Political Science 406: Lab 1

Due on April 12, 2024

Jason Seawright

Problem 1

Analyzing Experimental Data: Difference in Means

In this lab, you will reanalyze the results of the experiment reported in Dunning and Harrison's 2010 APSR article. The article and replication data are available here:

`http://isps.yale.edu/research/data/d015#.VwKCmuIrKUk`

First, use the difference in means to estimate one of the main treatment effects discussed in the paper (disregard compliance, i.e., subjects' perception of the ethnicity of the politician and of whether a joking cousin relationship exists). Use randomization inference to find a P value for that difference. Discuss the results and any causal implications.

Problem 2

Analyzing Experimental Data: Multivariate Regression

Now, fit a multivariate model. Choose the control variables Is your estimate of the main treatment effect consistent with the result from the difference in means? What does the regression teach us about the causal relationships, relative to the difference in means?

Problem 3

Analyzing Experimental Data: Mediation

Estimate a mediation effect that helps clarify a hypothesis in the article, using what seems to you to be a reasonable set of control variables. Are your results consistent with the arguments of the article?

Problem 4

Analyzing Experimental Data: Compliance

A final major issue in experimentation involves compliance — the proportion of people who actually end up in the treatment group they are assigned to. What is the compliance rate in this experiment? Would it be a good idea to estimate the treatment effect using the treatment group that people thought they were in, instead of the treatment group people were assigned to, as the independent variable? Why or why not? Discuss this choice in terms of the potential outcomes framework and/or the analysis of treatment assignment, and explain whether you think the experiment is a direct experiment or an encouragement design.