THE UNIVERSITY OF CHICAGO
HARRIS SCHOOL OF PUBLIC POLICY

PPHA 34600: Program Evaluation

Spring 2023

Instructor: Ingvil Gaarder (igaarder@uchicago.edu)

Description: The goal of this course is to introduce students to program evaluation, provide an overview of current issues and methods for estimating treatment impacts, and prepare students to be effective consumers of empirical evaluations of real-world policies.

Course logistics:

- **Lectures:** This course consists of in-person lectures on Mondays and Wednesdays 10:30 am - 11:50 am.
- **TA sessions and TA office hours:** Lectures are complemented with weekly TA sessions. The first half of each assigned timeslot will be used for TA sessions, and the second half will be used for office hours. TA sessions are not mandatory, but will be extremely helpful. I will not have time to cover coding in class; instead, this will take place through the TA sessions and office hours. These sessions are strongly encouraged for all students.
- **Harris Tutoring Program:** Harris offers 10 hours of free tutoring support to Harris students for coding in Stata, R, and Python. Tutoring will be available starting March 30th for this Spring Quarter. You can read more about the program on the Harris Student Handbook Canvas site. Any questions should be directed to your academic advisor or harrisdeanofstudents@uchicago.edu.

Prerequisites: PPHA 31002 and PPHA 31102 or equivalent coursework in statistics and economic theory. Students lacking these prerequisites should seek permission from the instructor.

Requirements and grading: Grades will be based on four problem sets and a final exam. Problem sets will count for a total of 75% and the final exam will count for 25%.

Problem sets: Problem sets must be typed and submitted electronically, and late problem sets will not be accepted. Make sure you give yourself ample time to submit. Each assignment will receive equal weight. You may work in groups of up to three on your problem sets, ask the course TAs, and get help from Harris' R consultants, but you must turn in your own problem set, with answers written in your own words. You may share code with other members of your group, but you may not share written answers with other students (including members of your own group). All coding in problem sets must be done in R. Due dates are as follows:

Problem set 1:	Monday, April 10 at 10 pm
Problem set 2:	Wednesday, April 26 at 10 pm
Problem set 3:	Monday, May 8 at 10 pm
Problem set 4:	Monday, May 15 at 10 pm

Final exam: The take-home final exam will be assigned Sunday May 21 and due on Tuesday May 23 at 10 pm. You must do your own work and may not discuss the exam with anyone before it is due. Your exam must be typed and submitted electronically. All coding on the exam must be done in R. Late exams will receive a zero.

Re-grade policy: If you wish to submit a regrade request for an assignment, you must submit a request for a specific question through the Gradescope regrade request system within 4 days of the release of grade release. Regrade requests submitted later than 4 days will not be considered. \\
Some guidelines: regrade requests should only be made for idiosyncratic grading errors made by the grader. If you have questions about the interpretation of a questions or the solution, DO NOT submit a regrade request in this case. Please bring your questions to office hours or post on the Piazza discussion board, and your instructor can provide guidance on whether you should submit a regrade request.

Academic honesty: The Harris School has a formal policy on academic honesty that you are expected to adhere to. Examples of academic dishonesty include (but are not limited to) turning in someone else's work as your own, turning in the same written text as someone else on a problem set/exam, copying solutions to past years' problem sets, and receiving any unapproved assistance on exams. Any student found in violation of this academic honesty policy will receive a grade of 0 on the assignment or exam in questions. I will also refer all cases of cheating to the office of the Dean of Students. They may in turn impose further penalties as per the Harris School Disciplinary Procedures, including probation and expulsion. If you have any questions regarding what would or would not be considered academic dishonesty in this course, please do not hesitate to ask.

ADA accommodations: Any student who believes they may need assistance should contact the Office of Student Disability Services. For more information, see https://disabilities.uchicago.edu/.

Readings: The readings presented below are incomplete and subject to change. Each lecture will make reference to one or two relevant research articles. I will chose research articles from a variety of topics, inlcuding health insurance, minimum wage policies, gender inequality, education, crime, etc. In addition to the research articles, you may find it useful to refer to the following textbook:

- Angrist, Joshua D. and Jorn-Steffen Pischke. 2009. *Mostly Harmless Econometrics*, Princeton University Press: Princeton, NJ.

Course Calendar:

03/20 Introduction: Why Program Evaluation?

- No readings for the first class

03/22 Treatment parameters and regression

- Angrist, Joshua D. and Jorn-Steffen Pischke. 2009. *Mostly Harmless Econometrics*, Princeton University Press: Princeton, NJ pp 27–64.

03/27 Randomized controlled trials 1/3

- Dynarski, Susan, CJ Libassi, Katherine Michelmore, and Stephanie Owen. 2021. "Closing the Gap: The Effect of Reducing Complexity and Uncertainty in College Pricing on the Choices of Low-Income Students." *American Economic Review*, 111 (6): 1721-56.

03/29 Randomized controlled trials 2/3

- Amy Finkelstein, Sarah Taubman, Bill Wright, Mira Bernstein, Jonathan Gruber, Joseph P. Newhouse, Heidi Allen, Katherine Baicker, Oregon Health Study Group, The Oregon Health Insurance Experiment: Evidence from the First Year*, *The Quarterly Journal of Economics*, Volume 127, Issue 3, August 2012, Pages 1057–1106.

04/03 Randomized controlled trials 3/3

- TBA

04/05 Evaluation of evaluations

- TBA

04/10 Selection on observables

- Chetty, Raj, John N. Friedman, and Jonah E. Rockoff. 2014. "Measuring the impacts of teachers II: Teacher value-added and student outcomes in adulthood," *American Economic Review*, 104 (9): 2633--2679.

04/12 Instrumental variables 1/3

- Manudeep Bhuller, Gordon Dahl, Katrine Løken, and Magne Mogstad. 2020. "Incarceration, Recidivism, and Employment", *Journal of Political Economy*, 2020, 128, 4, 1269-1324

04/17 Instrumental variables 2/3

- Ashenfelter, Orley, and Alan Krueger. 1994. "Estimates of the economic return to schooling from a new sample of twins," *American Economic Review*, 84 (5), 1157--1173.

04/19 Instrumental variables 3/3

- TBA

04/24 Panel Data 1/3

04/26 Panel Data 2/3

- Kleven, Henrik, Camille Landais, and Jakob Egholt Søgaard. 2019. "Children and gender inequality: Evidence from Denmark," *American Economic Journal: Applied Economics* 11(4): 181–209.

05/01 Panel Data 3/3

- Chetty, Raj, Adam Looney, and Kory Kroft. 2009. "Salience and taxation: Theory and evidence," *American Economic Review* 99 (4): 1145–1177.

05/03 Regression discontinuity 1/2

- Ludwig, Jens and Douglas L. Miller. 2007. "Does Head Start improve children's life chances? Evidence from a regression discontinuity design," *The Quarterly Journal of Economics* 122(1): 159–208

05/08 Regression discontinuity 2/2

- TBA

05/10 Big data and machine learning

- Mullainathan, Sendhil and Jann Spiess. 2017. "Machine learning: An applied econometric approach," *Journal of Economic Perspectives*, 31(2): 87--106

05/15 Policy lab 1/2

- TBA

05/17 Policy lab 2/2

- TBA