**Backrow - Project Outline**

Steps:

1. Selected project
2. Drafted proposal.
3. Obtained data sources.
4. Performed v-lookup to make both sources of data had the same countries.
5. Created Git Hub Master
6. Merged data sources and cleaned up data.
7. Created Data Frames
8. Created Plots
9. Density vs Ladder
10. Population vs Ladder
11. Freedom vs Ladder
12. Social Support vs Ladder
13. Healthy Life Expectancy vs Ladder
14. Corruption vs Ladder
15. GDP per Capital vs Ladder
16. Generosity vs Ladder
17. Possible Other Plots with Standard Error
18. Analyze Data and Draw Conclusions
19. Create Power Point

**Data Sources**

1. World Happiness Report – 2019: https://worldhappiness.report/ed/2019/
2. World Population Review: [www.worldpopulationreview.com](http://www.worldpopulationreview.com)

**Background on the World Happiness Report**

*Creators*

The World Happiness Report is a survey of the “state of global happiness” that ranks 156 countries by how happy their citizens perceive themselves to be. The report is produced by the United Nations Sustainable Development Solutions Network in partnership with the Ernesto Illy Foundation.

*History*

The first World Happiness Report was published in 2012 for a meeting of the United Nations titled “Wellbeing and Happiness: Defining a New Economic Paradigm”. The report presented “the available global data on national happiness and reviewed related evidence from the emerging science of happiness, showing that the quality of people’s lives can be coherently, reliably, and validly assessed by a variety of subjective well-being measures, collectively referred to then and in subsequent reports as ‘happiness.’”

*Report Disclaimer*

“The World Happiness Report was written by a group of independent experts acting in their personal capacities. Any views expressed in this report do not necessarily reflect the views of any organization, agency or program of the United Nations.” Nations.

*Citations*

1. World Happiness Report: This publication may be reproduced using the following reference: Helliwell, J., Layard, R., & Sachs, J. (2019). World Happiness Report 2019, New York: Sustainable Development Solutions Network.
2. Countries By Density Population. (2019-09-30). Retrieved 2019-11-11, from http://worldpopulationreview.com/countries/countries-by-density/

**Variables**

1. **Country:** Country being studied.
2. **Ladder:** Life evaluation is measured with a Cantril Ladder, which asks survey respondents to place the status of their lives on a “ladder” scale ranging from 0 to 10, where 0 means the worst possible life and 10 the best possible life. Positive affect comprises the average frequency of happiness, laughter and enjoyment on the previous day, and negative affect comprises the average frequency of worry, sadness and anger on the previous day. The affect measures thus lie between 0 and 1.
3. **SD of Ladder:** Standard deviation of the Cantril Ladder results.
4. **Positive Effect:** Comprises the average frequency of happiness, laughter and enjoyment on the previous day. The affect measures thus lie between 0 and 1.
5. **Negative Effect:** C comprises the average frequency of worry, sadness and anger on the previous day. The affect measures thus lie between 0 and 1.
6. **Social Support:** Variable that captures the answer to the following question: If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not? proportion of respondents saying Yes).
7. **Freedom:** Variable that captures the answer to the following question: In your country, are you satisfied or dissatisfied with your freedom to choose what you do with your life? (proportion of respondents saying Yes).
8. **Corruption:** Variable that captures the average proportion of respondents saying Yes to the following two questions: 1. Is corruption widespread within business located in your country, or not? 2. Is corruption widespread throughout the government in your country, or not?
9. **Generosity:** A marker for a sense of positive community engagement, and a central way that humans connect with each other. Specifically, people are more likely to derive happiness from helping others when they feel free to choose whether or how to help, when they feel connected to the people they are helping, and when they can see how their help is making a difference.
10. **GDP per Capita:** The monetary value of all finished goods and services made within a country during a specific period divided by the population.
11. **Healthy Life Expectancy:** The average number of years that a newborn can expect to live in “full health” – in other words, not hampered by disabling illnesses or injuries. The report uses data from the World Health Organization (“WHO”).
12. **Rank:** Rank in density (from highest density to lowest density).
13. **Density:** The amount of people per unit area of all land.
14. **Density per Square Mile:** The amount of people per square mile.
15. **Population 2019:** All the inhabitants in an area.
16. **Area:** A region or part of a town, country, or the world.