

Applied Panel Data Analysis

Master lecture and exercise session

Module M.WIWI-VWL.0041

Georg-August-Universität Göttingen

Winter semester 2023/24

Instructor

Dr. Anna Reuter, anna.reuter@uni-heidelberg.de, office hours by appointment

Short description

This course will cover econometric methods for panel data, with a focus on the intuition of the different approaches. The course will discuss examples from the empirical literature and teach applications in Stata. By the end of the course, students should be able to evaluate and compare the different methods and apply them in Stata.

Prerequisites: Intermediate level of econometrics and basic Stata skills. Please note that Stata skills can be refreshed using the Stata self-learning course on Stud.IP.

Examination

- Stata assignment (1/3)
- Final exam (2/3)

Schedule

Lecture & Tutorial 09.10.23-13.10.23 and 16.10.23-20.10.23, 09:00-15:00 (room tba)

Stata Assignment due 03.11.23

Exam 10.11.23, room and time tba

Content

- Introduction to Panel Data
 - Causal identification
 - Panel data vs. cross-sections

- Linear Panel Data Models: Basics
 - Pooled OLS & first difference
 - Fixed Effects
 - Random Effects
 - Comparison of methods
 - Mundlak & Chamberlain approach
- Linear Panel Data Models: Extensions
 - Endogeneity
 - Heterogeneous Panels
- Non-linear Panel Data Models
 - Binary outcomes
 - Truncation
- Related Approaches
 - Event study
 - DiD

References

Arellano, M., 2003. Panel data econometrics. Oxford University Press, Oxford.

Baltagi, B.H., 2021. Econometric analysis of panel data, Sixth edition. ed, Springer texts in business and economics. Springer International Publishing, Cham, Switzerland ; Springer.

Cameron, A.C., Trivedi, P.K., 2005. Microeconometrics: methods and applications. Cambridge University Press, New York, NY.

Greene, W.H., 2020. Econometric analysis, Eighth edition, global edition. ed. Pearson, Harlow ; London ; New York ; Boston ; San Francisco ; Toronto ; Sydney ; Dubai ; Singapore ; Hong Kong ; Tokyo ; Seoul ; Taipei ; New Delhi ; Cape Town ; São Paulo ; Mexico City ; Madrid ; Amsterdam ; Munich ; Paris ; Milan.

Hsiao, C., 2006. Analysis of panel data, 2. ed., 7. print. ed, Econometric Society monographs. Cambridge University Press, Cambridge [u.a.].

Huntington-Klein, N., 2022. The effect: an introduction to research design and causality. CRC Press, Taylor & Francis Group, Boca Raton.

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