PLSC 502: "Statistical Methods for Political Research"

Fall 2024

Course Project Guidelines

A requirement of this course is the completion of a course project (poster, paper, or other product). The project is worth 50 percent of your grade in the course (500 points). The purposes of the project, in rough rank order of their importance, are:

- To illustrate your understanding of the statistical techniques covered in the class, including such things as data description, graphics, univariate and bivariate statistics, and statistical inference;
- To demonstrate the application of those techniques to a problem of substantive interest in the social sciences; and
- To address a political phenomenon in a quantitative fashion.

Several approaches to the project are possible. It may be a replication and extension of previously published work, a retesting of previously examined hypotheses on new or different data, or a piece of completely original research. In any event, the primary goal of the project is methodological, not substantive. This means that emphasis should be placed on the technical aspects of the analysis. Traditional components of a research paper/project, including a literature review, theoretical context, and derivation of expectations and hypotheses should be included only to the extent that they are necessary to understand and evaluate the analysis' empirical/statistical merits. Conversely, technical details, including detailed descriptives, diagnostics, and so forth, which would normally be omitted from a final paper, should be included here. In all cases, the emphasis should be on demonstrating technical mastery of the practical aspects of the technique you use, by describing the details of the process by which the analysis was conducted.

In terms of format, one option is to write a *paper* akin to a "research note" or short article, as are commonly published in some social science journals (e.g., the *Journal of Politics, Political Behavior, Social Psychology Quarterly*, etc.). Total length should not exceed 5000 words of text (that's about 15 pages), but feel free to include as many references, tables and figures as you deem necessary. Alternatively, you may present your project as a research *poster*; see the github repository for an example of how to create a poster using LaTeX. Finally, you may consider creating a (web- or computer-based) *application* for your final project; one place to start with this is to begin learning about Shiny. Additionally: while you are welcome to collect your own data for the project, time and effort constraints will very likely make doing so infeasible, and you are encouraged to coopt others' data to your own ends; on that point, be aware that many researchers make their data available on their personal homepages.

The paper or poster is due in PDF format at 11:59 p.m. EST on Thursday, December 19, 2024; please plan accordingly. If you have questions about the project, feel free to talk to the instructor, either in person or via Zoom, phone, e-mail, etc.