

ARE 215C : Microeconomics of Development Theory & Methods

Agricultural & Resource Economics

University of California, Davis

Spring 2013

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Office Hrs: * W 9am-12pm or by appointment

Course Objectives: This course builds on 215A and 215B and aims to develop your skill set, competency and intuition as a professional researcher doing applied development work. We will explore some theoretical topics related to the microeconomics of development, but will venture frequently into empirical territory and discuss concrete applied methodologies related to data collection, analysis and interpretation. Indeed, this course complements the A and B courses with a somewhat greater emphasis on empirical research methods, including some discussion of household surveys and data collection. Since being able to effectively discuss, critique and present research is critical to your development as a researcher, the course will provide you with opportunities to do just that.

Course Structure: This course will have a structure similar to the earlier courses in this sequence. We will primarily use journal articles to guide our discussions in class. You will be expected to read assigned articles before class. I will often call on one student to launch our discussion of an assigned paper by providing a concise summary of the motivation, methodology and key findings of the article.

You will have several opportunities to actively engage with research in the applied microeconomics of development. In general, we will structure these opportunities according to some of the expectations and responsibilities of professional research economists. Specifically, these will include writing referee reports for working papers, presenting and discussing published research, editing and discussing the work of your peers, and collaborating with a partner to replicate a published empirical paper. As an exercise in learning what it takes to produce a publishable paper, you will also continue to develop the paper you wrote for 215B. This will be evaluated according to their publication potential.

Website: I have created a SmartSite for this course. Login at <https://smartsite.ucdavis.edu>. If you are enrolled in the course, you are automatically enrolled for the ARE 215C course site.

Grading: Final grades in ARE 215C will be computed using the following weights:

Problem Set (1)	15%
Referee Report (2)	20
Replication Project & Presentation	15
Publishable Paper	30
Peer Editing (2)	10
Participation	10

Problem Set: You will complete one problem set mid-quarter. This problem set will focus on STATA-based empirical exercises. More details will follow.

* During my scheduled office hours, I am at your disposal. Barring personal emergencies, I will drop anything to address your concerns or questions during this time. Likewise, if you schedule an appointment outside these office hours, I will ensure that you have my full attention during our time together. If you have not scheduled an appointment and would like to visit outside office hours, you are welcome to stop by my office directly, but I reserve the right to defer your visit to a later, mutually-agreeable time.

Referee Report: Learning to critically evaluate others' research is an important professional skill that will allow you to contribute to an essential public good in your career: the peer-review process. Learning this skill also refines your own eye for good research questions and compelling empirical methods. You will write two referee reports for this class. You will choose from among a defined set of working papers for this assignment.

Replication Project & Presentation: You will work with a partner to select a published article to replicate and present to the class. Increasingly, journals are requiring authors to make their data available, often with their estimation code, for replication purposes. I can offer a few suggestions to teams that struggle to find a viable replication article, but I don't anticipate this being a problem. Mid-quarter you and your partner will submit a brief proposal for your replication project that outlines your proposed article, data availability, and replication timeline. At the end of the quarter, you and your partner will present the paper you replicated as if it were your own and give us a 'behind the scenes' look at the econometric analysis on which the paper is built.

Publishable Paper: In this class, you will build on the proposal you wrote in 215A and the theoretical model you developed for 215B by producing a publishable paper. This assignment is intended to convey the professional standards by which research is evaluated and prepare you to write the Research Essay that will be the basis of your orals exam. While the paper need not have a developed empirical portion, it should contain a thoughtful and detailed survey of the empirical literature related to your research question. It may also include a discussion of data issues, identification strategies, and econometric wrinkles. In the final weeks of the quarter, we may provide a forum in which each of you will present your paper.

Peer Editing: You will each edit one referee report and one paper written by one of your peers. You will be graded on the quality of your contributions, suggestions and edits.

Participation: This course will involve frequent discussion as we explore papers together. I expect that each of you will participate actively in class, which of course requires preparation. Preparation in this case primarily means that you read the assigned papers before coming to class and are prepared to give a concise, thoughtful summary to launch our discussion. Even if you do not have the time to really spend time studying a particular paper, please read over it and bring the assigned papers with you – marked up if possible. During the quarter, you will also choose a topic and work with me to choose an article to present and discuss with the class. Although I will not take attendance at seminars and workshops, you are expected to attend and actively participate in our development workshops and departmental seminars.

Tentative Course Schedule:

Subject to change – check the website for most current version.

DATE	TOPICS
T Apr 2 R Apr 4	Introduction Measuring Poverty <i>HH surveys Poverty measurement Vulnerability & dynamic poverty measures</i>
T Apr 9 R Apr 11	Risk & Dynamics <i>Consumption smoothing</i>
T Apr 16 R Apr 18	<i>Asset smoothing Asset & wealth dynamics</i>
T Apr 23 ^R R Apr 25	<i>*CEGA Symposium*</i> <i>Growth & welfare implications of shocks</i>
T Apr 30 R May 2 ^{P(a)}	Technology Adoption <i>Risk & uncertainty</i>
T May 7 R May 9 ^{PS}	<i>Learning & social networks Heterogeneous returns</i>
T May 14 R May 16	Experimental Development Economics <i>Risk & time preferences</i>
T May 21 R May 24	<i>Social interaction & norms</i> Behavioral Development Economics <i>Aspirations & identity</i>
T May 28 ^{P(b)} R May 30	<i>Perceptions & expectations</i>
T Jun 4 R Jun 6 R Jun 13 ^{P(c)}	Replication Project Presentation

R = Referee report due.

PS = Problem set due.

P(x): x=a First draft paper due
x=b Second draft paper due
x=c Final paper due

ARE 215C: Microeconomics of Development Theory & Methods READINGS

* indicates 'required, quick read' and ** indicates 'required, deep read'. While these indicated readings will direct our discussions in class, don't limit yourself just to these: explore others and learn on your own.

I. Measuring Poverty

Yule, G. U. 1895. "On the Correlation of Total Pauperism with Proportion of Out-Relief." *Economic Journal* 5: 603-11.

Yule, G. U. 1899. "An Investigation into the Causes of Changes in Pauperism in England, Chiefly During the Last Two Intercensal Decades (Part I.)." *Journal of the Royal Statistical Society*: 249-295.

Banerjee, Abhijit- V., and Esther Duflo. "The Economic Lives of the Poor." *Journal of Economic Perspectives* 21, no. 1 (2007): 141-67.

A. Measuring Poverty / HH surveys

*Deaton, Angus. *The Analysis of Household Surveys: A Microeconometric Approach to Development Policy*. Baltimore, MD: Published for the World Bank by Johns Hopkins University Press, 1997, Chapters 1 (1.1 - 1.3) and 2 (2.1 - 2.2).

*Gibson, J., and D. McKenzie, 2007. "Using Global Positioning Systems in Household Surveys for Better Economics and Better Policy." *The World Bank Research Observer* 22(2): 217-241.

UNDP. 2005. "Household Sample Surveys in Developing and Transition Countries," In *Studies in Methods*. New York: UNDP, <http://unstats.un.org/unsd/hhsurveys/>.

Grosh, M.E., P. Glewwe, and World Bank. 2000. *Designing Household Survey Questionnaires for Developing Countries: Lessons from 15 Years of the Living Standards Measurement Study*. Washington, D.C.: World Bank, <http://go.worldbank.org/NTQLJEEXQ0>.

Kanbur, R., and P. Shaffer (eds). 2007. "Experiences of Combining Qualitative and Quantitative Approaches in Poverty Analysis." *World Development* (special issue) 35, 2.

Rao, V. (2002). "Experiments in 'Participatory Econometrics': Improving the Connection between Economic Analysis and the Real World." *Economic and Political Weekly* 37(20): 1887-1891.

B. Measuring Poverty / Poverty measurement

*Deaton, Angus. *The Analysis of Household Surveys: A Microeconometric Approach to Development Policy*. Baltimore, MD: Published for the World Bank by Johns Hopkins University Press, 1997, Chapter 3 (3.1).

Ravallion, Martin. "Issues in Measuring and Modelling Poverty." *Economic Journal* 106, no. 438 (1996): 1328-43.

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

C. Measuring Poverty / Vulnerability & dynamic poverty measures

*Banerjee, A. "The Two Poverties." In *Insurance against Poverty*, edited by S. Dercon. Oxford: Oxford University Press, 2004.

**Ligon, Ethan, and Laura Schechter. "Measuring Vulnerability." *Economic Journal* 113, no. 486 (2003): C95-102.

- **Carter, Michael R., and Christopher B. Barrett. "The Economics of Poverty Traps and Persistent Poverty: An Asset-Based Approach." *Journal of Development Studies* 42, no. 2 (2006): 178-99. [See this issue and JDS August 2000 for many related articles.]
- *Foster, James E. "A Class of Chronic Poverty Measures." In *Poverty Dynamics: Interdisciplinary Perspectives*, edited by Tony Addison, David Hulme and Ravi Kanbur, 59-78. Oxford: Oxford University Press, 2009.
- Hoddinott, John, and Agnes R. Quisumbing. "Methods for Microeconometric Risk and Vulnerability Assessments." *IFPRI Working Paper*. Washington D.C., 2008.
- Carter, M. R., and J. May. 2001. "One Kind of Freedom: Poverty Dynamics in Post-Apartheid South Africa." *World Development* 29, 12: 1987-2006.
- Adato, M., F. Lund, and P. Mhlongo. 2007. "Methodological Innovations in Research on the Dynamics of Poverty: A Longitudinal Study in Kwazulu-Natal, South Africa." *World Development* 35, 2: 247-263.

II. Risk & Dynamics

- *Fafchamps, M. 2003. *Rural Poverty, Risk and Development*: Edward Elgar Publishing [see the FAO report on SmartSite that is a draft of this book]
- Carter, Michael- R. "Environment, Technology, and the Social Articulation of Risk in West African Agriculture." *Economic Development and Cultural Change* 45, no. 3 (1997): 557-90.
- Fafchamps, M. 2009. "Vulnerability, Risk Management, and Agricultural Development." *CSAE Working Paper Series*.

A. Risk & Dynamics / Consumption smoothing

- *Deaton, Angus. *The Analysis of Household Surveys: A Microeconometric Approach to Development Policy*. Baltimore, MD: Published for the World Bank by Johns Hopkins University Press, 1997, Chapter 6.
- **Rosenzweig, Mark- R., and Kenneth- I. Wolpin. "Credit Market Constraints, Consumption Smoothing, and the Accumulation of Durable Production Assets in Low-Income Countries: Investment in Bullocks in India." *Journal of Political Economy* 101, no. 2 (1993): 223-44.
- *Villa, K.M., C.B. Barrett, and D.R. Just. 2011. "Whose Fast and Whose Feast? Intrahousehold Asymmetries in Dietary Diversity Response Among East African Pastoralists." *American Journal of Agricultural Economics* 93(4):1062-1081.
- *Paxson, Christina- H. "Using Weather Variability to Estimate the Response of Savings to Transitory Income in Thailand." *American Economic Review* 82, no. 1 (1992): 15-33.
- *Bengtsson, N., 2010. "How Responsive Is Body Weight to Transitory Income Changes? Evidence from Rural Tanzania." *Journal of Development Economics* 92(1): 53-61.
- Deaton, Angus. "Saving and Liquidity Constraints." *Econometrica* 59, no. 5 (1991): 1221-48.
- Dercon, Stefan, John Hoddinott, and Tassew Woldehanna. "Shocks and Consumption in 15 Ethiopian Villages, 1999-2004." *Journal of African Economies* 14, no. 4 (2005): 559-85.
- Fafchamps, Marcel, Christopher Udry, and Katherine Czukas. "Drought and Saving in West Africa: Are Livestock a Buffer Stock?" *Journal of Development Economics* 55, no. 2 (1998): 273-305.

B. Risk & Dynamics / Asset smoothing

- **Zimmerman, Frederick J., and Michael R. Carter. "Asset Smoothing, Consumption Smoothing and the Reproduction of Inequality under Risk and Subsistence Constraints." *Journal of Development Economics* 71 (2003): 233-60.
- *Hoddinott, John. "Shocks and Their Consequences across and within Households in Rural Zimbabwe." *Journal of Development Studies* 42, no. 2 (2006): 301-21.
- **Carter, M.R., and T.J. Lybbert. Forthcoming. "Consumption versus Asset Smoothing: Testing the Implications of Poverty Trap Theory in Burkina Faso." *Journal of Development Economics*.

C. Risk & Dynamics / Asset & wealth dynamics

- **Lybbert, Travis J., Christopher B. Barrett, S. Desta, and D.L. Coppock. "Stochastic Wealth Dynamics and Risk Management among a Poor Population." *Economic Journal* 114 (2004): 750-77.
- **Antman, Francisca, and David McKenzie. "Poverty Traps and Nonlinear Income Dynamics with Measurement Error and Individual Heterogeneity." *Journal of Development Studies* 43, no. 6 (2007): 1057-83.
- *Carter, Michael R., P.D. Little, T. Mogues, and W. Negatu. "Poverty Traps and the Long-Term Consequences of Natural Disasters in Ethiopia and Honduras." *World Development* 35, no. 5 (2007): 835-56.
- Barrett, Christopher- B., and Brent- M. Swallow. "Fractal Poverty Traps." *World Development* 34, no. 1 (2006): 1-15.
- Barrett, Christopher B., "Mixing Qualitative and Quantitative Methods of Analyzing Poverty Dynamics." *Strategies and Analysis for Growth and Access Working Paper*, 2004.
- Barrett, Christopher B., Paswel Phiri Marennya, John G. McPeak, Bart Minten, Festus M. Murithi, Willis Oluoch Kosura, Frank Place, Jean Claude Randrianarisoa, Jhon Rasambainarivo, and Justine Wangila. "Welfare Dynamics in Rural Kenya and Madagascar." *Journal of Development Studies* 42, no. 2 (2006): 248-77.
- Lybbert, Travis- J., and Christopher- B. Barrett. "Risk Responses to Dynamic Asset Thresholds." *Review of Agricultural Economics* 29, no. 3 (2007): 412-18.

D. Risk & Dynamics / Growth & welfare implications of shocks

- **Dercon, S. "Growth and Shocks: Evidence from Rural Ethiopia." *Journal of Development Economics* 74, no. 2 (2004): 309-29.
- **Elbers, Chris, Jan-Willem Gunning, and Bill Kinsey. "Growth and Risk: Methodology and Micro Evidence." *World Bank Economic Review* 21, no. 1 (2007): 1-20.
- Dercon, S. "Risk, Growth and Poverty: What Do We Know, What Do We Need to Know?" *QEH Working Paper No. 148*. Oxford, 2006.
- **De Mel, S., D. McKenzie, and C. Woodruff. 2010. "Enterprise Recovery Following Natural Disasters." *The Economic Journal* 122(64-91).
- Santos, P., and C.B. Barrett. 2011. "Persistent poverty and informal credit." *Journal of Development Economics* 96(2): 337-347.
- Bhalotra, S. 2010. "Fatal fluctuations? Cyclicity in infant mortality in India." *Journal of Development Economics* 93(1):7-19.

IV. Technology Adoption

- *Foster, A.D., and M.R. Rosenzweig. 2010. "Microeconomics of technology adoption." *Annual Rev. Econ.* 2(1):395-424.

Besley, Timothy, and Anne Case. "Modeling Technology Adoption in Developing Countries." *American Economic Review* 83, no. 2 (1993): 396-402.

Feder, G., R.E. Just, and D. Zilberman. 1985. "Adoption of agricultural innovations in developing countries: A survey." *Economic Development and Cultural Change* 33(2): 255-298.

A. Technology Adoption / Risk & uncertainty

**Dercon, S., and L. Christiaensen. 2011. "Consumption risk, technology adoption and poverty traps: evidence from Ethiopia." *Journal of Development Economics* 96(2): 159-173.

*Liu, E.M. forthcoming. "Time to Change What to Sow: Risk Preferences and Technology Adoption Decisions of Cotton Farmers in China." *Review of Economics and Statistics*.

B. Technology Adoption / Learning & social networks

**Conley, T.G., and C.R. Udry, 2010. "Learning About a New Technology: Pineapple in Ghana." *The American Economic Review* 100(1): 35-69.

*Lybbert, T.J., and A. Bell. 2010. "Stochastic Benefit Streams, Learning and Technology Diffusion: Why Drought Tolerance Is Not the New Bt." *AgBioForum*.

Bandiera, O., and I. Rasul. 2006. "Social Networks and Technology Adoption in Northern Mozambique*." *The Economic Journal* 116(514): 869-902.

Foster, Andrew- D., and Mark- R. Rosenzweig. "Learning by Doing and Learning from Others: Human Capital and Technical Change in Agriculture." *Journal of Political Economy* 103, no. 6 (1995): 1176-209.

C. Technology Adoption / Heterogeneous Returns

Suri, T. 2011. "Selection and comparative advantage in technology adoption." *Econometrica* 79(1): 159-209.

Zeitlin, A., S. Caria, R. Dzene, P. Janský, E. Opoku, and F. Teal. 2010. "Heterogeneous returns and the persistence of agricultural technology adoption." *CSAE Working Paper Series*.

VI. Experimental Development Economics

*Cardenas, J.-C., and J. Carpenter. 2008. "Behavioural Development Economics: Lessons from Field Labs in the Developing World." *Journal of Development Studies* 44, 3: 311-38.

Carpenter, J. P., G. W. Harrison, and J. A. List (2005) *Field Experiments in Economics*, vol. 10. Greenwich, CT, JAI Press.

Harrison, G. W., and J. A. List. 2004. "Field Experiments." *Journal of Economic Literature* 42, 4: 1009-1055.

Ehmke, M., and J. Shogren. 2008. "Experimental Methods for Environment and Development Economics." *Environment and Development Economics* 14(04): 419-456.

A. Experimental Development Economics / Risk & time preferences

**Harrison, G., S. Humphrey, and A. Verschoor. 2009. "Choice under Uncertainty: Evidence from Ethiopia, India and Uganda." *Economic Journal* 119.

**Tanaka, T., C.F. Camerer, and Q. Nguyen. 2010. "Risk and time preferences: Linking experimental and household survey data from Vietnam." *The American Economic Review* 100(1): 557-571.

- *Nguyen, O., and P. Leung, 2010. "How Nurture Can Shape Preferences: An Experimental Study on Risk Preferences of Vietnamese Fishers." *Environment and Development Economics* 51: 609-631.
- Lybbert, T. J. 2006. "Indian Farmers' Valuation of Yield Distributions: Will Poor Farmers Value 'Pro-Poor' Seeds?" *Food Policy* 31, 5: 415-41.
- Binswanger, H. P. 1980. "Attitudes Toward Risk: Experimental Measurement in Rural India." *American Journal of Agricultural Economics* 62: 395-407.
- Mosley, P., and A. Verschoor. 2005. "Risk Attitudes and the 'Vicious Circle of Poverty.'" *European Journal of Development Research* 17, 1: 59-88.
- Bauer, M., and J. Chytilová, 2010. "The Impact of Education on Subjective Discount Rate in Ugandan Villages." *Economic Development and Cultural Change* 58(4): 643-669.
- Scharff, R.L., and W. Viscusi. 2011. "Heterogeneous rates of time preference and the decision to smoke." *Economic Inquiry* 49(4):959-972.
- Dohmen, T., A. Falk, D. Huffman, U. Sunde, J. Schupp, and G.G. Wagner. 2011. "Individual risk attitudes: Measurement, determinants, and behavioral consequences." *Journal of the European Economic Association*.

B. Experimental Development Economics / Social interaction & norms

- **Henrich, J., R. McElreath, A. Barr, J. Ensminger, C. Barrett, A. Bolyanatz, J. C. Cardenas, M. Gurven, E. Gwako, and N. Henrich. 2006. "Costly punishment across human societies." *Science* 312, 5781: 1767-1770.
- **Gine, X., P. Jakiela, D. Karlan, and J. Morduch. 2010. "Microfinance games." *American Economic Journal: Applied Economics* 2(3):60-95.
- *Abbink, K., B. Irlenbusch, E. Renner, and H. Street. 2006. "Group Size and Social Ties in Microfinance Institutions." *Economic Inquiry* 44, 4: 614-628.
- Capra, C. M., T. Tanaka, C. Camerer, L. Munyan, V. Sovero, L. Wang, and C. Noussair. forthcoming. "The Impact of Simple Institutions in Experimental Economies with Poverty Traps." *Economic Journal*.
- Henrich, J., R. Boyd, S. Bowles, C. Camerer, E. Fehr, H. Gintis, and R. McElreath. 2001. "In search of homo economicus: Behavioral experiments in 15 small-scale societies." *American Economic Review*: 73-78.
- Carter, M.-R., and M. Castillo. 2005. "Coping with Disaster: Morals, Markets, and Mutual Insurance - Using Economic Experiments to Study Recovery from Hurricane Mitch." in *The social economics of poverty: on identities, communities, groups, and networks*, ed. C. B. Barrett. New York, Routledge, pp. 268-87.

VII. Behavioral Development Economics

- *Bertrand, M., S. Mullainathan, and E. Shafir. 2004. "A behavioral-economics view of poverty." *American Economic Review*: 419-423.
- *Banerjee, Abhijit- V., and Sendhil Mullainathan. "Limited Attention and Income Distribution." *American Economic Review* 98, no. 2 (2008): 489-93.
- Camerer, C.-F. 2006. "Behavioral Economics." in *Advances in Economics and Econometrics: Theory and Applications*, ed. R. Blundell, W.-K. Newey, and T. Persson, vol. 2. New York, Cambridge University Press, pp. 181-214.
- Mullainathan, S. 2004. "Psychology and development economics." *NBER working paper*.

A. Behavioral Development Economics / Aspirations & identity

- *Akerlof, G.-A., and R.-E. Kranton. 2000. "Economics and Identity." *Quarterly Journal of Economics* 115, 3: 715-53.

*Oxoby, Robert- J. "Cognitive Dissonance, Status and Growth of the Underclass." *Economic Journal* 114, no. 498 (2004): 727-49.

*Macours, K., and R. Vakis. 2009. "Changing Households' Investments and Aspirations through Social Interactions." *World Bank Working Paper* 5137.

**Fafchamps, Marcel, and Forhad Shilpi. "Subjective Welfare, Isolation, and Relative Consumption." *Journal of Development Economics* 86, no. 1 (2008): 43-60.

Hoff, Karla, and Priyanka Pandey. "Discrimination, Social Identity, and Durable Inequalities." *American Economic Review* 96, no. 2 (2006): 206-11.

Barrett, C. B. 2005. *The social economics of poverty: on identities, communities, groups, and networks*. New York: Routledge [selected chapters]

B. Behavioral Development Economics / Perceptions & expectations

* Delavande, A., X. Giné, and D. McKenzie. 2010. "Measuring subjective expectations in developing countries: a critical review and new evidence." *Journal of Development Economics* 94(2): 151-163.

*Lybbert, T. J., C. B. Barrett, J. G. McPeak, and W. K. Luseno. "Bayesian Herders: Updating of Rainfall Beliefs in Response to External Forecasts." *World Development* 35, no. 3 (2007): 480-97.

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

*Gine X, Townsend RM, Vickery J. Forecasting when it matters: Evidence from semi-arid India. Working paper 2009.

Delavande A, Kohler H. Subjective Expectations in the Context of HIV/AIDS in Malawi. *Demographic Research* 2009;20; 817.

McKenzie, David, John Gibson, and Steven Stillman. "A Land of Milk and Honey with Streets Paved with Gold: Do Emigrants Have Over-Optimistic Expectations About Incomes Abroad?" (2007).

Attanasio O. Expectations and Perceptions in Developing Countries: Their Measurement and Their Use. *American Economic Review* 2009;99; 87-92.

Bellemare, M. 2009. "When Perception Is Reality: Subjective Expectations and Contracting." *American Journal of Agricultural Economics* 91(5):1377-1381.