

**Econ 8774: Economic Development
Spring 2019 Course Syllabus (Preliminary)**

Professor Tania Barham

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Office Hours: Tu/Th: 2-3 and by appointment
Class Time and location: Econ 5 Tuesday and Thursday 11:00 - 12:15pm

Course Description

This is a graduate course in development economics. The primary goal of this course is to prepare students for original research within the field of Development Economics. The course readings focus on empirical papers with an emphasis on human capital.

The primary goal of this course is to build skills in reading and writing applied microeconomic papers. Accordingly, I have put less emphasis on giving a thorough overview of the literature and more emphasis on teaching a fewer papers in detail. The focus on human capital will help demonstrate the wide array of topics that can be worked on in one area.

Prerequisites

PH.D. Microeconomic Theory and Econometrics. I'm also assuming you have learnt many of the applied models through classes such as Applied Microeconomics or Labor.

Textbook

There is no required textbook for this course. However, I have put together a list of resources that may have useful supplementary material.

Requirements and Grading

<u>Assignment</u>	<u>Weight</u>	<u>Due Date</u>
Class participation and reading	10%	Beginning of each class
1 Referee Report	10%	TBA
Presentation of article	10%	
Class presentation 1	5%	See schedule
Class presentation 2	10%	See schedule
Research Proposal	20%	April 18th
Midterm	20%	March 5 th (section 1,2,3)
Final (Second Midterm)	15%	May 6: 4:30-7pm

Late Assignments/Missed Exam Policy. The Referee Report and the Research Proposal will be due by 5:00 PM on their due dates. You should email them to me, and put a hard copy in my mail box. Following a 5-minute grace period, I will deduct 25 percent from each assignment for each day it is late. Paper summaries must be printed out and turned in at the beginning of the class period in which the paper is discussed will receive no credit.

If you miss the midterm you will receive no credit unless you provide documentation of a medical or family emergency. Your final exam will be reweighted. In the case of a legitimate emergency, a missed final will be given no weight in the calculation of the final grade and your proposal and midterm will be reweighted accordingly. *There will be no make-up exams.*

Class Participation/Readings: You are expected to read the assigned articles prior to coming to class and to be prepared to answer questions and participate in discussion. Bring a copy of the paper (hard or electronic) we will be discussing that day. In addition, please prepare a half page summary of each paper starting in week 2 of the course. Hand it in at the beginning of class with your name on it, and make a copy for you as well. The date you need to read each paper is in the syllabus, though they are tentative dates depending on how much time we take. Your summary should include the following: the main research question, the model/conceptual framework that guides the analysis, the data used (i.e. unit of analysis), the primary methodology including the identification, and any major limitations that you see in the paper. Part of this grade will come from successfully turning in a summary of each paper. The other portion will come from a review of a random sample of your summaries.

Class Choice Paper: There is one day that you all can choose a paper or topic to read together. Keep an eye on the NBER working papers. The paper will be selected by nominations and then we will vote. If needed I will choose the topic.

Referee Report: You will write a referee report on one unpublished paper of my choosing. The report should be 3-4 pages double-spaced and should summarize the work, provide a bullet list of issues/suggestions for improvement. I prefer to use working papers, so will assign one when I find an appropriate paper.

Presenting a Paper: You will make one in class presentation on an article from the reading list that has *** in front of it. You will work in groups of 2. The presentation should be 35-40 minutes and should talk about background information you think may be important, why the paper is interesting, methodology, results. You will also prepare lead a discussion of critiques or suggestions of how things could have been done better, and possible extensions. Please prepare slides as a PDF and email them to me by 4pm the day before your presentation.

Class Presentation: There will be two class presentations, the first is to pitch an idea based on data you have found, and the second is to prepare a research proposal. You don't need to have done any regression analysis, but it needs to be based on data you could realistically obtain. It would be great if the two presentation were on the same topic, but they don't have to be.

Presentation 1: The point of the first presentation is to pitch a paper idea based on data you have found. In development economics it can be hard to find data sources, so the point of this exercise is to have you find a good or multiple data sources and pitch an idea for a paper based on these data. You need to lay out your research questions, data, and the potential methodology you would use to answer the research question based on these data. Then lay out the short-comings of the methodology. The presentation will be 10-15 minutes. I will give you more instructions on the content of the presentation in class.

Presentation 2: This presentation will be based on your research proposal. This may have come from your “pitch a paper” presentation. More information will be given in class.

University Policies

Accommodations: If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services by **January 22nd** so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition or injury, see [Temporary Medical Conditions](#) under the Students tab on the Disability Services website.

Classroom Behavior: Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. For more information, see the policies on [classroom behavior](#) and the [Student Code of Conduct](#).

Honor Code: All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code (honor@colorado.edu); 303-492-5550). Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found at the [Honor Code Office website](#).

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation: The University of Colorado Boulder (CU Boulder) is committed to fostering a positive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct (including sexual assault, exploitation, harassment, dating or domestic violence, and stalking), discrimination, and harassment by members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or cureport@colorado.edu. Information about the OIEC, university policies, [anonymous reporting](#), and the campus resources can be found on the [OIEC website](#). Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.

Religious Holidays: Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. If you have a conflict due to a religious obligation, please see me by **Jan. 22nd** to discuss. See the [campus policy regarding religious observances](#) for full details.

Tentative Class Schedule

WEEK OF	TUESDAY	THURSDAY
1 – Jan 14	1. Impact Evaluation: Randomized Experiments	
2 – Jan 21	2a. Social Policy Experiment: CCTs and Short-Term Effects	
3 – Jan 28	2b. Social Policy Experiment: CCTs and Longer-Term Effects	
4 – Feb 4	3a. Macro Impacts of Health	3b. Early Intervention on Human Capital
5 – Feb 11	3b. Early Intervention on Human Capital	3c. Early Health and Adult Outcomes
6 – Feb 18	3c. Early Intervention on Adult Outcomes	3d. HIV/AIDs
7 – Feb 24	Assignments/Data/Catch-up Day	Guest Lecture: Patrick Turner
8 – Mar 4	MIDTERM	4. Education
9 – Mar 11	5. Fertility	Presentation: Pitch an idea
10 – Mar 18	Presentation: Pitch an idea	Meetings on Proposal
	SPRING BREAK	
11 – Apr 1	6. Migration: Selection	6. Migration: Effects
12 – Apr 8	7. Climate Change	TBD
13 – Apr 15	8. Climate Change or Choice Topic	Class Presentations
14 – Apr 22	Class Presentations	Class Presentations
15 – Apr 29	Class Presentations	Final Research Proposal Due

Useful Books and Methods Articles

Development Textbooks

- Bardhan, Pranab and Christopher Udry. 1999. *Development Microeconomics*. New York: Oxford University Press.
- Deaton, Angus. 1997. *The Analysis of Household Surveys: A Microeconometric Approach to Development Policy*. Baltimore, Maryland: The World Bank.
- De Janvry, Alain and Elisabeth Sadoulet. 2016. *Development Economics: Theory and Practice*. New York: Routledge.
- Ray, Debraj. 1998. *Development Economics*. Princeton, N.J.: Princeton University Press.
- H. Chenery, T.N. Srinivasan, J. Behrman, T. Schultz, and J. Strauss, eds. *Handbook of Development Economics*, Vol. 1-4. Published by Elsevier.

You may also want to check out some these more popular press titles: Poor Economics, Why Nations Fail, The Bottom Billion, The End of Poverty, The White Man's Burden, Development as Freedom, Economic Gangsters ...

Helpful Articles on Econometric Methods

- Abadie and Cattanio. 2018. "Econometric Methods for Program Evaluation". *Annual Review of Economics*, 10:465-503.
- Angrist, Joshua D. and Alan B. Krueger. 1999. "Empirical Strategies in Labor Economics." *Handbook of Labor Economics*, Vol. 3, Ch. 23, Ed. O. Ashenfelter and D. Card.
- Angrist, Imbens, and Rubin. 1996. "Identification of Causal Effects Using Instrumental Variables," *Journal of the American Statistical Association*. 91(434):444-455.
- Anderson, M. 2008. "Multiple Inference and Gender Difference in the Effects of Early Interventions: A Reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects." *Journal of American Statistical Association* 103(484):1481-1495.
- Athey, S., and G.W. Imbens. 2017. "The Econometrics of Randomized Experiments." Banerjee, A. and E. Duflo, (eds.), *Handbook of Economic Field Experiments*. Volume 1. Elsevier.
- Bertrand, Duflo, Mullainathan. 2004. "How Much Should We Trust Differences-in-Differences Estimates? *The Quarterly Journal of Economics*, 119(1):249-275.
- Deaton, Angus. 1993. "Data and Econometric Tools for Development Analysis." *Handbook of Development Economics*, Vol. 3, Ch. 33, Ed. J. Behrman and T.N. Srinivasan.
- Duflo, Esther, Rachel Glennerster, and Michael Kremer. 2008. "Randomization in Development Economics Research: A Toolkit." *Handbook of Development Economics*, Vol. 4, Ch. 61.
- Gertler, Martine, Premand, Rawlings, Vermeersch. 2011. *Impact Evaluation in Practice*. The World Bank (https://siteresources.worldbank.org/EXT/HDOFFICE/Resources/5485726-1295455628620/Impact_Evaluation_in_Practice.pdf)
- Imbens and Wooldridge. 2009. "Recent Developments in the Econometrics of Program Evaluation." *Journal of Economic Literature*, 471(1): 5-86.
- Todd, Petra E. 2008. "Evaluating Social Programs with Endogenous Program Placement and Selection of the Treated." *Handbook of Development Economics*, Vol.4, Ch. 60. Pp. 3847-3894.

Reading List

Reading List

Along with readings for class I have provided some background readings and supplementary readings, none of which are required for the class. I do recommend you read the literature reviews.

1. Impact Evaluation: Randomized Experiments and the Limitations

January 15: Duflo, Esther, Rachel Glennerster. 2008. "Chapter 61: Using Randomization in Development Economics Research: A Toolkit." in T. Paul Schultz and John A. Strauss (eds.), *Handbook of Development Economics*, vol. 4. Amsterdam, The Netherlands: North Holland.
***Section 2, 6, 8**

January 15: *Development Economics: Theory and Practise*. De Janvery and Sadoulet.
Chapter 4 including appendices

January 17: Deaton, Angus. 2010. "Instruments, Randomization, and Learning about Development," *Journal of Economic Literature*, vol. 48(2): 424-55.
***Focus on Section 4 on**

Take a quick read of article below too – similar to other Deaton but you may prefer one to the other

Deaton, Angus and Nancy Cartwright. 2016. "Understanding and Misunderstanding Randomized Control Trials," *Social Science and Medicine*, 210:2-21.

Supplementary Reading

Easterly, William. 2009. "Can the West Save Africa?" *Journal of Economic Literature*, 47(2).

Banerjee, Abhijit and Esther Duflo. "The Experimental Approach to Development Economics," *Annual Review of Economics*, Vol. 1: 151-178, September 2009. (also see CEPR working paper No. DP7037, NBER working paper No. 14467).

Duflo, Ester and Micheal Kremer. 2008. "Use of Randomization in the Evaluation of Development Effectiveness" in in George Keith Pitman, Osvaldo N. Feinstein, and Gregory K. Ingram, eds., *Evaluating Development Effectiveness*, Vol. 7 of *World Bank Series on Evaluation and Development*. New Brunswick, New Jersey, and London, U.K.: Transaction Publishers, 2005.

2. Social Policy Experiments: Conditional Cash Transfers

A. What are CCTs and Short-Term Effects

January 22: Schultz, T. Paul. 2004. "School Subsidies for the Poor: Evaluating the Mexican Progresa Poverty Program", *Journal of Development Economics*, 74(1):199-250. (Impact on Education – Experimental Evidence)

January 24: Barham, Tania. 2011. “A Healthier Start: The Effect of Conditional Cash Transfers on Neonatal and Infant Mortality in Rural Mexico,” *Journal of Development Economics*, 94(1), 74-85. (Health- quasi-experimental evidence using national roll out)

Supplemental Reading:

Parker, Susan, Luis Rubalcava, Graciela Teruel. 2008. “Chapter62: Evaluating Conditional Schooling and Health Programs” in T. Paul Schultz and John A. Strauss (eds.), *Handbook of Development Economics* vol. 4. Amsterdam, The Netherlands: North Holland.

Fiszbein, Ariel and Norbert Schady. 2009. *Conditional Cash Transfers: Reducing Present and Future Poverty*. World Bank Policy Research Report, The World Bank, Washington D.C.

B. Longer-term Effects of CCTs – (Are they learning and earning?)

January 29: Behrman, Jere R., Susan W. Parker, and Petra E. Todd. 2009. “Medium-Term Impacts of the *Oportunidades* Conditional Cash Transfer Program on Rural Youth in Mexico,” in Stephan Klasen and Felicitas Nowak-Lehmann (eds.), *Poverty, Inequality, and Policy in Latin America*. Cambridge: MIT Press (pp. 219–270). (RCT)

*****January 29:** Parker and Vogl. May 2018. “Do Conditional Cash Transfers Improve Economic Outcomes in the Next Generation? Evidence from Mexico,” Mimeo Princeton University.
(Roll out)

January 31: Barham, T, K. Macours, J Maluccio. 2018. “Are Conditional Cash Transfers Fulfilling Their Promise? Schooling, Learning, and Earnings After 10 Years” Center for Economic Policy Research DP11937 (RCT)

Supplemental Reading:

Millan, Teresa, Tania Barham, Karen Macours, John A. Maluccio, Macro Stampini. “Long-Term Impacts of Conditional Cash Transfers: Review of the Evidence,” forthcoming *World Bank Research Observers*

3. Health

A. Macro Impacts of Health

February 5: Acemoglu, Daran and Simon Johnson, 2007. "Disease and Development: The Effect of Life Expectancy on Economic Growth." *Journal of Political Economy*, 115(6): 925-985.

Supplemental Readings:

Young, Alwyn. (2005). “The Gift of Dying: The Tragedy of AIDS and the Welfare of Future African Generations”, *Quarterly Journal of Economics*, 120(2), 423-466.

Philippe Aghion, Peter Howitt, and Fabrice Murtin (2011) "The Relationship Between Health and Growth: When Lucas Meets Nelson-Phelps," *Review of Economics and Institutions*, Vol. 2(1): 1- 24.

B. Effect of Early Childhood Intervention on Human Capital

February 7: Barham, Tania. 2012. "Enhancing Cognitive Functioning: Medium-Term Effects of Health and Family Planning Program in Matlab," *American Economic Journal: Applied Economics*, 4(1), 245-73.

February 7/12: Field, Erica, Omar Robles and Maximo Torero. 2009. "Iodine Deficiency and Schooling Attainment in Tanzania" *American Economic Journal: Applied Economics* 1(4): 140-169.

*****February 12:** Miguel, Edward and Michael Kremer (2004). "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities", *Econometrica*, 72(1), 159-217.

Supplemental Reading:

Barker, D. J. P., ed. 1992. *Fetal and Infant Origins of Adult Disease*. London: British Medical Journal. (we will read a review article).

Heckman, James J. 2007. "The Technology, and Neuroscience of Human Capital Formation." *Proceedings of the National Academy of Sciences*, 104(33): 13250-13255.

Almond, Douglas and Currie, Janet. 2011. "Killing Me Softly: The Fetal Origins Hypothesis" *Journal of Economic Perspectives*, 25(3): 153-172.

Maluccio, John, et al. 2009. "The Impact of Improving Nutrition during Early Childhood on Education among Guatemalan Adults". *Economic Journal* 119(537): 734-763.

Bharadwaj, Prashant, Katrine Vellesen Løken, and Christopher Neilson. 2013. "Early Life Health Interventions and Academic Achievement." *American Economic Review*, 103(5): 1862-91.

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

Lucas, Adrienne M. 2010, "Malaria Eradication and Educational Attainment: Evidence from Paraguay and Sri Lanka," *American Economic Journal: Applied Economics*, 2(2): 46-71.

C. Effect of Health and Nutrition on Income

February 14: Baird, S, J. Hicks, M. Kremer, E Miguel. 2016. Worms at Work: Long-Run of a Child Health Investment. *Quarterly Journal of Economics*, 131(4):1637-1680. (RCT)

February 14: Barham, T, Kuhn, R and P. Turner. 2018. “No Place Like Home: Long-Run Impacts of Early Child Health and Family Planning” mimeo. (quasi-random experiment)

*****February 19:** Bleakley, Hoyt. 2010. "Malaria Eradication in the Americas: A Retrospective Analysis of Childhood Exposure." *American Economic Journal: Applied Economics*, 2(2): 1-45. (Spatial variation)

Supplementary Reading:

Almond, Almond, D., J. Currie, and V. Duque, “Childhood Circumstance and Adult Outcomes: Act II,” *Journal of Economic Literature*, 2018, 56(4), 1360–1446.

Hoddinott, J., J.A. Maluccio, J.R. Behrman, R. Flores, and R. Martorell. 2008. “Effect of a Nutrition Intervention During Early Childhood on Economic Productivity in Guatemalan Adults,” *The Lancet*. 371(9610): 411–416.

Cutler, D., Fung, W., Kremer, M., Singhal, M., Vogl, T. 2010, “Early-life Malaria Exposure and Adult Outcomes: Evidence from Malaria Eradication in India,” *American Economic Journal: Applied Economics*, 2(2): 72-94.

Gertler, P., J. Heckman, R. Pinto, A. Zanolini, C. Vermeersch, S. Walker, S. Chang, and S. Grantham-McGregor, “Labor Market Returns to an Early Childhood Stimulation Intervention in Jamaica,” *Science*, 2014, 344 (6187), 998-1001.

Strauss, J., and Thomas, D., “Health over the Life Course” (pp. 3375– 3465), in T. Paul Schultz and John Strauss (eds.), *Handbook of Development Economics* (Elsevier, 2008).

D. HIV/Aids

March 7: Thornton, Rebecca. 2008. “The Demand for, and Impact of, Learning HIV Status.” *American Economic Review*, 98(5): 1829–1863.

Supplemental Readings:

Dupas, Pascaline. 2011. “Do Teenagers Respond to HIV Risk Information? Evidence from a Field Experiment in Kenya.” *American Economic Journal: Applied Economics*, 3(1): 1-34.

Gong, Eric. 2014 “HIV Testing and Risky Sexual Behavior” *The Economic Journal*, 125(582):32-60.

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

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

February 28: Guest Speaker: Patrick Turner

4. Education

*****March 7:** Lucas, A and I. Mbiti. 2014. "Effects of School Quality on Student achievement: Discontinuity Evidence from Kenya," *American Economic Journal: Applied Economics*, 6(3): 234-263.

Supplementary Reading:

Angrist, Joshua D. and Victor Lavy. 1999. "Using Maimonides' Rule to Estimate the Effect of Class Size on Scholastic Achievement." *The Quarterly Journal of Economics*, 114(2): 533-575.

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.

Banerjee, Abhijit and Esther Duflo. 2006. "Addressing Absence." *Journal of Economic Perspectives*, 20(1): 117-132.

Card, David. 1999. "The Causal Effect of Education on Earnings." *Handbook of Labor Economics*, Vol. 3, Ch. 30.

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

Duflo, Esther, Rema Hanna and Stephen Ryan. 2007. "Monitoring Works: Getting Teachers to Come to School." BREAD Working Paper No. 103.

Glewwe, Paul and Michael Kremer. 2006. "Schools, Teachers, and Education Outcomes in Developing Countries." *Handbook of the Economics of Education*, Vol. 2, Ch.16.

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

Kremer, Michael. 2003. "Randomized Evaluations of Educational Programs in Developing Countries: Some Lessons." *The American Economic Review*, Papers and Proceedings of the One Hundred Fifteenth Annual Meeting of the American Economic Association, Washington, DC, January 3-5, 2003, 93(2): 102-106.

Kremer, Michael, Rebecca Thornton, and Edward Miguel. 2009. "Incentives to Learn." *Review of Economics and Statistics*, 91(3): 437-56.

Rosenzweig, Mark R. 2010. "Microeconomic Approaches to Development: Schooling, Learning, and Growth." *Journal of Economic Perspectives*, 24(3): 81-96.

5. Fertility

*****March 12:** Angrist, Joshua, Victor Lavy, Analia Schlosser, 2010. "Multiple Experiments for the Causal Link between the Quantity and Quality of Children," *Journal of Labor Economics*, 28(4): 773-824.

Supplemental Readings:

Rosenzweig, M., & Wolpin, K. (1980). "Testing the Quantity-Quality Fertility Model: The Use of Twins as a Natural Experiment." *Econometrica*, 48(1), 227-240.

Black, Sandra E., Paul J. Devereux and Kjell G. Salvanes. (2005) "The More The Merrier? The Effect Of Family Size And Birth Order On Children's Education," *Quarterly Journal of Economics*, Vol. 120 (2), 669-700.

Mogstad, M. and Wiswall, M. (2016), "Testing the quantity–quality model of fertility: Estimation using unrestricted family size models". *Quantitative Economics*, 7: 157-192.

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

Cáceres-Delpiano, Julio and Marianne Simonsen, 2012. "The Toll of Fertility on Mothers' Well-being," *Journal of Health Economics*, vol. 31(5), 752-766.

Cáceres-Delpiano, Julio, 2006. "The Impacts of Family Size on Investment in Child Quality," *Journal of Human Resources*, vol. 41(4).

Ashraf, Nava , Erica Field, and Jean N. Lee (2014), "Household Bargaining and Excess Fertility: An Experimental Study in Zambia", *American Economic Review* 104(7).

Edlund, L., Li, H., Yi, J., & Zhang, J. (2013). Sex Ratios and Crime: Evidence from China. *Review of Economics and Statistics*, 95(5), 1520-1534.

Duflo, E, Dupas, P and Kremer, M. (2015). "Education, HIV, and Early Fertility: Experimental Evidence from Kenya", *American Economic Review*, Vol. 105(9), 2257-97.

6. Migration

A. Migration Selection

April 2: Gibson, J., Mckenzie, D., Stillman, S. 2010. "How Important Is Selection? Experimental vs. Non-Experimental Measures of the Income Gains from Migration," *Journal of the European Economic Association*, 8(4): 913-45.

Supplementary Readings:

Borjas, George, 1987. "Self-Selection and the Earnings of Immigrants," *American Economic Review*, 77(4), 531-53.

Covarrubias, Matias, Jeanne Lafortune and Jose Tessada (2015), "Who comes and Why? Determinants of Immigrants Skill Level in early XXth century US", *Journal of Demographic Economics*, Vol. 81 (1), 115-155.

Leah Boustan, Ran Abramitzky and Katherine Eriksson (2013), "Europe's Tired, Poor, Huddled Masses: Self-Selection and Economic Outcomes in the Age of Mass Migration," *American Economic Review*.

Rosenzweig, Mark, 2006. "Global Wage Differences and International Student Flows," Brookings Trade.

McKenzie, David, Caroline Theoharides, and Dean Yang. (2014). "Distortions in the International Migrant Labor Market: Evidence from Filipino Migration and Wage Responses to Destination Country Economic Shocks." *American Economic Journal: Applied Economics*, Vol. 6 (2): 49-75.

B. Effects of Migration

April 4: Yang, Dean. 2008. "International Migration, Remittances, and Household Investment: Evidence from Philippine Migrants' Exchange Rate Shocks," *Economic Journal*, 118 (528): 591-630. (IV)

Supplementary Reading:

McKenzie, David, J. Gibson and S. Stillman (2011), "The Impacts of International Migration on Remaining Household Members: Omnibus Results from a Migration Lottery Program," *Review of Economics and Statistics*, 93(4): 1297-1317, 2011.

Hanson, Gordon H. (2007), "Emigration, Labor Supply, and Earnings in Mexico," in *Mexican Immigration to the United States* (2007), George J. Borjas, editor, p. 289 – 328.

Mishra, Prachi (2007), "Emigration and Wages in Source Countries: Evidence from Mexico", *Journal of Development Economics*, no. 82, pp. 180-199.

Gonzalez-Velosa, Carolina (2012), "The Effects of Emigration and Remittances on Agriculture: Evidence from the Philippines", unpublished mimeo.

8. Climate Change

*****April 9:** Burgess, Robin, Oliver Deschenes, Dave Donalson, and Micheal Greenstone. 2017.

“Weather, Climate Change and Death in India: Mechanisms and Implications for Climate Change” Mimeo

*****April 16:** Shah, Manisha and Bryce Millett Steinberg. 2017. “Drought of Opportunities: Contemporaneous and Long Term Impacts of Rainfall Shocks on Human Capital.” *Journal of Political Economy*, 125(2): 527-561.

Supplemental Readings:

Dell, Melissa, Benjamin F Jones, and Benjamin A Olken, “What do we learn from the weather? The new climate–economy literature,” *Journal of Economic Literature*, 2014, 52 (3), 740–798.

Deschenes, Olivier, “Temperature, human health, and adaptation: A review of the Empirical Literature,” *Energy Economics*, 2014, 46, 606–619

Deschenes, Olivier and Enrico Moretti, “Extreme Weather Events, Mortality, and Migration,” *Review of Economics and Statistics*, 2009, 91 (4), 659–681.

Guiteras, Raymond, “The Impact of Climate Change on Indian Agriculture,” 2009. University of Maryland mimeo.

Khandker, Shahidur, “Seasonality of Income and Poverty in Bangladesh,” *Journal of Development Economics*, 2012, 97 (2), 244–256