Are there additional measures to explain global happiness

Objective

The World Happiness Report uses 6 predictors: GPD Per Capita, Life Expectancy, Social Support, Freedom, Generosity and Corruption to explain inter-country variances in happiness. I would like to investigate if there are additional measures that can be used to explain those differences. Using data from the World Bank and UN that contain statistics on a myriad of topics from gender inequality to population density to economic freedom, I would like to identify additional indicators for happiness.

Target Audience

The more factors we have to better explain variations in happiness, the more effective toolkit governments, politicians and organizations have to make more informed policy decisions.

Data

World Happiness (2015, 2016, 2017) - http://bit.ly/2IYXG9J
World Happiness (2018) - http://bit.ly/35GzQcL
World Happiness (2019) - http://bit.ly/33yl4To

- Three separate Kaggle datasets that cover the World Happiness scores for 155 countries from 2015 to 2019 and include the six predictors described above as well as a dystopia residual for each country.

Economic Freedom (2019) - http://bit.ly/2OVutAz

- Kaggle dataset with an index that covers 12 economic based freedoms: Property Rights, Judical Effectiveness, Government Integrity, Tax Burden, Gov't Spending, Fiscal Health, Business Freedom, Labor Freedom, Monetary Freedom, Trade Freedom, Investment Freedom, Financial Freedom

Gender Development and Inequality (2015) - http://bit.ly/2OUSK9S

- A dataset in Kaggle with two data sources with gender development and gender inequality indexes

International Debt (2015, 2016, 2017) - http://bit.ly/32p78er

- Data sourced from the World Bank on Kaggle the contains statistics on countries' debt from 1970 to 2017 in U.S. dollars

Population Density/Economic/Social/Environmental/Infrastructure (2017) - http://bit.ly/2MURnFE

- Robust Kaggle dataset with data on the following major areas: General Information, Economic Indicators, Social Indicators, Environmental & Infrastructure Indicators

Approach

1. Analyze each data set and finalize what predictors from each dataset I would like to examine based on correlated World Happiness Report year. For example, the Gender Development and Inequality dataset is from 2015. I will use the World Happiness data from 2015 in my statistical analysis for this particular predictor.
2. Clean each dataset based on the predictors I would like to analyze and year, as well as ensuring that countries correspond in each dataset.
3. Statistical analysis engineering: calculate coefficients, standardize coefficients, r-squared analysis, etc.
4. Exploratory statistical analysis on additional predictors and indicators to happiness across the globe
5. Based on statistically significant correlations found, build regressions and data storytelling based on correlations found
6. Visual model - draw a world map based on happiness index
7. Identify challenges with approach / results and provide recommendations on how to improve for future analysis

Deliverables

Associated code, milestone reports and presentation. Additionally, I plan to publish a blog post as my final presentation.