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Übung Methoden der Vergleichenden Regierungslehre: Beyond linearity

Fall Term 2023

Time and place: Wednesdays, 1.45pm-3.15pm, Room: B 318 in A5
First session: 6th September 2023
Office hours: By appointment

This seminar's central focus is to prepare you for writing the empirical part of a Bachelor dissertation using non-linear Political Science data. We will learn what the assumption of linearity in econometric models implies, and how it can be relaxed. We will cover interaction models, log-linear regression, binary choice models, ordered and multinomial choice models, and maximum likelihood estimation.

The seminar will combine econometric theory, data visualization, Stata assignments, research examples that use the methods discussed in classes, and assignments to practice the development of an empirical part of a research paper.

Prior to the seminars, participants need to be familiar with the basics of OLS regressions.

You need to register for this class in advance via the Studierendenportal at https://portal2.uni-mannheim.de.

ECTS points: 6

All **course materials** can be accessed at https://portal2.uni-mannheim.de.

I will send out emails to your university e-mail accounts, so please check them regularly.

Requirements to pass:

1. Constant and active participation in class:
    - It is mandatory to attend classes and to participate in them actively.
    - You have to read the assigned literature before coming to class.
    - You have to submit a research design proposal for your final paper until 3rd December 2023 and upload it to the course folder on Portal2. It needs to contain:
        - The hypothesis or hypotheses you seek to test
        - The data you will use
        - The methods and model specifications you intend to use to test the hypotheses
        - Please do not write more than a single page
    - You have to comment one other student's research design proposal (to be assigned to you) in our final session on 6th December 2023.
2. Stata Assignments:
    - You will do regular Stata assignments to help you learn the skills you will need to write a final paper.
    - We will also work with Stata in class. Please make sure to bring a Laptop with Stata installed.
3. Final paper: *(determines your final grade)*
    - Maximally 2000 words main text (i.e., excluding cover page, graphs, tables and references but including footnotes and endnotes).
    - Very brief summarize the theoretical argument that gives rise to your hypothesis (in one or two paragraphs).
    - Bring forward arguments why you test your hypothesis using certain data, methods, and model specifications.
    - Present and interpret your empirical results in light of your theory.
    - Submit by email including cover sheet, references, and Erklärung für Hausarbeiten.
    - Due: 14th January 2024 at midnight.

Course Content and Reading List

* denotes mandatory readings for class

Session 1 — 6th September — Administrative issues, What is Linearity

Wooldridge, J. M. (2016). Introductory econometrics: A modern approach. Nelson Education. Chapter 5 (or the entire part on OLS regressions).

Session 2 — 13th September — The (non-)linearity of OLS, plotting effect sizes

Wooldridge, J. M. (2016). Introductory econometrics: A modern approach. Nelson Education. Chapter 7.1-7.4.

Brambor, Thomas, William Roberts Clark, and Matt Golder. "Understanding interaction models: Improving empirical analyses." *Political analysis* (2006): 63-82.

Berry, William D., Matt Golder, and Daniel Milton. "Improving tests of theories positing interaction." *The Journal of Politics* 74.3 (2012): 653-671.

Session 3 — 20th September — Examples of "Nonlinearity" in OLS models

*Ezrow, Lawrence, et al. "Mean voter representation and partisan constituency representation: Do parties respond to the mean voter position or to their supporters?." *Party Politics* 17.3 (2011): 275-301.

*Indridason, Indridi H., and Shaun Bowler. "Determinants of cabinet size." European Journal of Political Research 53.2 (2014): 381-403.

Session 4 — 27th September — In-class Stata Session: Visualization and Interactions

Session 5 — 4th October — Maximum Likelihood Estimation

Wooldridge, J. M. (2016). Introductory econometrics: A modern approach. Nelson Education. Appendix 17A.

Session 6 — 11th October — Binary Choice with Logistic Regression

Wooldridge, J. M. (2016). Introductory econometrics: A modern approach. Nelson Education. Appendix 17.1.

Session 7 — 18th October — In-class Stata Session: Logistic Regression

Berry, W. D., DeMeritt, J. H., & Esarey, J. (2010). Testing for interaction in binary logit and probit models: is a product term essential?. *American Journal of Political Science* 54(1), 248-266.

Session 8 — 25th October — Examples Logistic Regression

Blom et al. (2020). Barriers to the Large Scale Adoption of the COVID-19 Contact Tracing App in Germany. `https://osf.io/bc3fv/`.

NO CLASS 1st November — Public Holiday

Session 9 — 8th November — Multinomial Choice
t.b.a.

Session 10 — 15th November — In-class Stata Session: Multinomial Choice

t.b.a.

Session 11 — 22th November — Examples Multinomial Choice

*Li, Zhao, and Richard W. Disalvo. "Can stakeholders mobilize businesses for the protection of democracy? Evidence from the US Capitol insurrection." *American Political Science Review* 117.3 (2023): 1130-1136.

Session 12 — 29th November — Review and Final Paper

This session will take place online via Zoom:
https://uni-mannheim.zoom.us/j/67603375158?pwd=WGVlSHhZRENkS1dqVDRyUUdsSUlSQT09

Session 13 — 6th December — In-class conference