

What Makes A Country's Citizens Happy?

Introduction

Background

Happiness in life is something most people want in life, rich or poor. Although there are factors in our individual lives that contribute significantly, for a country as a whole, it is heavily linked with quality of life. However, happiness does not increase linearly with having a higher income, so we will explore other factors that may be related to determining the happiness of a country's citizens.

Problem

Data that might contribute to predicting whether a country's citizens will be more or less happy may include measures of income, measures of wealth inequality, life expectancy, years of schooling, and alcohol consumption.

Interest

Individuals would be interested in the insights to how the happiest countries live. City, state, and federal governments might glean some useful information from how to shape their policies to help their citizens stay happy. Relationships between inequality and happiness might motivate lawmakers and help shape economic policies.

Data

Sources

Most of the country data and metrics could be found on Kaggle. The median income figures were found on the cgdev.org website. Here are the links:

1. <https://www.cgdev.org/blog/world-bank-poverty-statistics-lack-median-income-data-so-we-filled-gap-ourselves-download-available>
2. <https://www.kaggle.com/unsdsn/world-happiness?select=2015.csv>
3. <https://www.kaggle.com/nitishabharathi/gdp-per-capita-all-countries?select=GDP.csv>
4. <https://www.kaggle.com/kumarajarshi/life-expectancy-who?select=Life+Expectancy+Data.csv>

Kevin Wang
October 28, 2020

Cleaning

Downloaded data from multiple sources were combined into one table by joining on the country's name. Inner joins were used to exclude missing data. Many tables had multiple years, so I stuck with data around 2012 for most of the datasets, and used 2015 for the happiness score dataset since that was the closest to 2012 I can find. For the median income, the calculation by this organization was based on daily instead of annual. In their example, real median household income for the U.S. was \$53000, translating to \$48 per day per person for a family of 3. This means I had to scale the daily median income to annual. While the absolute number does not matter as much, I am more interested in the variance in the ratio of the median annual income to GDP per capita between various countries. The difference in a median measure and a mean measure captures the amount of inequality in wealth (skewing of a relatively normal distribution). Other formatting details were mostly for rounding and clarifying column labels.

Feature Selection

The features that I selected to be of potential relevance in predicting a country's happiness are:

1. Medium Annual Income
2. GDP Per Capita
3. Ratio of Medium Annual Income / GDP Per Capita
4. Average Life Expectancy
5. Average Years of Schooling
6. Annual Liters of Alcohol Consumed Per Capita