

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

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## SPRING 2021 SYLLABUS

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**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.

### **Course Logistics**

**Lectures:** Monday 2-4pm PT on Zoom, with Zoom links provided on bCourses. Lectures will also be recorded on Zoom, for later viewing. We strongly encourage all students who are able to participate “live” to do so, given the importance of the discussion to learning. We also strongly encourage participants to keep their camera on during lecture, if they are able to do so. Those living in time zones where watching live is challenging are of course welcome to only watch the recordings. These recordings will be available on the class bCourses site.

### **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/2QQeCAv>.

**Extra office hours:** Stephanie Bonds ([sbonds@berkeley.edu](mailto:sbonds@berkeley.edu)) will serve as an additional resource person for the course.

### **Course Assignments and Grading:**

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

(1) Referee reports on papers by job market candidates (30 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 [Augustin Bergeron](#) (Harvard University), “The State Capacity Ceiling on Tax Rates: Evidence from Randomized Tax Abatements in the DRC”, due Friday 2/5

-- Report 2 on [Elisa Macchi](#) (University of Zurich), “Worth your weight? Experimental evidence on the benefits of obesity in low-income countries”, due Friday 3/5

-- Report 3 on [Ariel Zucker](#) (MIT), "Can Price Discrimination Incentivize Behavior Change? Evidence from a Randomized Field Experiment", due Friday 3/19

\* 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 2/12 and due Friday 2/19

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 3/19 and due Friday 4/9

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. The assignment provides 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 5/7 at 2pm (uploaded on bCourses).

(4) Reading response questions (15 percent):

For most lectures, we will post 1-2 questions pertaining to the readings for that week 2 days in advance of class. You will be required to write up short (1-2 paragraph) responses to each question, and submit these via bCourses before the start of lecture on Monday at 2pm PT.

(5) Class participation (5 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.

(6) Exams: There are no exams for this course. The Development Economics Ph.D. Field Exam this summer will cover all readings on this syllabus.

## **Course Policies**

**Special Accommodations:** If you need disability-related accommodations in this class, 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.

**Academic Honesty Policy:** Cheating will be harshly punished. Any evidence of cheating will result in a score of zero (0) on that assignment. Cheating on the midterm or the final exam results in an "F" for the course. Cheating includes, but is not limited, to copying off another person's assignment, allowing someone to copy off of your assignment, having someone else do an assignment for you, and plagiarizing written or other materials. Incidences of cheating are reported to Center for Student Conduct, which administers additional punishment. See also <http://sa.berkeley.edu/conduct/students/standards>.

**Limits to Confidentiality:** As University of California employees, all course instructors are Responsible Employees and we are required to report incidents of sexual violence, harassment or other conduct prohibited by university policy to the Title IX officer. We cannot keep reports confidential, but the Title IX officer will consider requests for confidentiality. There are confidential resources available, including the CARE Advocate Office (<http://sa.berkeley.edu/dean/confidential-care-advocate>).

**COVID-19:** The ongoing pandemic has made many aspects of our lives more challenging, including studying and learning (and teaching). We want to let you know that we are committed to being as accommodating and flexible as possible during these unusual times – including regarding any health and any other personal challenges that you are facing – and we hope you will also be understanding of any shortcomings on our side. Let's all work together to make this a productive and fun semester, despite everything.

**COURSE SCHEDULE**

<b>Date</b>	<b>#</b>	<b>Topic</b>	<b>Instructor</b>	<b>Notes</b>
1/25	1	Understanding growth and development	Both	
2/01	2	Labor markets	Kaur	<i>Referee report 1 due 2/5</i>
2/08*	3-4	Consumption smoothing I and II	Kaur	Double lecture (2-5:30 pm)
2/15	--	No Lecture – President’s Day		Suggested readings: Contracting <i>Problem set 1 due 2/19</i>
2/22	5	Education I	Miguel	
3/01	6	Health and nutrition I	Miguel	<i>Referee report 2 due 3/5</i>
3/08	7	Health and nutrition II	Miguel	
3/15	8	Poverty traps	Kaur	<i>Referee report 2 due 3/19</i>
3/22	--	No Lecture – Spring Break		Suggested readings: Education II
3/29	9	Behavioral development I	Kaur	
4/05	10	Behavioral development II	Kaur	<i>Problem Set 2 due 4/9</i>
4/12	11	Institutions	Miguel	
4/19	12	Corruption	Finan**	
4/26	13	Conflict	Miguel	
5/03*	14	Infrastructure and general equilibrium effects	Miguel	2-4 pm
5/03*	15	Research design	Kaur	4:15-5:30 pm
				<i>Research proposal due 5/7</i>
Extra topics – Readings and slides only for the field exam (see syllabus)				
	ET1	Contracting		
	ET2	Education II		

\* Indicates days of double lectures – when class lecture is held in place of the development seminar from 4-5:30 pm.

\*\* Guest lecture.

## COURSE SYLLABUS

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

#### **Lecture 1: Understanding economic growth and development (1/25)**

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

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.

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

#### *Additional readings:*

Jones, Charles I. (2016). "The Facts of Economic Growth", *Handbook of Macroeconomics*, Vol. 2A, (eds.) John B. Taylor and Harald Uhlig, Elsevier B.V.

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.

Nunn, Nathan. (2020). "The Historical Roots of Economic Development", *Science*, 367, eaaz9986.

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

#### **Lecture 2: Labor markets (2/1)**

Kaur, Supreet (2019). "Nominal Wage Rigidity in Village Labor Markets." *American Economic Review*, 109(10): 3585-3616.

Breza, Emily, Supreet Kaur, and Yogita Shamdasani (2020). "Labor Rationing." Working paper.

#### *Additional Readings*

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

Hamory, Joan, Marieke Kleemans, Nicholas Y. Li, and Edward Miguel. (2020). "Reevaluating Agricultural Productivity Gaps with Longitudinal Microdata", *Journal of the European Economic Association*, forthcoming.

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." *The American Economic Review*, vol 102(7) pp 3574-93.

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

Alfonsi, Livia, Oriana Bandiera, Vittorio Bassi, Robin Burgess, Munshi Sulaiman, and Anna Vitali (2020). "Tackling Youth Unemployment: Evidence from a Labor Market Experiment in Uganda," *Econometrica*, 88(6): 2369-2414.

**Lectures 3-4: Consumption smoothing I and II (2/8) \*\* – Double lecture (2-5:30pm)**

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.

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

*Additional Readings:*

[Background: Romer, David, *Advanced Macroeconomics*, Sections: 8.1-8.2 (Consumption under uncertainty), 8.4 (Interest rate and saving), Section 8.5 (Consumption and risky assets, consumption CAPM), and 8.6 (Buffer stocks and precautionary savings).]

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

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", *Quarterly Journal of Economics*, 134(2): 785-842.

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

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

**Extra Topic 1: Contracting (Readings for week of 2/15 – No lecture, President's Day)**

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.

Macchiavello, Rocco and Ameet Morjaria (2020). "Competition and Relational Contracts in the Rwanda Coffee Chain," forthcoming *Quarterly Journal of Economics*.

Bubb, Ryan, Supreet Kaur, and Sendhil Mullainathan (2019). "The Limits of Neighborly Exchange." Working Paper.

Bergquist, Lauren Falcao, and Michael Dinerstein. (2020). "Competition and Entry in Agricultural Markets: Experimental Evidence from Kenya," *American Economic Review*, 110(12): 3705-3747.

### **III. Human capital in economic development**

#### **Lecture 5: Education I (2/22)**

Mbiti, Isaac, Karthik Muralidharan, Mauricio Romero, Youdi Schipper, Constantine Manda, and Rakesh Rajani. (2019). "Inputs, Incentives, and Complementarities in Education: Experimental Evidence from Tanzania", *Quarterly Journal of Economics*, 134(3), 1627-1673.

Muralidharan, Karthik, Abhijeet Singh, and Alejandro Ganimian. (2019). "Disrupting Education? Experimental Evidence on Technology-Aided Instruction in India", *American Economic Review*, 109(4), 1426-1460.

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

#### *Additional readings:*

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

Royal Swedish Academy of Sciences. (2019). "Scientific Background on the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel: Understanding Development and Poverty Alleviation" [<https://www.nobelprize.org/uploads/2019/10/advanced-economicsciencesprize2019.pdf>].

#### **Extra Topic 2: Education II (Readings for week of 3/22 – No lecture, Spring Break)**

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

#### *Additional readings:*

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

#### **Lecture 6: Health and nutrition I (3/1)**

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.

Karing, Anne. (2018). "Social Signaling and Childhood Immunization: A Field Experiment in Sierra Leone", working paper.

#### *Additional readings:*

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 7: Health and nutrition II (3/8)**

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

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.

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:*

Bouguen, Adrien, Yue Huang, Michael Kremer, and Edward Miguel. (2019). "Using RCT's to Estimate Long-Run Impacts in Development Economics", *Annual Review of Economics*, 11, 523-561.

Ridley, Matthew, Gautam Rao, Frank Schilbach, and Vikram Patel. (2020). "Poverty, depression, and anxiety: Causal evidence and mechanisms", *Science*, 370, eaay0214.

## **IV. Understanding persistent poverty**

### **Lecture 8: Poverty traps (3/15)**

Balboni, Clare, Oriana Bandiera, Robin Burgess, Maitreesh Ghatak and Anton Heil (2020). "Why Do People Stay Poor?", Working paper.

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 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*, 96(384): 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 9: Behavioral development I – Nonstandard preferences and decision-making (3/29)**

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

Augenblick, Ned, Kelsey Jack, Supreet Kaur, Felix Masiye, and Nicholas Swanson (2021), "Budget Neglect in Consumption Smoothing: A Field Experiment on Seasonal Hunger." Working paper.



### *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] \*\*Note: If you are not taking the psychology and economics field course, you will get much more out of lecture if you read at least the beginning assigned sections of this background article.

Kremer, Michael, Gautam Rao, and Frank Schilbach (2019). "Behavioral Development Economics." *Handbook of Behavioral Economics*, Volume 2.

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.

Hanna, Rema, Sendhil Mullainathan, and Joshua Schwartzstein (2014). "Learning through Noticing: Theory and Evidence from a Field Experiment." *Quarterly Journal of Economics*, 129(3): 1311-1353.

### **Lecture 10: Behavioral development II – The psychology of poverty (4/5)**

Kaur, Supreet, Sendhil Mullainathan, Suanna Oh, and Frank Schilbach (2021). "Do Financial Concerns Make Workers Less Productive?" NBER Working Paper No. 28338.

Baranov, Victoria, Sonia Bhalotra, Pietro Biroli, and Joanna Maselko (2020). "Maternal Depression, Women's Empowerment, and Parental Investment: Evidence from a Randomized Control Trial." *American Economic Review*, 110(3): 824-859.

### *Additional Readings:*

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.

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

Fehr, Dietmar, Guenther Fink, and Kelsey Jack (2020), "Poor and Rational: Decision-making under Scarcity." Working paper.

## **VI. Political economy**

### **Lecture 11: Institutions and development (4/12)**

Acemoglu, Daron, Suresh Naidu, Pascual Restrepo, and James A. Robinson. (2019). "Democracy Does Cause Growth", *Journal of Political Economy*, 127(1), 47-100.

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

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.

### *Additional readings:*

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.

George, Siddarth. (2019). "Like Father, Like Son? The Effect of Political Dynasties on Political Development", working paper.

### **Lecture 12: Corruption (4/19) – 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 (4/26)**

Burke, Marshall, and Eoin McGuirk. (2020). "The Economic Origins of Conflict in Africa", *Journal of Political Economy*, 128(10).

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

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.

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

Additional readings:

Bauer, Michal, Chris Blattman, Julie Chytilova, Joe Henrich, Edward Miguel, and Tamar Mitts. (2016). "Can War Foster Cooperation?", *Journal of Economic Perspectives*, 30(3): 249-274.

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

### **Lecture 14: Infrastructure and general equilibrium effects (5/3)\*\***

Asher, Sam, and Paul Novosad. (2020). "Rural Roads and Local Economic Growth", *American Economic Review*, 119(3): 797-823.

Campante, Filipe, & David Yanagizawa-Drott. (2018). "Long-range Growth: Economic Development in the Global Network of Air Links", *Quarterly Journal of Economics*, 133(3), 1395-1458.

Egger, Dennis, Johannes Haushofer, Edward Miguel, Paul Niehaus, and Michael Walker. (2020). "General Equilibrium Effects of Cash Transfers: Experimental Evidence from Kenya", unpublished working paper.

Lee, Kenneth, Edward Miguel, and Catherine Wolfram. (2020). "Experimental Evidence on the Economics of Rural Electrification", *Journal of Political Economy*, 128(4): 1523-1565.

*Additional Readings:*

Donaldson, Dave. (2018). "Railroads of the Raj: Estimating the Impact of Transportation Infrastructure", *American Economic Review*, 108(4-5), 899-934.

**Lecture 15: Research Design (5/3)\*\* – Double lecture slot (4:15-5:30 pm)**

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).

*Additional Readings*

Christensen, Garret S., and Edward Miguel. (2018). "Transparency, Reproducibility, and the Credibility of Economics Research", *Journal of Economic Literature*, 56(3), 920-980.

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