The Statistical Analysis Project

Overview

Having familiarized themselves with data sources, data ranges, and the structure of the cross-sectional and TSCS common datasets in the Electoral Datasets Project, the students in this course will spend three weeks analyzing the data using statistical analysis. This analysis will progress in several steps and accord with the selection of testable hypotheses taken from the comparative institutions literature in the preceding seven weeks of the trimester. The final step will involve the students working in teams to develop their own testable hypotheses and presenting their findings in class in a group presentation and a research report.

Schedule

Week 1: Non-parametric Analysis

Using a variety of non-parametric tests of hypotheses (e.g., one- and two-sample mean comparison tests), students will assess some of the key differences among groups of countries. This exercise will involve a preliminary confirmation/disconfirmation of some of the major hypotheses concerning the functioning of democratic institutions. The cross-sectional dataset will be used for this exercise.

Week 2: Regression Analysis

Students will use bivariate and multivariate models to test hypotheses using the cross-sectional dataset.

Week 3: Time-Series Cross-Sectional Analysis

Students will use TSCS with panel-corrected standard errors to generate a cross-time and cross-space test of the same hypotheses used during the second week of the analysis project. Additionally, they will develop their own hypotheses (2-3 in number) based on their earlier non-parametric and parametric analysis and either confirm or disconfirm their expectations. These findings will be presented in a series of group research presentations in class.

Research Report

During the final week of class and during the exam period, the research teams will write up their reports, explaining the process through which they tested their data, a presentation of findings, and finally, a discussion of how the findings shed light on those presented in the scholarly writings that form the basis for class discussion and hypothesis-generation in the course. Each report will be 10-15 pages (double-spaced, 12 cpi font, Times New Roman) length and will be due on the final day of the exam period.