

POLI706: Advanced Methods of Political Analysis

Problem set 11

For obvious reasons, as well as for non-obvious but actually more important reasons, you need to program all the steps yourself. You cannot use `{zelig}`, `{ggeffects}`, and `{marginaleffects}`.

Exercise 1

Read King, Tomz, and Wittenberg (2000) . Summarize what they are arguing, saying, and proposing.

- Explain their title.
- What is the difference between “predicted values” and “expected values”?
- What’s a “first difference”?
- What are they saying about Bayesian approaches?
- Check the Google Scholar citation count for the article.

The whole text should be written in pleasantly written prose without equations, etc. One page is the minimum.

Exercise 2

“Make most of you statistical analysis” according to King, Tomz, and Wittenberg (2000) ! For a dataset and model of great interest to you, produce two substantively different graph that mimics in style their Figure 1. That is, develop a single model of the form,

$$y = \beta_0 + \beta_1 x + \beta_2 z + \beta_3 xz + \beta_4 w + \beta_5 m + \beta_6 mw,$$

which you then estimate. One graph should focus on what x and z do, the other on m and w . Write up what the graph is telling you as if it were part of a paper. (**Hint!** Use parametric bootstrapping to make graphs.)

References

King, Gary, Michael Tomz, and Jason Wittenberg. 2000. “Making the Most of Statistical Analyses: Improving Interpretation and Presentation.” *American Journal of Political Science* 44: 341–55.