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

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SPRING 2018 SYLLABUS

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<u>Description:</u> 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 597.

Office hours:

For Prof. Kaur, please sign up for office hours online (www.supreetkaur.com). For Prof. Miguel, please email Alex Dobyan (adobyan@berkelev.edu) for an appointment.

Extra discussion sections and office hours: Daniel Haanwinckel (haanwinckel@berkeley.edu) will hold extra office hours and 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 <u>as if you were writing directly to the author</u>. 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 Natalia Rigol (MIT) "Targeting High Ability Entrepreneurs Using Community Information: Mechanism Design in the Field", <u>due Friday 2/2</u> [https://economics.mit.edu/grad/rigol/research]
- -- Report 2 on Edoardo Teso (Harvard) "Patronage in the Allocation of Public Sector Jobs", <u>due Friday 3/9</u>
 [https://scholar.harvard.edu/edoardoteso/publications/patronage-allocation-public-sector-jobs-

<u>job-market-paper</u>

-- Report 3 on David Yang (Stanford), "The Impact of Media Censorship: Evidence from a Field Experiment in China", <u>due Friday 3/23</u>

[https://stanford.edu/~dyang1/pdfs/1984bravenewworld_draft.pdf]

- -- Report 4 on Joshua Dean (MIT) "Noise, Cognitive Function, and Worker Productivity", <u>due Friday</u> 4/6 [https://economics.mit.edu/grad/jtdean/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 2/9 and due Friday 2/16

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 4/6 and <u>due Friday 4/20</u> 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 <u>due Friday 4/27</u> 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.

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

<u>Honor Code:</u> 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 you will adhere to this code.

COURSE SYLLABUS

I. Overview of international economic development

Lecture 1: Understanding economic growth and development (1/22)

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.

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. Consumption smoothing under market imperfections

Lecture 2: Consumption smoothing under credit constraints (1/29)

Fink, Gunther, Kelsey Jack, and Felix Masiye (2014). "Seasonal Credit Constraints and Agricultural Labor Supply." NBER Working Paper 20218.

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

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.

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).]

Adhvaryu, Achyuta et al. (2015). "Booms, Busts, and Household Enterprise: Evidence from Coffee Farmers in Tanzania." Mimeo.

Kochar, Anjini (1999). "Smoothing Consumption by Smoothing Income: Hours-of-Work Responses to Idiosyncratic Agricultural Shocks in Rural India." *Review of Economics and Statistics*, 81(1): 50-61.

Lecture 3: Risk and insurance (2/5)

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

Casaburi, Lorenzo, and Jack Willis (2017). "Time vs. State in Insurance: Experimental Evidence from Contract Farming in Kenya," Working Paper.

Cole, Shawn, Xavier Gine, and James Vickery (2014). "How Does Risk Management Influence Production Decisions? Evidence from a Field Experiment," Working Paper.

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

Additional Readings:

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

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

Mobarak, A. Mushfiq and Mark Rosenzweig (2014). "Selling Formal Insurance to the Informally Insured," Working Paper.

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

III. Human capital in economic development

Lecture 4: Education (and randomized controlled trials, RCTs) (2/12)

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.

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

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.

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

Lectures 5-6: Health and nutrition (*2/21 at 3-5pm in Evans 648 – alternate time, 2/26)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.

IV. Explaining persistent poverty

Lecture 7: Poverty traps (3/5)

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.

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

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

Additional Readings:

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

Galor, Oded and Joseph Zeira (1993). "Income Distribution and Macroeconomics," *Review of Economic Studies* 60, 35-52.

Kline, Patrick, and Enrico Moretti (2013). "Local Economic Development, Agglomeration Economies, and the Big Push: 100 Years of Evidence from the Tennessee Valley Authority," *Quarterly Journal of Economics*, 129.1: 275-331.

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

Mookherjee, Dilip and Debraj Ray (2003). "Persistent Inequality," *Review of Economic Studies*, 70, 369-393.

Lecture 8: Organizational structures and contracting frictions (3/12)

Bubb, Ryan, Supreet Kaur, and Sendhil Mullainathan (2018). "Contracting Failures in the Village Economy." Working Paper.

Goldstein, Marcus and Chris Udry (2008). The Profits of Power: Land Rights and Agricultural Investment in Ghana," *Journal of Political Economy*, 116(6), 981-1022.

Shaban, Radwan (1987). "Testing between Competing Models of Sharecropping," *Journal of Political Economy*, 95(5), 893-920.

Additional Readings:

[Background for Shaban paper: Angrist, Jorn-Steffen Pischke. (2009) *Mostly Harmless Econometrics: An Empiricist's Companion*. Fixed effects estimators - Sections 5.1 and 5.3.]

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

Bergquist, Lauren Falcao (2017). "Pass-Through, Competition, and Entry in Agricultural Markets: Experimental Evidence from Kenya." Working Paper.

La Porta, Rafael, and Andrei Shleifer (2014). "Informality and Development." *Journal of Economic Perspectives*, 28(3): 109-26.

Macchiavello, Rocco, and Ameet Morjaria. "The Value of Relationships: Evidence from a Supply Shock to Kenyan Rose Exports," *American Economic Review* 105.9 (2015): 2911-2945.

V. Psychology and economic development

Lecture 9: Behavioral economics applications in development (3/19)

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.

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

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]

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

Banerjee, Abhijit and Sendhil Mullainathan (2008). "Limited Attention and Income Distribution." *American Economic Review Papers and Proceedings*, 98(2): 489–93.

Breza, Emily, Supreet Kaur, and Yogita Shamdasani (2017). "The Morale Effects of Pay Inequality." *Quarterly Journal of Economics*, forthcoming.

Karlan, Dean et al. (2010). "Getting to Top of Mind: How Reminders Increase Saving." NBER Working Paper No. 16205.

Shapiro, Jeremy (2005). "Is There a Daily Discount Rate? Evidence from the Food Stamp Nutrition Cycle." *Journal of Public Economics*.

[SPRING BREAK - 3/27]

Lecture 10: The psychology of poverty? (4/2)

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

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

Schofield, Heather (2017). "The Economic Costs of Low Caloric Intake: Evidence from India." Working Paper.

Additional Readings

Appadurai, Arjun (2004), "The Capacity to Aspire: Culture and the Terms of Recognition", in Rao, Vijayendra and Michael Walton, *Culture and Public Action*, Stanford, CA: Stanford University Press, pp. 59–84.

Bertrand, Marianne, Sendhil Mullainathan, and Eldar Shafir (2004). "A Behavioral-Economics View of Poverty." *The American Economic Review*, 94(2), 419-423.

Chemin, Matthieu, Joost De Laat, and Johannes Haushofer (2013). "Negative Rainfall Shocks Increase Levels of the Stress Hormone Cortisol among Poor Farmers in Kenya." Working paper.

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

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

VI. Political economy

Lecture 11: Institutions and development (4/9)

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 (2017) "On the Origin of States: Stationary Bandits and Taxation in Eastern Congo", working paper.

Additional readings:

Acemoglu, Daron, Suresh Naidu, Pascual Restrepo and James A. Robinson (2013) "Democracy, Redistribution and Inequality," in *Handbook of Income Distribution*, Volume 2B, Chapter 21.

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 12: Corruption (4/16) - Guest Lecture Prof. Fred Finan

Avis, Eric, Claudio Ferraz, and Frederico Finan. (2017). "Do Government Audits Reduce Corruption? Estimating the Impacts of Exposing Corrupt Politicians", *Journal of Political Economy*, forthcoming.

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 13: The political economy of conflict (4/23)

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:

Annan, Jeannie, and Christopher Blattman. (2016). "Can employment reduce lawlessness and rebellion? A field experiment with high-risk men in a fragile state", *American Political Science Review*, 110(1), 1-17.

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

Dell, Melissa, and Pablo Querubin. (2017). "Nation Building Through Foreign Intervention: Evidence from Discontinuities in Military Strategies", forthcoming *Quarterly Journal of Economics*.

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.

VII. Research methods in Development Economics

Lecture 14: Topics in research design (*4/30 at 12-2pm in Evans 648 – extra lecture)

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.

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

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

Additional Reading:

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

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

VIII. Extra topics (for Development Economics field exam)

Topic 1: The persistence of historical institutions

Dell, Melissa. (2010). "The Persistent Effects of Peru's Mining Mita", Econometrica, 78(6), 1863-1903.

Michalopoulos, Stelios, and Elias Papaioannou. (2013). "Pre-colonial ethnic institutions and contemporary African development", *Econometrica*, 81(1), 113-152.

Nunn, Nathan. (2008). "The long-term effects of Africa's slave trades", *Quarterly Journal of Economics*, 123(1), 139-176.

Topic 2: Sectoral productivity gaps and misallocation

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. (2017). "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. (2017). "Human Capital and Development Accounting: New Evidence from Wage Gains at Migration", forthcoming *Quarterly Journal of Economics*.

Topic 3: Ethnic and social divisions

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.

Rao, Gautam. (2013). "Familiarity does not breed contempt: Diversity, Discrimination and Generosity in Delhi Schools", unpublished working paper. [https://sites.google.com/site/graoeconomics/]

Additional readings:

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

Topic 4: Environment and energy in economic development

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 Longrun 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.

Greenstone, Michael, and Kelsey Jack. (2015). "Envirodevonomics: A Research Agenda for a Young Field", *Journal of Economic Literature*, 53(1), 5-42.