In-Class Activity One

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Please answer the following questions to the best of your ability. Be sure to answer each question completely, addressing all parts of the question. Try first on your own, and then ask for help for those next to you. Some of you are already deeply familiar with `R` and will finish this assignment quickly–your job is to help those around you get up-to-speed.

Part 1: Working in `R`

Set Up

1. Open RStudio and create a new R Script.
2. Save the file as `LastName_Intro.R`.
3. At the top of your script, include a header as comments with:
   - Your name
   - The date
   - The description

Remember: any comments you leave in an R script must be preceded by a `#` so that the script does not interpret your text as a command (for example, you would write your name as "`### Firstname Lastname`").

Loading the Data

1. Download the congress_data.csv dataset onto your computer and put it in a folder labeled "Introduction to Graduate Research".
2. Set your working directory to your "Introduction to Graduate Research" folder.
3. Load the congress_data dataset into your R environment using `read_csv()`. Be sure to save it as an object.

Exploring and Transforming Data

Using the CES data we imported answer the following questions...

1. Using the `class()` function in R, identify which types of Objects are the following variables:

1. `born`
2. `state`
3. `democrat`
4. `vote_share`

   For each variable, identify whether the variable is categorical, ordinal, continuous, or binary (remember, R's class objects are Character, Numeric, Integer, Logic, which are not necessarily the same as categorical, ordinal, continuous, or binary.)

2. Some variables may need to be transformed to simplify future calculations. Complete the following transformations.

   - Create a new variable called `age` which is the difference between `born` and `year_congress`. Don't worry about whether someone's birthday is before or after the start of the congress.
   - The variable `seniority` is the number of terms a Member of Congress has served. Each term is 2 years. Create a new variable called `years_in_congress` which is the number of years someone has served in Congress.