

12E006

6 ECTS

Development Economics

Overview and Objectives

The primary goal of this course is to provide an introduction to the **microeconomics of development** with a focus on the role of individual and family behaviors in development. Development Economics is an immense and exciting field that includes contributions from all fields of Economics. We will obviously have to make choices, and focus on a relatively limited set of topics. Despite this, and as you can see from the syllabus, during the course we will discuss a very large number of issues, ranging from health and nutrition to gender issues and fertility choices, from schooling to informal insurance among the poor. The course will also cover a number of key methodological issues that are essential to study such topics empirically, including in the context of Randomized Controlled Trials.

Please note that we will focus on micro topics. Of course there are also many important macro aspects of development economics, such as growth, institutions and trade. However, this course does not cover such macro topics, so if you are interested in them you should check out other courses.

Course Outline

Please note that the list below may be slightly modified during the course according to needs.

The 'starred' papers are required readings, and we will cover all of them in varying degrees of detail. **You should be familiar with the *starred* references on exam day.** In contrast, you are not expected to read the non-starred references, although we will sometimes discuss specific findings from these studies in class, and you are expected to know what we discuss in class. But these additional papers are only for your information in case you are interested in studying specific topics in more depth. Even so, countless more references could be added so if you wish to know about additional sources for your own enjoyment or professional/research agenda just let me know.

Below, **PE** is a shortcut for:

Poor Economics, by Abhijit Banerjee and Esther Duflo (2011). Public Affairs, NY.

ECONOMIC DEVELOPMENT AND NUTRITION

* PE, Chapter 2.

* Subramanian, S. and Angus Deaton (1996). "The Demand for Food and Calories." *Journal of Political Economy* 104(1), 133-162.

* Deaton, Angus and Jean Drèze (2009). "Food and Nutrition in India: Facts and Interpretations", *Economic and Political Weekly*, v. 44, no. 7, pp. 42-65.

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* Jensen and Miller (2008). "Giffen Behavior and Subsistence Consumption", *American Economic Review* 98(4), 1553–1577.

Additional readings

Behrman, Jere R., and Deolalikar, Anil B. (1987). "Will Developing Country Nutrition Improve with Income? A Case Study for Rural South India." *Journal of Political Economy* 95, 108-38.

Bouis, Howarth E., and Haddad, Lawrence J. (1992). "Are Estimates of Calorie-Income Elasticities Too High? A Recalibration of the Plausible Range." *Journal of Development Economics*. 39, 333-64.

Fogel, Robert W. 1994, "Economic Growth, Population Theory, and Physiology: The Bearing of Long-Term Processes on the Making of Economic Policy", *The American Economic Review*. 84.3: 369-395.

Jensen, Rob and Nolan Miller. 2011. "Do Consumer Price Subsidies Really Improve Nutrition?" *Review of Economic Statistics*. 93(4), 1205-1223.

Jensen and Miller (2010) "A revealed preference approach to measuring hunger and undernutrition", *NBER Working Paper* 16555.

Strauss, John (1986). "Does Better Nutrition Raise Farm Productivity?" *Journal of Political Economy* 94, 297–320.

Tarozzi A. (2008). Growth Reference Charts and the Nutritional Status of Indian Children, *Economics and Human Biology*, 6(3), 455-468.

Tarozzi A. (2011) Some Facts about Boy vs. Girl Health Indicators in India: 1992 to 2005. *CESifo Economic Studies*, 58(2), 296-321.

Tarozzi A. and A. Mahajan (2007). Child Nutrition in India in the Nineties. *Economic Development and Cultural Change*. 55(3), 441-486.

WEEK 2 – THE CAUSAL PATHWAY FROM HEALTH TO WEALTH

* PE, Chapter 2.

* Hoddinott, Maluccio, Behrman, Flores and Martorell (2008). "Effect of a nutrition intervention during early childhood on economic productivity in Guatemalan adults". *Lancet*. 371, 411-416.

* Maccini, Sharon and Dean Yang (2009). "Under the weather: Health, schooling and economic consequences of early life rainfall." *American Economic Review* 99(3), 1006-36.

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* Strauss, J. and D. Thomas. 2008. "Health over the life course" in T. Paul Schultz and John Strauss, (eds.), *Handbook of Development Economics Volume 4*, Chapter 54, 3375-3474, 2008, Elsevier Press. **NOTE:** You do not need to read Ch. 2.2, 2.3 and from 4.2 onwards.

* Thomas, Duncan, Frankenberg, Elizabeth, Friedman, Jed, Habicht, Jean-Pierre, Ingwersen, Nicholas, McKelvey, Christopher, Hakimi, Mohammed, Jaswadi, Pelto, Gretel, Sikoki, Bondan, Seeman, Teresa, Smith, James P., Sumantri, Cecep, Suriastini, Wayan and Wilopo, Siswanto (2006). "Causal effect of health on labor market outcomes: Experimental evidence", Working Paper.

Additional readings

Almond, Douglas. 2006. "Is the 1918 Influenza pandemic over? Long-term effects of *in utero* exposure in the post-1940 US population", *Journal of Political Economy*, 114.4:672-712.

Baird, Sara, Joan Hicks, Michael Kremer and Edward Miguel (2011). "Worms at Work: Long-run Impacts of Child Health Gains", Mimeo.

Behrman, Jere R. and Rosenzweig, Mark R. 2004. "Returns to birthweight", *Review of Economics and Statistics*, 86.2:586-601.

Bleakley, Hoyt (2007). "Disease and development: Evidence from hookworm eradication in the American south." *Quarterly Journal of Economics*, February, 122.1.

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

Bozzoli, C., Angus Deaton and Climent Quintana-Domeque (2009). "Adult Height and Childhood Disease." *Demography*. 46(4): 647-669.

Brown, Ryan and Duncan Thomas (2013). "On the Long Term Effects of the 1918 US Influenza Pandemic". Working Paper, Duke University.

Case, Anne and Christina Paxson. 2008. "Stature and status: Height ability and labor market outcomes", *Journal of Political Economy*, 116(3), 499-532.

Crimmins, Eileen and Finch, Caleb. 2006. "Infection, inflammation, height and longevity", *Proceedings of the National Academy of Science*, 103.2: 498-503.

Deaton, Angus. 2007. Height, health, and development. *Proceedings of the National Academy of Sciences*, 104.33:13232 - 13237.

Field, E. O. Robles and M. Torero (2009). "Iodine deficiency and schooling attainment in Tanzania." *American Economic Journal: Applied Economics*, 1.4:140-69.

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Godfrey, Keith and David Barker. 2000. “Fetal nutrition and adult disease”, *American Journal of Clinical Nutrition*, 71(suppl):1344S-1352S.

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

Pitt, M, M Rosenzweig and N Hassan (2012). “Identifying the hidden costs of a public health success: Arsenic well water contamination and productivity in Bangladesh.” PSTC Working Paper Series 2012-02.

POOR HEALTH IN POOR COUNTRIES: A PROBLEM OF DEMAND OR A PROBLEM OF SUPPLY?

* PE, Chapter 3.

* Ashraf, Nava, James Berry and Jesse Shapiro (2010). “Can Higher Prices Stimulate Product Use?,” *American Economics Review* 100(5), 2383-2413.

* Banerjee, Abhijit, Angus Deaton, and Esther Duflo (2004). “Wealth, Health, and Health Services in Rural Rajasthan” *American Economic Review*, 94.2, 326-330.

* Das and Hammer (2007). “Money for nothing. The dire straits of medical practice in Delhi, India”, *Journal of Development Economics*, 83(1), 1-36.

* Frederick, S., G. Loewenstein, and E. D. O’Donoghue (2002). “Time discounting: A critical review.” *Journal of Economic Literature* 40 (2), 351–401. Only Sections 4 and 5.

* Kremer, Michael and Alaka Holla (2008). “Pricing and Access: Lessons from Randomized Evaluation in Education and Health”, Working Paper.

* Tarozzi, Mahajan, Blackburn, Kopf, Krishnan and Yoong (2013). “Micro-loans, bednets and malaria: Evidence from a randomized controlled trial in Orissa (India).” Forthcoming in the *American Economic Review*.

Additional readings

Adhvaryu, Achyuta (2013). “Learning, Misallocation, and Technology Adoption: Evidence from New Malaria Therapy in Tanzania.” Forthcoming, *Review of Economic Studies*.

Björkman-Nyqvist, M, J Svensson and D Yanagizawa-Drott (2013). “Can Good Products Drive Out Bad? Evidence from Local Markets for (Fake?) Antimalarial Medicine in Uganda”. Working Paper.

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Cohen, Jessica and Pascaline Dupas (2010). "Free Distribution or Cost-Sharing? Evidence from a Randomized Malaria Prevention Experiment." *Quarterly Journal of Economics*, 125(1), 1-45.

Cohen, J, P Dupas and S Schaner (2013). "Price Subsidies, Diagnostic Tests, and Targeting of Malaria Treatment: Evidence from a Randomized Controlled Trial. Working Paper.

Dupas, Pascaline, 2013. "Short-Run Subsidies and Long-Term Adoption of New Health Products: Experimental Evidence from Kenya", Forthcoming in *Econometrica*.

Kremer, Michael and Edward Miguel, 2007, "The Illusion of Sustainability", *Quarterly Journal of Economics*, 122(3), 1007-1065.

Das and Hammer (2005). "Which doctor? Combining vignettes and item response to measure clinical competence", *Journal of Development Economics*, 78(2), 348-383.

Leonard, Kenneth and Melkiory Masatu (2010) "Using the Hawthorne Effect to Examine the Gap between a Doctor's Best Possible Practice and Actual Performance", *Journal of Development Economics* 93(2), 226-234.

SCHOOLING

* PE, Chapter 4.

* Duflo, Esther (2001), "Schooling and Labor Market Consequences of School Construction in Indonesia" *American Economic Review*, 91(4): 795-813.

* Hoff, K and P Pandey (2006). "Discrimination, Social Identity, and Durable Inequalities". *American Economic Review Papers & Proceedings*, 96(2), 206-211.

* Kremer, M and A Holla (2009). "Improving Education in the Developing World: What Have We Learned from Randomized Evaluations?" *Annual Reviews of Economics* 1, 513-42.

* Schultz, T. P. (2004). "School subsidies for the poor: Evaluating the Mexican Progresa poverty program." *Journal of Development Economics*. 74(1), 199-250.

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Additional readings

Baird S, C McIntosh and B Ozler (2011). "Cash or condition? Evidence from a cash transfer experiment." *Quarterly Journal of Economics* 126, 1709-1753.

Banerjee, A., S. Cole, E. Duflo and L. Linden (2007). "Remedying education: Evidence from two randomized experiments in India." *Quarterly Journal of Economics*, 122(3), 1235-64.

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

FERTILITY CHOICES

* PE, Chapter 5

* Ashraf, , E. Field, and J. Lee (2012). Household Bargaining and Excess Fertility: An Experimental Study in Zambia. Working paper.

* Joshi, Shareen and Schultz, T. Paul. 2013. "Family Planning and Women's and Children's Health: Long-Term Consequences of an Outreach Program in Matlab, Bangladesh", *Demography*, 50(1), 149-180.

Additional readings

La Ferrara Eliana, Alberto Chong, and Suzanne Duryea (2008). "Soap Operas and Fertility: Evidence from Brazil," BREAD Working Paper 172.

Munshi, Kaivan and Jacques Myaux (2005). "Social Norms and the Fertility Transition," *Journal of Development Economics*, 80(1), 1-38.

Mushtaque A, R Chowdhury, Abbas Bhuiya, Mahbub Elahi Chowdhury, Sabrina Rasheed, Zakir Hussain, Lincoln C Chen (2013). "The Bangladesh paradox: exceptional health achievement despite economic poverty." *Lancet*, 382, 1734-45.

Pritchett, Lant (1994). "Desired Fertility and the Impact of Population Policies," *Population and Development Review*, 20(1), 1-55.

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Schultz, T. P. (2008). Population policies, fertility, women's human capital, and child quality. In T. P. Schultz & J. Strauss (Eds.), *Handbook of development economics* (Vol. 4, Chapter 52). Amsterdam: North Holland Press/Elsevier (Economic Growth Center Discussion Paper No. 954, Yale University Press).

INTRA-HOUSEHOLD ALLOCATION OF RESOURCES AND GENDER

* PE, Chapter 5

* Ashraf, N. 2009. "Spousal Control and Intra-Household Decision Making: An Experimental Study in the Philippines." *American Economic Review*, 99(4), 1245-77.

* Beaman L, Esther Duflo, Rohini Pande and Petia Topalova (2012). "Female Leadership Raises Aspirations and Educational Attainment for Girls: A Policy Experiment in India" *Science*, Vol 335, 582-586.

* Duflo, E. (2002). "Granddaughters and grandmothers: Old age pensions in South Africa." *World Bank Economic Review*, 17 (1), 1–25.

* Duflo, E (2012). "Women Empowerment and Economic Development." *Journal of Economic Literature*, 50(4), 1051-1079.

Additional Readings

Anderson, Siwan and Debraj Ray (2010). "Missing women, age and disease." *Review of Economic Studies* 77, 1262-1300.

Beaman, L., R Chattopadhyay, E Duflo, R Pande and P Topalova (2009). "Powerful women: Does exposure reduce bias?" *Quarterly Journal of Economics*. 124(4): 1497-1540.

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Chattopadhyay R. and E. Duflo (2004), "Women as Policy Makers: Evidence from a Randomized Policy Experiment in India," *Econometrica* 72(5): 1409-1443.

Browning, M. and P.-A. Chiappori. (1998). "Efficient intra-household allocations: A general characterization and empirical tests, *Econometrica* 66.6:1241-78

Chiappori, P-A. (1988). Rational household labor supply, *Econometrica*, 56:63-90. Deaton (1997), Ch. 4.2.

Rose, Elaina (1999). "Consumption Smoothing and Excess Female Mortality in Rural India." *Review of Economics and Statistics* 81, no. 1: 41-49.

Thomas, D. (1990). Intra-household resource allocation: an inferential approach, *Journal of Human Resources*, Fall, 25:635-664.

Thomas, D. (1994). Like father like son or like mother like daughter: parental education and child health, *Journal of Human Resources*, Fall, 29:950-988.

Qian, Nancy (2008). "Missing Women and the Price of Tea in China: The Effect of Sex-Specific Income on Sex Imbalance," *The Quarterly Journal of Economics*, 123(3).

COPING WITH RISK: SAVINGS AND INSURANCE

* PE, Chapters 6 and 8.

* Ashraf, N., D. Karlan, and W. Yin (2006). "Tying Odysseus to the mast: evidence from a commitment savings product in the Philippines." *Quarterly Journal of Economics* 121(2), 635–672.

* Cole, Shawn, Xavier Gine, Jeremy Tobacman, Petia Topalova, Robert Townsend, and James Vickery (2013). "Barriers to Household Risk Management: Evidence from India." *American Economic Journal: Applied Economics*, 5(1), 104-135.

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Additional Readings

Ashraf, N, D Aycinena, C Martinez and D Yang (2013). "Savings in Transnational Households: A Field Experiment Among Migrants from El Salvador". Working Paper.

Gertler, Paul and Jonathan Gruber (2002). "Insuring Consumption Against Illness," *American Economic Review*, 92(1), 51–70.

Jayachandran, Seema (2006). "Selling Labor Low: Wage Responses to Productivity Shocks in Developing Countries," *Journal of Political Economy*, 114(3), 538–575.

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

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

THE PROMISE OF MICROFINANCE

* PE, Chapter 7.

* Banerjee, A., E. Duflo, R. Glennerster, and C. Kinnan (2013). "The miracle of microfinance? Evidence from a randomized evaluation." Working Paper.

* Morduch, J. (1999). "The microfinance promise." *Journal of Economic Literature* 37 (4), 1569–1614.

Additional Readings

Armendariz de Aghion, B. and J. Morduch (2005). *The Economics of Microfinance*. Cambridge and London: MIT Press.

Desai J, K Johnson and A Tarozzi (2013). "On the Impact of Micro-credit: Evidence from a Field Experiment in Rural Ethiopia." Working Paper.

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Kaboski, J. P. and R. M. Townsend (2011). "A structural evaluation of a large-scale quasi-experimental microfinance initiative." *Econometrica* 79 (5), 1357–1401.

Karlan, D. S. and J. Zinman (2010). Expanding microenterprise credit access: Using randomized supply decisions to estimate the impacts in Manila. Working Paper.

Pitt, M. M. and S. R. Khandker (1998). "The impact of group-based credit programs on poor households in Bangladesh: Does the gender of participants matter?" *Journal of Political Economy* 106 (5), 958–96.

Required Activities

You are expected to read key papers which will be identified prior to the class in which the papers will be discussed. Every student is expected to participate in all aspects of the class. While you will not be formally graded on your classroom participation, the value to you and your colleagues of asking questions and raising new ideas cannot be over-stated.

Evaluation

The evaluation will be based on a series of group projects. Each group can be composed of up to four students, and each project can be completed by a different group of students.

40%: Group Project. The project will involve writing a short empirical paper (up to 6 pages including tables and figures but excluding references) on a topic of your choice related to the course. The paper is expected to be very simple but rigorous and interesting. More details will be provided later during the course.

30%: Replication exercise. You need to find a paper, related to course content, for which the data are available online. You will then replicate key results using Stata and add some new analysis using the same data.

30%: Referee report. You will be asked to read carefully a recent, unpublished paper on a topic broadly related to the course. Then you will write a "referee report", that is, a short report (3-5 pages at most) where you evaluate the contribution of the paper to the literature, you suggest changes for improvements and you recommend whether the paper should be published in a given good peer-reviewed professional journal.

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Background references

Banerjee A. and E. Duflo (2009). "The Experimental Approach to Development Economics", *Annual Review of Economics* 1(1), 151-178.

Deaton, Angus. 1997. *The Analysis of Household Surveys: A Micro-econometric Approach to Development Policy*. Johns Hopkins University Press: Baltimore, Maryland.

Deaton, Angus 2010. "Instruments, randomization, and learning about development", *Journal of Economic Literature*, 48(2): 424-455.

Deaton, Angus, 2013. *The Great Escape: Health, Wealth, and the Origins of Inequality*. Princeton University Press.

Handbook of Development Economics: Pretty much all chapters in Volumes I, III (A and B) and IV. Elsevier.

Ray, Debraj (1998) *Development economics*, Princeton University Press.