

Research project proposal

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Homework

Homework Exercises:

- Write roughly one page (single spaced) describing the data set you're planning to use for your research project and what research question you're hoping to answer with it.

Data Set: Describe the data set: What is it, where did it come from (is there a citation?), and whether it's something you have in your possession or can easily download. If you're still looking for a data set, describe what you're looking for, so I can help you find it. Describe the important **variables** in the data set: What do they measure? Are they continuous, discrete, or categorical? You don't need to describe all the variables in the data set if it's a huge set and you're just looking at a few variables. Focus this description on the important variables—the ones you plan to, or think you might, study for your project.

Research Question and Analysis: Next, describe the broad strokes of the analysis you want to do. What is your research question? What do you hope to learn from your data set? *Which variable or variables do you want to predict, and what variables do you want to use as predictors?* Are you working from a scientific hypothesis that's motivated by theory or by empirical observations (e.g., "we think these variables are likely to be correlated, or that this variable is likely to have a causal effect on this other one"), or are you doing a more exploratory project ("I think these variables may be related, but I'm not sure how, and I want to explore whether there's a real relationship")? You do not need to have a definite statistical model at this point, but you should have a clear sense of what variables you will be studying.

Opportunity for Feedback: Finally, if you have ideas about how you want to proceed and want feedback, or if you're confused and you want guidance and suggestions about what to do with your data, this is a great time to ask.

I will try to get comments to you promptly (in the next week or so after you submit the proposal).