Goverment policy evaluation

Academic Year: (2019 / 2020)   **Review date: 04-05-2020**

Department assigned to the subject: Economics Department

Coordinating teacher: STUHLER , JAN LEONARD

Type: Electives ECTS Credits : 6.0

Year :   Semester :

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Requirements:
-         Core courses in Microeconomics, Macroeconomics and Econometrics, as part of a standard Economics degree, at an intermediate level.
-         Since the course places much emphasis on the motivation for and applicability of quantitative methods it is required that students successfully completed courses in Econometrics and Applied Economics (or equivalent courses), which are compulsory in the second and third year of the Grado del Economía at the Universidad Carlos III de Madrid.

OBJECTIVES

Objective: To study methods used for the evaluation of economic policies in theory and practice.

DESCRIPTION OF CONTENTS: PROGRAMME

1.- Introduction

Introduction and Motivation
Definitions: Economic policies and treatment; treatment effects and causality (causal parameters of interest); control and treatment groups; observed and potential or counterfactual outcomes. Notation. Problems in the identification and estimation of treatment effects, and their relationship to traditional econometric techniques.

2.- Randomized Experiments in the Social Sciences

Definitions and conditions of a randomized experiment. The advantages of randomization and how it enables the estimation of treatment effects.
Information from other variables: the possibility to verify successful randomization and to study the existence of heterogeneous treatment effects.
Problems and limitations of randomized experiments.

Examples and Applications:
-         The effect of class size on educational outcomes (Project STAR).
-         The NSW training and subsidy program for unemployed workers (Ham y LaLonde, 1996). Effect on the probability of finding work? Effect on wages?

3.- Natural or Quasi-natural Experiments

Exploit natural events or policy changes to identify the effect of treatment on the treated. Differences over time. The Difference-in-Differences Estimator: a basic estimator for repeated cross-sections and panel data; common or varying trends; additional regressors.

Examples and Applications:
-         The effect of immigration on labor markets: the Mariel Boatlift (Card, 1990).
-         The effect of minimum wages on employment (Card and Krueger, 1994).

4.- Observational Studies and Matching Estimators

Exogeneity, matching and multiple regression. Extrapolation. Matching based on the probability to be treated (Propensity Score Matching). Assumptions; estimation of the propensity score; estimator and algorithms; testing for common support.

Examples and Applications:
- Job Training Partnership Act: A program that provides job training and assistance in finding jobs for people in poverty.
- The NSW training and subsidy program for unemployed workers (Dehejia and Wahba, 1999)

5.- Using Instrumental Variables to Estimate Treatment Effects

The instrumental variable (IV) estimator using data from experiments and quasi-experiments. Wald estimator. Two-stage least square estimator. Interpretation of the IV estimator with homogeneous or heterogeneous treatment effects; eligibility rule; the local average treatment effect (LATE); the monotonicity condition.
Limitations. Marginal Treatment Effects (if time allows).

Examples and Applications:
- The Vietnam Draft Lottery: The effect of military service during the Vietnam War on civilian wages (Angrist, 1990).
- The impact of a Child care program Hogares Comunitarios on nutrition and health (Attanasio, Di Maro, y Vera-Hernandez, 2010 and 2013).

6.- Regression Discontinuity Designs

Sharp and fuzzy regression discontinuity (RD) designs. Continuity in potential outcomes and testable implications. The interpretation and estimation of fuzzy regression discontinuity designs by IV estimator. Parametric and non-parametric implementation. Local linear regression.

Examples and Applications:
- The effect of class size on test scores in reading and maths (Angrist and Lavy, 1999).

7.- The Estimation of Structural Models

Advantages and Disadvantages of atheoretical vs. structural approaches.
The estimation of structural models.
The importance and justification for dynamic models.
General equilibrium effects and models.

Example: The impact of a school subsidy program: the use of experimental data to validate a model of dynamic behavior of education and fertility decisions.
(Todd and Wolpin, American Economics Review, 2006)

LEARNING ACTIVITIES AND METHODOLOGY
Practical Classes and Problem Sets:
The first practical classes will give an introduction to the software STATA.
In the rest of the course we work on problem sets that contain both theoretical problems and applications. We use STATA to study actual data.

ASSESSMENT SYSTEM
Evaluation Criteria:
- Continuous assessment will constitute 40% of the final grade. It will be based on two tests (using STATA) taken in the practical classes throughout the term and, if time allows, a short group project. Special emphasis will be on the ability to apply course material and concepts on real data. The test dates will be announced in advance.
- The final exam counts for the remaining 60% of the grade.

% end-of-term-examination:	60
% of continuous assessment (assigments, laboratory, practicals…):	40

BASIC BIBLIOGRAPHY

- A. Cameron and P. Trivedi. Chapter 25 de Microeconometrics: Methods and Practice, Cambridge University Press.

- J. Angrist and J. Pischke Mostly Harmless Econometrics, Princeton University Press.

- Raquel Bernal and Ximena Peña Guía Práctica Para La Evaluación De Impacto (in Spanish), Ediciones UC, ISBN: 978-958-695-599-7
- References to specific topics will be given , in class throughout, the course.