POL S 411/511 Assignment 2 Total Marks: 19

Using the Quality of Government Basic Dataset (Jan 2020 version - see Week 5 Canvas page for a link to the data and codebook):

Part 1 - 9 points

Formulate a realistic, theoretically informed research question based on a relationship between two variables (an independent and dependent variable) in the dataset. You will find the codebook particularly useful for this.

Write a do-file that (in the following order):

- 1. Contains a comment at the top of the file with your name, the course, date and instructor (each on separate lines)
- 2. Opens the dataset.
- 3. Contains in comments:
 - a) A strong, falsifiable research question (1pt)
 - b) The null hypothesis (1pt)
 - c) An alternative hypothesis that explains why you think it is theoretically-justifiable (1pt)
- 4. Describe and run a codebook for your variables (1pt).
- 5. Summarizes your two variables
 - a) In comments, identify the mean, median, minimum, maximum, standard deviation and skewness (1pt)
- 6. Creates a two-way table between the two variables that describes, in comments, what the individual cells mean (1pts)
 - a. Create a new labelling system for your variables (1pts)
 - b. Give me some examples i.e. "there are X countries with A value of my IV and B value of my DV"
- 7. Comments on whether the data appear to support the null or alternative hypothesis (1pt)

Part 2 – 5 points

In the same do-file as for Part 1:

- 1. Change the scheme for graphs in Stata to something other than the default (1pt)
- 2. Create two histograms one each for Freedom House's Freedom of the Net score and Freedom of the Press Score (hint: both variables should be out of 100) (1pt).
 - a. Make sure the y axes display frequency and the x axes have an appropriate number of bins (1pt)
- 3. Create a scatterplot between these two variables. In comments, describe the relationship you find. What can you conclude about the causal relationship between these variables? (2pts)

Part 3 – 6 points

In the same do-file as for Parts 1 and 2:

1. In the QOG codebook, find, **summarize and describe** variable *pei_peii* and variable *qs_proff*. In comments, provide a brief explanation for what these variables represent and what their descriptive statistics mean (2pt).

- 2. Create a scatterplot between these two variables. Using the codebook and your answer to the previous question to guide your interpretation, explain in comments what you see. (2pts)
- 3. In comments, briefly (2-3 sentences) comment on the **causal** relationship between these two variables (2pts)

Make sure to submit a log file containing the comments, code and output from above through eClass. **Make sure to submit a .log file, not a .smcl file.**

To create a log file:

- 1. Start your log through the Stata menu (File → Log → Begin), making sure to select .log and not .smcl
- 2. Run your do file.
- 3. End your log through the Stata menu (File \rightarrow Log \rightarrow Close).
- 4. Open your .log file to verify the file has saved correctly with all of your output.