

DEPARTMENT OF ECONOMICS  
UNIVERSITY OF MISSOURI-COLUMBIA

**Economics/Public Affairs 9446  
Advanced Empirical Methods**

Fall 2017 – Class Meetings Days/Times: Tues/Thurs 11-12:15, Middlebush Hall 206  
Professor Cory Koedel  
Email: koedelc@missouri.edu  
Office hours: Thursday, 12:45-2, Professional Bldg #318

**Prerequisites:** 8451, 8472, concurrent enrollment in 8473 or 9473 strongly recommended.

**OBJECTIVES:**

The objective of this course is to provide a comprehensive toolkit for the evaluation of key economic policy questions in the areas of applied economics including labor economics, public economics, education economics, health economics and social welfare. The course will cover the most current and relevant empirical techniques in these fields, and provide context and examples of applications.

<b>Grading:</b>	Assignments:	30 percent
	Midterm Exam:	15 percent
	Final Exam:	25 percent
	Research Paper Proposal:	5 percent
	Research Paper & Presentation:	25 percent

**Assignments:** There will be three empirical assignments over the course of the semester. The assignments will involve the practical application of the empirical tools that you will learn about in the course.

**Exams:** The midterm will be given between weeks 7 and 9 of the semester. The final exam will be given during final exam week at the university-specified time.

**Papers:** The paper assignment will be discussed during the first week of class. The requirement will be a paper that is between 8 and 15 pages in length. Papers are to be submitted in hard-copy form.

## **Topics and Reading List (Rough Guide)**

### **Methodological Overview**

Angrist and Krueger, "Empirical Strategies in Labor Economics" *Handbook of Labor Economics*, Vol 3A, Chapter 23

[also useful: *Mostly Harmless Econometrics: An Empiricist's Companion*, Joshua D. Angrist and Jörn-Steffen Pischke]

### **Experimental Research Designs**

Doleac, Jennifer L., and Luke C.D. Stein, (2013). "The Visible Hand: Race and Online Market Outcomes." *The Economic Journal* 123, F469-F492.

Cullen, Julie Berry, Brian A. Jacob, and Steven D. Levitt, (2006) "The Effect of School Choice on Participants: Evidence from Randomized Lotteries," *Econometrica*.

### **Multiple Regression Methods**

Clotfelter, C.T., H.F. Ladd and J.L. Vigdor, (2006). "Teacher-Student Matching and the Assessment of Teacher Effectiveness." *Journal of Human Resources* v.41 n.4 pp.778-820.

### **Fixed Effects Estimation, Value-Added (Panel Data)**

Jeffrey M. Wooldridge, *Econometric Analysis of Cross Section and Panel Data*, (2010). Chapter 10.

Blau, David M (1999). "The Effect of Income on Child Development," *The Review of Economics and Statistics*.

Ashenfelter, Orley and Alan Krueger (1994). "Estimates of the Economic Return to Schooling from a New Sample of Twins," *American Economic Review*. (Note: This paper uses both instrumental variables and fixed effects. IV methods will be covered in detail later in the course.)

Babcock, Philip (2010). "Real Costs of Nominal Grade Inflation? New Evidence from Student Course Evaluations," *Economic Inquiry* 48(4).

Aaronson, Daniel, Lisa Barrow and William Sander (2007). "Teachers and Student Achievement in the Chicago Public High Schools," *Journal of Labor Economics*.

### **Difference-in-Differences and Natural Experiments**

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*, (84:4), September.

Neumark, David and William Wascher (2000). "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Comment", *American Economic Review* (90:5)

Bertrand, M., E. Duflo, and S. Mullainathan (2004). "How Much Should We Trust Differences-in-Differences?" *Quarterly Journal of Economics*.

Fitzpatrick, Maria, David Grissmer and Sarah Hastedt (2011). "What a Difference a Day Makes. Estimating the Effects of Kindergarten on Children's Test Scores," *Economics of Education Review* 30(2).

### **Instrumental Variables**

Jeffrey M. Wooldridge, *Econometric Analysis of Cross Section and Panel Data*, (2010). Chapter 5.

Murray, Michael P. (2006). Avoiding Invalid Instruments and Coping with Weak Instruments, *Journal of Economic Perspectives*

Parente, Paulo M.D.C. and J.M.C. Santos Silva, (2012). A Cautionary Note on Tests of Overidentifying Restrictions. *Economics Letters*, 115(2), 314-317.

Levitt, Steven D. (1997). Using Electoral Cycles in Policy Hiring to Estimate the Effect of Police on Crime, *American Economic Review*

Angrist, Joshua and Alan B. Krueger (1991). "Does Compulsory School Attendance Affect Schooling?" *Quarterly Journal of Economics*, 106, 979-1014.

Figlio, David N. (2007). "Boys Named Sue: Disruptive Children and their Peers," *Education Finance and Policy* 2(4), pp 376-394.

### **Comparing Experimental and non-Experimental Designs**

*(time permitting)*

LaLonde, Robert J. (1986) "Evaluating the Econometric Evaluations of Training Programs with Experimental Data," *American Economic Review*.