Project 1: Proposal

Team Members:

Arlette Varela
Nathan Bolt
Nirupama Shankar
Teshanee Williams

Project 1 - Happiness Explained: An Exploration of Happiness Scores

July 2020

OVERVIEW/OUTLINE

Our main objective is to analyze happiness scores from 2017-2019. Specifically, we are interested in understanding what might explain variations in happiness scores based on subjective well-being (SWB) measures included in a Gallup world survey. We will explore which SWB measures correlate most highly with higher happiness scores. We also intend to identify any significant contributing factors that may help to explain these correlations.

HYPOTHESES or CORE MESSAGE:

According the the World Happiness Report there are several subjective well-being measures (SWB) that can be used to measure happiness. Our main objective was to explore, the measures of subjective well-being to determine which ones had the most influence on happiness. We also to set out to examine the different factors to determine the correlation of each of these with overall happiness.

RESEARCH QUESTIONS:

1. Which **countries** had the lowest happiness score? highest happiness score?
2. Which of the measures of SWB (i.e., social support, healthy life expectancy, generosity, freedom to make life choices, GDP per capita, and perception of corruption) are most highly correlated with a higher happiness score?
3. Which of these measures have the most influence on the happiness score?

DATASET(S):

World Happiness Report: Overview
World Happiness Datasets
Github Repository

TASK BREAKDOWN:

- [x] ~~Set up Github Repository: @Nathan B~~
- [x] ~~Create API Key (optional): @doc~~
- [x] ~~Setting up Jupyter Notebooks: @Teshanee W~~
- [x] ~~Retrieve and Review Data: @doc~~
- [x] ~~Create Dataframes: @Arlette V @Nathan B~~
- [x] ~~Clean Data Appropriately: @Arlette @Nathan B~~
- [x] ~~General Summary Stats: @Teshanee W @Niru S~~
  - [x] ~~Create a new data frame based on the average of three years @Teshanee W @Niru S @Arlette V @Nathan B~~
  - [x] ~~Identify lowest/highest happiness scores @Teshanee W & @Niru S~~
    - [x] ~~Create a visualization @Teshanee W @Arlette V~~
- [x] ~~Dive into Research Questions: @doc~~
- [x] ~~Comment and annotate methodology~~
- [x] ~~Create a boxplot for each SWB @Teshanee W~~
- [x] ~~Run linear regression(s) @Niru S @Teshanee W~~
  - [x] ~~Create scatter plots- @Niru S @Nathan B~~
  - [x] ~~Run correlations - @Teshanee W @Niru S @Nathan B~~
    - [x] ~~Multivariable regression! @Teshanee W~~
    - [x] ~~Create visualization @Teshanee W~~
- [x] ~~Clean up, plot and summarize questions: @doc~~

- [x] Comment out code and create headers and sections: @Arlette V @Niru S
- [x] Overview Writeup: @Nathan B @Arlette V
  - [x] Pull overview instructions from Gitlab; format accordingly.
- [x] Presentation Outline: @Arlette V @Nathan B
- [x] Assure data answers our questions: All
- [x] Push and merge final docs/folder(s) to Github: @doc
- [x] Create slides for presentation: All
- [x] Present: Team

Link:

+Write-Up Summary
+Presentation Outline