

**Vanderbilt University  
Department of Economics**

**ECON 9710, Spring 2020  
Graduate Public Economics: Expenditures**

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Class: Monday and Wednesday, 11:00am – 12:15pm (413B Calhoun Hall)  
Office hours: Monday ~~9:30—11:00am~~ **8:00 – 9:30am**, or by appointment

### **Course Description**

This course will focus on the role of government intervention in the economy and cover the following topics: externalities, public goods theory, local public finance (with a focus on the economics of education), and social insurance. For each topic, we will focus on theoretical and empirical evidence as well as relevant empirical research methods.

### **Course Requirements**

Students are expected to read the assigned papers and participate in class discussions. Additionally, students are expected to attend both the Applied Economics seminar and VEAM WIPT presentations on a regular basis.

The grade for the course will be based on:

1) One research proposal – **35%**. The proposal should include a clearly defined question, motivation as to why the question is economically important, a brief review of the literature, a discussion of the relevant economic theory, and an overview of the data that will be used to analyze the question and methodological approach.

A) Students will submit two to three potential questions, each with a short paragraph of motivation by **January 15**.

B) A discussion of the relevant literature and theory will be due **February 17**.

C) The data and methodology section should be submitted by **March 25**.

D) The full proposal is due **April 24**.

2) Proposal presentations – **15%**. Students are expected to make a 30-minute presentation of their proposal and serve as a discussant for a classmate's proposal on **April 15** or **April 20**. To ensure that discussants have sufficient time to prepare useful feedback, slides should be distributed to the discussant at least a week in advance of the scheduled presentation.

3) One data-intensive problem set – **10%**.

4) A presentation of one required article – **10%**. These readings are marked **D**. Students should email me their top three choices by the **January 8**.

5) A take-home final – **30%**. The final will be distributed on **April 20** in class and is due at 11:59pm on **April 22**.

## General References

Auerbach, A. J. & Feldstein, M., ed. (2002) *Handbook of Public Economics*, Vol. 3 and 4, Elsevier.

Auerbach, A. J. & Feldstein, M., ed. (2013) *Handbook of Public Economics*, Vol. 5, Elsevier.

Chetty, R., Public Economics Lecture Slides.

Available at: <http://www.rajchetty.com/lectures/>

Saez, E., Graduate Public Economics.

Available at: <http://elsa.berkeley.edu/~saez/course/course.html>

## Econometrics References

Angrist, J. & Pischke, J. (2008) *Mostly Harmless Econometrics: An Empiricist's Companion*, Princeton University Press.

Imbens, G. and Wooldridge, J. (2007) What's New in Econometrics: NBER Summer Institute Mini-Course. Available at: <http://www.nber.org/minicourse3.html>

Wooldridge, J. M. (2002) *Econometric Analysis of Cross Section and Panel Data*, MIT Press.

## Course Outline and Reading List

### 1. Externalities and Random Assignment [4 lectures]

\*\* Weitzman, M. (1974) "Prices versus Quantities," *Review of Economic Studies* 41(4): 477–491.

\*\* Chay, K. and Greenstone, M. (2003) "The Impact of Air Pollution on Infant Mortality: Evidence from Geographic Variation in Pollution Shocks Induced by a Recession," *Quarterly Journal of Economics* 118(3): 1121 – 1167

\*\* Moretti, E. (2004) "Workers' Education, Spillovers, and Productivity: Evidence from Plant-Level Production Functions," *American Economic Review* 94(3): 656 – 690.

\*\* Muralidharan, K. and Sundararaman, V. (2015) "The Aggregate Effect of School Choice: Evidence from a two-stage experiment in India," *Quarterly Journal of Economics* 130(3): 1011 – 1066.

D Currie, J. and Walker, R. (2011) "Traffic Congestion and Infant Health: Evidence from E-ZPass," *American Economic Journal: Applied Economics* 3(1): 65 – 90.

Roback, J. (1982) "Wages, Rents, and the Quality of Life," *Journal of Political Economy* 90(6): 1257 – 1278.

Keiser, D. and Shapiro, J. S. (2018) "Consequences of the Clean Water Act and the Demand for Water Quality," *Quarterly Journal of Economics* 134(1): 349 – 396.

## **2. Public Goods and Differences-in-Differences Estimation [3 lectures]**

\*\* Samuelson, P. A. (1954) "The Pure Theory of Public Expenditure," *Review of Economics and Statistics* 36(4): 387 – 389.

\*\* Hungerman, D. (2005) "Are Church and State Substitutes? Evidence from the 1996 Welfare Reform," *Journal of Public Economics* 89(11–12): 2245 – 2267.

\*\* DellaVigna, S., List, J. A. and Malmendier, U. (2012) "Testing for Altruism and Social Pressure in Charitable Giving," *Quarterly Journal of Economics* 127(1): 1 – 56.

D Andreoni, J. (1993) "An Experimental Test of the Public Goods Crowding Out Hypothesis," *American Economic Review* 83(5): 1317 – 1327.

Andreoni, J. and Payne, A. (2003) "Do Government Grants to Private Charities Crowd Out Giving or Fundraising?" *American Economic Review* 93(3): 792 – 812.

Bertrand, M., Duflo, E., and Mullainathan, S. (2004) "How Much Should We Trust Difference-in-Differences Estimates?" *Quarterly Journal of Economics* 119(1): 249 – 275.

Cameron, A. C., Gelbach, J. B., and Miller, D. M. (2008) "Bootstrap-Based Improvements for Inference with Clustered Errors," *Review of Economics and Statistics* 90(3): 414 – 427.

Abadie, A., Diamond, A., and Hainmueller, J. (2010) "Synthetic Control Methods for Comparative Case Studies: Estimating the Effect of California's Tobacco Control Program," *Journal of the American Statistical Association* 105(490): 493 – 505.

## **3. Local Public Finance [6 lectures]**

### **3.1 The Tiebout Model and Fiscal Federalism**

\*\* Tiebout, C. M. (1956) "A Pure Theory of Local Public Expenditures," *Journal of Political Economy* 65(5): 416 – 424.

\*\* Oates, W. (1999) "An Essay on Fiscal Federalism," *Journal of Economic Literature* 37(3): 1120 – 1149.

\*\* Diamond, R. (2017) "Housing Supply Elasticity and Rent Extraction by State and Local Governments," *American Economic Journal: Economic Policy* 9(1): 74 – 111.

**D** Gordon, Nora (2005) "Do Federal Grants Boost School Spending? Evidence from Title I," *Journal of Public Economics* 88: 1771-1798.

Oates, W. and Schwab, R. (1988) "Economic Competition among Jurisdictions: Efficiency Enhancing or Distortion-Inducing?" *Journal of Public Economics* 35(3): 333 – 354.

Hines, J. and Thaler, R. (1995) "Anomalies: The Flypaper Effect," *Journal of Economic Perspectives* 9(4): 217 – 226.

Besley, T. and Coate, S. (2003) "Centralized versus Decentralized Provision of Local Public Goods: A Political Economy Analysis," *Journal of Public Economics* 87(12): 2611 – 2637.

### **3.2 School Choice and Sorting**

\*\* Hoxby, C. M. (2000) "Does Competition among Public Schools Benefit Students and Taxpayers?" *American Economic Review* 90(5): 1209 - 1238.

\*\* Urquiola, M. (2005) "Does School Choice Lead to Sorting? Evidence from Tiebout Variation," *American Economic Review* 95(4): 1310 - 1326.

**D** Hastings, J. S. and Weinstein, J. M. (2008) "Information, School Choice, and Academic Achievement: Evidence from Two Experiments," *Quarterly Journal of Economics* 123(4): 1373 - 1414.

Epple, D. and Romano, R. E. (1998) "Competition between Private and Public Schools, Vouchers, and Peer-Group Effects," *American Economic Review* 88(1): 33 – 62.

Rothstein, J. M. (2006) "Good Principals or Good Peers? Parental Valuation of School Characteristics, Tiebout Equilibrium, and the Incentive Effects of Competition Among Jurisdictions," *American Economic Review* 96(4): 1333 - 1350.

Abdulkadiroğlu, A., Angrist, J., Dynarski, S. M., Kane, T. J., and Pathak, P. A. (2011) "Accountability and Flexibility in Public Schools: Evidence from Boston's Charters and Pilots," *Quarterly Journal of Economics* 126(2): 699 – 748.

Abdulkadiroğlu, A., Pathak, P., Schellenberg, and Walters, C. R. (forthcoming) "Do Parents Value School Effectiveness?" *American Economic Review*.

### **3.3 Capitalization**

\*\* Black, S. E. (1999) "Do Better Schools Matter? Parental Valuation of Elementary Education," *Quarterly Journal of Economics* 114(2): 577 - 599.

**D** Linden, L. L. and Rockoff, J. E. (2008) "Estimates of the Impact of Crime Risk on Property Values from Megan's Laws," *American Economic Review* 93(3): 1103 - 1127.

Figlio, D. N. and Lucas, M. E. (2004) "What's in a Grade? School Report Cards and the Housing Market," *American Economic Review* 94(3): 591 - 604.

Chay, K. and Greenstone, M. (2005) “Does Air Quality Matter? Evidence from the Housing Market,” *Journal of Political Economy* 113(2): 376 – 424.

### **3.4 The Regression Discontinuity Design and Extensions**

\*\* Lee, D. and Lemieux, T. (2010) “Regression Discontinuity Designs in Economics,” *Journal of Economic Literature* 48(2): 281 – 355.

\*\* Cellini, S. R., Ferreira, F., and Rothstein, J. (2010) "The Value of School Facility Investments: Evidence from a Dynamic Regression Discontinuity Design," *Quarterly Journal of Economics* 125(1): 215 – 261.

Abadie, A. (2003) “Semiparametric Instrumental Variable Estimation of Treatment Response Models,” *Journal of Econometrics* 113: 231 – 263.

Almond, D., and Doyle, J. J. (2008) “After Midnight: A Regression Discontinuity Design in Length of Postpartum Hospital Stays,” NBER working paper 13877.

McCrary, J. (2008) “Manipulation of the Running Variable in the Regression Discontinuity Design: A Density Test,” *Journal of Econometrics* 142(2): 698 – 714.

Urquiola, M. and Verhoogen, E. (2009) “Class-size Caps, Sorting, and the Regression-Discontinuity Design,” *American Economic Review* 99(1): 179 – 215.

Angrist, J. D. and Rokkanen, M. (2015) “Wanna Get Away? Regression Discontinuity Estimation of Exam School Effects Away from the Cutoff,” *Journal of the American Statistical Association* 110(512): 1331 – 1344.

Barreca, A. I., Lindo, J. M., and Waddell, G. R. (2016) “Heaping-Induced Bias in Regression-Discontinuity Designs,” *Economic Inquiry* 54(1): 268 – 293.

## **4. Public Provision of Private Goods [3 lectures]**

### **4.1 Capital Market Imperfections and Higher Education**

\*\* Dynarski, S. M. (2003) “Does Aid Matter? Measuring the Effect of Student Aid on College Attendance and Completion,” *American Economic Review* 93(1): 279-288.

\*\* Cameron, S. V. and Taber, C. (2004) “Borrowing Constraints and the Returns to Schooling,” *Journal of Political Economy* 112(1): 132 – 182.

D Rothstein, J. and Rouse, C. E. (2011) “Constrained After College: Student Loans and Early-Career Occupational Choices,” *Journal of Public Economics* 95(1-2): 149-163.

Garratt, R. and Marshall, J. (1994) “Public Finance of Private Goods: The Case of College Education,” *Journal of Political Economy* 102(3): 566 – 582.

Carneiro, P. and Heckman, J. J. (2002) “The Evidence on Credit Constraints in Post-Secondary Schooling,” *Economic Journal* 112(482): 705 – 734.

Scholz, J. K. and Seshadri, A. (2012) “A New Test of Borrowing Constraints in Education,” *Review of Economic Studies* 79(2): 511 – 538.

Marx, B. M. and Turner, L. J. (2018) “Borrowing Trouble? Human Capital Investment with Opt-In Costs and Implications for the Effectiveness of Grant Aid,” *American Economic Journal: Applied Economics* 10(2): 163 – 201.

## **4.2 The Regression Kink Design**

\*\* Turner, L. J. (2017) “The Economic Incidence of Federal Student Grant Aid,” working paper. Available at: [http://econweb.umd.edu/~turner/Turner\\_FedAidIncidence\\_Jan2017.pdf](http://econweb.umd.edu/~turner/Turner_FedAidIncidence_Jan2017.pdf)

Nielsen, H. S., Sørensen, T., and Taber, C. (2010) “Estimating the Effect of Student Aid on College Enrollment: Evidence from a Government Grant Policy Reform,” *American Economic Journal: Economic Policy* 2(2): 185-215.

Card, D., Lee, D. S., Pei, Z., and Weber A. (2015) “Inference on Causal Effects in a Generalized Regression Kink Design,” *Econometrica* 83(6): 2453 – 2483.

## **5. Social Insurance [7 lectures]**

### **5.1 Rationale for Government Involvement**

\*\* Akerlof, G. A. (1970) “The Market for “Lemons”: Quality Uncertainty and the Market Mechanism,” *Quarterly Journal of Economics* 84(3): 488 – 500.

\*\* Rothschild, M. and Stiglitz, J. (1976) “Equilibrium in Competitive Insurance Markets,” *Quarterly Journal of Economics* 90(4): 629 – 649.

\*\* Hendren, N. (2013) “Private Information and Insurance Rejections,” *Econometrica* 81(5): 1713 – 1762.

Baily, M. (1978) “Some Aspects of Optimal Unemployment Insurance,” *Journal of Public Economics* 10: 379 – 402.

Chetty, R. (2006) “A General Formula for the Optimal Level of Social insurance,” *Journal of Public Economics* 90(10-11) 1879 – 1901.

Einav, L. and Finkelstein, A. (2011) “Selection in Insurance Markets: Theory and Empirics in Pictures,” *Journal of Economic Perspectives* 25(1): 115-38.

### **5.2 Unemployment Insurance**

\*\* Gruber, J. (1997) “The Consumption Smoothing Benefits of Unemployment Insurance,” *American Economic Review* 87(1): 192 – 205.

\*\* Chetty, R. (2008) “Moral Hazard versus Liquidity and Optimal Unemployment Insurance,” *Journal of Political Economy* 116(2): 173 – 234.

\*\* Spinnewijn, J. (2015) “Unemployed but Optimistic: Optimal Insurance Design with Biased Beliefs,” *Journal of the European Economic Association* 13(1): 130 – 167.

D Schmieder, J. F., von Wachter, T., and Bender, S. (2012) “The Effects of Extended Unemployment Insurance over the Business Cycle: Evidence from Regression Discontinuity Estimates over Twenty Years,” *Quarterly Journal of Economics* 127(2): 701 – 752.

Shimer, R. and Werning, I. (2007) “Reservation Wages and Unemployment Insurance,” *Quarterly Journal of Economics* 122(3): 1145 – 1185.

Lalive, R., Landais, C., and Zweimüller, J. (2015) “Market Externalities of Large Unemployment Insurance Extension Programs,” *American Economic Review* 105(12): 3564-3596.

Kroft, K. and Notowidigdo, M. J. (2016) “Should Unemployment Insurance Vary with the Unemployment Rate? Theory and Evidence,” *Review of Economic Studies* 83(3): 1092-1124.

Marinescu, I. (2017) “The General Equilibrium Impacts of Unemployment Insurance: Evidence from a Large Online Job Board,” *Journal of Public Economics* 150: 14-29.

### **5.3 Social Security and Bunching Estimation**

\*\* Diamond, P. (1977) “A Framework for Social Security Analysis,” *Journal of Public Economics* 8(3): 275 – 298.

\*\* Manoli, D. S. and Weber, A. (2011) “Nonparametric Evidence on the Effects of Financial Incentives on Retirement Decisions,” NBER Working Paper 17320.

\*\* Chetty, R., Friedman, J. N., Leth-Peterson, S., Nielsen, T., and Olsen, T. (2014) “Active vs. Passive Decisions and Crowd-Out in Retirement Savings Accounts: Evidence from Denmark,” *Quarterly Journal of Economics* 129(3).

\*\* Persson, P. (forthcoming) “Social Insurance and the Marriage Market,” *Journal of Political Economy*.

Kruger, A. B. and Pischke, J. (1992) “The Effect of Social Security on Labor Supply: A Cohort Analysis of the Notch Generation,” *Journal of Labor Economics* 10(4): 412 – 437.

Scholz, K., Seshadri, A., and Khitatrakun, S. (2007) “Are Americans Saving Optimally for Retirement? *Journal of Political Economy* 114(4): 607 – 643.

Coile, C. and Gruber, J. (2007) “Social Security and Retirement,” *Review of Economics and Statistics* 89(2): 234 – 246.

Saez, E. (2010) “Do Taxpayers Bunch at Kink Points?” *American Economic Journal: Economic Policy* 2: 180 – 212.

Kleven, H. and Waseem M. (2013) “Using Notches to Uncover Optimization Frictions and Structural Elasticities: Theory and Evidence from Pakistan,” *Quarterly Journal of Economics* 128: 669 – 723.

Kleven, H. J. (2016) “Bunching,” *Annual Review of Economics* 8: 435 – 464.

Gelber, A. M., Jones, D., Sacks, D. W., and Song, J. (2017) “Using Non-Linear Budget Sets to Estimate Extensive Margin Responses: Method and Evidence from the Social Security Earnings Test,” NBER working paper 23362.

## **5.4 Disability Insurance**

\*\* Autor, D. H. and Duggan, M. D. (2006) “The Growth in the Social Security Disability Rolls: A Fiscal Crisis Unfolding,” *Journal of Economic Perspectives* 20(3): 71 – 96.

\*\* Maestas, N., Mullen, K. J. and Strand, A. (2013) “Does Disability Insurance Receipt Discourage Work? Using Examiner Assignment to Estimate Causal Effects of SSDI Receipt,” *American Economics Review* 103(5): 1797-1829.

D Moore, T. (2015) “The Employment Effects of Terminating Disability Benefits,” *Journal of Public Economics* 124: 30 – 43.

Bound, J. (1989) “The Health and Earnings of Rejected Disability Insurance Applicants,” *American Economic Review* 79(3): 482 – 503.

Gruber, J. (2000) “Disability Insurance Benefits and Labor Supply,” *Journal of Political Economy* 108(6): 1162 – 1183.

## **6. Student Presentations [2 lectures]**