

# Economics 270B: Development Economics (Ph.D. course)

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## SPRING 2019 SYLLABUS

Version: January 25, 2018

**Description:** This course covers current research topics and methods in Development Economics. It is appropriate for Ph.D. students in Economics and related fields.

**Prerequisites:** Graduate coursework in economic theory and econometrics.

**Lectures:** Monday 2-4pm, Evans Hall 648.

### **Office hours:**

For Prof. Kaur, please sign up for office hours online at [www.supreetkaur.com](http://www.supreetkaur.com).

For Prof. Miguel, please sign up for office hours online at <https://bit.ly/2Q0eCAv>.

**Extra office hours:** Eric Hsu ([eric.hsu@berkeley.edu](mailto:eric.hsu@berkeley.edu)) will serve as an additional resource person for the course.

### **Assignments and Grading:**

(Note: assignments should be uploaded on bCourses by 2pm on the due date.)

(1) Referee reports on papers by job market candidates (40 percent):

-- Each referee report should be no more than 3 pages double-spaced. The report should start off with a one paragraph summary of the main argument of the article. You should describe your main 3-4 points in detail as if you were writing directly to the author. Conclude the report with more minor comments. A good referee report not only clearly states the shortcomings of the work, but also lays out constructive, detailed and realistic suggestions for improvement. Prof. Alain de Janvry has prepared a useful guide to writing referee reports:

<https://are.berkeley.edu/courses/ARE251/2004/assignments/RRGuidelines.pdf>.

-- These assignments will allow you to read and critique papers on the research frontier of development economics, and get a concrete sense of the quality of work being done by leading Ph.D. candidates in the field. These papers are also posted on bCourses.

-- Report 1 on Roman Zarate (MIT) "Social and Cognitive Peer Effects: Experimental Evidence from Selective High Schools in Peru", due Friday 2/8 [<https://economics.mit.edu/files/16276>]

-- Report 2 on Maulik Jagnani (Cornell) "Poor Sleep: Sunset Time and Human Capital Production", due Friday 3/8 [<https://sites.google.com/view/maulikjagnani/research>]

-- Report 3 on Siddharth George (Harvard) "Like Father, Like Son? The Effect of Political Dynasties on Economic Development", due Friday 3/22 [<https://scholar.harvard.edu/siddharthgeorge/dynasties-paper>]

-- Report 4 on Clare Balboni (LSE), "In Harm's Way? Infrastructure Investments and the Persistence of Coastal Cities", due Friday 4/12 [<https://sites.google.com/prod/view/clarebalboni/research>]

\* Extra credit option for each referee report: please critically assess the presentation of data in each of the referee report papers. You can receive one point of extra credit for each report if you also include a detailed discussion of the shortcomings of one particular table / figure in the paper, and the concrete modifications you would make to improve the presentation of the data. (This does not count toward the 3 page limit for the referee report itself. Please restrict yourself to 1 page for this additional discussion of data presentation.) For a classic treatment on the presentation of quantitative data, refer to: Tufte, Edward R. (1983). *The Visual Display of Quantitative Information*. Cheshire: Graphics Press.

(2) Two problem sets (20 percent):

-- Problem set 1, posted by Friday 2/15 and due Friday 2/22

PS1 will require you to work through theoretical and conceptual exercises related to consumption smoothing under market imperfections. This will include application of the Euler equation under credit constraints, and consumption and portfolio choice under uncertainty.

-- Problem set 2, posted by Friday 4/12 and due Friday 4/26

PS2 will require replication, manipulation and econometric analysis of a dataset used in a published paper. You will apply some of the methods and approaches from the course to real data, and we will ask you to interpret the results. These assignments provide practice in applying econometric methods to data, something most of you will need to do in your own research.

(3) One research proposal, 8-9 pages (30 percent):

The research proposal should briefly (3-4 pages) survey an existing literature in Development Economics, and then describe a planned research project (5-6 pages). Proposals should be in 12 point font, double-spaced with 1 inch margins. Proposals exceeding 9 pages in length will lose credit. This assignment will encourage you to generate, refine and receive feedback on a research idea that might form part of your dissertation.

-- The research proposal is due Friday 5/3 at 2pm (uploaded on bCourses).

(4) Class participation (10 percent): In borderline cases, attendance at lecture and the quality of classroom comments may be a factor in assigning grades. Active class participation enriches the course, benefiting other students (and us), and is highly encouraged.

(5) There are no exams.

(6) The Development Economics field exam this spring will cover all readings on this syllabus.

**Special Accommodations:** If you need disability-related accommodations in this class, if you have emergency medical information you wish to share with us, or if you need special arrangements in case the building must be evacuated, please inform us immediately by email or in office hours.

**Honor Code:** The student community at U.C. Berkeley has adopted the following Honor Code: "*As a member of the U.C. Berkeley community, I act with honesty, integrity, and respect for others.*" The hope and expectation is that all students and course instructors will adhere to this code at all times.

## COURSE SYLLABUS

### **I. Overview of international economic development**

#### **Lecture 1: Understanding economic growth and development (1/28)**

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

Collins, Daryl et al. (2009). *Portfolios of the Poor: How the World's Poor Live on \$2 a Day*. Princeton University Press. Chapters 1-2.

Deaton, Angus. (2005). "Measuring Poverty in a Growing World (or Measuring Growth in a Poor World)," *Review of Economics and Statistics*, 87(1), 1-19.

Henderson, J. Vernon, Adam Storeygard, and David N. Weil. (2012). "Measuring Economic Growth from Outer Space", *American Economic Review*, 102(2), 994-1028.

#### *Additional readings:*

Blumenstock, J.E., G. Cadamuro, and R. On. (2015). "Predicting Poverty and Wealth from Mobile Phone Metadata", *Science*, 350(6264), 1073-1076.

Bouguen, Adrien, Yue Huang, Michael Kremer, and Edward Miguel. (2019). "Using RCT's to Estimate Long-Run Impacts in Development Economics", forthcoming *Annual Review of Economics*.

Chen, Shaohua and Martin Ravallion. (2010). "The Developing World is Poorer than We Thought, But No Less Successful in the Fight against Poverty," *Quarterly Journal of Economics*, 125(4), 1577-1625.

### **II. Missing markets - Consumption and Labor**

#### **Lecture 2: Consumption smoothing I - Credit constraints (2/4)**

Fink, Gunther, Kelsey Jack, and Felix Masiye (2018). "Seasonal Liquidity, Rural Labor Markets and Agricultural Production." NBER Working Paper 24564.

Jayachandran, Seema (2006). "Selling Labor Low: Wage Responses to Productivity Shocks in Developing Countries," *Journal of Political Economy*, 114(3), 538-575.

#### *Additional Readings:*

[Background: Romer, David, *Advanced Macroeconomics*, Sections: 8.1-8.2 (Consumption under uncertainty), 8.4 (Interest rate and saving), and 8.6 (Buffer stocks and precautionary savings).]

Paxson, Christina (1992). "Using Weather Variability to Estimate the Response of Savings to Transitory Income in Thailand," *American Economic Review*, 82(1): pp. 15-33.

Burke, Marshall, Lauren Falcao Bergquist, and Edward Miguel. (2019). "Sell Low and Buy High: Arbitrage and Local Price Effects in Kenyan Markets", forthcoming *Quarterly Journal of Economics*.

#### **Lecture 3: Consumption smoothing II - Risk and insurance (2/11)**

Bardhan, Pranab and Chris Udry (1999). *Development Microeconomics*, Chapter 8 - "Risk and Insurance in an Agricultural Economy."

Townsend, Robert (1994). "Risk and Insurance in Village India," *Econometrica*, 62(3): 539-591.

Casaburi, Lorenzo, and Jack Willis (2018). "Time vs. State in Insurance: Experimental Evidence from Contract Farming in Kenya," forthcoming, *American Economic Review*.

*Additional Readings:*

[Background: Romer, David, *Advanced Macroeconomics*, Section 8.5 (Consumption and risky assets, consumption CAPM).]

Morten, Melanie (2017). "Temporary Migration and Endogenous Risk Sharing in Village India." Forthcoming, *Journal of Political Economy*.

Karlan, Dean et al. (2013). "Agricultural Decisions after Relaxing Credit and Risk Constraints," *Quarterly Journal of Economics*, 129(2): 597-652.

**Lecture 4: Labor markets (\*\*Friday 2/15, 1-4pm in Evans 648 – Extra lecture)**

Kaur, Supreet (2018). "Nominal Wage Rigidity in Village Labor Markets." *American Economic Review*, forthcoming.

Alfonsi, Livia, Oriana Bandiera, Vittorio Bassi, Robin Burgess, Munshi Sulaiman, and Anna Vitali (2017). "Tackling Youth Unemployment: Evidence from a Labor Market Experiment in Uganda," Working Paper. (Revise and resubmit, *Econometrica*).

*Additional Readings*

Behrman, Jere (1999). "Labor Markets in Developing Countries," in O. Ashenfelter and D. Card. (eds), *Handbook of Labor Economics*, Vol. 3.

Imbert, Clement and John Papp (2015). "Labor Market Effects of Social Programs: Evidence from India's Employment Guarantee." *American Economic Journal: Applied Economics*, 7(2), 233-63.

Beaman, Lori and Jeremy Magruder (2012). "Who gets the Job Referral? Evidence from a Social Networks Experiment." *American Economic Review*, 102(7), 3574-93.

**(Monday 2/18 President's Day Holiday – no lecture)**

**III. Human capital in economic development**

**Lecture 5: Sectoral productivity gaps and misallocation (2/25)**

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

Hicks, Joan Hamory, Marieke Kleemans, Nicholas Y. Li, and Edward Miguel. (2018). "Reevaluating agricultural productivity gaps with longitudinal microdata", unpublished working paper.

*Additional readings:*

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

Hendricks, L. and T. Schoellman. (2018). "Human Capital and Development Accounting: New Evidence from Wage Gains at Migration", *Quarterly Journal of Economics*, 133(2), 665-700.

### **Lecture 6: Education I (and randomized controlled trials, RCTs) (3/4)**

de Ree, Joppe, Karthik Muralidharan, Menno Pradhan, Halsey Rogers. (2018). "Double for nothing? Experimental Evidence on Unconditional Teacher Salary Increase in Indonesia", *Quarterly Journal of Economics*, 133(2), 993-1039.

Mbiti, Isaac, Karthik Muralidharan, Mauricio Romero, Youdi Schipper, Constantine Manda, and Rakesh Rajani. (2019). "Inputs, Incentives, and Complementarities in Education: Experimental Evidence from Tanzania", unpublished working paper.

Muralidharan, Karthik, Abhijeet Singh, and Alejandro Ganimian. (2019). "Disrupting Education? Experimental Evidence on Technology-Aided Instruction in India", forthcoming *American Economic Review*.

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

#### *Additional readings:*

Duflo, Esther, Rachel Glennerster and Michael Kremer, "Randomization in Development Economics Research: A Toolkit," *Handbook of Development Economics*, vol 4.

Glennerster, Rachel, and Kudzai and Takavarasha. (2013). *Running Randomized Evaluations: A Practical Guide*. Princeton University Press.

### **Lectures 7-8: Health I and II (3/11, 3/18)**

Baird, Sarah, Joan Hamory Hicks, Michael Kremer, and Edward Miguel. (2016). "Worms at Work: Long-run Impacts of Child Health Gains", *Quarterly Journal of Economics*, 131(4), 1637-1680.

Das, Jishnu, Alaka Holla, Aakash Mohpal, and Karthik Muralidharan. (2016). "Quality and Accountability in Health Care Delivery: Audit-study Evidence from Primary Care in India", *American Economic Review*, 106(12), 3765-3799.

Dupas, Pascaline. (2014). "Short-run subsidies and long-run adoption of new health products: Evidence from a field experiment", *Econometrica*, 82(1), 197-228.

Gong, Erick. (2015). "HIV Testing and Risky Sexual Behavior", *Economic Journal*, 125, 32-60.

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

#### *Additional readings:*

Alsan, Marcella. (2015). "The Effect of the TseTse fly on African Development", *American Economic Review*, 105(1), 382-410.

Dupas, Pascaline, and Edward Miguel. (2017). "Impacts and Determinants of Health Levels in Low-Income Countries", *Handbook of Field Experiments*, (eds.) Esther Duflo and Abhijit Banerjee.

**Lecture 9 (readings only): Education II (\*\*for Spring Break week of 3/25, no lecture)**

Akresh, Richard, Daniel Halim, and Marieke Kleemans. (2018). "Long-term and intergenerational Effects of Education: Evidence from School Construction in Indonesia", unpublished working paper.

Baird, Sarah, Craig McIntosh, and Berk Ozler. (2011). "Cash or condition? Evidence from a Randomized Cash Transfer Program", *Quarterly Journal of Economics*, 126(4), 1709-1753.

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.

*Additional readings:*

Krueger, Alan and Mikael Lindahl. (2001). "Education for Growth: Why and For Whom?" *Journal of Economic Literature*, 39 (4), 1101-1136.

**IV. Explaining persistent poverty**

**Lecture 10: Poverty traps (4/1)**

Banerjee, Abhijit and Esther Duflo (2005). "Growth Theory through the Lens of Development Economics," in Aghion, Philippe and Steven Durlauf (eds), *Handbook of Economic Growth*, vol. 1A.

Murphy, Kevin, Shleifer, Andrei and R. Vishny (1989). "Industrialization and the Big Push," *Journal of Political Economy* 97, 1003-1026.

*Additional Readings:*

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

Banerjee, Abhijit and A. Newman (1993). "Occupational Choice and the Process of Development," *Journal of Political Economy* 101, 274-298.

Kraay, Aart and David McKenzie. "Do Poverty Traps Exist? Assessing the Evidence." *Journal of Economic Perspectives*, 28(3):127-148, Aug 2014.

**Lecture 11: Topics in research design (\*\*Friday 4/5, 1-4pm in Evans 648 – Extra lecture)**

Karlan, Dean and Jonathan Zinman (2009). "Observing Unobservables: Identifying Information Asymmetries With a Consumer Credit Field Experiment," *Econometrica*, 77(6): 1993-2008. (Read Sections 1-3).

Breza, Emily, Supreet Kaur, and Yogita Shamdasani (2017). "The Morale Effects of Pay Inequality." *Quarterly Journal of Economics*, 133(2): 611-663. (Read Sections 1-3).

Christensen, Garret, Jeremy Freese, and Edward Miguel. (2018). *Transparent and Reproducible Social Science Research*, Chapters 1, 2, and 6.

*Additional Readings*

Muralidharan, Karthik, and Paul Niehaus. (2017). "Experimentation at Scale", *Journal of Economic Perspectives*, 31(4), 103-124.

Mullainathan, Sendhil, Jens Ludwig, and Jeff Kling. (2011). "Mechanism Experiments and Policy Evaluations." *Journal of Economic Perspectives*, 25(3): 17-38

**Lecture 12: Behavioral economics applications in development (4/8)**

Kaur, Supreet, Michael Kremer, and Sendhil Mullainathan (2015). "Self-Control at Work." *Journal of Political Economy*. 123(6): 1227-1277.

Mani, Anandi et al. (2013). "Poverty Impedes Cognitive Function." *Science*, 341(6149): 976-980.

Haushofer, Johannes and Ernst Fehr. (2014). "On the Psychology of Poverty." *Science*, 344.6186: 862-867.

*Additional Readings:*

[Background: DellaVigna, Stefano (2009). "Psychology and Economics: Evidence from the Field," *Journal of Economic Literature*, 47(2). Sections: 1; 2.1.1-2.1.3; 2.2.1-2.2.2; 2.3.1-2.3.2, 2.3.5; 4.1-4.2.1]

Duflo, Esther, Michael Kremer, and Jon Robinson (2011). "Nudging Farmers to Use Fertilizer: Theory and Experimental Evidence from Kenya," *American Economic Review* 101(6): 2350-90.

Breza, Emily, Supreet Kaur, and Nandita Krishnaswamy (2019). "Scabs: The Social Suppression of Labor Supply," Working Paper.

Kremer, Michael, Gautam Rao, Frank Schilbach. 2019. "Behavioral Development Economics". *Handbook of Behavioral Economics*, Volume 2, Douglas Bernheim, Stefano DellaVigna, and David Laibson (eds.)

Schilbach, Frank, Heather Schofield, Sendhil Mullainathan (2016). "The Psychological Lives of the Poor," *American Economic Review, Papers & Proceedings*.

**V. Political economy**

**Lecture 13: Corruption (4/15) – Guest Lecture Prof. Fred Finan**

Avis, Eric, Claudio Ferraz, and Frederico Finan. (2018). "Do Government Audits Reduce Corruption? Estimating the Impacts of Exposing Corrupt Politicians", *Journal of Political Economy*, 126(5).

Olken, Ben and Patrick Barron. (2009). "The Simple Economics of Extortion: Evidence from Trucking in Aceh", *Journal of Political Economy*, 117(3), 417-452.

*Additional readings:*

Ferraz, Claudio, and Frederico Finan. (2008). "Exposing Corruption politicians: The Effects of Brazil's Publicly Released Audits on Electoral Outcomes", *Quarterly Journal of Economics*, 123(2), 703-745.

Fisman, Raymond and Edward Miguel. (2007). "Corruption, Norms, and Legal Enforcement: Evidence from Diplomatic Parking Tickets", *Journal of Political Economy*, 115(6), 1020-1048.

Olken, Ben and Rohini Pande (2012) "Corruption in Developing Countries", *Annual Review of Economics*, Vol. 4.

**Lecture 14: The political economy of conflict (\*\*Tuesday 4/16, 10am-12pm in Evans 639 – Extra lecture)**

Blouin, Arthur, and Sharun W. Mukand. (2018). "Erasing Ethnicity? Propaganda, Nation Building and Identity in Rwanda", forthcoming *Journal of Political Economy*.

Burke, Marshall, and Eoin McGuirk. (2017). "The Economic Origins of Conflict in Africa", unpublished working paper.

Chassang, Sylvain, and Gerard Padro-i-Miquel. (2010). "Economic Shocks and Civil War", *Quarterly Journal of Political Science*, 4(3), 211-228.

Hsiang, Solomon, Marshall Burke, and Edward Miguel. (2013). "Quantifying the Influence of Climate on Human Conflict", *Science*, 10.1126/science.1235367.

Additional readings:

Blattman, Christopher and Edward Miguel. (2010). "Civil War", *Journal of Economic Literature*, 48(1), 3-57.

Dell, Melissa, and Pablo Querubin. (2018). "Nation Building through Foreign Intervention: Evidence from Discontinuities in Military Strategies", *Quarterly Journal of Economics*, 133(2), 701-764.

Miguel, Edward, Shanker Satyanath, and Ernest Sergenti. (2004). "Economic Shocks and Civil Conflict: An Instrumental Variables Approach", *Journal of Political Economy*, 112(4), 725-753.

**Lecture 15: Institutions and development (4/22)**

Casey, Katherine, Rachel Glennerster, and Edward Miguel. (2012). "Reshaping institutions: Evidence on aid impacts using a pre-analysis plan", *Quarterly Journal of Economics*, 127(4), 1755-1812.

Dal Bó, Ernesto, Frederico Finan, and Martín A. Rossi (2013) "Strengthening State Capabilities: The Role of Financial Incentives in the Call to Public Service", *Quarterly Journal of Economics*, 128(3), 1169-1218.

Dal Bó, Pedro, Andrew Foster, Louis Putterman (2010) "Institutions and Behavior: Experimental Evidence on the Effects of Democracy", *American Economic Review*, 100(5), 2205-2229.

Sanchez de la Sierra, Raul (2018) "On the Origin of States: Stationary Bandits and Taxation in Eastern Congo", forthcoming *Journal of Political Economy*.

Additional readings:

Acemoglu, Daron, Suresh Naidu, Pascual Restrepo and James A. Robinson (2014) "Democracy Does Cause Growth," forthcoming *Journal of Political Economy*.



Khan, Adnan Q., Asim I. Khwaja, and Benjamin A. Olken. (2016). "Tax Farming Redux: Experimental Evidence on Performance Pay for Tax Collectors", *Quarterly Journal of Economics*, 131(1), 219-272.

**Lecture 16 (readings only): Ethnic & social divisions (\*\*for reading week of 5/6, no lecture)**

Burgess, Robin, Remi Jedwab, Edward Miguel, Ameet Morjaria, Gerard Padro-i-Miquel. (2015). "The Value of Democracy: Evidence from Road Building in Kenya", *American Economic Review*, 105(6), 1817-1851.

Hjort, Jonas. (2014). "Ethnic Divisions and Production in Firms", *Quarterly Journal of Economics*, 1899-1946.

Laitin, David D., and Rajesh Ramachandran. (2018). "Linguistic Diversity, Official Language Choice and Human Capital: Africa's Growth Tragedy Revisited", unpublished working paper.

Rao, Gautam. (2019). "Familiarity does not breed contempt: Diversity, Discrimination and Generosity in Delhi Schools", forthcoming *American Economic Review*.

Additional readings:

Easterly, William and Ross Levine. (1997). "Africa's Growth Tragedy: Policies and Ethnic Divisions", *Quarterly Journal of Economics*, 112(4), 1203-1250.

**VI. Other topics**

**Lecture 17: Environment and energy in economic development (4/29)**

Burke, Marshall, Solomon Hsiang, and Edward Miguel. (2015). "Global non-linear effect of temperature on economic production", *Nature*.

Hsiang, Solomon, and Amir Jina. (2014). "The Causal Effect of Environmental Catastrophe on Long-run Economic Growth: Evidence from 6,700 Cyclones", unpublished working paper.

Lee, Kenneth, Edward Miguel, and Catherine Wolfram. (2018). "Experimental Evidence on the Economics of Rural Electrification", unpublished working paper.

Additional readings:

Dell, Melissa, Benjamin Jones and Benjamin Olken. (2014). "What Do We Learn from the Weather? The New Climate-Economy Literature", *Journal of Economic Literature*, 52(3), 740-798.

Hsiang, Solomon, and Robert E. Kopp. (2018). "An Economist's Guide to Climate Change Science", *Journal of Economic Perspectives*, 32(4), 3-32.