



**PA 871: Public Program Evaluation, Fall 2018**

**CREDITS:** 3

**CANVAS COURSE URL:** <https://canvas.wisc.edu/courses/116347>

**COURSE DESIGNATIONS AND ATTRIBUTES:** General

**MEETING TIME AND LOCATION:** Thursday 2:30 – 4:25pm, Biochem 1116

**INSTRUCTIONAL MODE:** all face-to-face

The credit standard for this course is met by an expectation of a total of 180 hours of student engagement with the course learning activities (at least 45 hours per credit), which include regularly scheduled instructor - student meeting times (120 minutes per week), reading, writing, problem sets, and other student work as described in the syllabus.

**INSTRUCTOR:** Professor Yang Wang

**OFFICE HOURS:** Tuesday 2:30 – 4:30pm at 5277 Grainger Hall and by appointment

**INSTRUCTOR EMAIL:** [ywang26@wisc.edu](mailto:ywang26@wisc.edu)

**COURSE DESCRIPTION**

Public program evaluation is the systematic, data-based assessment of the performance of programs or policies that have been implemented in public sectors. The main purpose of program evaluation is to provide valid findings to determine whether a particular program or policy is achieving its goals, and whether it should be continued, improved, expanded, or curtailed. And program evaluation has been increasingly required by policy makers concerned with accountability and efficient use of public resources.

This course will expose you to a variety of “state of the art” research designs and related methodological tools useful for evaluating the impact of public policies and programs. It will also provide you with an understanding of when and how these tools can be most usefully applied to produce knowledge and evidence of program effectiveness to guide program and policy decision making.

This course focuses primarily on quantitative methods of program evaluation necessary for you to first become critical consumers and effective users of evaluations and then build higher quality programs and policies.

In this course we will examine evaluation designs that have been applied to various public programs and issues in order to demonstrate key points. Each design relies on different sets of assumptions to construct the counterfactual state (what would have happened in the absence of the program) and to justify the causal claims it produces. We will learn to evaluate what these assumptions are, when these assumptions are likely to be violated, and how such violations lead to misleading conclusions.

**REQUISITES:** PA818

### **COURSE LEARNING OUTCOMES**

By the end of the semester, students will be able to:

- Describe the key elements of the field of program evaluation;
- Understand the purpose, logic, and process of program evaluation;
- Explain contemporary program evaluation methods, including their strengths and weaknesses;
- Assess existing program evaluations; and
- Design and implement their own program evaluation, as well as contextualize, interpret, and present their findings.

### **TEXTBOOK AND OTHER RESOURCES**

There is no required textbook for this course.

The recommended textbook for this course is (referred to as *Evaluation* throughout syllabus): Peter H. Rossi, Mark W. Lipsey, and Howard E. Freeman. 2004. *Evaluation: A Systematic Approach, 7<sup>th</sup> Edition*. Thousand Oaks, CA: Sage Publications, Inc. (ISBN: 978-0-7619-0894-4)

We will also use readings that illustrate “real world” applications of the methods we learn in class in academic, government, and other contexts. All the readings are available online, or will be made available at CANVAS (please check ‘Modules’, not ‘Files’ or other parts) or directly from me.

Required readings should be completed before we meet each week.

### **COURSE ASSIGNMENTS AND GRADING**

All assignments are designed to hone evaluation skills and provide experience that will be useful on the job market. Please use this course and the course assignments to deepen your expertise in a policy area of interest and to complement your other course work. Course grades will be based on the following:

- Class attendance and participation (general participation + some structured activities): 30%
- Program evaluation exercises (2): 30% (15% each)

- Attend at least two seminars/presentations on campus that use quantitative methods covered in class, and write a one-page summary for each seminar/presentation you attend: 5%
- Policy briefing: 5%
- Program evaluation paper and presentation (group project): 30%

Grade Criteria: A  $\geq$  93%, AB  $\geq$  89%, B  $\geq$  80%, BC  $\geq$  75%, C  $\geq$  65%, D  $\geq$  55%, F  $<$ 55%

### **ATTENDANCE AND PARTICIPATION**

Attendance is required for this class. Please email me if you cannot make it to the class for any reason. Class participation is an essential component of the course and is critical to your learning and that of your peers. You will be expected to read assigned materials prior to our class meetings and come prepared for discussions. In this way, lecture provides a second exposure to the material. I will not go over all of the details in lecture but will hit the highlights. Participation in structured, in-class activities such as group discussions, case studies, role plays, and debates is also important. Regular class attendance is a necessary, but not sufficient condition for getting full credits in class attendance and participation.

### **COURSE WEBPAGE**

We have a CANVAS webpage for this course. You can find most course materials there (please check 'Modules', not 'Files' or other parts), including the syllabus, readings, and so forth. You will also submit your assignments onto CANVAS course webpage, so please make effort to get familiar with how it works. You are responsible for accessing the course webpage on a regular basis.

### **ASSIGNMENTS**

Please try your best to work on the assignments, as it is one of the best ways to learn the materials. You are encouraged to discuss with your classmates, but be sure that you understand the materials yourself.

### **ILLNESS POLICY**

If you are sick and you think it could be contagious, please stay at home and rest. Email me or check with classmates to get the material you have missed. If you believe that your illness or anything else might give you a long absence from class, please contact me immediately so that we can work out a plan to make sure that you do not fall too far behind.

### **CLASS MANNERS**

- Please come to class on time. If you know that you will be late, please let me know in advance.
- Please do not leave class early. If you have to leave early, please let me know in advance.
- Please mute your phone prior to class.
- Please do not use your phone or computer for personal matter in class.

### **ACADEMIC INTEGRITY**

By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison's community of scholars in which everyone's academic work and behavior are

held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to [studentconduct.wiscweb.wisc.edu/academic-integrity/](http://studentconduct.wiscweb.wisc.edu/academic-integrity/).

## **ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES**

**McBurney Disability Resource Center syllabus statement:** “The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA.” <http://mcburney.wisc.edu/facstaffother/faculty/syllabus.php>

## **DIVERSITY & INCLUSION**

**Institutional statement on diversity:** “Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.” <https://diversity.wisc.edu/>

## **COURSE SCHEDULE**

Please note that the following outline and listed readings will be adjusted and updated to accommodate new materials, class needs, and student interests and experience. I will also frequently bring in additional materials reflecting current events and issues related to program evaluation. Changes will be communicated in class and/or by e-mail, and an updated syllabus will be posted on CANVAS.

## **Part One: Introduction**

### **Week 1: September 6, “Introduction to Program Evaluation”**

- What is program evaluation?
- Why should we care about program evaluation?
- Course overview

#### **Required Readings**

- *Evaluation*, Ch. 1, “An Overview of Program Evaluation”
- 2014 Economic Report of the President. 2014. Ch. 7: “Evaluation As a Tool for Improving Federal Programs.”  
[https://fraser.stlouisfed.org/files/docs/publications/ERP/2014/2014\\_erp.pdf](https://fraser.stlouisfed.org/files/docs/publications/ERP/2014/2014_erp.pdf)
- Banerjee, Abhijit. (2006). “Making Aid Work.” *Boston Review*, 31(4):7-9.  
[http://jenni.uchicago.edu/econ312/papers/Banerjee\\_2006\\_BR\\_JulyAug.pdf](http://jenni.uchicago.edu/econ312/papers/Banerjee_2006_BR_JulyAug.pdf)
- “Why not measure how well government works?” *Washington Post*. April 15, 2013.  
[https://www.washingtonpost.com/business/economy/why-not-measure-how-well-government-works/2013/04/15/2d81d058-a2dd-11e2-9c03-6952ff305f35\\_story.html?utm\\_term=.d611dbc788e3](https://www.washingtonpost.com/business/economy/why-not-measure-how-well-government-works/2013/04/15/2d81d058-a2dd-11e2-9c03-6952ff305f35_story.html?utm_term=.d611dbc788e3)

### **Week 2: September 13, “Ethics of Program Evaluation”**

- Ethical issues in evaluation: early abuses, current oversight, and lingering controversies
- Guiding principles for evaluation
- Asking the right questions

#### **Required Readings**

- Hesse-Biber, Sharlene and Patricia Leavy (2010). *The Practice of Qualitative Research*. Cambridge: MIT Press. (Chapter 4: Ethics of Social Research.)
- Martin Ravallion (2014). Taking Ethical Validity Seriously. *The World Bank Blog*.
- Writing Group for the Women's Health Initiative Investigator. 2002. “Risks and Benefits of Estrogen Plus Progestin in Healthy Postmenopausal Women: Principal Results from the Women's Health Initiative Randomized Controlled Trial.” *Journal of the American Medical Association* 288: 321-333.

#### **Recommended Readings**

- *Understanding the Institutional Review Board*, an Evaluation Brief by James Bell Associates: [http://www.acf.hhs.gov/sites/default/files/cb/understanding\\_the\\_irb.pdf](http://www.acf.hhs.gov/sites/default/files/cb/understanding_the_irb.pdf)
- Grant, Ruth and Jeremy Sugarman (2004). “Ethics in Human Subjects Research: Do Incentives Matter?” *Journal of Medicine and Philosophy*, 29(6): 717–738.

### **Week 3: September 20, “Basic Concepts & Logic Models”**

- Basic statistical concepts
- *Guest speaker: Hilary Shager: Logic models: Why should a program work, and what should you measure?*

## Required Readings

- Excerpts from William R. Shadish, [Thomas D. Cook](#) and [Donald T. Campbell](#). 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston, MA: Houghton Mifflin Company. (Ch. 1, 1-26, Ch. 2, Ch. 3)
- Manski, Charles (1995). *Identification Problems in the Social Sciences*. Cambridge: Harvard University Press. (Introduction discusses causal inference and identification.)
- “Logic Models and the Action Model/Change Model Schema (Program Theory),” p. 58-65, from *Practical Program Evaluation, 2<sup>nd</sup> Ed.*, by Huey T. Chen (2015)
- *Developing a Logic Model*, Evaluation Brief by James Bell Associates (Aug., 2007): <http://www.jbassoc.com/ReportsPublications/Developing%20a%20Logic%20Model.pdf>

## Recommended Readings

- Paul W. Holland. 1986. “Statistics and Causal Inference.” *Journal of the American Statistical Association* 81: 945-960
- Khandker, Shahidur, Gayatri Koolwal, and Hussain Samad (2010). *Handbook on Impact Evaluation*. Washington, DC: World Bank. (Pages 22-23 discuss the counterfactual, 23 – 29 discuss the key concepts.)
- J. Heckman, S. Moon, R. Pinto, P. Savelyev, and A. Yavitz. 2010. “The Rate of Return to the HighScope Perry Preschool Program.” *Journal of Public Economics* 94: 114-128.
- UW-Extension Logic Model training and tools: <http://www.uwex.edu/ces/pdande/evaluation/evallogicmodel.html>

## Part Two: Experiments

### Week 4: September 27, “Randomized Experimental Design”

- What are randomized experimental designs?
- Why are they considered the “gold standard” of evaluation?
- What are the limitations and challenges of implementing experimental designs?

## Required Readings

- *Evaluation*, Ch. 8, “Assessing Program Impact: Randomized Field Experiments”
- U.S. Department of Health and Human Services, Administration for Children and Families. 2012. *Third Grade Follow-up to the Head Start Impact Study: Executive Summary*. Washington, DC. [http://www.acf.hhs.gov/sites/default/files/opre/head\\_start\\_executive\\_summary.pdf](http://www.acf.hhs.gov/sites/default/files/opre/head_start_executive_summary.pdf)
- Gueron, Judith M. 2001. “The Politics of Random Assignment: Implementing Studies and Impacting Policy.” Manpower Demonstration Research Corporation (MDRC). [http://www.mdrc.org/sites/default/files/full\\_571.pdf](http://www.mdrc.org/sites/default/files/full_571.pdf).
- Glennerster, Rachel and Kudzai Takavarasha (2013). *Running Randomized Evaluations: A Practical Guide*. Princeton: Princeton University Press. (Chapter 7 discusses what can go wrong with an RCT.)

## Recommended Readings

- Gertler, Paul, Sebastian Martinez, Patrick Premand, Laura Rawlings, and Chistel Vermeersch (2010). *Impact Evaluation in Practice*. World Bank Training Series. (Chapter 4.)
- Burtless, Gary, “The Case for Randomized Field Trials in Economic and Policy Research,” *Journal of Economic Perspectives*, Spring 1995, 9 (2), 63–84.
- Steven Glazerman, Daniel Mayer, Paul Decker. 2006. Alternative routes to teaching: The impacts of Teach for America on student achievement and other outcomes. *Journal of Policy Analysis and Management*, Volume 25 Issue 1, Pages 75 – 96.

### **Part Three: Quasi-experiment: Selection on Observables**

#### **Week 5: October 11, “Propensity Score Matching”**

- What is propensity score matching?
- What are the key assumptions?
- What are the limitations and challenges of propensity score matching?

#### **Required Readings**

- *Evaluation*, Ch. 9, Assessing Program Impact: Alternative Design (Note: please focus on the parts on propensity score matching and skim the other parts on regression discontinuity, time-series design, etc.)
- Khandker, Shahidur, Gayatri Koolwal, and Hussain Samad (2010). *Handbook on Impact Evaluation*. Washington, DC: World Bank. Ch. 4, “Propensity Score Matching,” p. 53-66.  
<https://openknowledge.worldbank.org/bitstream/handle/10986/2693/520990PUB0EPI1101Official0Use0Only1.pdf?sequence=1>
- Heinrich, C.J., Burkhardt, B. C., and Shager, H.M. 2011. “Reducing Child Support Debt and Its Consequences: Can Forgiveness Benefit All?” *Journal of Public Analysis and Management*, 30(4): 755-774.

#### **Recommended Readings**

- Gertler, Paul, Sebastian Martinez, Patrick Premand, Laura Rawlings, and Chistel Vermeersch (2010). *Impact Evaluation in Practice*. World Bank Training Series. (Chapter 7)
- Excerpts from William R. Shadish, [http://www.amazon.com/Experimental-Quasi-Experimental-Designs-Generalized-Inference/dp/0395615569/ref=sr\\_1\\_1?ie=UTF8&s=books&qid=1278304361&sr=1-1](http://www.amazon.com/Experimental-Quasi-Experimental-Designs-Generalized-Inference/dp/0395615569/ref=sr_1_1?ie=UTF8&s=books&qid=1278304361&sr=1-1) Thomas D. Cook and Donald T. Campbell. 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston, MA: Houghton Mifflin Company. (Ch. 4 & 5)
- Heinrich, C., M. Alessandro, and G. Vázquez. 2010. *A Primer for Applying Propensity-Score Matching. Impact-Evaluation Guidelines. Technical Notes. No. IDB-TN-161*. <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=35320229>.
- Heinrich, Carolyn J. 2007. “Demand and Supply-Side Determinants of Conditional Cash Transfer Program Effectiveness.” *World Development*, 35(1): 121-143.

## **Part Three: Quasi-Experiment Design: Selection on Unobservables**

### **Week 6: October 18, “DD and DDD”**

- What is difference-in-differences?
- What are the key assumptions?
- What are the limitations and challenges of DD?
- *Guest Speaker: Ben Nerad, Deputy Director of the Bureau of Fiscal Management*

### **Required Readings**

- Gertler, Paul, Sebastian Martinez, Patrick Premand, Laura Rawlings, and Chistel Vermeersch (2010). *Impact Evaluation in Practice*. World Bank Training Series. (Chapter 6: Difference-in-differences)
- Khandker, Shahidur, Gayatri Koolwal, and Hussain Samad (2010). *Handbook on Impact Evaluation*. Washington, DC: World Bank. (Chapter 5.)
- Ravallion, Martin (2001). “The Mystery of the Vanishing Benefits: An Introduction to Impact Evaluation.” *World Bank Economic Review* 15(1):115-140.  
[http://siteresources.worldbank.org/INTISPMA/Resources/383704-1130267506458/Mystery\\_Vanishing\\_Benefits.pdf](http://siteresources.worldbank.org/INTISPMA/Resources/383704-1130267506458/Mystery_Vanishing_Benefits.pdf)
- Gruber, J. (1994). “The Incidence of Mandated Maternity Benefits.” *American Economic Review* 84 (3): 622–641.

### **Recommended Readings**

- Deming, David. 2009. “Early Childhood Intervention and Life-cycle Skill Development: Evidence from Head Start.” *American Economic Journal: Applied Economics* 1:111-134.
- Card, David, and Alan B. Krueger. 1994. “Minimum Wages and Employment: A Case Study of the Fast-food Industry in New Jersey and Pennsylvania.” *American Economic Review* 84: 772-793.
- Duflo, Esther (2001). “Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment.” *American Economic Review*, 91(4): 795-813.
- Keys, Benjamin, Tanmoy Mukherjee, Amit Seru, and Vikrant Vig, “Did Securitization Lead to Lax Screening? Evidence from Subprime Loans,” December 2008. University of Michigan mimeo.

### **Week 7: October 25, “Instrumental Variable”**

- What is IV?
- What are the key assumptions?
- What are the limitations and challenges of IV?

### **Required Readings**

- Khandker, Shahidur, Gayatri Koolwal, and Hussain Samad (2010). *Handbook on Impact Evaluation*. Washington, DC: World Bank. (Chapter 6: Instrumental Variables)
- Gennetian, L. A., Bos, J. M., and P. A. Morris. 2002. “Using Instrumental Variables Analysis to Learn More from Social Policy Experiments.” MDRC.



- Acemoglu, Daron, Simon Johnson, and James A. Robinson. "The Colonial Origins of Comparative Development: An Empirical Investigation." *American Economic Review* 91.5 (2001): 1369-1401.
- Angrist, J. D. and A. B. Krueger (1991). "Does Compulsory School Attendance Affect Schooling and Earnings?" *Quarterly Journal of Economics* 106 (4): 979–1014.

### **Recommended Readings**

- Caroline M. Hoxby. 2000. Does Competition among Public Schools Benefit Students and Taxpayers? *American Economic Review*, Vol. 90, No. 5, pp. 1209-1238.
- Jesse Rothstein. Does Competition among Public Schools Benefit Students and Taxpayers? Comment. *The American Economic Review*, Vol. 97, No. 5 (Dec., 2007), pp. 2026-2037.
- Levitt, Steven D. 1997. "Using Electoral Cycles in Police Hiring to Estimate the Effect of Police on Crime." *American Economic Review*. 87(3): 270-290. [Read the "easy" parts of this paper and don't worry about the complicated parts.]
- Angrist, Joshua D., "Lifetime Earnings and the Vietnam Era Draft Lottery: Evidence from Social Security Administrative Records," *American Economic Review*, June 1990, 80 (3), 313–336.

### **Week 8: November 1, "Methodological Debates: Experimental vs. Non-Experimental Designs"**

- What are the pros and cons of experimental and non-experimental designs?
- Which method is better?
- *Guest Speaker, Jennifer Noyes, PhD, the Associate Dean for Operations and Staff at UW - Madison (formerly Associate Director of Programs and Management, Institute for Research on Poverty)*

### **Required Readings**

- Cook, T. D., Shadish, W.R., and Wong, V.C. 2008. Three Conditions Under which Experiments and Observational Studies Produce Comparable Causal Estimates: New Findings from Within-study Comparisons. *Journal of Policy Analysis and Management* 27(4) 724-750.
- Deaton, Angus (2010). "Instruments, Randomization, and Learning about Development." *Journal of Economic Literature*, 48(2): 424–55.
- Millimet, Daniel L., Rusty Tchernis, and Muna Husain. "School nutrition programs and the incidence of childhood obesity." *Journal of Human Resources* 45.3 (2010): 640-654.
- Manski, Charles (2011). "Policy Analysis with Incredible Certitude." *The Economic Journal*, 121(August): F261–F289.

### **Recommended Readings**

- Greenberg, D. H., Michalopoulos, C. and Robins, P. K. 2006. Do experimental and nonexperimental evaluations give different answers about the effectiveness of government funded training programs? *Journal of Policy Analysis and Management* 25(3): 523-552.

- Banerjee, Abhijit and Esther Duflo (2009). “The Experimental Approach to Development Economics.” *Annual Review of Economics*, 1:151-178.
- Rodrik, Dani. "The new development economics: we shall experiment, but how shall we learn?" (2008).

### **Week 9: November 15, “Regression Discontinuity”**

- What is RD?
- What are the key assumptions?
- What are the limitations and challenges of RD?

#### **Required Readings**

- Shadish, Cook & Campbell (2002), Ch. 7, “Regression Discontinuity Designs”
- Gertler, Paul, Sebastian Martinez, Patrick Premand, Laura Rawlings, and Chistel Vermeersch (2010). *Impact Evaluation in Practice*. World Bank Training Series. (Chapter 5.)
- Angrist, J. D. and V. Lavy (1999). “Using Maimonides’ Rule to Estimate the Effect of Class Size on Scholastic Achievement.” *Quarterly Journal of Economics* 114 (2): 533–575.

#### **Recommended Readings**

- Khandker, Shahidur, Gayatri Koolwal, and Hussain Samad (2010). *Handbook on Impact Evaluation*. Washington, DC: World Bank. (Chapter 7.)
- Ludwig, J. & Miller, D. M. (2007). Does Head Start Improve Children's Life Chances? Evidence from a Regression Discontinuity Design. *The Quarterly Journal of Economics*, 122(1), 159-208.
- Buddelmeyer, Hielke, and Emmanuel Skoufi as. 2004. “An Evaluation of the Performance of Regression Discontinuity Design on PROGRESA.” World Bank Policy Research Working Paper 3386, IZA Discussion Paper 827, World Bank, Washington, DC.
- Lee, David S., and Thomas Lemieux. "Regression discontinuity designs in economics." *Journal of economic literature* 48.2 (2010): 281-355.

### **Week 10: November 29, “Quantile Regression”**

- What is quantile regression?
- Why do we want to do quantile regression?
- *Guest Speaker, Joe Chrisman, State Auditor, Legislative Audit Bureau*

#### **Required Readings**

- Khandker, Shahidur, Gayatri Koolwal, and Hussain Samad (2010). *Handbook on Impact Evaluation*. Washington, DC: World Bank. (Chapter 8.)
- Martins, Pedro S., and Pedro T. Pereira. "Does education reduce wage inequality? Quantile regression evidence from 16 countries." *Labour economics* 11.3 (2004): 355-371.

### **Recommended Readings**

- Abrevaya, Jason, and Christian M. Dahl. "The effects of birth inputs on birthweight: evidence from quantile estimation on panel data." *Journal of Business & Economic Statistics* 26.4 (2008): 379-397.

**Week 11: December 6, "Final Presentations"** (Please note that we may have to run a bit long on the last day to accommodate all presentations.)