

## Writing Assignment 4

- This writing assignment is due on December 8 by the beginning of class.
- Hopefully, you can have the computation done by November 19, so that we can spend a couple of class periods talking about the writing and answer any questions you might have about the code.
- Plagiarizing prose or code is not acceptable.

For this project, I want to give you more room to be creative. I'm giving you a data set with 142 countries. For each country, you have the Polity IV measure of the level of democracy in that country and three measures of human development: life expectancy, expected schooling, and GNI per capita. You can find out more about these measures of human development [here](#) and more about the Polity IV measure of democracy [here](#). Feel free to consult other sources, but cite appropriately. I've already combined these measures into a single data set for you to use. That data set is available [here](#).

For this assignment, make an argument about the relationship between democracy and the three outcomes. You might make a direct causal argument, or perhaps you have more nuanced ideas.

1. As a country becomes more democratic, does life expectancy increase, decrease, or stay about the same?
2. As a country becomes more democratic, does expected schooling increase, decrease, or stay about the same?
3. As a country becomes more democratic, does GNI per capita increase, decrease, or stay about the same?

Your argument should have two parts: (1) a theoretical argument (or a model) and (2) an empirical argument (or data analysis).

First, think about the likely relationship between the level of democracy and the three outcomes. **Develop a model linking the level of democracy with each of these outcome.** For simplicity, I recommend you argue that democracy causes an increase in human development. Why should democracy affect these outcomes (or perhaps not)? In your paper, clearly explain your model. In some ways, these three outcomes are similar, so a single, general model might do well. In other ways, these outcomes are different, so you might need to change your model slightly for each.

Second, turn to the data. In this case, it probably makes sense to have three scatterplots with a best-fit line on each as well as three linear regression models. Clearly and fully interpret the scatterplot and the regression coefficients for each measure of human development. Do these offer evidence consistent with your theory? If not, feel free to speculate about why. Remember that these are observational data, so think about all the possible reasons you might get a correlation.

Use the following structure in your paper:

1. Section 1: Introduction. Given and overview off your argument, the evidence, and explain why this is important. (less than 1 page)
2. Section 2: Theory (or Model). Develop a model explaining the relationship between democracy and the human development outcomes. (about 2 pages)
3. Section 3: Data Analysis: Clearly interpret the three scatterplots and the three sets of regression coefficients. (about 2-3 pages of text)
4. Section 4: Conclusion: Summarize your argument and evidence, and perhaps raise any interesting additional questions you might have. (less than 1 page)

Any sources that you rely on should be cited. See the APSA style guide ([pdf](#)) for the details on how citations typically work in political science.

Compress the project folder `writing-assignment-4`. It should now be `writing-assignment-4.zip`. Rename this file `lastname-firstinitial-wa4.zip`. E-mail this compressed file to Abhi ([abhisekh@exchange.tamu.edu](mailto:abhisekh@exchange.tamu.edu)) and me ([crainey@tamu.edu](mailto:crainey@tamu.edu)) by e-mail. Also, submit the paper to through Turnitin. You can find the link on the eCampus sidebar. Lastly, bring a hard copy of the paper to class with a print-out of the R code (i.e., File → Print in RStudio) stapled to the back.

- R Code: 50%
  - The code runs and computes the correct quantities: 40%
  - The code is neatly written and thoroughly commented: 10% (Remember that I have to read it! See Hadley's [style guide](#) for some suggestions.)
- Paper: 50%
  - Analysis: 20%
  - Grammar and usage: 20%
  - Spelling and punctuation: 5%
  - Organization and format: 5%