

APEC 8703

Microeconomic Analysis of Economic Development

Syllabus

Fall, 2008

Instructors:

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Lecture Hours: MW 12:50 - 2:05
Classroom: 143 Classroom Office Building

Course Description:

This course will cover a variety of topics concerning the microeconomics of economic development in low-income countries, with a particular focus on the role of agriculture.

There is one required book for this course:

Pranab Bardhan and Christopher Udry. 1999. *Development Microeconomics*.

All other readings are on reserve at Waite Library (232 Classroom Office Building).

Prerequisites: Econ 8001-8004 (or Econ 8101-8104) and Apec 8211-8212. Concurrent registration is OK when this class is taught in the Spring semester.

Course Requirements: This course will have a mid-term examination and a final examination. The **final exam** will be on **Monday, December 15, 2008**, at 10:30 a.m. There will also be about 3 homework problem sets.

Grading: The final grade will be a weighted average of four components:

Midterm	40%
Final	45%
Homework	15%

There will be no make-up exams for the midterm or for the final exam. Instead, the average will be taken of the other items and then 1/3 of a grade will be subtracted from this average. These penalties may be waived, at the discretion of the instructor, if evidence of a serious illness or a family emergency is presented.

Outline of Course Lectures

An asterisk (*) denotes extra readings recommended for students with a particular interest in the topic. They are not in Waite Library and are not covered in the course lectures.

I. Agriculture in Developing Countries (10 lectures)

1. Introduction (September 3)

- Readings: Binswanger and Deininger. 1997. "Explaining Agricultural and Agrarian Policies in Developing Countries." *Journal of Economic Literature* 35(4): 1958-2005. (Read sections 2-7, skim the rest.)
- de Janvry, Sadoulet and Murgai. 2002. "Rural Development and Rural Policy", in *Handbook of Agricultural Economics (Vol. 2A)*. (Read Sections 1-4 and skim sections 5-9).
- World Bank. 2007. *World Development Report 2008: Agricultural for Development*. (Read "Overview" and Chapters 1 and 2.)
- * Evenson and Pingali. 2007. "Overview", in *Handbook of Agricultural Economics (Vol. 3)*.
- * Diao, Hazell, Resnick and Thurlow. 2007. *The Role for Agriculture in Development: Implications for Sub-Saharan Africa*. Research Report 153. International Food Policy Research Institute.

2. Economic Models of Agricultural Households (September 8)

- Readings: Bardhan and Udry, Chapter 2.
- Strauss, John. 1986. "The Theory and Comparative Statics of Agricultural Household Models: A General Approach", in I. Singh, L. Squire and J. Strauss, *Agricultural Household Models*. Johns Hopkins. (Read Chapters 1 and 2).

3. Rural Labor Markets (September 10)

- Readings: Bardhan and Udry, Chapter 4.
- Swamy, A.V. 1997. "A Simple Test of the Nutrition-Based Efficiency Wage Model". *Journal of Development Economics* 53(1): 85-98.
- Benjamin, Dwayne. 1992. "Household Composition, Labor Markets, and Labor Demand: Testing for Separation in Agricultural Household Models". *Econometrica* 60(2):287-322.
- Jacoby, Hanan. 1993. "Shadow Wages and Peasant Family Labour Supply: An Econometric Application to the Peruvian Sierra." *Review of Economic Studies* 60: 903-921.
- * Jayachandran, Seema. 2006. "Selling Labor Low: Wage Responses to Productivity Shocks in Developing Countries". *Journal of Political Economy* 114(3): 538-575.

4. Rural Land Markets (September 15 and 17)

- Readings: Deininger and Feder. 2001. "Land Institutions and Land Markets",
in Gardner & Rauser, eds. *Handbook of Agricultural Economics*.
Bardhan and Udry, Chapter 6
- Shaban, Radwan. 1987. "Testing Between Competing Models of
Sharecropping." *Journal of Political Economy* 95(5): 893-920.
- Besley, Tim. 1995. "Property Rights and Investment Incentives: Theory
and Evidence from Ghana." *Journal of Political Economy*
103(5): 903-937.
- Besley, Tim, and Robin Burgess. 2000. "Land Reform, Poverty
Reduction and Growth: Evidence from India". *Quarterly Journal
of Economics* 115(2):389-430.
- Banerjee, Gertler and Ghatak. 2002. "Empowerment and Efficiency:
Tenancy Reform in West Bengal." *Journal of Political Economy*
110(2): 239-80.
- Jacoby, Hanan, Guo Li and Scott Rozelle. 2002. "Hazards of Expropriation:
Tenure Insecurity and Investment in Rural China." *American
Economic Review* 92(5):1420-47.
- * Ghatak, Maitreesh, and Priyanka Pandey. 2000. "Contract Choice in
Agriculture with Joint Moral Hazard in Effort and Risk". *Journal
of Development Economics* 63(2):303-326.
- * Rozelle, Scott, and Johan Swinnen. 2004. "Success and Failure in
Reform: Insights from the Transition of Agriculture." *Journal of
Economic Literature* 42(2):404-456.
- * Pandey, Priyanka. 2004. "Effects of Technology on Incentive Design
of Share Contracts." *American Economic Review* 94(4):1152-
1168.
- * Banerjee, Abhijit, and Priyanka Pandey. 2005. "History, Institutions,
and Economic Performance: The Legacy of Colonial Land Tenure
Systems in India." *American Economic Review* 95(4):1190-1213.
- * Ravallion and van de Walle. 2006. "Land Reallocation in an Agrarian
Transition". *Economic Journal* 116(514):924-942.
- * Arcand, Ai and Ethier. 2007. "Moral Hazard and Marshallian
Inefficiency: Evidence from Tunisia". *Journal of Development
Economics* 83(2): 411-445.

5. Rural Credit Markets (September 22 and 24)

- Readings: Bardhan and Udry, Chapter 7
- Morduch, "The Microfinance Promise". 1999. *Journal of Economic
Literature*.
- Pitt, Mark, and Shahidur Khandker. 1998. "The Impact of Group-Based
Credit Programs on Poor Households in Bangladesh: Does the

- Gender of the Participants Matter?" *Journal of Political Economy* 106(5): 958-996.
- Burgess, Robin, and Rohini Pande. 2005. "Do Rural Banks Matter?: Evidence from the Indian Social Banking Experiment." *American Economic Review* 95(3):780-795.
- * Besley, Tim, and Stephen Coate. 1995. "Group Lending, Repayment Incentives and Social Collateral." *Journal of Development Economics* 46(1):1-18.
- * Ghatak, Maitreesh, and Timothy Guinnane. 1999. "The Economics of Lending with Joint Liability: Theory and Practice". *Journal of Development Economics* 60(1):195-228.
- * Ghatak, Maitreesh. 2000. "Screening by the Company You Keep: Joint Liability Lending and the Peer Selection Effect". *Economic Journal* 110(465): 601-631.
- * Jain, Sanjay, and Ghazala Mansuri. 2003. "A Little More Time: The Use of Regularly Scheduled Repayments in Microfinance Programs". *Journal of Development Economics* 72(1):253-279.
- * Armendariz de Aghion, Beatriz, and Jonathan Morduch. 2005. *The Economics of Microfinance*. MIT Press.
- * Karlan, Dean. 2005. "Using Experimental Economics to Measure Social Capital and Predict Financial Decisions." *American Economic Review* 95(5):1688-1699.
- * Ashraf, Nava, Dean Karlan and Wesley Yin. 2006. "Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines". *Quarterly Journal of Economics* 121(2):635-672.
- * Udry, Christopher, and Jonathon Conning. 2007. "Financial Markets", in R. Evenson and P. Pingali, eds., *Handbook of Agricultural Markets, Volume 3*.
- * Karlan, Dean. 2007. "Social Connections and Group Banking". *Economic Journal* 117(517):F52-F84.

6. Risk and Insurance in Rural Areas (September 29 and October 20)

Readings: Bardhan and Udry, Chapter 8

- Townsend, Robert. 1995. "Consumption Insurance: An Evaluation of Risk-Bearing Systems in Low-Income Economies". *Journal of Economic Perspectives* 9(3): 83-102.
- Udry, Chris. 1994. "Risk and Insurance in a Rural Credit Market: An Empirical Investigation in Northern Nigeria". *Review of Economic Studies* 61(3):495-526.
- Skees, Jerry, Peter Hazell and Mario Miranda. 1999. "New Approaches to Crop Yield Insurance in Developing Countries." International Food Policy Research Institute. EPTD discussion paper 55.
- Deaton and Paxson. 1994. "Intertemporal Choice and Inequality" *Journal of Political Economy* 102(3):437-67.
- Ligon, Ethan. and Thomas Worrall. 2002. "Informal Insurance

- Arrangements with Limited Commitment: Theory and Evidence from Village Economies”. *Review of Economic Studies* 69(1): 209-44.
- Townsend. 1994. “Risk and Insurance in Village India” *Econometrica* 62(3):539-91.
- * Fafchamps, Marcel, and Susan Lund. 2003. “Risk-Sharing Networks in Rural Philippines.” *Journal of Development Economics* 71(2):261-87.
 - * De Weerd, Joachim, and Stefan Dercon. 2006. “Risk-Sharing Networks and Insurance against Illness”. *Journal of Development Economics* 81(2):337-356.
 - * Fafchamps, Marcel, and Flore Gubert. 2007. “The Formation of Risk-Sharing Networks”. *Journal of Development Economics* 83(2):326-50.

7. Input and Product Markets, and Role of Infrastructure (October 22)

- Readings: Jacoby, Hanan. 2000. “Access to Markets and the Benefits of Rural Roads”. *Economic Journal* 110(465): 713-737.
- Jalan, Jyotsna, and Martin Ravallion. 2003. “Does Piped Water Reduce Diarrhea for Children in Rural India?” *Journal of Econometrics* 112(1): 153-173.
- * World Bank. 2004. *Reforming Infrastructure: Privatization, Regulation and Competition*.
 - * Duflo, Esther, and Rohini Pande. 2007. “Dams”. *Quarterly Journal of Economics* 122(2):601-641.
 - * Jensen, Robert. 2007. “The Digital Divide: Information (Technology), Market Performance, and Welfare in the South Indian Fisheries Sector”. *Quarterly Journal of Economics* 122(3):879-924.

II. Productivity and Welfare Effects of Technical Change (5 lectures)

1. Measuring Productivity (Oct 1 and 6)

- Readings: Alston, J., G. Norton, and P. Pardey. 1998. *Science Under Scarcity: Principles and Practice for Agricultural Research Evaluation and Priority Setting*. Wallingford: CAB International, pp. 120-142.
- Griliches, Z. 1994. “Productivity, R&D and the Data Constraint.” *American Economic Review* 84(1): 1-23.
- Acquaye, A.K.A., J.M. Alston, and P.G. Pardey. 2003. “Post-War Productivity Patterns in U.S. Agriculture: Influences of Aggregation Procedures in a State-Level Analysis.” *American Journal of Agricultural Economics* 85, 1 (February): 59-80.
- Fan, S. and X. Zhang. 2002. "Production and Productivity Growth in Chinese Agriculture: New National and Regional Measures," *Economic Development and Cultural Change* 50(4): 819-38.

Andersen, M.A, J.M. Alston, P.G. Pardey. "Capital use Intensity and Productivity Biases." Department of Applied Economics Staff Paper No. P07-06, St Paul, University of Minnesota, April 2007.

2. R&D, Technical Change, and Welfare Effects (Oct 8, 13 and 15)

Readings: Alston, J., G. Norton, and P. Pardey. 1998. *Science Under Scarcity: Principles and Practice for Agricultural Research Evaluation and Priority Setting*. Wallingford: CAB International.

Basic ideas, sections 2.2.1, 2.2.2, and 4.1.1

Technology spillovers in horizontally segmented markets, section 4.2.1

Technology and the environment, section 4.5

Alston, J., M. Marra, P. Pardey, and T.J. Wyatt. 2000. *A Meta Analysis of Rates of Return to Agricultural R&D: Ex Pede Herculem?* IFPRI Research Report No 113, chapter 3 (skim the rest).

Alston, J. and P. Pardey. 2001. "Attribution and Other Problems in Assessing the Returns to Agricultural R&D." *Agricultural Economics* 25(2-3): 141-152.

Griliches, Z. 1992. "The Search for R&D Spillovers," *Scandinavian Journal of Economics* 94 (Supplement): 29-47.

Pardey, P.G., J.M. Alston, C. Chan-Kang, E. Magalhães, and S. Vosti. 2006. "International and Institutional R&D Spillovers: Attribution of Benefits Among Sources for Brazil's New Crop Varieties." *American Journal of Agricultural Economics* 88(1): 104-123.

Mid-term: Monday October 27.

III. Poverty, Inequality and Human Capital in Developing Countries (9 Lectures)

1. Poverty and inequality (October 29 and November 3)

Readings: Schultz, Theodore. 1980. "Nobel Lecture: The Economics of Being Poor". *Journal of Political Economy* 88(4): 639-651.

Bardhan and Udry, Chapter 11.

Sen, Amartya. 1973. *On Economic Inequality*.

Foster, James, and Amartya Sen. 1997. "On Economic Inequality after a Quarter Century". This is an annex added to *On Economic Equality* when it was republished in 1997.

Davidson, Russell, and Jean-Yves Duclos. 2000. "Statistical Inference for Stochastic Dominance and for the Measurement of Poverty and Inequality." *Econometrica* 68(6): 1435-1464.

- Banerjee, Abhijit, et al. 2001. "Inequality, Control Rights, and Rent Seeking: Sugar Cooperatives in Maharashtra". *Journal of Political Economy* 109(1): 138-190.
- * Besley, Tim, and Robin Burgess. 2003. "Halving Global Poverty." *Journal of Economic Perspectives* 17(3):3-22.
- * Winters, Alan, Neil McCullough and Andrew McKay. 2004. "Trade Liberalization and Poverty: The Evidence So Far." *Journal of Economic Literature*. 42(1): 72-115.
- * Linton, Maasoumi and Whang. 2005. "Consistent Test for Stochastic Dominance under General Sampling Schemes." *Review of Economic Studies* 72(3):735-765.
- * Becker, Philipson and Soares. 2005. "The Quantity and Quality of Life and the Evolution of World Inequality." *American Economic Review* 95(1):277-291.
- * Duclos, Sahn and Younger. 2006. "Robust Multidimensional Poverty Comparisons". *Economic Journal* 116(514):943-968.
- * Duclos, Sahn and Younger. 2006. "Robust Multidimensional Spatial Poverty Comparisons in Ghana, Madagascar, and Uganda". *World Bank Economic Review* 20(1):91-113.

2. Nutrition and Health (November 5 and 10)

- Readings: Strauss and Thomas. 1998. "Health, Nutrition and Economic Development". *Journal of Economic Literature*. 36(2): 766-817.
- Filmer, Hammer and Pritchett. 2000. "A Diagnosis of Health Policy in Poor Countries". *World Bank Research Observer* 15(2): 199-224.
- Filmer, Hammer and Pritchett. 2002. "A Prescription for Health Policy in Poor Countries". *World Bank Research Observer* 17(1): 47-66.
- Foster, Andrew. 1995. "Prices, Credit Markets and Child Growth in Low Income Rural Areas." *Economic Journal* 105(430):551-570.
- Jensen, Robert. 2000. "Agricultural Volatility and Investments in Children". *American Economic Review* 90(2): 399-404.
- Dercon, Stefan, and Pramila Krishnan. 2000. In *Sickness and in Health: Risk Sharing within Households in Rural Ethiopia*. *Journal of Political Economy* 108(4): 688-727.
- Jacoby, Hanan. 2002. "Is there an Intra-household 'Flypaper Effect'? Evidence from a School Feeding Program". *Economic Journal* 117(476): 196-221.
- * Gersovitz, Mark, and Jeff Hammer. 2004. "The Economical Control of Infectious Diseases." *Economic Journal* 114(492):1-27.
- * Gertler, Paul. 2004. "Do Conditional Cash Transfers Improve Child Health? Evidence from PROGRESA's Control Randomized Experiment." *American Economic Review* 94(2):336-341.

- * Galani, Gertler and Schargrotsky. 2005. "Water for Life: The Impact of Privatization of Water Services on Child Mortality" *Journal of Political Economy* 113(1):83-120.

3. Population Growth, Fertility and Gender Issues (November 12)

- Readings: Udry, Chris. 1996. "Gender, Agricultural Production, and the Theory of the Household." *Journal of Political Economy* 104(5):1010-46.
- Chattopadhyay, Raghavendra, and Esther Duflo. 2004. "Women as Policy Makers: Evidence from a Randomized Policy Experiment in India." *Econometrica* 72(5):1377-1443.
- * Behrman, Foster, Rosenzweig and Vashishtha. 1999. "Women's Schooling, Home Teaching, and Economic Growth". *Journal of Political Economy* 107(4): 682-714.
 - * Mammen, Kristin, and Christina Paxson. 2000. "Women's Work and Economic Development". *Journal of Economic Perspectives* 14(4): 141-164.
 - * Schultz, T. Paul. 2001. "Women's Roles in the Agricultural Household: Bargaining and Human Capital Investment" in Gardner and Rauser, eds. *Handbook of Agricultural Economics*.
 - * Rangel, Marcos. 2006. "Alimony Rights and Intrahousehold Allocation of Resources: Evidence from Brazil". *Economic Journal* 116(513):627-658.

4. Education (November 17, 19, 24 and 26)

- Readings: Glewwe. 1999. *The Economics of School Quality Investments in Developing Countries: An Empirical Study of Ghana*. Chapter 3.
- Glewwe. 2002. "Schools and Skills in Developing Countries: Education Policies and Socioeconomic Outcomes." *Journal of Economic Literature* 40(2):436-82.
- Determinants of Years in School and Learning*
- Glewwe, Paul, and Hanan Jacoby. 1994. "Student Achievement and Schooling Choice in Low-income Countries: Evidence from Ghana." *Journal of Human Resources* 29 (3): 843-864.
- Jacoby, Hanan, and Emmanuel Skoufias. 1997. "Risk, Financial Markets and Human Capital in a Developing Country. *Review of Economic Studies*, 64(3):311-335.
- Duflo, Esther, Rema Hanna and Stephen Ryan. 2007. "Monitoring Works" Getting Teachers to Come to School." BREAD working paper #103.

- Glewwe, Paul, Michael Kremer and Sylvie Moulin. 2009. "Many Children Left Behind? Textbooks and Test Scores in Kenya". *American Economic Journal: Applied Economics* forthcoming.
- * Angrist, Bettinger, Bloom, King and Kremer. 2002. "Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment". *American Economic Review* 92(5):1535-58.
 - * Urquiola, Miguel. 2006. "Identifying Class Size Effects in Developing Countries: Evidence from Rural Bolivia". *Review of Economics and Statistics* 88(1):171-176.
 - * Todd, Petra, and Kenneth Wolpin. 2006. "Assessing the Impact of a School Subsidy Program in Mexico: Using a Social Experiment to Validate a Dynamic Behavioral Model of Child Schooling and Fertility". *American Economic Review* 96(5):1384-1417.
 - * Banerjee, Cole, Duflo and Linden. 2007. "Remedying Education: Evidence from Two Randomized Experiments in India". *Quarterly Journal of Economics* 122(3):1235-1264.

Impact of Health and Nutrition on Education Outcomes

- Glewwe, Paul, Hanan Jacoby, and Elizabeth King. 2001. "Early Childhood Nutrition and Academic Achievement: A Longitudinal Analysis" *Journal of Public Economics* 81(3):345-368.
- Miguel, Edward and Michael Kremer. 2004. "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities," *Econometrica* 72(1):159-217.
- * Glewwe, Paul, and Edward Miguel. 2008. "The Impact of Child Health and Nutrition on Education in Developing Countries", in T.P. Schultz and J. Strauss, eds., *Handbook of Development Economics, Vol. 4*.

Impact of Education on Labor Productivity

- Foster, Andrew, and Mark Rosenzweig. 1995. "Learning by Doing and Learning from Others: Human Capital and Technical Change in Agricultural" *Journal of Political Economy* 103(6): 1176-1209.
- Foster, Andrew, and Mark Rosenzweig. 1996. "Technical Change and Human Capital Returns and Investments: Evidence from the Green Revolution." *American Economic Review* 86(4): 931-953.
- Duflo, Esther. 2001. "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment," *American Economic Review*, 91(4): 795-814.
- Hertz, Thomas. 2003. "Upward Bias in the Estimated Returns to Education: Evidence from South Africa." *American Economic Review* 93(4):1354-68.
- *Gurgand, Marc. 2003. "Farmer Education and the Weather: Evidence from Taiwan (1976-1992)." *Journal of Development Economics* 71(1):51-70.

- * Huffman, Wallace, and Peter Orazem. 2007. "Agriculture and Human Capital in Economic Growth: Farmers, Schooling and Nutrition", in R. Evenson and P. Pingali, eds., *Handbook of Agricultural Markets, Volume 3*.

IV. Other Topics (3 Lectures)

1. Labor Markets and Migration (December 1)

- Readings: Schaffner. 2000. "Employment" pp.217-225 in Grosh and Glewwe, eds. *Designing Household Survey Questionnaires for Developing Countries*. Bardhan and Udry. Chapter 5.
- Harrison, Ann, and Edward Leamer. 1997. "Labor Markets in Developing Countries: An Agenda for Research". *Journal of Labor Economics* 15(3):S1-S19.
- Besley, Tim, and Robin Burgess. 2004. "Can Labor Market Regulation Hinder Economic Performance? Evidence from India." *Quarterly Journal of Economics* 119(1):91-134.

2. Econometric Analysis of the Determinants of Economic Growth. (December 3)

- Readings: Durlauf, Steven, Paul Johnson and Jonathon Temple. 2005. "Growth Econometrics" in P. Aghion and S. Durlauf, eds., *Handbook of Economic Growth*.
- Forbes, Kristin. 2000. "A Reassessment of the Relationship Between Inequality and Growth" *American Economic Review* 90(4): 869-887.
- Acemoglu, Daron, and Simon Johnson. 2005. "Unbundling Institutions". *Journal of Political Economy* 113(5):949-995.
- * Temple, Jonathan. 1999. "The New Growth Evidence." *Journal of Economic Literature* 37(1): 112-56.
 - * Sala-i-Martin, Doppelhofer and Miller. 2004. "Determinants of Long-Term Growth: A Bayesian Averaging of Classical Estimates (BACE) Approach." *American Economic Review* 94(4): 813-835.
 - * Levine, Ross. 2005. "Law, Endowments and Property Rights". *Journal of Economic Perspectives* 19(3): 61-88.

3. International Aid and Role of International Organizations (December 8)

- Readings: World Bank. 1998. *Assessing Aid : What Works, What Doesn't, and Why*. (selected chapters to be assigned).

- Burnside, Craig, and David Dollar. 2000. "Aid Policies and Growth" *American Economic Review* 90(4): 847-868.
- Hansen and Tarp. 2001. "Aid and Growth Regressions." *Journal of Development Economics*. 64(2): 547-70.
- Easterly, Bill, Ross Levine and David Roodman. 2004. "Aid Policies and Growth: Comment" *American Economic Review* 94(3): 774-780.
- Burnside, Craig, and David Dollar. 2004. "Aid Policies and Growth: Reply" *American Economic Review* 94(3): 774-780.
- Dahlgaard, Hansen and Tarp. 2004. "On the Empirics of Foreign Aid and Growth." *Economic Journal* 114(496):F191-F216.
- Reinikka, Ritva, and Jakob Svensson. 2004. "Local Capture: Evidence from a Central Government Transfer Program in Uganda." *Quarterly Journal of Economics* 119(2):679-706.
- * Krueger, Anne. 1998. "Whither the World Bank and the IMF?" *Journal of Economic Literature* 36(4):1983-2020.
- * Olken, Benjamin. 2007. "Monitoring Corruption: Evidence from a Field Experiment in Indonesia". *Journal of Political Economy* 115(2):200-249.
- * Kray, Aart, and Claudio Raddatz. 2007. "Poverty Traps, Aid and Growth". *Journal of Development Economics* 82(2):315-347.
- * Kremer, Michael, and Edward Miguel. 2007. "The Illusion of Sustainability". *Quarterly Journal of Economics* 122(3):1007-1066.