Life expectancy and rural population

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Dataset(s)

Which dataset did you use of the following:
- World Development Indicators Dataset

Motivation

https://www.mirror.co.uk/lifestyle/health/nothing-beats-happiness-living-countryside-13077249

I found this article that claims that "*People who lived in the countryside were, on average, eight times happier than people in urban areas.*"

I like to explore differences between living in rural and urban areas, and the dataset might give some insight.

Research Question(s)

The article claims that people living in rural areas are happier than people living inurban areas. In Norway (Where I live) there is a saying «en god latter forlenger livet», which roughly translates to «a good laugh, prolongs life».

My research question, based on the article and the saying, therefore is: If the rural populace is happier, do they laugh more and therefore also have a longer average lifespan?

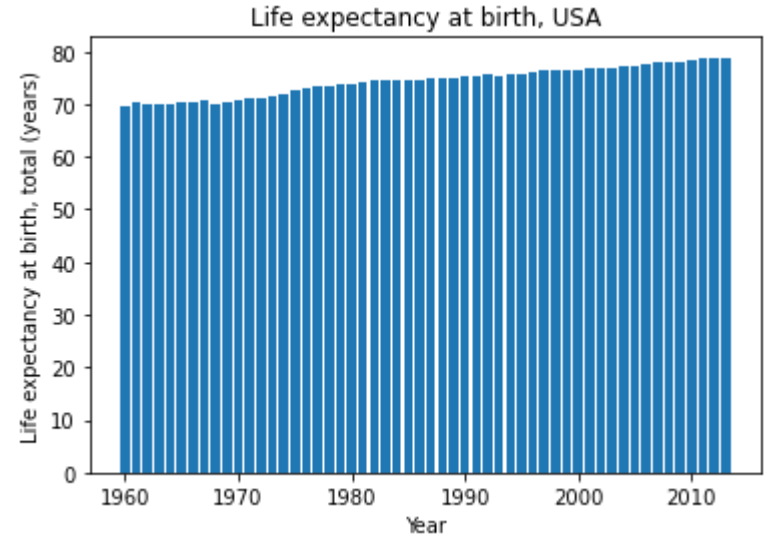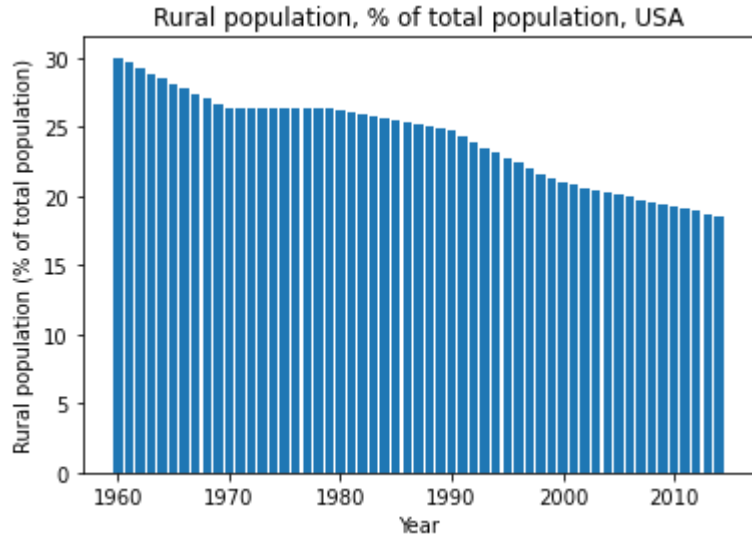I've choosen the following indicators:
- Life expectancy at birth, total (years)
- Rural population (% of total population)

If the dataset supports the question, then the Life expectancy should be positively correlated with the rate of rural population across different countries and time.

Higher rate of rural population should give higher average life expectancy.
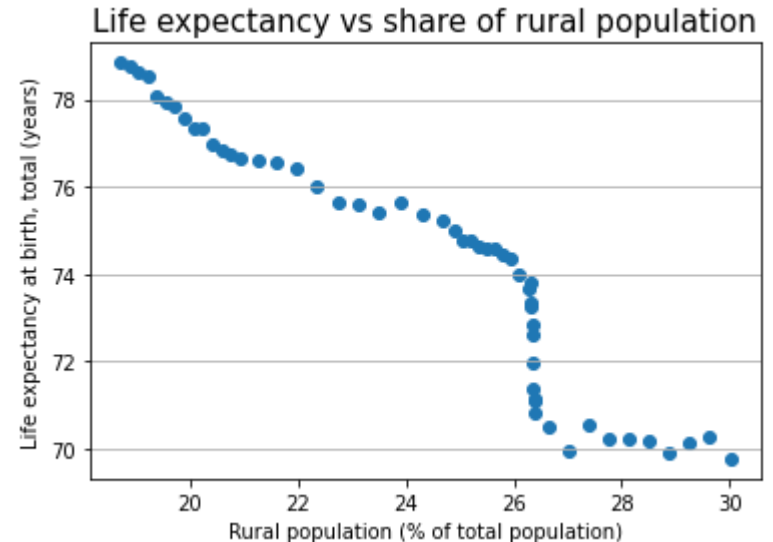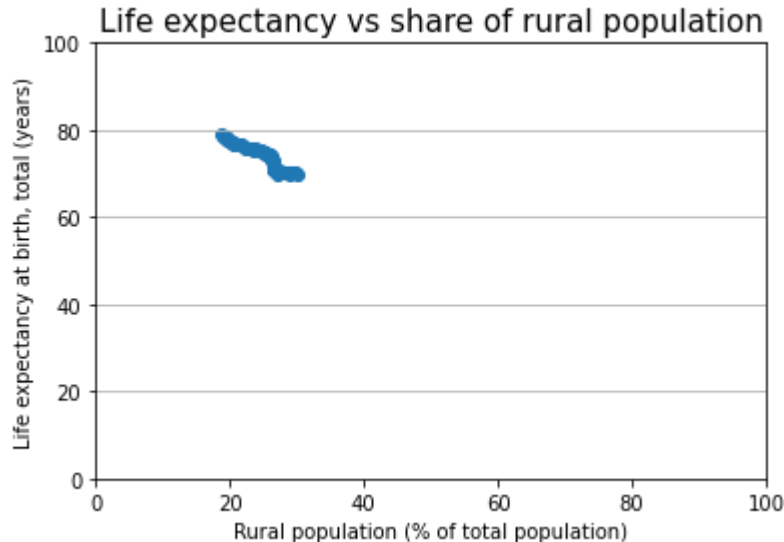
Findings

Looking at histograms for USA we immediately see that the development from 1960 to 2013/4 are opposite for the two indicators, and we should expect a negative correlation.

Rural population, % of total population, USA

Life expectancy at birth, USA

Findings - USA

The scatter-plots below shows the two indicators for a given year for the period 1960-2013 for USA. The rightmost graph zooms in on the details of the same plot. The correlation is -0.94501354, so it is a very strong negative correlation.
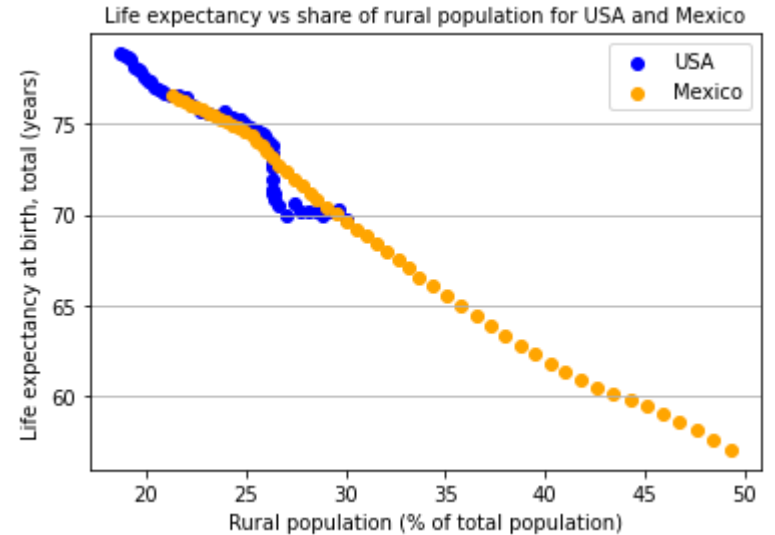
Random Country (Mexico)

I ran a random country finder and it turned up on Mexico. The scatter-plots for Mexico show an almost linear negative relationship for Mexico (correlation -0,995).
The plots are zoomed in on the details.
I also plotted the graphs together and the negative reationship looks very strong:
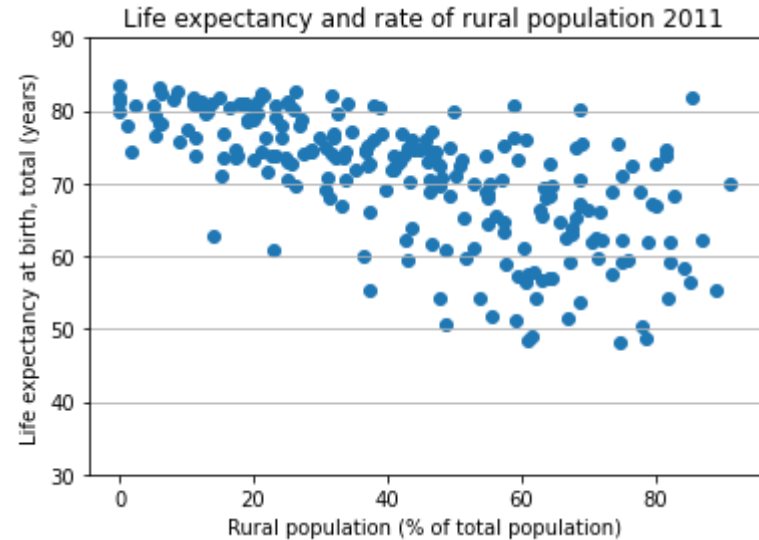
Across the world a given year

I have also checked the relationship across a given year, in this case 2011.
The scatterplot shows life expectancy at birth on the vertical axis and the rate of rural population on the horizontal axis.

Graph shows that the life expectancy is shorter for countries with higher rate of rural population.

The correlation is -0,65 for 2011.

Life expectancy and rate of rural population 2011

Conclusion

The data from the indicators I chose from the dataset does not support the research question. People that live in countries with a high rate of rural population, do not on average have a longer expected life.

Life expectancy is affected by a lot of different factors.

If people living in rural areas are happier than people living in urban areas, then the effect of this happiness on life expectancy is not enough to counter other factors.

Acknowledgements

I did not have any other input.

References

I did all the work on my own