6-7 January - Workshop Series on Advanced Regression

Despite the emergence of diverse, fancy, and computationally complex quantitative methods appearing daily and the prevalence of causally identified research designs often calling for analytically simple tools, regression analysis is still foundational to quantitative political science research. This could not be more true in the sub-field of public opinion survey based voting behavior research. At the same time, such studies deal with their own set of challenges and complexities. To tackle these we will start by reviewing the assumptions of regression modeling with an eye on what could go wrong with the kind of data used in national and comparative voting behavior research. We will explore the estimators and link functions necessary to deal with binary, ordered and unordered (multinomial) outcomes with a specific emphasis on correct interpretation of such regression results. On the second day, we start to explore the complexities of various data structures that emerge in comparativepublic opinion research, such as cross-country surveys, repeated cross-sectional surveys, panel data or other within-person analysis such as multiple person-party specific item responses. We will approach this complexity through three approaches: clustered standard errors, fixed and random effects corrections, slowly venturing into the world of multilevel modeling. At some point, we will also consider the (admittedly frustrating) world of survey weights and discuss considerations and limitations in their applications. Do not expect an in-depth workshop on all these topics (glm, panel data analysis, multilevel modeling, sampling weights) that need their own week or more each, but we can highlight the foundations important to start down any of these paths and glance at (and take home some R code for) examples of such analyses in the two days allotted.

Prerequisites for the workshop: The workshop aims at the level of researchers with prior statistical training. Anyone registering should be an experienced user of regression, know the basics of inferential statistics. It would be extremely helpful to have basic functional knowledge of R to get the most out of the session. At minimum you should know how to manage files in R, install and load packages, load data and run basic analytical commands. If you can install R and RStudio, know how to load data and run basic things like the lm command for linear regression, even if you do a google search before every line of code, you are ready for this workshop. If not, please get there before we begin. I have put together a little online workshop to help you. It is not much. You can do it.

https://levente.littvay.hu/Introduction_to_R.pdf

(In the session, no laptops are needed. You can bring them, but we will not necessarily need them. We will go through models together but we will not run them together. You can run them after hours based on the materials I will provide.)