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Reproduction archive for:

Bartels, Brandon L., and Christopher D. Johnston. 2020. *Curbing the Court: Why the Public Constrains Judicial Independence*. New York, NY: Cambridge University Press.

This folder ("Reproduction Materials/") contains all materials necessary for reproducing the tables and figures of *Curbing the Court: Why the Public Constrains Judicial Independence*. All R scripts and Stata .do files assume that the working directory is the location of that respective file.

The original datasets are stored in "Reproduction Materials/Data/Original data files with Stata coding files/". The .do files in each subfolder will reproduce the .csv files in "Reproduction Materials/Data/", which contain the coded data files used for all analyses in Chapters 4-7. Chapter 3 has its own separate data folder ("Reproduction Materials/Data/Chapter 3 files/").

To reproduce tables and figures, open an individual chapter file (e.g., "Reproduction Materials/Chapter 4.R"), make sure the working directory is set to "Reproduction Materials/", and run the code. The figures will save in "Reproduction Materials/Figures/" and the tables in "Reproduction Materials/Tables/".

Before running the R code, make sure you have installed the following R packages:

1. "MASS"
2. "arm"
3. "pBrackets"
4. "survey"
5. "texreg"

There are three functions, written by us, that are used throughout the R scripts. These are contained in "Reproduction Materials/Functions/". The next page of this document is a guide to using "post.R".

1. "post.R" is a function for generating post-estimation quantities of interest and confidence bounds on those quantities from "lm", "glm", "svyglm", and "polr" model objects. Confidence bounds are generated using simulation from the sampling distribution.
2. "postSim.R" is a function for simulating from the sampling distribution for "lm", "glm", "svyglm", and "polr" model objects.
3. "svyfit.R" is a function for calculating indicators of model fit for "svyglm" model objects.

Description of 'post' functions

The functions 'post' and 'postSim' are used to generate post-estimation quantities of interest from regression models using base R functions 'lm' and 'glm', as well as 'svyglm' from the 'survey' package and 'polr' from the 'arm' package. 'postSim' takes draws from the sampling distribution of the estimated parameters. 'post' generates quantities of interest (e.g., first differences) and uses the simulated values from 'postSim' to calculate confidence bounds for these quantities. 'post' uses the so-called "observed value approach" in which the quantity is calculated for each observation and then averaged over the observations (as opposed to fixing independent variables at central tendencies or other researcher-chosen values). The user can fix values of subsets of model variables using the 'holds' option (see below).

post(model,x1name=NULL,x1vals=NULL,x2name=NULL,x2vals=NULL,holds=NULL, n.sims=1000,cut=NULL,quantiles=c(.025,.975),did=NULL,weights=NULL, digits=2)

model: an object of class 'lm', 'glm', 'polr', or 'svyglm'.

x1name: name of first variable, in quotes, that one wishes to vary for purposes of calculating predicted values or first differences.

x1vals: a numeric vector containing a set of values of x1name at which to calculate predicted values of the dependent variable. A first difference is also calculated automatically using the first and last value in the vector.

x2name: name of second variable, in quotes, that one wishes to vary for purposes of calculating predicted values or first differences.

x2vals: a numeric vector containing a set of values of x2name at which to calculate predicted values of the dependent variable. One predicted value will be calculated for each combination of values in x1vals and x2vals. One conditional first difference for x1name will be calculated at each value in x2vals.

holds: a list of variables to hold constant at specified values. (e.g., holds = list(age = 35)).

n.sims: the number of draws to take from the sampling distribution.

cut: an integer *k*. Used only for 'polr' models. When specified, 'post' returns the probability that Y exceeds its *k*th value at the specified values of x1name and x2name, as well as the associated first differences in this probability.

quantiles: a numeric vector containing decimal values at which to calculate percentiles of the distribution of predicted values and first differences (confidence bounds).

did: a numeric vector containing two values from x2vals ordered from low to high. 'post' will calculate the difference in the first differences of x1name at these values of x2name with confidence bounds. When left unspecified, 'post' will use the minimum and maximum values of x2vals.

weights: a numeric vector of weights to use in calculating the average over observations.

digits: an integer specifying the number of decimal places to include in the output.