

## **Syllabus**

### **Seminar: Experimental Program Evaluation in Latin America**

WS 2022/23

[Dr. Daniela Araujo](#), University of Bamberg

Email: [daniela.araujo@uni-bamberg.de](mailto:daniela.araujo@uni-bamberg.de)

Room: Oeconomicum, Room 2.204

Office hours: Tuesdays, 10:00-11:00

#### **1. General information**

##### **1.1 Course description and goals**

Experimental or randomized evaluation has become one of the most relevant techniques used by economists to assess the causal effects or impacts of development programs. These evaluations are conducted in diverse fields such as health, education, labor economics, microfinance, among others.

This seminar has two main goals. On the one hand, it aims to introduce students to the concept of causal inference and literature on impact evaluation using randomization in development economics, particularly Latin American countries. On the other hand, it aims to teach students how to conduct a regression analysis using Stata with real data.

In this context, students are expected to replicate the econometric analysis of the randomized evaluation of a development program in Latin America (listed in the Syllabus). In addition, students are asked to write and present their own seminar paper, using previous literature on the program, its evaluation design, and their own econometric analysis.

Since students are expected to do their own empirical analysis, they should have completed an Econometrics course and should ideally be familiar with regression analysis using Stata or another statistical software (e.g., R). Nonetheless, a “crash-course” for Stata beginners will be offered. In addition, a [Stata Self-Study](#) course is available on Stud.IP.

##### **1.2 Eligible Participants**

The seminar is open to MA students in international economics, development economics, and business studies.

### **1.3 Prerequisites**

Basic understanding of econometrics (Econometrics I)

### **1.4 Credit points**

6 ECTS points

### **1.5 Registration**

Please register via FlexNow until Tuesday, January 17, 2022. The attendance at the kick-off meeting is compulsory for registration. The number of participants is restricted to 15.

## **2. Course overview**

### **2.1 Requirements**

To acquire 6 ECTS points students will have to write a replication paper (70%), prepare a presentation, participate in the discussions, and briefly discuss the paper of another student (which together accounts for the other 30%).

#### **2.1.1 Research papers**

The seminar papers must be written in English, comprising 10-12 pages (12 pt., 1.5 spaced, excluding reference list and appendix). In addition, a short abstract of about 150 words (key question, methodology, and main results) has to be included.

Use a referencing style that is in line with basic conventions in the economics literature. Always quote within a work using the same method. The in-text author-year citation style is recommended.

The specific structure for the seminar paper will be discussed at the kick-off meeting. Please, also take into account the Institute's general guidelines on writing and formatting a thesis on the [webpage](#). (The guide is on BA and MA theses but many aspects apply to term papers as well.)

#### **2.1.2 Presentations**

The presentations should have a maximum length of 15 min. The speaker may use any visual device for his presentation (e.g., power point, pdf) and should be able to answer short questions during and after the presentation.

#### **2.1.3 Discussions**

Each student will be assigned another paper, which he/she should briefly (5 min) discuss after the presentation. The discussion should be a critical reflection of the paper and presentation (content, structure, unclear points) and come up with two or three questions to start a discussion in the plenum.

## 2.2 Preliminary schedule (timeline)

Monday, 09.01.2023 (16:00-20:00) – **Kick-off meeting** (Oec 0.168): aim of seminar, registration procedure, overview of causal inference, and randomization

Tuesday, 10.01.2023 (08:00-10:00) – **Stata “crash-course”** (WiSoRZ MZG.511)

Monday, 16.01.2023 (18:00-20:00) – **Stata “crash-course”** (WiSoRZ MZG.511)

Tuesday, 17.01.2023 (08:00-10:00) – **Stata Regression Analysis** (WiSoRZ MZG.511) / **Deadline to register** and choose a project

Tuesdays, from 24.01 to 21.02.2023 (10:00-12:00) – **Bilateral meetings**: Students make individual appointments to discuss seminar paper questions

Wednesday, 15.03.2023 – **Seminar paper deadline**: Students should hand in an electronic copy of their seminar papers and do-files

Monday, 20.03.2023 – **Presentation deadline**: Students should submit presentations (before block seminar meeting)

Monday, 20.03.2023 and Tuesday 21.03.2023 (12:00-18:00) – **Two-day block seminar in presence** (Oec 0.168)

## 2.3 Basic material and readings:

### **Kick-off meeting**

Duflo, Esther, Rachel Glennerster, and Michael Kremer. 2006. “Using Randomization in Development Economics Research: A Toolkit.” NBER Technical Working Paper, 333. Cambridge, MA. <https://doi.org/10.3386/t0333>.

Khandker, Shahidur, Gayatri B. Koolwal, and Hussain Samad. 2009. *Handbook on Impact Evaluation*. World Bank. The World Bank. <https://doi.org/10.1596/978-0-8213-8028-4>.

### **Stata sessions**

Kohler, U., Kreuter, F. 2016. “Datenanalyse mit Stata: allgemeine Konzepte der Datenanalyse und ihre praktische Anwendung.” Berlin and Boston: Walter de Gruyter GmbH & Co KG.

Kohler, U., Kreuter, F. (2012). “Data Analysis Using Stata.” College Station, TX: Stata Press

### **3. Replication Projects (preliminary list)**

#### **I: Health, Education, Welfare**

- 1. Cristia, By Julian, Pablo Ibarrarán, Santiago Cueto, Ana Santiago, and Eugenio Severín. 2017. "Technology and Child Development: Evidence from the One Laptop per Child Program." *American Economic Journal: Applied Economics*, 9 (3): 295-320. DOI: 10.1257/app.20150385**

#### **Abstract**

This paper presents results from a large-scale randomized evaluation of the One Laptop per Child program, using data collected after 15 months of implementation in 318 primary schools in rural Peru. The program increased the ratio of computers per student from 0.12 to 1.18 in treatment schools. This expansion in access translated into substantial increases in use of computers both at school and at home. No evidence is found of effects on test scores in math and language. There is some evidence, though inconclusive, about positive effects on general cognitive skills.

- 2. Todd, Petra, E., and Kenneth I. Wolpin. 2006. "Assessing the Impact of a School Subsidy Program in Mexico: Using a Social Experiment to Validate a Dynamic Behavioral Model of Child Schooling and Fertility." *American Economic Review*, 96 (5): 1384-1417. DOI: 10.1257/aer.96.5.1384**

#### **Abstract**

This paper uses data from a randomized social experiment in Mexico to estimate and validate a dynamic behavioral model of parental decisions about fertility and child schooling, to evaluate the effects of the PROGRESA school subsidy program, and to perform a variety of counterfactual experiments of policy alternatives. Our method of validation estimates the model without using post-program data and then compares the models predictions about program impacts to the experimental impact estimates. The results show that the models predicted program impacts track the experimental results. Our analysis of counterfactual policies reveals an alternative subsidy schedule that would induce a greater impact on average school attainment at similar cost to the existing program.

- 3. Angrist, Joshua, Eric Bettinger, Erik Bloom, Elizabeth King, and Michael Kremer. 2002. "Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment" *American Economic Review*, 92 (5): 1535-1558. DOI: 10.1257/000282802762024629**

#### **Abstract**

Colombia used lotteries to distribute vouchers which partially covered the cost of private secondary school for students who maintained satisfactory academic progress. Three years after the lotteries, winners were about 10 percentage points more likely to have finished 8th grade,

primarily because they were less likely to repeat grades, and scored 0.2 standard deviations higher on achievement tests. There is some evidence that winners worked less than losers and were less likely to marry or cohabit as teenagers. Benefits to participants likely exceeded the \$24 per winner additional cost to the government of supplying vouchers instead of public-school places.

## **J: Labor and Demographic Economics**

4. **Attanasio, Orazio, Adriana Kugler, and Costas Meghir. 2011. "Subsidizing Vocational Training for Disadvantaged Youth in Colombia: Evidence from a Randomized Trial." *American Economic Journal: Applied Economics*, 3 (3): 188-220. DOI: 10.1257/app.3.3.188**

### **Abstract**

This paper evaluates the impact of a randomized training program for disadvantaged youth introduced in Colombia in 2005. This randomized trial offers a unique opportunity to examine the impact of training in a middle income country. We use originally collected data on individuals randomly offered and not offered training. The program raises earnings and employment for women. Women offered training earn 19.6 percent more and have a 0.068 higher probability of paid employment than those not offered training, mainly in formal-sector jobs. Cost-benefit analysis of these results suggests that the program generates much larger net gains than those found in developed countries. (JEL I28, J13, J24, O15)

## **O: Economic Development, Innovation, Technological Change and Growth**

5. **Garbiras-Díaz, Natalia, and Mateo Montenegro. 2022. "All Eyes on Them: A Field Experiment on Citizen Oversight and Electoral Integrity." *American Economic Review*, 112 (8): 2631-68. DOI: 10.1257/aer.20210778**

### **Abstract**

Can information and communication technologies help citizens monitor their elections? We analyze a large-scale field experiment designed to answer this question in Colombia. We leveraged Facebook advertisements sent to over 4 million potential voters to encourage citizen reporting of electoral irregularities. We also cross-randomized whether candidates were informed about the campaign in a subset of municipalities. Total reports, and evidence-backed ones, experienced a large increase. Across a wide array of measures, electoral irregularities decreased. Finally, the reporting campaign reduced the vote share of candidates dependent on irregularities. This light-touch intervention is more cost-effective than monitoring efforts traditionally used by policymakers.

6. Hjort, Jonas, Diana Moreira, Gautam Rao, and Juan Francisco Santini. 2021. "How Research Affects Policy: Experimental Evidence from 2,150 Brazilian Municipalities." *American Economic Review*, 111 (5): 1442-80. DOI: 10.1257/aer.20190830

#### **Abstract**

Can research findings change political leaders' beliefs and policies? We use experiments with 2,150 Brazilian municipalities to measure mayors' demand for and response to research information. In one experiment, we find that mayors are willing to pay to learn the results of evaluation studies, and update their beliefs when informed of the findings. They value larger-sample studies more, while not distinguishing between studies in rich and poor countries. In a second experiment, we find that informing mayors about research on a simple and effective policy, taxpayer reminder letters, increases the probability the policy is implemented by 10 percentage points.

7. Hidrobo, Melissa, Amber Peterman, and Lori Heise. 2016. "The Effect of Cash, Vouchers, and Food Transfers on Intimate Partner Violence: Evidence from a Randomized Experiment in Northern Ecuador." *American Economic Journal: Applied Economics*, 8 (3): 284-303. DOI: 10.1257/app.20150048

#### **Abstract**

Using a randomized experiment in Ecuador, this study provides evidence on whether cash, vouchers, and food transfers targeted to women and intended to reduce poverty and food insecurity also affected intimate partner violence. Results indicate that transfers reduce controlling behaviors and physical and/or sexual violence by 6 to 7 percentage points. Impacts do not vary by transfer modality, which provides evidence that transfers not only have the potential to decrease violence in the short-term, but also that cash is just as effective as in-kind transfers.

8. Angelucci, Manuela, Dean Karlan, and Jonathan Zinman. 2015. "Microcredit Impacts: Evidence from a Randomized Microcredit Program Placement Experiment by Compartamos Banco." *American Economic Journal: Applied Economics*, 7 (1): 151-82. DOI: 10.1257/app.20130537

#### **Abstract**

We use a clustered randomized trial, and over 16,000 household surveys, to estimate impacts at the community level from a group lending expansion at 110 percent APR by the largest microlender in Mexico. We find no evidence of transformative impacts on 37 outcomes (although some estimates have large confidence intervals), measured at a mean of 27 months post-expansion, across 6 domains: microentrepreneurship, income, labor supply, expenditures, social status, and subjective well-being. We also examine distributional impacts using quantile regressions, given theory and evidence regarding negative impacts from borrowing at high interest rates, but do not find strong evidence for heterogeneity.

9. Ambler, Kate, Diego Aycinena, and Dean Yang. 2015. "Channeling Remittances to Education: A Field Experiment among Migrants from El Salvador." *American Economic Journal: Applied Economics*, 7 (2): 207-32. DOI: 10.1257/app.20140010

#### **Abstract**

We implement a randomized experiment offering Salvadoran migrants matching funds for educational remittances, which are channeled directly to a beneficiary student in El Salvador chosen by the migrant. The matches lead to increased educational expenditures, higher private school attendance, and lower labor supply of youths in El Salvador households connected to migrant study participants. We find substantial "crowd-in" of educational investments: for each \$1 received by beneficiaries, educational expenditures increase by \$3.72. We find no shifting of expenditures away from other students, and no effect on remittances.

10. Edmonds, Eric V., and Norbert Schady. 2012. "Poverty Alleviation and Child Labor." *American Economic Journal: Economic Policy*, 4 (4): 100-124. DOI: 10.1257/pol.4.4.100

#### **Abstract**

Poor women with children in Ecuador were selected at random for a cash transfer that is less than 20 percent of median child labor earnings. Poor families with children in school at the time of the award use the transfer to postpone the child's entry into the labor force. Students in families induced to take up the transfer by the experiment reduce paid employment by 78 percent and unpaid economic activity inside their home by 32 percent. Time in unpaid household services increases, but overall time spent working declines.