Final Project

For the final set of assignments, you will work on a group project applying various of the contents learned throughout the course. You will focus on a research question of your own interest, use a data set of your choice, and perform the appropriate data wrangling and analysis needed to address it. To provide you with feedback along the way, this will be completed in two assignments, see specific instructions for each below.

Submit (1) a pdf/word document with your research report, (2) an R script with code that produces what you describe and show in the report, and (3) the original data set used, if different from the QoG data sets used in the course. I will evaluate your submission by assessing your research report and running your code.

You are asked to work in 3 people groups and submit one assignment per group, identifying the group members. There is no restriction on lab section membership, i.e., students from different sections can work together in the same group.

Draft Project Assignment

Due: End of day on Friday, April 14, 2023
How: Canvas assignment submission link
Max grade: 10 points
Max pages: 3

In this part, you will define your research question, identify appropriate data to address it, perform any necessary data wrangling (merging, cleaning, creating data), visualize your data, calculate basic associations, and design any additional analysis you wish to perform for the Final Project.

1. What is your research question? Describe the objective of your study, any appropriate background to the study, and list your working hypotheses.
2. What data will you use to address it? Describe the data you will use, and your outcome and explanatory variables.
3. After creating, re-coding, and/or cleaning your variables of interest as needed:
   (a) Describe their descriptive statistics,
   (b) Produce a visualization of your choice describing the distribution of your outcome variable
   (c) And some visualizations exploring the potential association between your outcome variable and the explanatory variables.
4. Describe any tests you will perform to assess your hypotheses and thus address the objective of the study. You are free to perform and submit the results of this, although you are not yet required to do so.

Final Project Assignment

Due: End of day on Friday, April 21, 2023
How: Canvas assignment submission link
Max grade: 10 points
Max pages: 4

In this part, at your discretion, you will incorporate feedback provided by me on your Draft Project, perform final analyses, and polish the final document.

1. After performing final analysis as necessary and incorporating any feedback at your discretion, report the results. Please provide a brief written explanation of the test performed, what you find, and at least one visualization appropriate to describe your findings.

2. Polish and finalize your final report by:
   (a) Incorporating any changes and/or feedback to your initial submission;
   (b) Including a closing paragraph that concludes your evaluation of the research question.