

Professor Jenny C. Aker  
Spring 2010

Class hours  
Office hours: Monday 15h30-17h00, Tuesday 15h00-17h00  
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## **Economic Development and Impact Evaluation**

**Objectives:** The course will cover impact evaluation theory (causal inference, experimental design and basic statistics) as well as methods (randomization, difference-in-difference, regression discontinuity, and propensity score matching). The curriculum will be very applied, with weekly case studies of field research drawn from the international development literature. Discussions of methods will include issues related to research ethics and the protection of human subjects.

**Learning Outcomes:** The primary objective of the course is to provide participants with the ability to 1) distinguish research-based “best practices” from those that have not been rigorously evaluated; and 2) understand the value and practice of impact evaluation within the development community. For the research project, references to technical resources (e.g. textbooks on sample design and software for power calculations) and guidelines for developing a rigorous study will be provided.

**Pre-requisites:** Introductory econometrics (at the level of EIB E213, or an upper-level econometrics course at the undergraduate level) is required. All relevant econometric concepts will be reviewed as they arise, but the reviews will be brief.

**Methods of Instruction:** During class, the concepts will be presented via case studies (suggested readings from the literature), which will also serve as the basis for class discussion and small group activities. Lectures will discuss the strongest (most rigorous) evaluation methods and the shortcomings of weak evaluation methods. Case studies will highlight research from Africa, Asia, and South America and will cover programs related to health, governance, education, and agriculture. Group work will provide hands-on experience with research design and data analysis.

**Requirements:** There will be four practical problems sets and one research project. The problem sets will be handed out in class (the day that the topic is due) and handed in one week later. The research project will be due at the end of the semester. Each student will need to present their own impact evaluation research project and get feedback. Class sessions will be a combination of lecture, case study, discussion and practice.

Students are also expected to prepare for class by completing the required readings before each class, attending each class and actively participating in class discussion. Lecture slide handouts will be posted on Blackboard *the day of class*.

Auditors will need to attend each class, complete the readings and hand in all problem sets.

### **Readings:**

There are no required texts for this course. However, required resources are the following:

Guido Imbens and Jeffrey Wooldridge. Lecture Notes NBER Summer 2007

Ravallion, Martin. 2008. "Evaluating Anti-Poverty Programs", Chapter 9, in T. Paul Schultz and John Strauss, ed *Handbook of Development Economics*, vol.4.

### **Course Outline:**

#### **I. Introduction to impact evaluation in international development**

Banerjee, Abhijit et. al.. [\*Making Aid Work\*](#). The MIT Press. 2007.

Duflo, Esther. [\*Scaling Up and Evaluation\*](#). Annual World Bank Conference on Development Economics, 2004.

#### **II. Randomized Evaluations I: Introduction, methodology, and the basic econometrics**

*Case Study: conditional cash transfers in Mexico*

Duflo, Esther, Rachel Glennerster, and Michael Kremer. (2008). "Using Randomization in Development Economics Research: A Toolkit", Chapter 61, *Handbook of Development Economics*.

Schultz, T. Paul. [\*School Subsidies for the Poor: Evaluating the Mexican Progresa Poverty Program\*](#). Journal of Development Economics. June 2004, 199-250.

#### **II. Randomized Evaluations II: Applications**

*Case Studies: housing vouchers in the US, microfinance in South Africa, and agriculture in Kenya*

Kling, Jeffrey, Jeffrey Liebman, and Lawrence Katz. 2007. [Experimental Analysis of Neighborhood Effects](#). *Econometrica*. 83-119.

Banerjee, Abhijit, Esther Duflo, Rachel Glennerster and Cynthia Kinnan. “The miracle of microfinance? Evidence from a randomized evaluation.”

Duflo Esther, Michael Kremer and Robinson J. [How high are rates of return to fertilizer? Evidence from field experiments in Kenya](#). *American Economic Review*, May 2008, 482-488.

## **II. Randomized Evaluations III: Complications, Externalities (Case Study: deworming drugs in Kenya)**

Kremer, Michael and Edward Miguel. [Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities](#). *Econometrica*. January 2004, 159-217.

Kremer, Michael and Edward Miguel. [The Illusion of Sustainability](#). *Quarterly Journal of Economics*. August 2007, 1007-1065.

## **II. Randomized Evaluations IV: Practicalities (Research Ethics, Power Calculations Different Approaches, Data Quality, Logistics)**

(Case Study: HIV prevention educational programs in Kenya)

Dupas, Pascaline. [Relative Risks and the Market for Sex: Teenage Pregnancy, HIV, and Partner Selection in Kenya](#). Working paper.

Baird, Sarah, Joan Hamory, and Edward Miguel. [Tracking, Attrition and Data Quality in the Kenya Life Panel Survey Round 1](#). Working paper.

## **III. Regression Discontinuity**

(Case Studies: scholarship program for girls in Kenya, educational finance in Chile)

Duflo, Esther, Pascaline Dupas, and Michael Kremer. “Peer Effects and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya”. 2008 (Randomized experiment; Sharp regression discontinuity)

Chay, Ken et al. [The Central Role of Noise in Evaluating Interventions that Use Test Scores to Rank Schools](#). *American Economic Review*. September 2005, 1237-1258.

## **IV. Matching, Propensity Score**

(Case studies: water infrastructure and children's health in India & workfare in Argentina)

Jalan, Jyotsna and Martin Ravallion. [Does Piped Water Reduce Diarrhea for Children in Rural India?](#) *Journal of Econometrics*. January 2003, 153-173.

Jalan, Jyotsna and Martin Ravallion. [Estimating the Benefit Incidence of an Antipoverty Program by Propensity Score Matching](#). *Journal of Business and Economic Statistics*. January 2003, 19-30.

## V. Differences in Differences

(Case studies: malaria eradication in the Americas and land reform in India)

Bleakley, Hoyt. [Malaria Eradication in the Americas: A Retrospective Analysis of Childhood Exposure](#). Working paper.

Besley, Timothy and Robin Burgess. [Land Reform, Poverty Reduction, and Growth: Evidence from India](#). *Quarterly Journal of Economics*. May 2000, 389-430.

## VI. Staggered Entry

Aker, Jenny. 2008. Does Digital Divide or Provide? The Impact of Cell Phones on Grain Markets in Niger. Center for Global Development, Working Paper Number 154.

de Janvry, Alain, Craig McIntosh, and Elisabeth Sadoulet, "The Supply and Demand Side Impacts of Credit Market Information", forthcoming in *Journal of Development Economics*

Galiani, Sebastian, Paul Gertler, and Ernesto Schargrodski. 2005. Water for Life: The Impact of the Privatization of Water Services on Child Mortality. *Journal of Political Economy*. 113(1).

## VII. External Validity

(Case Studies: anti-corruption programs in Indonesia and Brazil, & community-based monitoring of health clinics in Uganda)

Olken, Benjamin. [Monitoring Corruption: Evidence from a Field Experiment in Indonesia](#). *Journal of Political Economy*. April 2007, 200-249.

Ferraz, Claudio and Frederico Finan. [Exposing Corrupt Politicians: The Effects of Brazil's Publicly Released Audits on Electoral Outcomes](#). *Quarterly Journal of Economics*, May 2008, 703-745.

Bjorkman, Martina and Jakob Svensson. [Power to the People: Evidence from a Randomized Field Experiment of a Community-Based Monitoring Project in Uganda](#). Community-Based Monitoring of Primary Health Care PCEPR Working Paper # 6344. June 2007.

### **VIII. Summary/Group Presentations**