

ECON5100 — Lecture Plan

Edwin Leuven

August 17, 2016

Literature

- Angrist, Joshua D., and Jörn-Steffen Pischke. *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton University Press, 2008.
- Symposia: Con out of Economics, *Journal of Economic Perspectives*: Vol. 24 No. 2 (Spring 2010)

Background reading is indicated by (B) such as this textbook:

- Bruce Hansen. *Econometrics*. 2016.

Stata reading (Study this before Seminar 1):

- E. Leuven. *Getting Started in Stata Without Losing Time*

Prerequisites

Econ 4150 or equivalent. Statistics 2 or equivalent strongly recommended.

Topics

1 Causality

- MHE, Ch.1
- Holland, P. (1986). Statistics and Causal Inference. *Journal of the American Statistical Association* 81. pp. 945-960
- Leamer, E.E. (1983). Let's take the con out of econometrics. *The American Economic Review* 73(1). pp 31-43.

2 Ordinary Least Squares and weighting

- Solon, G., S.J. Haider, and J.M. Wooldridge. (2015). What Are We Weighting For? *Journal of Human Resources* 50. pp. 301-316.

3 Basic Panel Data

- Chamberlain, G. (1984). Panel Data. *Handbook of Econometrics*, Volume II, edited by Griliches, Z. and M.D. Intrilligator. Sections 1 & 2.

4 Bootstrap, Clustering, Robust SEs

- MHE, Ch. 8
- Cameron, A.C. and D.L. Miller. (2015). A Practitioner's Guide to Cluster-Robust Inference. *Journal of Human Resources* 50. pp. 317-372, Sections I, II, IV, III, V.A, VI, VIII.
- (B) Stock, J.H. (2010). The Other Transformation in Econometric Practice: Robust Tools for Inference. *Journal of Economic Perspectives* 24(2). pp. 83-94.
- (B) Hansen, Ch.10

5 Non-parametric density estimation and regression

- DiNardo, J. and J.L. Tobias. (2001). Nonparametric Density and Regression Estimation. *Journal of Economic Perspectives* 15(4). pp. 11-28.
- (B) Hansen, Ch. 20, 11.1–11.4

6 Binary & Ordered Response Models

- Horowitz, J.L., and N.E. Savin. (2001). Binary response models: logits, probits and semiparametrics. *The Journal of Economic Perspectives* 15(4). pp. 43-56.
- **Ch 2 and 3 of Discrete Choice Methods with Simulation by Kenneth Train:**

7 Matching Methods

- Imbens, G.W. (2015). Matching Methods in Practice: Three Examples. *Journal of Human Resources* 31(5). pp. 373–419.
- (B) Morgan, S.L. and D.J. Harding. (2006). Matching Estimators of Causal Effects: Prospects and Pitfalls in Theory and Practice. *Sociological Methods & Research* 35. pp. 3–60
- (B) Smith, J.A. and P.E. Todd. (2005). Does Matching Overcome LaLonde’s Critique of Nonexperimental Estimators. *Journal of Econometrics* 125. pp. 305-353

8 Instrumental Variables

- MHE, Ch.3, 4
- (B) Hansen, Ch.15
- (B) Angrist, J.D. and A.B. Krueger (2001) Instrumental Variables and the Search for Identification: From Supply and Demand to Natural Experiments. *Journal of Economic Perspectives* 15(4). pp. 69–85.
- (B) Angrist, J.D. (1990). Lifetime earnings and the Vietnam era draft lottery: evidence from social security administrative records. *The American Economic Review*. pp. 313-336.
- (B) Murray, M.P. (2006). Avoiding invalid instruments and coping with weak instruments. *The Journal of Economic Perspectives* 20(4). pp. 111-132.
- (B) Sovey, A.J. and D.P. Green (2011). Instrumental Variables Estimation in Political Science: A Readers’ Guide. *American Journal of Political Science* 55(1). pp. 188–200

9 Instrumental Variables – Heterogeneity

- MHE, Ch.3, 4
- (B) Imbens, G.W. (2014). Instrumental Variables: An Econometrician’s Perspective. NBER Working Paper No. 19983
- (B) Angrist, J.D., G.W. Imbens, and D.B. Rubin. (1996). Identification of causal effects using instrumental variables. *Journal of the American statistical Association* 91(434). pp. 444-455.
- (B) J.D. Angrist and G.W. Imbens. (1995). Two-Stage Least Squares Estimation of Average Causal Effects in Models with Variable Treatment Intensity. *Journal of the American statistical Association*.
- (B) Imbens, G.W. and Rubin, D.B. (1997). Estimating Outcome Distributions for Compliers in Instrumental Variables Models *The Review of Economic Studies* 64(4). pp. 555-574

10 Selection models

- Hansen 18.3, 18.4
- (B) Heckman, J.J. (1979). Sample selection bias as a specification error. *Econometrica*. pp. 153-161.
- (B) Rosen, S., & Willis, R.J. (1979). Education and Self-Selection. *Journal of Political Economy* 87(5). pp. 7-36.

11 Difference-in-Differences

- MHE, Ch. 5
- Bertrand, M., E. Duflo, and S. Mullainathan, (2004). How Much Should We Trust Difference in Differences Estimates? *Quarterly Journal of Economics* 119. pp. 249-275

12 Regression Discontinuity Design

- MHE, Ch. 6
- Imbens, G.W. and T. Lemieux. (2008). Regression Discontinuity Designs: A Guide to Practice. *Journal of Econometrics* 142. pp. 615-635
- (B) Lee, D.S. and T. Lemieux. (2010). Regression Discontinuity Designs in Economics. *Journal of Economic Literature* 48. pp. 28-355

Lecture & Seminar Dates

	Topic	Date		Time	Location
Lecture 1	Causality	Tue 23	Aug	12:15–14:00	ES Undervisningsrom 1220
Seminar	Introduction to Stata	Wed 24	Aug	14:15–16:00	HH PC-rom 035
Lecture 2	OLS & Weighting	Tue 30	Aug	12:15–14:00	ES Undervisningsrom 1220
Seminar	Introduction to Stata	Wed 31	Aug	14:15–16:00	HH PC-rom 035
Lecture 3	Basic panel data	Tue 6	Sep	12:15–14:00	ES Undervisningsrom 1220
Seminar	Causality & Weighting	Wed 7	Sep	14:15–16:00	HH PC-rom 035
Lecture 4	Clustering & Bootstrap	Tue 13	Sep	12:15–14:00	ES Undervisningsrom 1220
Seminar	Implementing an estimation command in Stata/Mata	Wed 14	Sep	14:15–16:00	HH PC-rom 035 (David Drukker, StataCorp)
Lecture 5	Non-parametric methods	Tue 20	Sep	12:15–14:00	ES Undervisningsrom 1220
Seminar	Panel Data	Wed 21	Sep	14:15–16:00	HH PC-rom 035
Lecture 6	Discrete choice	Tue 27	Sep	12:15–14:00	ES Undervisningsrom 1220
Seminar	Non-parametric methods	Wed 28	Sep	14:15–16:00	HH PC-rom 035
Lecture 7	Matching	Tue 11	Oct	12:15–14:00	ES Undervisningsrom 1220
Seminar	Discrete choice	Wed 12	Oct	14:15–16:00	HH PC-rom 035
Lecture 8	Instrumental Variables	Tue 18	Oct	12:15–14:00	ES Undervisningsrom 1220
Seminar	Matching	Wed 19	Oct	14:15–16:00	HH PC-rom 035
Lecture 9	Instrumental Variables	Tue 25	Oct	12:15–14:00	ES Undervisningsrom 1220
Seminar	IV	Wed 26	Oct	14:15–16:00	HH PC-rom 035
Lecture 10	Selection models	Tue 1	Nov	12:15–14:00	ES Undervisningsrom 1220
Seminar	IV	Wed 2	Nov	14:15–16:00	HH PC-rom 035
Lecture 11	Difference-in-differences	Tue 8	Nov	12:15–14:00	ES Undervisningsrom 1220
Seminar	Selection models	Wed 9	Nov	14:15–16:00	HH PC-rom 035
Lecture 12	Regression Discontinuity	Tue 15	Nov	12:15–14:00	ES Undervisningsrom 1220
Seminar	Difference-in-differences	Wed 16	Nov	14:15–16:00	HH PC-rom 035
Lecture 13	Q&A	Tue 22	Nov	12:15–14:00	ES Undervisningsrom 1220
Seminar	Regression Discontinuity	Wed 23	Nov	14:15–16:00	HH PC-rom 035