

ECON 616: Economic Development

Fall 2015

Monday/Wednesday, 11:00-12:15, Tydings 4103

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Office hours: Wednesdays, 4:00 to 5:30 PM
(sign up by e-mail)

Description

Survey of a variety of models explaining how market failures may lead to poverty and underdevelopment, with an emphasis on the empirical evaluation of constraints faced by individuals in developing countries and the programs that attempt to alleviate those constraints. Topics include: agricultural and land markets, labor markets, human capital in developing countries, credit markets, and consumption smoothing and risk coping.

Course Objectives

At the end of this course, students should be familiar with the canonical papers in applied micro-economic development, and with more recent empirical work. Students will develop skills as critical readers; learn to assess the rigor of common empirical approaches in development economics; and learn to build upon past theoretical and empirical research to develop new questions of academic and policy relevance. Each student will develop a proposal for a substantial independent research project, suitable for a field and third year paper and as a chapter of the dissertation. Additionally, students will gain experience in key professional activities of academic economists, including writing referee reports and giving short presentations.

Requirements

In addition to the requirements listed below, reading the required papers (indicated with a * on the reading list below) is essential. You will be expected to discuss and answer questions about the required readings in class.

- 1) **15%** One referee reports (due dates corresponding to topics in syllabus). Students will sign up to write a referee report for two of the working papers included on the syllabus and indicated by a ^ . The written referee reports

- will be due on the day the topic is covered in class, and accompanied by a 30-minute in-class presentation that summarizes and critiques the paper.
- 2) **35%** Replicate and extend assignment (due Wednesday Dec. 9; see handout)
 - 3) **15%**: Three two-page research ideas, including the following sections (due Monday Nov. 30)
 - i. Statement of the research question.
 - ii. Motivation/importance of the problem (4-5 sentences).
 - iii. **Brief** summary of the related literature (1 paragraph).
 - iv. Proposed data and/or setting for the research. What variables will you need in your analysis? How can you obtain the needed data?
 - v. Empirical strategy (identification strategy and proposed estimating equations). Include a discussion of the required sample size.
 - vi. Key outcomes (include “mock-ups” of key tables) and expected results.

- These research ideas must be for feasible projects you could carry out as part of your dissertation. No more than one idea may be for an RCT, and if you propose an RCT, you must include a budget and proposed timeline for implementation.
- 4) **15%** Midterm exam (Monday Oct. 26, in class).
 - 5) **20%** Final exam (Wednesday Dec. 9, in class).

You are strongly encouraged to attend the Labor, Public Finance, and Development seminar, which meets from 3:30 PM to 5:00 PM on Thursdays. You may also be interested in the Trade, Institutions, and Politics seminar, which meets from 3:30 PM to 5:00 PM on Mondays.

Reading List

Readings marked with an asterisk (*) are required and will be discussed in class; readings with double asterisks (**) are recommended. Other readings are provided as references for students especially interested in each topic. Working papers marked with a caret (^) are examples of the most recent developments in the literature. One of the course requirements is to write a referee report for a working paper included in this reading list.

This reading list is long, but does not include every important topic in development economics. In particular, macro development topics including poverty and inequality measurement and economic growth get less attention than they deserve. The course will not cover political economy or public infrastructure. I have entirely omitted readings on the relationship between institutions and economic development, which are covered in Economics 681.

I strongly encourage you to build up your own file of notes as you read papers for this and other field classes. One option is to write brief summaries of papers after you read them. Another is to keep spreadsheet that records bibliographical information as well as the main research question, the identification strategy, the conclusion, and your brief comments on the paper. These files will be useful as you prepare for exams in this class, for finding related literature as you are writing papers, and in ensuring you are prepared to discuss the classic and recent literature in the field as you go on the job market. You may find it useful to use a PDF management program such as Papers (for Macs) to organize files, search abstracts, and create LaTeX-friendly bibliographies.

I have assigned chapters of Angrist and Pischke's excellent Mostly Harmless Econometrics in some weeks. These readings will complement the substantive journal articles with a discussion of the econometric methods used in development and other applied micro fields. I strongly encourage you to read these chapters to build your knowledge of how to read and write empirical papers.

In addition to the articles below, excellent general references and textbooks include:

Angrist, Joshua D. and Jorn-Steffen Pischke (2009). Mostly Harmless Econometrics: An Empiricist's Companion. Princeton University Press.

Bardhan, Pranab and Christopher Udry (1999). Development Microeconomics. Oxford University Press.

Deaton, Angus (1997). The Analysis of Household Surveys. Johns Hopkins.

Ray, Debraj (1998). Development Economics. Princeton University Press.

1. Poverty and inequality measurement (1 lecture - August 31)

Poverty

*Foster, James, Joel Greer and Erik Thorbecke (1984). "A Class of Decomposable Poverty Measures," *Econometrica*, Vol. 52, No. 3, pp. 761-766.

**Atkinson, Anthony B. (1987). "On the Measurement of Poverty." *Econometrica*, Vol. 55, No. 4, pages 749-764.

Chen, Shaohua and Martin Ravallion (2001). "How did the World's Poorest Fare in the 1990s?" *Review of Income and Wealth*, Vol. 43, No. 3, pages 283-300.

*Deaton, Angus (2005). "Measuring Poverty in a Growing World (or Measuring Growth in a Poor World)." *Review of Economics and Statistics*, Vol. 87, No. 1, pages 1-19.

**Alkire, Sabrina and James Foster (2009). "Counting and Multidimensional Poverty Measurement (Revised and Updated)," OPHI Working Paper 32.

Inequality

- Shorrocks, Anthony (1983). "Ranking Income Distributions." *Econometrica*, Vol. 50, No. 197, pages 3-17.
- Atkinson, Anthony B. (1987). "On the Measurement of Poverty." *Econometrica*, Vol. 55, No. 4, pages 749-764.
- Deininger, Klaus and Lyn Squire (1996). "A New Data Set Measuring Income Inequality," *World Bank Economic Review*, Vol. 10, No. 3, pages 565-591.
- *Deaton, Angus (1997). "Welfare, Poverty, and Distribution." Chapter 3 of The Analysis of Household Surveys: Microeconomic Analysis for Development Policy.
- **Cowell, Frank (2000). "Measurement of Inequality." In A.B. Atkinson and F. Bourguignon, editors, Handbook of Income Distribution, Volume 1. North Holland. Pages 87-116. (please read pages 89-107).
- Ligon, Ethan (2010). "Measuring Risk by Looking at Changes in Inequality: Vulnerability in Ecuador," CUDARE Working Paper No. 1095.

2. Economic growth (1 lecture - September 2) **Angrist and Pischke, chapter 2**

Trends in growth

- Kuznets, Simon (1973). "Modern Economic Growth: Findings and Reflections." *American Economic Review*, Vol. 63, No. 3, 247-258.
- *Jones, Chad (1997). "On the Evolution of the World Income Distribution," *Journal of Economic Perspectives*, Vol. 11, No. 3, pages 19-36.
- *Prichet, Lant (1997). "Divergence, Big Time." *Journal of Economic Perspectives*, Vol. 11, No. 3, pages 3-18.
- Easterlin, Richard (2000). "The Worldwide Standard of Living since 1800." *Journal of Economic Perspectives*, Vol. 14, No. 1, pages 7-26.

Empirical growth

- **Barro, Robert (1991). "Economic Growth in a Cross Section of Countries." *Quarterly Journal of Economics*, Vol. 106, pages 407-443.
- *Mankiw, Gregory, David Romer and Davie Weil (1992). "A Contribution to the Empirics of Economic Growth." *Quarterly Journal of Economics*, Vol. 107, pages 407-437.
- Quah, Danny (1993). "Empirical Cross-Sectional Dynamics in Economic Growth." *European Economic Review*, Vol. 37, pages 426-434.
- Caselli, F., G. Esquivel and F. Lefort (1996). "Reopening the Convergence Debate: A New Look at Cross-Country Growth Empirics." *Journal of Economic Growth*, Vol. 1, No. 3, pages 363-389.

- Barro, Robert (1997). "Economic Growth and Convergence." Chapter 1 of Determinants of Economic Growth: A Cross-Country Empirical Study, Cambridge: MIT Press.
- Hall, Robert and Charles Jones (1999). "Why do Some Countries Produce so Much More Output per Worker than Others," *Quarterly Journal of Economics*, Vol. 114, pages 83-226.
- Banerjee, Abhijit and Esther Duflo (2003). "Inequality and Growth: What Can the Data Say?" *Journal of Economic Growth*, Vol. 8, No. 3, pages 267-299.
- **Banerjee, Abhijit and Esther Duflo (2005). "Growth Theory through the Lens of Development Economics," in Philippe Aghion and Steven Durlauf, eds., Handbook of Economic Growth, Edition 1, Vol. 3, Chapter 1.

3. Agriculture and land markets (4 lectures)

Property rights and land tenure – September 16 Angrist and Pischke, chapter 3

- *Besley, Timothy (1995). "Property Rights and Investment Incentives: Theory and Evidence from Ghana," *Journal of Political Economy*, Vol. 103, No. 5, pages 903-921.
- Besley, Timothy and Robin Burgess (2000). "Land Reform, Poverty Reduction, and Growth: Evidence from India," *Quarterly Journal of Economics*, Vol. 115, No. 2, pages 389-430.
- Jacoby, Hanan, Guo Li, and Scott Rozelle (2002). "Hazards of Expropriation: Tenure Insecurity and Investment in Rural China," *American Economic Review*, Vol. 92, No. 5, pages 1420-1447.
- *Field, Erica (2007). "Entitled to Work: Urban Property Rights and the Labor Supply in Peru," *Quarterly Journal of Economics*, Vol. 122, pages 1561-1602.
- Goldstein, Marcus and Chris Udry (2008). "The Profits of Power: Land Rights and Agricultural Investment in Ghana," *Journal of Political Economy*, Vol. 116, No. 6, pages 981-1022.
- **Udry, Chris (2011). "Land Tenure," in Ernest Aryeetey, Shantayanan Devarajan and Ravi Kanbur, eds. The Oxford Companion to the Economics of Africa.

Tenancy – September 21

- Bardhan, Pranab and T. Srinivasan (1971). "Cropsharing Tenancy in Agriculture: A Theoretical and Empirical Analysis," *American Economic Review*, pages 48-64.
- Stiglitz, Joseph (1974). "Incentives and Risk in Sharecropping," *Review of Economic Studies*, pages 219-255.
- Newberry, David and Joseph Stiglitz (1978). "Sharecropping, Risk Sharing, and the Importance of Imperfect Information," in J. Roumasset et al., eds., Risk, Uncertainty, and Agricultural Development.
- **Eswaran, Mukesh and A. Kotwal (1985). "A Theory of Contractual Structure in

- Agriculture," *American Economic Review*, Vol. 75, No. 3, pages 352-367.
- Eswaran, Mukesh and A. Kotwal (1986). "Access to Capital and Agrarian Production Organization," *Economic Journal*, Vol. 96, pages 482-498.
- *Shaban, Radwan (1987). "Testing between Competing Models of Sharecropping," *Journal of Political Economy*, Vol. 95, No. 5, pages 893-920.
- Otsuka, Keijiro and Yujiro Hayami (1988). "Theories of Share Tenancy: A Critical Survey," *Economic Development and Cultural Change*, Vol. 37, pages 31-68.
- **Otsuka, Keijiro, H. Chuma, and Yujiro Hayami (1992). "Land and Labor Contracts in Agrarian Economies," *Journal of Economic Literature*, Vol. 30, No. 4, pages 1965-2018.
- Akerberg, Daniel and Maristella Botticini (2002). "Endogenous Matching and the Empirical Determinants of Contract Form," *Journal of Political Economy*, Vol. 110, No. 3, pages 564-591.
- *Banerjee, Abhijit, Paul Gertler, and Maitresh Ghatak (2002). "Empowerment and Efficiency: Tenancy Reform in West Bengal," *Journal of Political Economy*, Vol. 110, No. 2, pages 239-280.
- Banerjee, Abhijit and Maitresh Ghatak (2004). "Eviction Threats and Investment Incentives," *Journal of Development Economics*, Vol. 74, No. 2, pages 469-488.

Farm size and productivity – September 28

- **Bardhan, Pranab (1973). "Size, Productivity, and Returns to Scale: An Analysis of Farm-Level Data in Indian Agriculture," *Journal of Political Economy*, pages 1370-1380.
- Carter, Michael (1984). "Identification of the Inverse Relationship between Farm Size and Productivity: An Empirical Analysis of Peasant Agricultural Production," *Oxford Economic Papers*, Vol. 36, pages 131-145.
- Khandker, Shahidur, Stuart Mestelman, and David Feeny (1987). "Allocative Efficiency, the Aggregation of Labor Inputs, and the Effects of Farm Size and Tenancy Status: Tests from Rural Bangladesh," *Journal of Development Studies*, Vol. 24, pages 31-42.
- Feder, Gershon (1985). "The Relation Between Farm Size and Farm Productivity: The Role of Family Labor, Supervision, and Credit Constraints," *Journal of Development Economics*, Vol. 18, pages 297-313.
- *Benjamin, Dwayne (1995). "Can Unobserved Land Quality Explain the Inverse Productivity Relationship?" *Journal of Development Economics*, Vol. 46, No. 1, pages 51-84.
- ^Foster, Andrew and Mark Rosenzweig (2011). "Are Indian Farms Too Small? Mechanization, Agency Costs, and Farm Efficiency." Mimeo, Yale University.

Technological adoption – September 30

- Griliches, Zvi (1957). "Hybrid Corn: An Exploration in the Economics of Technological Change." *Econometrica*, Vol. 25, No. 4, pages 501-222.
- **Foster, Andrew and Mark Rosenzweig (1995). "Learning by Doing and Learning

- from Others: Human Capital and Technical Change in Agriculture," *Journal of Political Economy*, pages 1176-1209.
- Munshi, Kaivan (2004). "Social Learning in a Heterogeneous Population: Technology Diffusion in the Indian Green Revolution." *Journal of Development Economics*, Vol. 73, No. 1, pages 185–213.
- Bandiera, Oriana, and Imran Rasul (2006). "Social Networks and Technology Adoption in Northern Mozambique." *Economic Journal*, Vol. 116, No. 514, pages 869–902.
- *Conley, Timothy G., and Christopher R. Udry (2010). "Learning about a New Technology: Pineapple in Ghana." *American Economic Review*, Vol. 100, No. 1, pages 35–69.
- Bloom, Nicholas and Benn Eifert, Aprajit Mahajan, David McKenzie, and John Roberts (2013). "Does Management Matter? Evidence from India." *Quarterly Journal of Economics*, Vol. 128.
- ^Emerick, Kyle (2014). "The Efficiency of Trading in Social Networks: Experimental Measures from India." Mimeo, University of California – Berkeley.

4. Labor markets (5 lectures)

Agricultural HH separability – October 5

- Strauss, John (1984). "Joint Determination of Food Consumption and Production in Rural Sierra Leone: Estimates of a Household-Firm Model," *Journal of Development Economics*, Vol. 14, pages 327-353.
- De Janvry, Alain, Marcel Fafchamps, and Elizabeth Sadoulet (1991). "Peasant Household Behavior with Missing Markets: Some Paradoxes Explained," *Economic Journal*, Vol. 101, No. 409, pages 1400-1417.
- *Benjamin, Dwayne (1992). "Household Composition, Labor Markets, and Labor Demand: Testing for Separation in Agricultural Household Models." *Econometrica*, Vol. 60, pages 287-322.
- Jacoby, Hanan (1993). "Shadow Wages and Peasant Family Labor Supply: An Econometric Application to the Peruvian Sierra." *Review of Economics Studies*, Vol. 60, pages 903-921.
- *Skoufias, Emmanuel (1994). "Using Shadow Wages to Estimate Labor Supply of Agricultural Households," *American Journal of Agricultural Economics*, Vol. 76, No. 2, pages 215-227.
- Udry, Christopher (1996). "Efficiency and Market Structure: Testing for Profit Maximization in African Agriculture." Mimeo, Northwestern University.

Agricultural labor markets – October 7

- Bardhan, Pranab (1983). "Labor Tying in a Poor Agrarian Economy: A Theoretical and Empirical Analysis," *Quarterly Journal of Economics*, Vol. 98, No. 3, pages 501-514.

- Binswanger, Hans and Mark Rosenzweig (1984). "Contractual Arrangements, Employment, and Wages in Rural Labor Markets: A Critical Review," in Hans Binswanger and Mark Rosenzweig, eds., Econometric Models of Labor Supply and Demand, Washington DC: World Bank Press, pages 1-39.
- *Strauss, John (1986). "Does Better Nutrition Raise Farm Productivity?" *Journal of Political Economy*, Vol. 94, No. 2, pages 297-320.
- Foster, Andrew and Mark Rosenzweig (1994). "A Test for Moral Hazard in the Labor Market: Effort, Health, and Calorie Consumption," *Review of Economics and Statistics*, Vol. 76, No. 2, pages 213-227.
- **Foster, Andrew and Mark Rosenzweig (1996). "Comparative Advantage, Information, and the Allocation of Workers to Tasks: Evidence from an Agricultural Labor Market," *Review of Economic Studies*, Vol. 63, No. 3, pages 347-374.
- ^Foster, Andrew and Mark Rosenzweig (2010). "Is There Surplus Labor in Rural India?" Working Papers 85, Yale University, Department of Economics.

Labor Supply – October 12

Angrist and Pischke, chapter 4

- Lewis, W. Arthur (1954). "Economic Development with Unlimited Supplies of Labour." *The Manchester School of Economic and Social Studies*, Vol. XXII, No. 2, pages 139-191.
- Rosenzweig, Mark (1978). "Rural Wages, Labor Supply, and Land Reform: A Theoretical and Empirical Analysis," *American Economic Review*, Vol. 68, No. 5, pages 847-861.
- Bardhan, Pranab (1979). "Labor Supply Functions in a Poor Agrarian Economy," *American Economic Review*, Vol. 69, No. 1, pages 73-83.
- *Rosenzweig, Mark (1980). "Neoclassical Theory and the Optimizing Peasant: An Econometric Analysis of Market Family Labor Supply in a Developing Country," *Quarterly Journal of Economics*, Vol. 94, No. 1, pages 31-55.
- Kochar, Anjini (1989). "Smoothing Consumption by Smoothing Income: Hours-of-Work Responses to Idiosyncratic Agricultural Shocks in Rural India," *The Review of Economics and Statistics*, Vol. 81, No. 1, pages 50-61.
- Abduli, Awudu and Christopher Delgado (1999). "Determinants of Nonfarm Earnings of Farm-Based Husbands and Wives in Northern Ghana," *American Journal of Agricultural Economics*, Vol. 81, No. 1, pages 117-130.
- Rose, Elaina (2001). "Ex Ante and Ex Post Labor Supply Response to Risk in a Low-Income Area," *Journal of Development Economics*, Vol. 64, pages 371-388.
- *Jayachandran, Seema (2006). "Selling Labor Low: Wage Responses to Productivity Shocks in Developing Countries," *Journal of Political Economy*, Vol. 114, No. 3, pages 538-575.
- Goldberg, Jessica (2015). "Kwacha Gonna Do? Experimental Evidence about Labor Supply in Rural Malawi," *American Economic Journal: Applied Economics* (forthcoming).
- **Kaur, Supreet, Michael Kremer and Sendhil Mullainathan (forthcoming). "Self-

Control at Work: Evidence from a Field Experiment," *Journal of Political Economy*.
Kaur, Supreet (2014). "Nominal Wage Rigidity in Village Labor Markets," Mimeo, Columbia University.

Labor Market Networks – October 14

- Calvo-Armengol, A. and M. O. Jackson (2004). The Effects of Social Networks on Employment and Inequality," *American Economic Review*, Vol. 94, pages 426-454.
- Bryan, Gharad Dean Karlan, and Jonathan Zinman (2010). "Making the Most of the Friends you Have: Referrals and Enforcement in a Referrals Field Experiment," Mimeo, Yale University.
- Heath, Rachel (2011). "Why do Firms Hire Using Referrals? Evidence from Bangladeshi Garment Factories." Mimeo, University of Washington.
- *Beaman, Lori and Jeremy Magruder (2012). "Who Gets the Job Referral? Evidence from a Social Networks Experiment," *American Economic Review*, Vol. 102, No. 7, pages 3574-93.
- ^Beaman, Lori, Niall Keleher and Jeremy Magruder (2013). "Do Job Networks Disadvantage Women? Evidence from a Recruitment Experiment in Malawi," Northwestern University Institute for Policy Research Working Paper (WP-12-19).

Migration – October 19

- **Harris, John and Michael Todaro (1970). "Migration, Unemployment, and Development: A Two Sector Analysis," *American Economic Review*, Vol. 60, pages 126-142.
- Lucas, Robert, and Oded Stark (1985). "Motivations to Remit: Evidence from Botswana," *Journal of Political Economy*, Vol. 93, No. 5, pages 901-918.
- *Borjas, George (1987). "Self-Selection and the Earnings of Immigrants," *American Economic Review*, Vol. 77, No. 4, pages 531-553.
- *Munshi, Kaivan (2003). "Networks in the Modern Economy: Mexican Migrants in the U.S. Labor Market," *Quarterly Journal of Economics*, Vol. 118, No. 2, pages 549-597.
- Chiquiar, Daniel and Gordon Hanson (2005). "International Migration, Self-Selection, and the Distribution of Wages," *Journal of Political Economy*, Vol. 113, pages 239-281.
- Yang, Dean (2006). "Why do Migrants Return to Poor Countries? Evidence from Philippines Migrants' Responses to Exchange Rate Shocks," *Review of Economics and Statistics*, Vol. 88, No. 4, pages 715-735.
- McKenzie, David, John Gibson, and Steven Stillman (2010). "How Important Is Selection? Experimental vs. Non-Experimental Measures of the Income Gains from Migration," *Journal of the European Economic Association*, Vol. 8, No. 4, pages 913-945.

- **Gibson, John, David McKenzie, and Steven Stillman (2011). "The Impacts of International Migration on Remaining Household Members: Omnibus Results from a Migration Lottery Program," *The Review of Economics and Statistics*, Vol. 93, No. 3, pages 1297-1318.
- Gibson, John and David McKenzie (2011). "The Microeconomic Determinants of Emigration and Return Migration of the Best and Brightest: Evidence from the Pacific," *Journal of Development Economics*, Vol. 95, No. 1, pages 18-29.
- Ashraf, Nava, Diego Aycinena, Claudia Martinez, and Dean Yang (2013). "Savings in Transnational Households: A Field Experiment among Migrants from El Salvador," Mimeo, University of Michigan.
- *Gharad Bryan, Shyamal Chowdhury and Ahmed Mushfiq Mobarak (2014). "Under-investment in a Profitable Technology: The Case of Seasonal Migration in Bangladesh," *Econometrica*.

5. Household bargaining (1 lecture – October 21)

- McElroy, Marjorie and Mary Jean Horney (1981). "Nash-Bargained Household Decisions: Toward a Generalization of the Theory of Demand," *International Economic Review*, Vol. 22, No. 2, pages 333-349.
- *Schultz, T. Paul (1990). "Testing the Neoclassical Model of Family Labor Supply and Fertility," *Journal of Human Resources*, Vol. 25, No. 4, pages 599-634.
- Thomas, Duncan (1990). "Intra-Household Resource Allocation: An Inferential Approach," *Journal of Human Resources*, Vol. 25, No. 4, pages 635-664.
- Chiappori, Pierre-Andre (1992). "Collective Labor Supply and Welfare," *Journal of Political Economy*, Vol. 100, No. 3, pages 437-467.
- Parish, William L. and Robert J. Willis (1993). "Daughters, Education, and Family Budgets: Taiwan Experiences," *Journal of Human Resources*, Vol. 28, No. 4, pages 863-898.
- Duflo, Esther (2003). "Grandmothers and Granddaughters: Old Age Pension and Intra-Household Allocation in South Africa," *World Bank Economic Review*, Vol. 17, No. 1, pages 1-25.
- **Thomas, Duncan (1994). "Like Father, Like Son, or Like Mother, Like Daughter: Parental Education and Child Health," *Journal of Human Resources*, Vol. 29, No. 4, pages 950-988.
- *Udry, Christopher (1996). "Gender, Agricultural Production, and the Theory of the Household," *Journal of Political Economy*, Vol. 104, No. 5, pages 1010-1146.
- ^Sivasankaran, Anitha (2014). "Work and Women's Marriage, Fertility and Empowerment: Evidence from Textile Mill Employment in India," Mimeo, Harvard University.

MIDTERM EXAM – October 26

6. Human capital (4 lectures)

Education – October 28

Angrist and Pischke, chapter 5

- **Psacharopoulos, George (1994). "Returns to Investment in Education: A Global Update," *World Development*, Vol. 22, No. 9, pages 1325-1343.
- Rozenzweig, Mark (1995). "Why are there Returns to Schooling," *American Economic Review Papers and Proceedings*, Vol. 85, No. 2, pages 153-158.
- Foster, Andrew and Mark Rosenzweig (1996). "Technical Change and Human-Capital Returns and Investments: Evidence from the Green Revolution," *American Economic Review*, Vol. 86, No. 4, pages 931-953.
- Schultz, T. Paul (1999). "Health and Schooling Investments in Africa," *Journal of Economic Perspectives*, Vol. 13, No. 3, pages 67-88.
- Acemoglu, Daron and Joshua Angrist (2000). "How Large are the Social Returns to Education? Evidence from Compulsory School Attendance Laws," *NEVER Macro Annual*, No. 15.
- *Duflo, Esther (2001). "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment," *American Economic Review*, Vol. 91, No. 4, pages 795-813.
- Duflo, Esther (2002). "The Medium Run Effects of Educational Expansion: Evidence from a Large School Construction Program in Indonesia," *NBER Working Paper* 8710.
- *Miguel, Ted and Michael Kremer (2004). "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities," *Econometrica*, Vol. 72, No. 1, pages 159-217.
- Duflo, Esther, Rema Hanna and Stephen Ryan (2010). "Incentives Work: Getting Teachers to Come to School," *Mimeo*, MIT.
- Jensen, Robert (2010). "The (Perceived) Returns to Education and the Demand for Schooling," *Quarterly Journal of Economics*, Vol. 125, No. 2, pages 515-548.
- Pugatch, Todd (2012). "Bumpy Rides: School to Work Transitions in South Africa," *IZA Discussion Paper* 6305.
- ^Ozier, Owen (2015). "The Impact of Secondary Schooling in Kenya: A Regression Discontinuity Analysis," *World Bank WPS* 7384.

Nutrition – November 2

Angrist and Pischke, chapter 7

- *Dasgupta, Partha and Debraj Ray (1986). "Inequality as a Determinant of Malnutrition and Unemployment: Theory," *Economic Journal*, Vol. 96, No. 384, pages 1011-1034.
- Behrman, Jere and Deolalikar, Anil (1987). "Will Developing Country Nutrition Improve with Income? A Case Study for Rural South India," *Journal of Political Economy*, Vol. 95, No. 3, pages 492-507.
- Strauss, John (1986). "Does Better Nutrition Raise Farm Productivity?" *Journal of*

- Political Economy*, Vol. 94, No. 2, pages 297-320.
- Subramanian, Shankar and Angus Deaton (1996). "The Demand for Food and Calories," *Journal of Political Economy*, Vol. 104, No. 1, pages 133-162.
- Strauss, John and Duncan Thomas (1998). "Health, Nutrition, and Economic Development," *Journal of Economic Literature*, Vol. 36, No. 2, pages 766-817.
- Thomas, Duncan and Elizabeth Frankenberg (2002). "Health, Nutrition, and Prosperity: A Microeconomic Perspective," *Bulletin of the World Health Organization*, Vol. 80, No. 2, pages 106-113.
- *Jensen, Robert and Nolan Miller (2011). "Do Consumer Price Subsidies Really Improve Nutrition?" *Review of Economics and Statistics*, Vol. 93, No. 4, pages 1205-1223.
- ^Schofield, Heather (2014). "The Economic Costs of Low Caloric Intake: Evidence from India," Mimeo, Harvard University.

Health – November 4
Angrist and Pischke, chapter 8

- Strauss, John and Duncan Thomas (1995). "Human Resources: Empirical Modeling of Household and Family Decisions," *Handbook of Development Economics*, Vol. 3, No. 1, pages 1883-2023.
- Strauss, John and Duncan Thomas (1997). "Health and Wages: Evidence for Men and Women in Urban Brazil," *Journal of Econometrics*, Vol. 77, No. 1, pages 159-186.
- *Deaton, Angus (2003). "Health, Inequality, and Economic Development." *Journal of Economic Literature*, Vol. 41, No. 1, pages 113-118.
- Case, Anne, Darren Lubotsky and Christina Paxson (2002). "Socioeconomic Status and Health in Childhood: The Origins of the Gradient," *American Economic Review*, Vol. 92, No. 5, pages 1308-1334.
- Bobonis, Gustavo, Edward Miguel and Charu Puri Sharma (2006). "Anemia and School Participation," *Journal of Human Resources*, Vol. 41, No. 4, pages 692-721.
- Bleakley, Hoyt (2007). "Disease and Development: Evidence from Hookworm Eradication in the American South," *Quarterly Journal of Economics*, Vol. 122, No. 1, pages 73-117.
- Thornton, Rebecca (2008). "The Demand for, and Impact of, Learning HIV Status." *American Economic Review*, Vol. 98, No. 5, pages 1829-63.
- *Cohen, Jessica and Pascaline Dupas (2010). "Free Distribution or Cost Sharing? Evidence from a Randomized Malaria Prevention Experiment," *Quarterly Journal of Economics*, Vol. 125, No. 1, pages 1-45.
- Ashraf, Nava, James Berry, and Jesse M. Shapiro. 2010. "Can Higher Prices Stimulate Product Use? Evidence from a Field Experiment in Zambia." *American Economic Review*, Vol. 100, No. 5, pages 2383-2413.
- **Dupas, Pascaline (2013). "Short-Run Subsidies and Long-Run Adoption of New Health Products: Evidence from a Field Experiment," *Econometrica*, forthcoming.

Cohen, Jessica, Pascaline Dupas and Simone Schaner (2015). "Price Subsidies, Diagnostic Tests, and Targeting of Malaria Treatment," *American Economic Review*, Vol. 105, No. 2, pages 609-645.

Unconditional and conditional CCTs – November 9

Case, Anne and Angus Deaton (1998). "Large Cash Transfers to the Elderly in South Africa," *Economic Journal*, Vol. 108, pages 1330-1361.

Martinelli, Cesar and Susan Parker (2003). "Should Transfers to Poor Families be Conditional on School Attendance? A Household Bargaining Perspective," *International Economic Review*, Vol. 44, No. 2, pages 523-544.

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7. Consumption smoothing and risk coping (3 lectures)

Income and Consumption Smoothing – November 11

Paxson, Christina (1992). "Using Weather Variability to Estimate the Response of Savings to Transitory Income in Thailand," *American Economic Review*, Vol. 82, No. 1, pages 15-33.

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Informal insurance and risk sharing – November 16

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- **Jakiela, Pamela and Owen Ozier (2015). "Does Africa Need a Rotten Kin Theorem? Experimental Evidence from Village Economies," *Review of Economics Studies*, forthcoming.
- Kinnan, Cynthia (2014). "Distinguishing Barriers to Insurance in Thai Villages," Mimeo, Northwestern University.
- Schaner, Simone (2015). "Do Opposites Detract? Intrahousehold Preference Heterogeneity and Inefficient Strategic Savings," *American Economic Journal: Applied Economics*, Vol. 7, No. 2, pages 135-174.
- ^Dupas, Pascaline, Anthony Keats, and Jonathan Robinson (2015). "The Effect of Savings Accounts on interpersonal Financial Relationships: Evidence from a Field Experiment in Rural Kenya," mimeo, Stanford University.

Insurance Markets – November 18

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- *Karlan, Dean, Robert Darko Osei, Isaac Osei-Akoto, and Christopher Udry (2014). "Agricultural Decisions after Relaxing Credit and Risk Constraints," *Quarterly Journal of Economics*, Vol. 129, No. 2, pages 697-652.

8. Credit markets (4 lectures)

Microcredit – November 23

- *Pitt, Mark and Shahidur Khandker (1988). "The Impact of Group-Based Credit Programs on Poor Households in Bangladesh: Does the Gender of Participants Matter?" *Journal of Political Economy*, Vol. 106, No. 5, pages 958-996.
- *Morduch, Jonathan (1998). "Does Microfinance Really Help the Poor? New Evidence from Flagship Programs in Bangladesh," Mimeo, New York University.
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- Ghatak, M. and T. Guinnane (1999). "The Economics of Lending with Joint Liability: A Review of Theory and Practice." *Journal of Development Economics*, Vol. 60, No. 1, pages 195-228.
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- *Banerjee, Abhijit, Esther Duflo, Rachel Glennerster, and Cynthia Kinnan (2015). "The Miracle of Microfinance? Evidence from a Randomized Evaluation," *American Economic Journal: Applied Economics*, Vol. 7, No. 1, pages 22-53.

Individual meetings to discuss term paper – November 25

Returns to capital – November 30

- Banerjee, Abhijit and Kaivan Munshi (2004). "How Efficiently is Capital Allocated? Evidence from the Knitted Garment Industry in Tirupur," *Review of Economic Studies*, Vol. 71, No. 1, pages 19-42.
- Angol, Santhosh and Christopher Udry (2008). "The Returns to Capital in Ghana," *American Economic Review: Papers and Proceedings*, Vol. 96, No. 2, pages 388-393.
- Banerjee, Abhijit and Esther Duflo (2008). "Do Firms Want to Borrow More? Testing Credit Constraints Using a Directed Lending Program," Mimeo, MIT.
- *de Mel, Suresh, David McKenzie and Christopher Woodruff (2008). "Returns to Capital in Microenterprises: Evidence from a Field Experiment," *Quarterly Journal of Economics*, Vol. 123, No. 4, pages 1329-1372.
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- ^Fiala, Nathan (2014). "Stimulating Microenterprise Growth: Results from a Loan, Grants and Training Experiment in Uganda," Mimeo, University of Connecticut.

Savings – December 2

- **Besley, Timothy, Stephen Coate, and Glenn Loury (1993). "The Economics of Rotating Savings and Credit Associations," *American Economic Review*, Vol. 83, No. 4, pages 792-810.
- Anderson, Siwan and Jean-Marie Baland (2002). "The Economics of ROSCAs and Intra-Household Resource Allocation," *Quarterly Journal of Economics*, Vol. 117, No. 3, pages 963-995.
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- Evidence from Health Savings Experiments,” Mimeo, Stanford University.
- Kast, Felipe, Stephan Meier, and Dina D. Pomeranz (2012). “Under-Savers Anonymous: Evidence on Self-Help Groups and Peer Pressure as a Savings Commitment Device,” Harvard Business School Working Paper No. 12-060.
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Time inconsistency and commitment savings – December 7

- *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*, Vol. 121, No. 2, pages 635-672.
- *Banerjee, Abhijit and Sendhil Mullainathan (2010). “The Shape of Temptation: Implications for the Economic Lives of the Poor,” NBER Working Paper 15973.
- *Duflo, Esther, Michael Kremer, and Jonathan Robinson (2011). “Nudging Farmers to Use Fertilizer: Theory and Experimental Evidence from Kenya,” *American Economic Review*, Vol. 101, No. 6, pages 2350-2390.
- **Gine, Xavier, Jessica Goldberg, Dan Silverman, and Dean Yang (2013). “Revising Commitments: Field Evidence on Adjustment of Prior Choices,” Mimeo, University of Maryland.
- Brune, Lasse, Xavier Gine, Jessica Goldberg, and Dean Yang (2015). “Commitments to Save: A Field Experiment in Rural Malawi,” *Economic Development and Cultural Change*, forthcoming.
- ^Dupas, Pascaline and Jonathan Robinson (2014). “The Daily Grind: Cash Needs, Labor Supply and Self Control,” Mimeo, Stanford University.

Final Exam – December 9