

Applications of Econometrics

Master 2 Economic Analysis

Syllabus

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Overview

Discussion of the following econometric methods and of their applications, notably through the replication of published results :

- Diff-in-diff and Natural experiment
- Regression Discontinuity Design
- Propensity Score Matching
- IV and Control Function
- Heckman Correction
- Survival Analysis

Structure

Five classes of two hours. Each class will start with short presentations of papers relying on a given method. Related exercises (using Stata) and issues raised by the practical implementation of the method will follow.

Grading

The grade will be based on a final exam (100%).

References

Class 1 : Introduction, Diff-in-diff and Natural Experiment

Stefano DellaVigna, Ruben Enikolopov, Vera Mironova, Maria Petrova and Ekaterina Zhuravskaya, 2014. Cross-Border Media and Nationalism: Evidence from Serbian Radio in Croatia, *American Economic Journal: Applied Economics*, vol. 6(3):103-32.

Class 2 : Regression Discontinuity Design

Per Pettersson-Lidbom, 2008. Do Parties Matter for Economic Outcomes? A Regression Discontinuity Approach. *Journal of the European Economic Association* vol. 6(5):1037-1056

Andrew C. Eggers, Anthony Fowler, Jens Hainmueller, Andrew B. Hall and James M. Snyder, 2015. On the Validity of the Regression Discontinuity Design for Estimating Electoral Effects: New Evidence from Over 40,000 Close Races, *American Journal of Political Science*, vol. 59 (1): 259-274

additional reference

David S. Lee and Thomas Lemieux, 2010. Regression Discontinuity Designs in Economics, *Journal of Economic Literature*, vol. 48(2) : 281-355

Class 3 : Propensity Score Matching

Rajeev H. Dehejia and Sadek Wahba, 1999, Causal Effects in Nonexperimental Studies: Reevaluating the Evaluation of Training Programs. *Journal of the American Statistical Association*, vol. 94(448): 1053-1062.

Toke Aidt and Raphaël Franck, 2015, Democratization Under the Threat of Revolution: Evidence From the Great Reform Act of 1832. *Econometrica*, vol. 83 (2): 505-547

additional reference

Marco Caliendo and Sabine Kopeinig, 2008. Some Practical Guidance for the Implementation of Propensity Score Matching. *Journal of Economic Surveys*, vol. 22 (1): 31-72.

Class 4 : IV, Control Functions

Jennifer Alix-Garcia and Emily Sellars, Labor Scarcity, Land Tenure, and Historical Legacy: Evidence from Mexico, 2018. *Journal of Development Economics*, vol. 135 (C): 504-506

David McKenzie, John Gibson and Steve Stillman, 2010. How Important Is Selection? Experimental vs. Non-experimental Measures of the Income Gains from Migration, *Journal of the European Economic Association*, vol. 8 (4): 1542-4766

Liu Xuepeng, Mary Lovely and Jan Ondrich, 2010. The Location Decisions of Foreign Investors in China: Untangling the Effect of Wages Using a Control Function Approach. *Review of Economics and Statistics*, vol. 92(1): 160-166

Class 5 : Heckman Correction, Truncated Dependent Variable, Survival Analysis

Shawn Bushway, Brian D. Johnson, Lee Ann Slocum, 2007. Is the Magic Still There? The Use of the Heckman two-step Correction for Selection Bias in Criminology. *Journal of Quantitative Criminology*, vol. 23(2): 151–178.

Jørgen Juel Andersen and Silje Aslaksen, 2013. Oil and Political Survival, *Journal of Development Economics*, vol. 100(1) : 89-106.