Course Overview

This course provides an overview of program evaluation, the practice of assessing the efficacy of policy initiatives, with an emphasis on international applications. A primary concern when evaluating a program is ensuring that estimates reflect the causal impact of the program, so we will discuss various strategies for addressing this challenge, including: randomized clinical trials, fixed effects, pre-post designs, difference-in-differences, instrumental variables, regression discontinuity, and propensity score matching. Along the way we will explore the history and ethics of program evaluation, study design, challenges that arise when working in an international setting, the use of cost benefit analysis to interpret results, and common problems that compromise the validity of the results.

Class Meetings

Classes will be held Fridays from 10:00 to 11:55 a.m. in Educational Sciences 218. Officially my office hours are Mondays from 10:00 a.m. to 12:00 p.m. in Social Science 7321, but they are sometimes swamped with students from my undergraduate classes, so feel free to set up an appointment or corner me after class, if you prefer.

Textbook

There is no required textbook for this class. Instead, weekly readings will be available to download from Learn@UW. The following two general resources on program evaluation are available for free online and may serve as useful references:

https://openknowledge.worldbank.org/handle/10986/2550

https://openknowledge.worldbank.org/handle/10986/2693

The first provides an excellent introduction to program evaluation, while the second goes into greater depth. Both are available at no charge at the following links:

Evaluation

Your overall grade for the course will be based on four components:
• Class Participation (20%): You are expected to attend class and participate in class discussion. Classes will have a lecture format, but these lectures will be far more interesting if everyone comes to class prepared to discuss the topic at hand.

• Weekly assignments (50%): Beginning the second week of classes, there will be a weekly assignment in this course. You will be expected to upload your answers to Learn@UW (in pdf format) each Thursday by 8:00 PM. There will be two main components of the assignment:
  
  • To promote discussion, it is important for everyone to complete assigned readings before lecture. As a policy practitioner, it is also vital to be able to read a program evaluation and assess its quality. Consequently, the assignments will often ask you to comment on the weekly reading and/or to assess the strengths and weaknesses of the reading’s methodology.
  
  • Everyone should come away from this class with a working knowledge of how to conduct a program evaluation. As a result, after we have introduced each program evaluation methodology in class, you will be given a data set and asked to implement the method in Stata. In this case, you’ll be asked to submit your Stata output, interpret results, and discuss their plausibility.

• Final Exam (30%): There will be a take-home final examination at the end of the term. We will discuss the exact timing on the first day of class.

Course Webpage

Lecture notes, readings, and other course materials will be posted on Learn@UW: https://learnnuw.wisc.edu/

Course Outline

This section provides a tentative roadmap of the topics we’ll be covering each week. Assigned readings are marked with an asterisk.

Week 1 - Introduction

Structure of the course

What is the goal of program evaluation and why is it important?


**Week 2 - History and Ethics of Program Evaluation**

*Ethics of program evaluation (early abuses, current oversight, and lingering controversies)*


*Hesse-Biber, Sharlene and Patricia Leavy (2010). The Practice of Qualitative Research. Cambridge: MIT Press. (Chapter 4: Ethics of Social Research.)*

**Week 3 - Review and Basic Concepts**

*Formal treatment of our goal (i.e., intent-to-treat vs treatment-on-the-treated)*

*Primer on regression and statistical concepts (e.g., causal inference, counterfactual, identification, validity, significance, heterogenous treatment effects, dose response)*


**Week 4 - Regression Analysis and Difference Estimators**

*Using a difference estimator to identify a treatment effect*

*What can go wrong? What strategies can be used to address this?*


**Week 5 - Randomized Clinical Trials (RCTs)**

*History of Randomized Clinical Trials*

*Why can’t we just do RCTs all the time and call it a day? Can anything go wrong, or is an RCT bulletproof?*


**Week 6 - Propensity Score Matching**

*What is propensity score matching and how can it help with omitted variable bias? Can anything go wrong, or is propensity score matching bulletproof?*


**Week 7 - Difference in Difference (DnD) Estimators**

*What is a natural experiment? What are the advantages of DnD (and DnDnD) over a difference estimator? How do we go about picking suitable control groups? Can anything go wrong, or is a DnD approach bulletproof?*


Week 8 - Fixed Effects (FE)

*What are fixed-effects and how can they help with omitted variable bias? Can anything go wrong, or is a fixed-effects approach bulletproof?*

**Week 9 - Instrumental Variables (IV)**

*What is an instrumental variable and how can it help with omitted variable bias?*

*What qualities are we looking for in an instrument?*

*Can anything go wrong, or is an instrumental variables approach bulletproof?*


**Week 10 - Regression Discontinuity (RD)**

*What is regression discontinuity and how can it help with omitted variable bias?*

*Can anything go wrong, or is a regression discontinuity approach bulletproof?*


**Week 11 – Distributional Impacts of a Program**

*Why are we so fixated on average effects?*

*Can quantile regression help?*


**Week 12 - Cost Benefit Analysis (CBA)**

*Why are program evaluation and CBA such important complements?*

*Common assumptions, oversights, and mistakes when performing CBA*

*Subjecting CBA to robustness checks*


**Week 13 - Qualitative Analysis and Study Design**

*Qualitative and mixed-method studies*

*Instrument design and selecting a sample size*

*Selecting outcome variables*


**Week 14 - Drawing Appropriate Conclusions**

*What is data mining, and how do we avoid it?*

*Should we always use a 5% significance level?*

*Pressure to overstate results*

*Point vs. interval estimation*


**Week 15 - Methodological Debates**

*Why have RCTs been so controversial in the development community?*

*Given everything we have discussed, is there any value in descriptive studies?*


