Economics 425-1
Development Economics
Fall 2019
MW 3:30-5:20pm
Northwestern University

Lori Beaman

This course is part of a two-part graduate sequence on development economics, focusing mainly on microeconomic topics. The goal of this sequence is introduce the central issues in development economics and to explore the application of microeconomic analysis to gain deeper insights into these questions. Prof. Chris Udry teaches in the winter. To satisfy the field requirement, you must take both development classes. For students planning on writing a dissertation in development economics, you should also take Kellogg

One of this course's main objectives is to build skills in reading and writing applied microeconomics papers. Accordingly, I have put less emphasis on giving a thorough overview of the literature (though you should have a thorough knowledge if you intend to specialize in development economics) and more emphasis on teaching a few papers in detail. Also, the papers have been chosen in part because they are vehicles to teach empirical methods relevant to (mostly “reduced form") empirical work such as the Rubin causal model, IV, regression discontinuity design, methods for calculating standard errors and bounds, and power calculations.

The course is aimed primarily at economics PhD students who have satisfied all requirements for the first year. Prior knowledge of economic theory and econometrics at this level is a prerequisite.

Office Hours
Tuesdays, 10am-12pm

Course Requirements (% of final grade):

A primary goal of this course is a critical reading of the current literature on the empirical microeconomics of development. I expect you to do all of the required reading and to participate **in class discussion**. (10%)

Two referee reports (30%). The referee reports should be about 3 to 4 pages long, with a paragraph-long summary of the paper, a discussion of its importance/contribution, your main comments, and then a list of smaller comments. You must use 11 point font or larger. Alain de Janvry's has a helpful guide on how to write a referee report. There is also a helpful *Journal of Economic Perspectives* article by Berk et al., published in 2017, with advice.

In addition to the written reports, prepare a short discussion with 2-3 slides to present in class plus an idea of follow-up research question. I will randomly select a few students to present their discussion during lecture on the day the report is due. The first report is due October 9, 2019 and the second is due October 23, 2019.

1. Chakravorty, U., M. Dar and K. Emerick (2019). "Inefficient water pricing and incentives for conservation," Mimeo, Tufts University.

2. Kasy, M. and A. Sautmann (2019). "Adaptive treatment assignment in experiments for policy choice," Mimeo, Harvard University.

Research proposal (30%). This assignment asks you to develop research ideas on development economics topics that would be suitable as a second-year paper. You are asked to describe 2 research questions, motivate their importance, and propose how you would answer them (an identification strategy, including an estimating equation(s), and ideally description of potential data sets). The proposal should be about 4 to 5 pages long (2 to 3 pages per idea). Use at least 11 point font. The due date is is Wednesday, December 11th. Students will also describe one of the two research questions to the group in class on December 2nd.

In-class Presentation (20%). Students will each present one paper and lead a class discussion. All other students are required to prepare 5 minutes of comments on the paper in the form of 3 slides, one each on:

- strengths of the paper
- weaknesses of the paper
- ideas for follow-on work.

In class, one student will be randomly selected to present his or her comments. The presentation will be 20 to 25 minutes, and then there will be 5 minutes of discussant comments and 10 minutes of general discussion. You should present one of the papers on the syllabus marked with a smiley. The papers discussed in student presentations are required reading for all students.

Exercises (10%). There will be three relatively short exercises to be done out of class. Due dates will be announced in class.

You are encouraged to attend the Development Lunch on Wednesdays at 12:10 and the Development sessions of the applied micro workshop on Thursdays at 3:00.

Other Policies

Students with documented disabilities: Any student with a verified disability requiring special accommodations should speak to the Office of Services for Students with Disabilities (847-467-5530) and the provide documentation to me as early as possible in the quarter, ideally in the first week, to arrange appropriate accommodation. All discussions with me, with the Office of Services for Students with Disabilities and with Academic Services will remain confidential.

Reading List

No textbook is required, but I recommend the following as a short treatment of many of the empirical methods discussed in the course:

Angrist, J. D., and J.-S. Pischke (2008): Mostly Harmless Econometrics: An Empiricist's Companion. Princeton University Press, Princeton, NJ.

Deaton (1997), The Analysis of Household Surveys, is an excellent introduction of micro-development work based on household survey data and also very useful for its treatment of econometric topics.

The reading list comprises mainly published papers and working papers. Readings marked with a star are required. Readings without a mark will be taught in lecture, but in less detail. Readings marked with a smiley (☺) are potential papers for your in-class presentations.

1. Introduction and Rubin Causal Model (Sept 25 and 30)

*Banerjee and Duflo (2007) "The Economic Lives of the Poor," *Journal of Economic Perspectives*, 21(1), 141-167.

*Angrist, Imbens, and Rubin (1996) "Identification of Causal Effects Using Instrumental Variables," *Journal of the American Statistical Association*, 91(434), 444-455.

Angrist and Pischke (2008, Chapter 2)

2. Effect of health on income [Instrumental variables] (Oct 2)

*Thomas et al. (2006) "Causal Effect of Health on Labor Market Outcomes: Experimental Evidence," Working paper, UCLA.

*Banerjee and Duflo (2009) "The Experimental Approach to Development Economics," *Annual Review of Economics*, 1(1).

Angrist and Pischke (2008, Chapter 4)

☺ Dasgupta and Ray (1986) "Inequality as a Determinant of Malnutrition and Unemployment: Theory," *The Economic Journal*, 96(384), 1011-1034.

3. Effect of education on income [Diff-in-diff] (Oct 7)

*Duflo (2001) "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment," *American Economic Review*, 91(4), 795-813.

Angrist and Pischke (2008, Chapter 5)

Jensen (2010) "The (Perceived) Returns to Education and the Demand for Schooling," *Quarterly Journal of Economics*, 125(2), 515-548.

4. School quality and peer effects [Regression discontinuity, RCTs] (Oct 9 and 14)

*****Duflo, Dupas, and Kremer (2011) "Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya," *American Economic Review*, 101(5), 1739-74.

*Lee (2008) "Randomized Experiments from Non-Random Selection in U.S. House Elections," *Journal of Econometrics*, 142(2), 675-697.

☺ Muralidharan and Sundararaman (2015) "The Aggregate Effect of School Choice: Evidence From a Two-Stage Experiment in India," *Quarterly Journal of Economics*, 130(3), 1011-1066.

*Urquiola and Verhoogen (2009) "Class-size Caps, Sorting, and the Regression-Discontinuity Design," *American Economic Review*, 99(1), 179-215.

Dizon-Ross (2019) (student presentation?) "Parents' Beliefs About Their Children's Academic Ability: Implications for Educational Investments," *American Economic Review,* 109 (8), 2728-65.

Angrist and Pischke (2008, Chapter 6)

*Muralidharan and Sundararaman (2011) "Teacher Performance Pay: Experimental Evidence from India," *Journal of Political Economy*, 119(1), 39-77.

5. Effect of health on education (Oct 16 and 21)

*Miguel and Kremer (2004) "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities," *Econometrica*, 72(1), 159-217.

Bertrand, Duo, and Mullainathan (2004) "How Much Should We Trust Differences-in-Differences Estimates?" *Quarterly Journal of Economics*, 119(1), 249-275.

Kremer and Miguel (2007) "The Illusion of Sustainability," *Quarterly Journal of Economics*, 122(3), 1007-1065.

Angrist and Pischke (2008, Chapter 8)

☺ Bleakley (2010) "Malaria Eradication in the Americas: A Retrospective Analysis of Childhood Exposure," *American Economic Journal. Applied Economics*, 2(2), 1-45.

*Dupas (2013) "Short-Run Subsidies and Long-Run Adoption of New Health Products: Evidence from a Field Experiment," *Econometrica*, 82(1), 197-228.

Cohen and Dupas (2010) "Free Distribution or Cost-Sharing? Evidence from a Randomized Malaria Prevention Experiment," *Quarterly Journal of Economics*, 125(1), 1-45.

Kremer (2002) "Pharmaceuticals and the Developing World," *Journal of Economic Perspectives*, 16(4), 67-90.

☺ Cohen, Dupas, and Schaner (2015) "Price Subsidies, Diagnostic Tests, and Targeting of Malaria Treatment: Evidence from a Randomized Controlled Trial," *American Economic Review*, 105(2), 609-645.

*Jayachandran and Lleras-Muney (2009) "Life Expectancy and Human Capital Investments: Evidence from Maternal Mortality Declines," *Quarterly Journal of Economics,* 124(1), 349-397.

Acemoglu and Johnson (2007) "Disease and Development: The Effect of Life Expectancy on Economic Growth," *Journal of Political Economy*, 116(6), 925-985.

Graff Zivin, Thirumurthy, and Goldstein (2009) "AIDS Treatment and Intrahousehold Resource Allocations: Children's Nutrition and Schooling in Kenya," *Journal of Public Economics*, 93, 1008-1015.

Evans and Miguel (2007) "Orphans and Schooling in Africa: A Longitudinal Analysis," *Demography*, 44(1), 35-57.

6. Spatial misallocation (Oct 23)

*Gollin, D., Lagakos, D., & Waugh, M. E. (2014) "The Agricultural Productivity Gap," *Quarterly Journal of Economics*, *129*(2), 939-993.

*Hicks, Kleemans, Li and Miguel (2018). "Reevaluating Agricultural Productivity Gaps with Longitudinal Microdata," NBER Working Paper No. 23253.

Munshi, K. and M. Rosenzweig (2016) "Networks and Misallocation: Insurance, Migration, and the Rural-Urban Wage Gap," *American Economic Review*, 106(1): pp. 46-98.

7. Migration (Oct 28)

*G. Bryan, S. Chowdhury, and A.M. Mobarak (2014) "Under-investment in a Profitable Technology: The Case of Seasonal Migration in Bangladesh", *Econometrica*, 82(5), pp: 1671-1748.

Akram, A., Chowdhury, S. and A.M. Mobarak (2016) "Effects of Migration on Rural Labor Markets," Mimeo, Yale Universty.

Lagakos, D., Mobarak, A. M., & Waugh, M. E. (2018. "The welfare effects of encouraging rural-urban migration," NBER Working Paper No. 24193.

☺ Bryan, G. & Morten, M The Aggregate Productivity Effects of Internal Migration: Evidence from Indonesia. *Forthcoming, Journal of Political Economy*

Allen, T., Dobbin, C. & Morten, M. (2019) Border Walls. Nontechnical summary
NBER Working Paper 25267

*Bazzi, S., Gaduh, A., Rothenberg, A., and Wong, M. (2016) "Skill Transferability, Migration, and Development: Evidence from Population Resettlement in Indonesia," *American Economic Review*,106 (9): pp. 2658-98.

Ashraf, N., D. Aycinena, C. Martinez and D. Yang (2015) "Savings in Transnational Households: A Field Experiment Among Migrants from El Salvador," *Review of Economics and Statistics*, 97(2): pp. 332-351.

8. Labor markets: GE effects (Oct 30)

*Jayachandran, S. (2006) "Selling labor low: Wage responses to productivity shocks in developing countries." *Journal of Political Economy* 114.3, pp. 538-575.

*Kaur, S. (2015) "Nominal Wage Rigidity in Village Labor Markets", Mimeo, University of California-Berkeley.

Imbert, C., & Papp, J. (2015) "Labor market effects of social programs: Evidence from India's employment guarantee," *American Economic Journal: Applied Economics*, *7*(2), 233-263.

Mobarak, M. and M. Rosenzweig (2014) "Risk, Insurance and Wages in General Equilibrium," Mimeo, Yale University.

Breza, E. and C. Kinnan (2016) "Measuring the Equilibrium Impacts of Credit: Evidence from the Indian Microfinance Crisis," Mimeo, Columbia.

☺ Fink, G., K. Jack and F. Masiye (2014). "Seasonal Credit Constraints and Agricultural Labor Supply: Evidence from Zambia," NBER Working Paper 20218.

9. Discrimination and group disparities (Nov 4)

Bertrand, M. and S. Mullainathan (2004) "Are Emily and Greg More Employable Than Lakisha and Jamal: A Field Experiment on Labor Market Discrimination." *American Economic Review,* 94 (4): pp. 991-1013.

Beaman, L., R. Chattopadhyay, E. Duflo, R. Pande and P. Topalova (2009) "Powerful Women: Does Exposure Reduce Bias?" *Quarterly Journal of Economics* 124(4): pp. 1497-1540.

*Rao, G. (2019) "Familiarity Does Not Breed Contempt: Diversity, Discrimination and Generosity in Delhi Schools." *American Economic Review*, *109*(3), 774-809.

Hanna, R. and L. Linden (2012) "Discrimination in Grading," *American Economic Journal: Economic Policy*, 4(4): pp. 146-68.

Buser, T., M. Niederle, and H. Oosterbeek (2014) "Gender, competitiveness and career choices," *Quarterly Journal of Economics*, 129(3): pp. 1409-1447.

10. Labor market referrals (Nov 6)

Munshi, K. and M. Rosenzweig (2003) "Traditional Institutions Meet the Modern World: Caste, Gender and Schooling Choice in a Globalizing Economy." *American Economic Review*, 96(4): pp.1225-1252.

*Munshi, K. (2003) "Networks in the Modern Economy: Mexican Migrants in the U.S. Labor Market," *Quarterly Journal of Economics*, 118(2): pp. 549-597.

Beaman, L. and J. Magruder (2012) "Who gets the job referral? Evidence from a social networks experiment," *American Economic Review*, 102(7): pp. 3574-3593.

Heath, R. (2018) "Why do Firms Hire Using Referrals? Evidence from Bangladeshi Garment Factories." *Journal of Political Economy*. 126(4): 1691-1746.

Calvo-Armengol, A., & Jackson, M. O. (2004) The effects of social networks on employment and inequality. *American economic review*, *94*(3), 426-454.

11. Targeting (Nov 11)

*Alatas, V., Banerjee, A., Hanna, R., Olken, B. A., & Tobias, J. (2012) "Targeting the Poor: Evidence from a Field Experiment in Indonesia," *American Economic Review*, *102*(4): pp. 1206-1240.

*Alatas, V., Purnamasari, R., Wai-Poi, M., Banerjee, A., Olken, B. A., & Hanna, R. (2016) "Self-Targeting: Evidence from a Field Experiment in Indonesia," *Journal of Political Economy*, *124*(2): 371-427.

Dupas, P., Hoffmann, V., Kremer, M., & Zwane, A. P. (2016) "Targeting Health Subsidies through a Nonprice Mechanism: A Randomized Controlled Trial in Kenya," *Science*, *353*(6302), 889-895.

☺ Rigol, N., Hussam, R., & Roth, B. (2017) "Targeting High Ability Entrepreneurs Using Community Information: Mechanism Design In The Field," Working paper, Harvard University.

Nov 13: One on one meetings in lieu of lecture

12. Property rights (Nov 18)

*Banerjee, Gertler, and Ghatak (2002) "Empowerment and Efficiency: Tenancy Reform in West Bengal," *Journal of Political Economy*, 110(2), 239-280.

Field (2007) "Entitled to Work: Urban Property Rights and Labor Supply in Peru," *Quarterly Journal of Economics*, 122(4), 1561-1602.

*De Janvry, Emerick, Gonzalez-Navarro, and Sadoulet (2015) "Delinking Land Rights from Land Use: Certification and Migration in Mexico," *American Economic Review*, 105(10), 3125-3149.

Goldstein, M. and C. Udry (2008) "The profits of power: Land rights and agricultural investment in Ghana," *Journal of Political Economy*, 116 (6), 981-1022.

Nov 20: No class due to Kellogg Book conference for *Good Economics for Hard Times*. RSVP & attend!

13. Behavioral Economics (Nov 25)

*Ashraf, N., D. Karlan and W. Yin. (2006) "Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines," *Quarterly Journal of Economics*, 121 (2): pp. 635-672.

*Duflo, E., M. Kremer, and J. Robinson (2011) "Nudging Farmers to Use Fertilizer: Theory and Experimental Evidence from Kenya," *American Economic Review*, 101(6), 2350-2390.

Karlan, D (2005) "Using Experimental Economics to Measure Social Capital and Predict Financial Decisions" *American Economic Review*, 95(5): pp. 1688-1699.

☺ S. Kaur, S. Mullainathan, F. Schilbach and S. Oh (2019) "Does Financial Strain Lower Productivity?" Mimeo, MIT.

14. Taxes (Nov 27)

*Khan, A., A. Khwaja and B. Olken (2016) "Tax Farming Redux: Experimental Evidence on Performance Pay for Tax Collectors," *Quarterly Journal of Economics*, 131(1): pp. 219-271.

*Pomeranz, D. (2015) "No Taxation without Information: Deterrence and Self-enforcement in the Value Added Tax," *American Economic Review*, 105(8): pp. 2539-2569.

Kumler, T., E. Verhoogen and J. Frias (2015) "Enlisting Employees in Improving Payroll-Tax Compliance: Evidence from Mexico," Mimeo, Columbia.

Naritomi, J. (2016) "Consumers as Tax Auditors," Mimeo, London School of Economics.

Dec 2: Student Presentations

Dec 4: Guest lecture by **Isabel Onate Falomir**, GPRL, Research Transparency and Best Practices