

BEPP 941 – Development Economics

DRAFT Spring 2022 Syllabus

Class time and location: Fridays 10:15-1:15

Professors:

Heather Schofield (hschof@wharton.upenn.edu) – Course head and point of contact

Shing-yi Wang (was@wharton.upenn.edu)

Susanna Berkouwer (sberkou@wharton.upenn.edu)

Corinne Low (corlow@wharton.upenn.edu)

Office Hours:

Professor Schofield: Friday 2-3 on the weeks that I teach. By appointment on weeks that other professors teach.

All other professors office hours: Please schedule by email.

Description: This course will cover current microeconomic issues of developing countries including poverty, risk, savings, and human capital. We will also explore the causes and consequences of market failures that are common in many developing countries with a focus on credit, land, and labor markets. The course is designed to introduce recent research with a focus on empirical methods and testing theories with data.

Prerequisites: Micro theory at the graduate level and at least one semester of econometrics. If you are unsure whether you meet these criteria, please reach out to Prof. Schofield to discuss. Students who do not meet the prerequisites are welcome to audit the course, but are expected to do the reading and participate actively.

Course Objectives: The following is a partial list of course objectives:

- 1) Obtain exposure to the frontier of research in development economics
- 2) Develop technical skills including:
 - Econometric approaches to identify causal relationships
 - How to design field or lab-in-the-field experiments
 - How to relate empirical design to economic theory
- 3) Learn how to produce research including:
 - Assess how a paper contributes to the literature and what makes it valuable
 - How to identify opportunities for natural experiments
- 4) Other professional skills, such as learning:
 - To write a referee report
 - To give a short presentation and engage in discussion about it

Grading:

The course grade will be based on the following components:

- 1) Two problem sets (15% each)
- 2) Referee report (10%)
- 3) Research proposal (30%)
- 4) Class participation and reading summaries (20%)
- 5) Presentation (10%)

Problem Sets

Additional information will be provided about each problem set three weeks in advance of the due date.

- 1) Thinking through an empirical design - Due Feb 4
- 2) Design an experiment - Due March 4

Referee Report

Students will write one referee report on a recent working paper or a JMP by a development job market candidate. The report should be 2-3 pages and include a one paragraph summary of the paper. The structure should include several main points (which are essential to address) followed by some minor comments (which are less critical but may still be helpful). A good report does not only highlight the problems with the paper but offers constructive, detailed and realistic suggestions for improvement. The report is due on Feb 18. Please email me by Jan 21 with your paper selection.

Research Proposal

At the end of the semester, students will submit a research paper or a proposal that is between 8-12 pages double-spaced excluding tables, graphs, and appendices. A research proposal will motivate and pose an original research question, offer a short literature review that emphasizes the contribution of the research, explain the model and/or data and empirical methodology. The ideal is to submit a paper with all of the previous elements and present preliminary empirical results. Another option for the research paper is to replicate an existing paper with a different data set, or extend an existing paper with newer data. Please email me a copy of the paper by noon on June 15.

Class participation and reading summaries

Students are required to read the “Required reading” prior to class. For all classes except the first and Dr. Wang’s, students are also required to submit a short (less than 1 page with standard margins and 11 point or larger font) summary of one paper highlighting: 1) why is the paper important and what does it contribute? (or why you think it isn’t a significant contribution), 2) the methods used the answer the question (noting any major areas of concern), and 3) any questions about or suggestions for improving the paper. Note you do not need to restate results in this summary. These summaries do not need to be polished. The goal is to start thinking deeply about what makes a paper worth writing and what can be done to aid in identification. Bullet points or short notes are fine as long as they are considered and understandable. This summary should be submitted by noon the day before class. Late

submissions will not be accepted. These will be graded on a check, check plus, check minus basis. Finally, I have downloaded all of the readings into a dropbox folder. If you would like access to this folder, please email me indicating the email address you'd like me to use to share the folder.

It is also recommended that you skim the "Recommended readings." "Additional readings" are listed for your reference, but it is not expected that you will be familiar with them.

Note on absences

If you are absent because you have received a red pass for the day (for any reason other than testing non-compliance) that absence will be excused (and will not impact your course participation grade). Please email me to let me know.

Presentations

There will be two short presentations for each student. First, on March 25 students will do one short presentation on a recent development job market paper of their choice. This provides an opportunity to get to deeply understand a paper that is relevant for their research interests and to practice presenting. Please plan to present for 20-30 minutes which includes time for questions from the audience. Email me your preferences by March 18.

Second, each student will present on their research proposal on Apr. 22. The goals of this session are 1) to help each student brainstorm and overcome any barriers they foresee in their proposal (as well as any concerns from the audience), and 2) to learn how to provide critical yet helpful feedback to your peers. This presentation is not graded. It is intended to be helpful in improving the final research proposal so feel free to ask pointed questions in areas where you would like help.

Special Accommodations: If you need disability-related accommodations in this class or if you have emergency medical information you wish to share with me, please inform me during office hours or after class as early as possible in the term.

Class schedule: There will be 14 classes, each lasting 3 hours. Each meeting will be divided into two "sessions" with a short break in-between.

■ **SESSIONS 1 AND 2: INTRODUCTION AND CONSUMPTION DYNAMICS (Dr. Heather Schofield) – January 14, 2022**

Required

- Collin, D., J. Mordouch, S. Rutherford, and O. Ruthven. Portfolios of the Poor. Princeton, N.J.: Princeton University Press (2009).
- Deaton, Angus and John Dreze (2009). "Food and Nutrition in India: Facts and Interpretations." *Economics and Politics Weekly* 44 (7): 42-65.

(Note: No summary is required this week)

Recommended

- Duflo, Esther, and Abhijit Banerjee. *Poor economics*. Vol. 619. PublicAffairs, 2011.
- Udry, C. and S. Anagol “The Return to Capital in Ghana,” (2006), *American Economic Review*, Papers and Proceedings.

Additional

- Deaton, Angus. (1997). *The Analysis of Household Surveys: A Microeconometric Approach to Development Policy*. Johns Hopkins University Press: Baltimore, Maryland.
- Duflo, Esther, Rachel Glennerster, and Michael Kremer. (2006). “Using Randomization in Development Economics Research: A Toolkit”, *NBER Technical Working Paper #333* [<http://www.nber.org/papers/t0333>]
- Udry, Chris and Pranab Bardhan. *Development Microeconomics*. Oxford, 1999.
- Acemoglu, Daron, and James Robinson. *Why nations fail: The origins of power, prosperity, and poverty*. Crown Business, 2012.

■ SESSIONS 3 AND 4: MISSING MARKETS, CREDIT AND SAVINGS (Dr. Heather Schofield) – January 21, 2022

Required

- Karlan, Dean and Jonathan Zinman, 2006. “Observing Unobservables: Identifying Information Asymmetries with a Consumer Credit Field Experiment.” *Econometrica*.
- Anagol, S. “Adverse Selection in Asset Markets: Theory and Evidence from the Indian Market for Cows,” (2017) *Journal of Development Economics*.

Recommended

- Burgess, Robin and Rohini Pande, 2005. “Do Rural Banks Matter? Evidence from the Indian Social Banking Experiment.” *American Economic Review*
- 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), p. 635-672.

Additional

- Ghosh, P., Mookherjee, D. and D. Ray (2000). “Credit Rationing in Developing Countries: An Overview of the Theory,” Chapter 11 in *Readings in the Theory of Economic Development*, edited by D. Mookherjee and D. Ray, London: Blackwell.
- Banerjee, A., Karlan, D. and J. Zinman, 2015. “Six Randomized Evaluations of Microcredit: Introduction and Further Steps.” *AEJ: Applied*.

■ SESSIONS 5 AND 6: HUMAN CAPITAL 1, EDUCATION (Dr. Heather Schofield) – January 28, 2022

Required

- Duflo, Esther (2001). "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment." *American Economic Review*, 91(4), p. 795–813.
- Angrist, Joshua and Victor Lavy (1999), "Using Maimonides' Rule to Estimate the Effect of Class Size on Scholastic Achievement," *Quarterly Journal of Economics*, Vol 114 (2), pp. 533-575.

Recommended

- Brown, Christina, and Tahir Andrabi. "Inducing positive sorting through performance pay: Experimental evidence from Pakistani schools." *University of California at Berkeley Working Paper* (2020).
- Duflo, Esther, Pascaline Dupas, and Michael Kremer. "Peer effects, teacher incentives, and the impact of tracking: Evidence from a randomized evaluation in Kenya." *American Economic Review* 101.5 (2011): 1739-74.

Additional

- Glewwe, P. and K. Muralidharan. "Improving Education Outcomes in Developing Countries: Evidence, Knowledge Gaps, and Policy Implications." In *Handbook of the Economics of Education*. Netherlands, Elsevier Science, 2016.
- Jensen, R. (2000). Agricultural volatility and investments in children. *The American Economic Review*, 90(2), 399-404.

■ SESSIONS 7 AND 8: HUMAN CAPITAL 2, HEALTH (Dr. Heather Schofield) – February 4, 2022

Required

- Bessone, P., Rao, G., Schilbach, F., Schofield, H., & Toma, M. (2021). The economic consequences of increasing sleep among the urban poor. *The Quarterly Journal of Economics*, 136(3), 1887-1941.
- Miguel, Edward and Michael Kremer (2004). "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities", *Econometrica*, 72(1), 159-217.

Recommended

- Karing, Anne. "Social signaling and childhood immunization: A field experiment in sierra leone." *University of California, Berkeley* 2 (2018).
- Jensen, Robert T. and Nolan Miller (2008). "Giffen Behavior and Subsistence Consumption," *American Economic Review*, 98(4), p. 1553 – 1577.

Additional

- Bleakley, Hoyt. "Malaria eradication in the Americas: A retrospective analysis of childhood exposure." *American Economic Journal: Applied Economics* 2.2 (2010): 1-45.
- Cohen, Jessica, and Pascaline Dupas. "Free distribution or cost-sharing? Evidence from a randomized malaria prevention experiment." *The Quarterly Journal of Economics* (2010): 1-45.

- Subramanian, Shankar and Angus Deaton (1996). “The Demand for Food and Calories,” *Journal of Political Economy*, 104(1), 133-62.

■ SESSIONS 9 AND 10: CONTRACTING AND FIRMS (Dr. Heather Schofield) – February 11, 2022

Required

- Rocco Macchiavello, Ameet Morjaria, Competition and Relational Contracts in the Rwanda Coffee Chain, *The Quarterly Journal of Economics*, Volume 136, Issue 2, May 2021, Pages 1089–1143,
- Bertrand, Marianne, Paras Mehta, and Sendhil Mullainathan. "Ferretting out tunneling: An application to Indian business groups." *The Quarterly Journal of Economics* 117.1 (2002): 121-148.

Recommended

- Greif, Avner (1993) “Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders’ Coalition.” *American Economic Review*, 83(3): 525-548.
- De Mel, Suresh, David McKenzie, and Christopher Woodruff. "Returns to capital in microenterprises: evidence from a field experiment." *The Quarterly Journal of Economics* 123.4 (2008): 1329-1372.
- Banerjee, Abhijit, and Esther Duflo. "Reputation Effects and the Limits of Contracting: A Study of the Indian Software Industry." *Quarterly Journal of Economics* 115, no. 3 (2000): 989-1017.

Additional

- Bloom, Nicholas, et al. "Does management matter? Evidence from India." *The Quarterly Journal of Economics* 128.1 (2013): 1-51.
- Burkart, Panunzi, and Andrei Shleifer. "Family Firms." *Journal of Finance* 58, no. 5 (2003): 2167-2202.
- Adhvaryu, Achyuta, Namrata Kala, and Anant Nyshadham. *Management and shocks to worker productivity*. No. w25865. National Bureau of Economic Research, 2019.

■ SESSIONS 11 AND 12: LABOR AND MIGRATION (Dr. Shing-yi Wang) - February 18, 2022

Required – NOTE: No summary is required this week

- Benjamin, Dwayne (1992), "Household Composition, Labor Markets, and Labor Demand: Testing for Separation in Agricultural Household Models," *Econometrica*, 60(2), p. 287-322.
- Besley, Timothy, and Robin Burgess (2004). “Can labor regulation hinder economic performance? Evidence from India,” *Quarterly Journal of Economics*, 19(1), p. 91–134.
- Jayachandran, Seema (2006), “Selling Labor Low: Wage Responses to Productivity Shocks in Developing Countries,” *Journal of Political Economy*, 114(3), p. 538-575.

- Rosenzweig, Mark R. and Oded Stark (1989). “Consumption Smoothing, Migration and Marriage: Evidence from Rural India,” *Journal of Political Economy*, 97(4), p. 905-926.

Recommended

- Bryan, Gharad, S. Chowdhury and A. M. Mobarak, “Under-Investment in a Profitable Technology: The Case of Seasonal Migration in Bangladesh,” *Econometrica*, 82(5), 2014, pp. 1671-1748.
- Suresh Naidu, Yaw Nyarko, [Shing-Yi Wang](#) (2016), [Monopsony Power in Migrant Labor Markets: Evidence from the United Arab Emirates](#), *Journal of Political Economy*.
- Jing Cai and [Shing-Yi Wang](#), [Improving Management through Worker Evaluations: Evidence from Auto Manufacturing](#). NBER Working paper

Additional

- Blattman, Christopher and Stephen Dercon (2018), “The Impacts of Industrial and Entrepreneurial Work on Income and Health: Experimental Evidence from Ethiopia.” *American Economic Journal: Applied Economics*, 10(3).

■ SESSIONS 13 AND 14: LAND, PROPERTY RIGHTS, AND AGRICULTURE (Dr. Heather Schofield) - February 25, 2022

Required

- Banerjee, Abhijit, Paul Gertler and Maitreesh Ghatak, 2002. “Empowerment and Efficiency: Tenancy Reform in West Bengal.” *Journal of Political Economy*.
- Hornbeck, Richard. "Barbed wire: Property rights and agricultural development." *The Quarterly Journal of Economics* 125.2 (2010): 767-810.

Recommended

- Besley, Timothy, 1995. “Property Rights and Investment Incentives: Theory and Evidence from Ghana.” *Journal of Political Economy*.

Additional

- Field, Erica, 2007. “Entitled to Work: Urban Property Rights and Labor Supply in Peru.” *Quarterly Journal of Economics*.
- Coase, Ronald H, “The Problem of Social Cost,” *Journal of Law and Economics*, 3 (1960), 1-44.
- Foster A.D. and M.R. Rosenzweig (1995). “Learning by Doing and Learning from Others: Human Capital and Technical Change in Agriculture,” *Journal of Political Economy*, 103(6), 1176-1209.
- Udry, Christopher, 1996. “Gender, Agricultural Productivity and the Theory of the Household.” *Journal of Political Economy*.

■ SESSIONS 15 AND 16: TECHNOLOGY ADOPTION (Dr. Heather Schofield) – March 4, 2022

Required

- Banerjee, Abhijit. "A Simple Model of Herd Behavior." *Quarterly Journal of Economics* 107, no. 3 (1992): 797-817.
- Mullainathan, Sendhil, and Sandip Sukhtankar. "Ownership Structure and Economic Outcomes: The Case of Sugarcane Mills in India." *International Growth Centre, Working Paper Series* (2011).

Recommended

- Duflo, Esther, Michael Kremer, and Jonathan Robinson. 2009. "Nudging Farmers to Use Fertilizer: Theory and Experimental Evidence from Kenya."
- Foster A.D. and M.R. Rosenzweig (1995). "Learning by Doing and Learning from Others: Human Capital and Technical Change in Agriculture," *Journal of Political Economy*, 103(6), 1176-1209.

Additional

- Conley, Timothy G., and Christopher R. Udry. "Learning about a new technology: Pineapple in Ghana." *American economic review* 100.1 (2010): 35-69.

■ SESSIONS 17 AND 18: BEHAVIORAL ECONOMICS (Dr. Heather Schofield) – March 18, 2022

Required

- Hanna, R., Mullainathan, S., & Schwartzstein, J. (2014). Learning through noticing: Theory and evidence from a field experiment. *The Quarterly Journal of Economics*, 129(3), 1311 -1353.
- Banerjee, Abhijit and Sendhil Mullainathan. 2008. "Limited Attention and Income Distribution." *American Economic Review* 98(2): 489-493.

Recommended

- Bertrand, M., Mullainathan, S., & Shafir, E. (2004). A behavioral-economics view of poverty. *The American Economic Review*, 94(2), 419-423.
- Breza, Emily, Supreet Kaur, and Yogita Shamdasani. "The morale effects of pay inequality." *The Quarterly Journal of Economics* 133.2 (2018): 611-663.
- Bursztyn, Leonardo, Alessandra L. González, and David Yanagizawa-Drott. *Misperceived social norms: Female labor force participation in Saudi Arabia*. No. w24736. National Bureau of Economic Research, 2018.
- Schilbach, Frank, Heather Schofield, and Sendhil Mullainathan. "The psychological lives of the poor." *American Economic Review* 106.5 (2016): 435-40.

Additional

- Ericson, K.M. and Laibson, D., 2018. Intertemporal choice (No. w25358). National Bureau of Economic Research.
- Haushofer, Johannes and Ernst Fehr. 2014. "On the Psychology of Poverty." *Science* 344(6186): 862-867.
- Bursztyn, Leonardo, et al. "Status goods: experimental evidence from platinum credit cards." *The Quarterly Journal of Economics* 133.3 (2018): 1561-1595.

- SESSIONS 19 AND 20: STUDENT PRESENTATIONS (Dr. Heather Schofield) – March 25, 2022

- SESSION 21: GENDER (Dr. Corinne Low) – April 1, 2022
TBD

- SESSION 22: THE FAMILY (Dr. Heather Schofield) – April 1, 2022

Recommended

- Ashraf, Nava. "Spousal control and intra-household decision making: An experimental study in the Philippines." *American Economic Review* 99.4 (2009): 1245-77.
- Bertrand, M., S. Mullainathan, and D. Miller. "Public Policy and Extended Families: Evidence from Pensions in South Africa." *World Bank Economic Review* 17, no. 1 (2003): 27-50.

Additional

- Strauss, John and Duncan Thomas (1995). "Human Resources: Empirical Modeling of Household and Family Decisions." In Behrman, Jere and T.N. Srinivasan, eds., *Handbook of Development Economics*, Volume 3. Amsterdam: North Holland, 1885-2023.
- Udry, Christopher. "Gender, agricultural production, and the theory of the household." *Journal of Political Economy* 104.5 (1996): 1010-1046.

- SESSIONS 23 AND 24: CORRUPTION (Dr. Shing-yi Wang) – April 8, 2022

Required – NOTE: No summary is required this week

- Banerjee, Abhijit (1997). "A Theory of Misgovernance," *Quarterly Journal of Economics*, 112(4), p. 1289-1332.
- Fisman, Ray (2001). "Estimating the Value of Political Connections," *American Economic Review*, 91(4), p. 1095-1102.
- Fisman, Raymond and Edward Miguel (2007). "Corruption, Norms, and Legal Enforcement: Evidence from Diplomatic Parking Tickets," *Journal of Political Economy*, 115(6), 1020-1048.
- Bertrand, Marianne, Simeon Djankov, Rema Hanna and Sendhil Mullainathan (2008). "Obtaining a Driving License in India: An Experimental Approach to Studying Corruption," *Quarterly Journal of Economics*, 122(4), p. 1639-1676.
- Olken, Benjamin (2007). "Monitoring Corruption: Evidence from a Field Experiment in Indonesia," *Journal of Political Economy*, 115(2), p. 200-249.

Recommended

- Hanna, Rema and Shing-Yi Wang (2017). "Dishonesty and Selection into Public Service: Evidence from India," *American Economic Journal: Economy Policy*, 9(3), 262-290.

Additional

- Finan, Frederico and Claudio Ferraz. “Exposing Corrupt Politicians: The Effect of Brazil’s Publicly Released Audits on Electoral Outcomes”, *Quarterly Journal of Economics*, 2008; 123(2): 703-745.

■ **SESSION 25: ENVIRONMENT 1 – IMPACTS & HOUSEHOLDS (Dr. Susanna Berkouwer) – April 15, 2022**

Required

- Michael Greenstone and B. Kelsey Jack. 2015. “Envirodevonomics: A Research Agenda for an Emerging Field.” *Journal of Economic Literature*.

Recommended

- Seema Jayachandran, Joost de Laat, Eric F. Lambin, Charlotte Y. Stanton, Robin Audy, and Nancy E. Thomas. 2017. “Cash for Carbon: A Randomized Trial of Payments for Ecosystem Services to Reduce Deforestation.” *Science*.
- Michael Greenstone and Rema Hanna. 2014. "Environmental Regulations, Air and Water Pollution, and Infant Mortality in India." *American Economic Review*.

Additional

- Esther Duflo and Rohini Pande. 2007. “Dams.” *Quarterly Journal of Economics*.
- B. Kelsey Jack, Seema Jayachandran, and Sarojini Rao. 2020. “Environmental externalities and free-riding in the household.” Working paper.
- Tamma Carleton et al. 2020. "Valuing the Global Mortality Consequences of Climate Change Accounting for Adaptation Costs and Benefits." Working paper.
- Geoff Barrows, Teevrat Garg, and Akshaya Jha. 2019. “The Health Costs of Coal-Fired Power Plants in India.” Working paper.
- Fiona Burlig and Louis Preonas. 2021. “Out of the darkness and into the light? Development effects of rural electrification.” Working paper.
- Susanna Berkouwer and Joshua Dean. 2021. “Credit, attention, and externalities in the adoption of energy efficient technologies by low-income households”. Working paper.

■ **SESSION 26: ENVIRONMENT 2 – REGULATION, INFRASTRUCTURE, & POLITICAL ECONOMY (Dr. Susanna Berkouwer) – April 15, 2022**

Required

- Guojun He, Shaoda Wang, and Bing Zhang. 2020. “Watering Down Environmental Regulation in China.” *Quarterly Journal of Economics*.

Recommended

- Paulina Oliva. 2015. “Environmental Regulations and Corruption: Automobile Emissions in Mexico City”. *Journal of Political Economy*.
- Robin Burgess, Matthew Hansen, Benjamin A. Olken, Peter Potapov, and Stefanie Sieber. 2012. “The Political Economy of Deforestation in the Tropics.” *Quarterly Journal of Economics*.

Additional

- Shaun McRae. 2015. “Infrastructure Quality and the Subsidy Trap.” *American Economic Review*.

- Robin Burgess, Michael Greenstone, Nicholas Ryan, and Anant Sudarshan. 2020. “The Consequences of Treating Electricity as a Right.” *Journal of Economic Perspectives*.
- Esther Duflo, Michael Greenstone, Rohini Pande, Nicholas Ryan. 2018. “The Value of Regulatory Discretion: Estimates From Environmental Inspections in India” *Econometrica*.
- Clare Balboni. 2021. “In Harm's Way: Infrastructure Investments and the Persistence of Coastal Cities.” Working paper.
- Nicolas Gendron-Carrier, Marco Gonzalez-Navarro, Stefano Polloni, and Matthew Turner. 2021. “Subways and Urban Air Pollution.” *AEJ: Applied Economics*.

■ SESSIONS 27 AND 28: STUDENT PRESENTATIONS ON RESEARCH TOPICS

Summary of deadlines

January 21 – Email Prof. Schofield with choice of paper for referee report

Feb 4 – PS1

Feb 18 – Referee report

March 4 – PS2

March 18 – Email Prof. Schofield with choice of JMP to present

March 25 – Student presentations of recent JMPs

April 22 – Student presentations of research proposals

June 15 – Research proposals due