancy at around 48 years (Zambia, Zimbabwe, Uganda, Nigeria etc), which is almost 20 years less than that of the global life expectancy (72.2 years).
- Which country has the lowest life expectancy? Sierra Leone

- Has there been an improvement in the average life expectancy of the bottom 10 countries over the years? There has been improvement from 45.5 years in 2000 to 55.7 years in 2016.
- Has there been an improvement in the average life expectancy of the top 10 countries over the years? There has been improvement from 80.1 years in 2000 to 83.4 years in 2016.
- What is the overall trend of the global life expectancy? It has been an increasing trend, starting from 67.6 years in 2000 to 72.2 in 2016.

[1]: https://en.wikipedia.org/wiki/Aging_of_Japan

Screenshot of the Visualization:



Visual Encoding:

Data	Data Type	Encoding	Description
Country	Categorical	Position, color	Position on the x axis, and color represent the country
Life expectancy range	Categorical	Position	Position on the y axis gives the range of the life expectancy of a country eg. 80-90 years
Life expectancy exact value (All)	Quantitative	Blocks count	Number of blocks for a country represent the exact life expectancy value

Link: <https://ravneetkaur2159.github.io/visualizingLongevityTopCountries/>