

Applied Econometrics JEM007, IES
Lecture 1

INTRODUCTION

Eva Hromádková, 30.9.2010

General information

- Lecturer: Eva Hromádková
 - Email: Eva.Hromadkova@gmail.com
 - Office hours: Monday 13:30-14:30, CERGE (#331)
- Grading:
 - Midterm: 20 points
 - Final: 40 points
 - Short empirical paper: 40 points
- All materials & submissions on Moodle:
<http://dl1.cuni.cz/course/view.php?id=1081>
 - Sign up for course (enrolment key = “selection”)

Course outline

- Causal inference and treatment effects
- Identification strategies
 - Controlled experiments
 - Natural experiments
 - DD and DDD in practice
 - Matching (one-to-one, propensity)
 - Instrumental variables & LATE
 - Regression discontinuity
- Special topics:
 - Panel data analysis
 - Structural models

Course outline II

- Focus on “hands-on” application of theoretical concepts
- Presentation of selected papers that utilize the methods
 - ▣ Posted before lecture / session – strongly recommended to have a look on it!

Key references

- Blundell, R. and Dias, M. C. (2008). *Alternative Approaches to Evaluation in Empirical Microeconomics*, IZA, Dp. 3800
 - Cameron, C.A. and Trivedi, P.K. (2005). *Microeconometrics: Methods and Application*, Cambridge University Press
- + additional papers posted within the year

Typical questions of empirical research

- Does an additional year of schooling increase life time earnings?
- Do active labor market policies improve individual employment prospective?
- Does better neighborhood improve individual wages?
- Does classroom attendance improve score from final exam?

Yet, the answer is not straightforward (why?)

+ some atypical

- Are bettors on sports risk loving or risk averse?
- Do men have more sex if women drink more?
- What is the relationship between skills and self-assessment? (surprising ...)
- Race discrimination in the rulings within US basketball matches
- Is there relationship between autism and TV watching (use of precipitation as IV)

Stages of empirical research

1. Formulation of a model or intuition
2. Formulation of an econometric specification
3. Data collection

In lot of cases, existence of good data triggers interesting questions 😊
4. Estimation
5. Interpretation of results

Short empirical paper

- Find interesting idea + data = write paper 😊
- What about sth. related to your planned thesis?

Content:

- Clear description of the idea of the paper
 - ▣ Short review of related literature
 - ▣ Hypothesis
 - ▣ Theoretical model (if applicable)
- Identification and estimation strategy
- Data description
- Results, interpretations and conclusions
- Max 15 pages! Max 2 people in team!

Short empirical paper II.

- Examples from the last year:
 - ▣ Determinants of borrowing behavior of Czech households (panel data methods)
 - ▣ Model of cigarette demand in CR
 - ▣ City specific discrimination in the Czech rental housing market (evaluation of field experiment)
 - ▣ Determinants of retirement decisions
 - ▣ Effect of flat income tax introduction (2008) on the tax evasion (natural experiment)
 - ▣ Existence of home-field advantage in ice-hockey leagues
 - ▣ Effect of drug consumption on criminal behavior of offending adults (causality issues)

Short empirical paper III.

4 phases:

- Phase 1 – October 17, 2010
 - ▣ Email with **names of team members** and **choice of topic**
- Phase 2 – November 7, 2010
 - ▣ State research question – hypothesis; draft expected estimation strategy; provide critical literature review
- Phase 3 – December 5, 2010
 - ▣ First draft (min 50% completed)
 - ▣ Agree on meeting – discussion of feedback
- Phase 4 – January 23, 2010
 - ▣ Completed paper