

AEDE 7421 Advanced Development Economics I

Fall Semester, 2018
Tue, Thu 11:10am – 12:30pm
Howlett Hall, room 116
The Ohio State University
Course Syllabus

Instructor:

Jon Einar Flåtnes
335 Agricultural Administration Building
Phone (cell): 651-689-3247
Email: flatnes.1@osu.edu
Office Hours: By appointment

Course Overview:

This course will provide a one-semester study of development economics at the doctorate level and aims to develop your skill set, competency, and intuition as a professional researcher doing applied development work. Together with the second course in the development sequence (AEDE 7425), this course will expose you to critical research, concepts, and methods in the development literature. There will be an emphasis on theoretical frameworks and concepts, as well as on applied empirical methods and data collection using household surveys and field experiments.

We will begin this course by discussing the foundation of development research, namely how to collect and analyze data using household surveys. Next, we will examine how to use such household data to measure poverty and inequality, and we will see how these concepts are less straightforward than they might appear. We will then turn our attention to agricultural household models and discuss their applicability and limitations in studying the behavior of smallholder farmers in developing countries. This discussion will provide a natural segue into the next topic of technology adoption, where we will take a closer look at the production function and better understand how input use and productivity can be affected through learning, social networks, and diffusion. During the subsequent five class meetings, we will do a thorough review of the literature on liquidity constraints and access to capital, with a special focus on credit rationing and group lending mechanisms. We will then move on to talk about how people cope with risk. In particular, we will discuss papers on consumption smoothing and asset smoothing, poverty traps, risk sharing and informal insurance, and finally, more formal insurance mechanisms, such as index insurance. At this point, we will switch gears and examine two relatively new but emerging fields in the development literature: experimental and behavioral economics. These two fields are also closely related, as experimental methods are often used to study behavioral problems.

As we go through each topic, we will first cover the basic conceptual framework, where the readings will generally come from book chapters and comprehensive review studies. This will set the stage for a deeper dive into specific research articles that have either been seminal in the literature or do an excellent job of highlighting a particularly interesting question.

Course Structure:

Class time will be a combination of lecture and class discussion. In each class, we will generally cover two readings from the literature, and I will spend approximately 40-60 minutes going through the main concepts and findings from these readings, as they relate to the topics of that day. The remaining time will be dedicated to class discussion, so *it is critical that you have read the articles prior to class.* While we may only have time to cover one of the articles in great detail during class time, you still need to read all the assigned readings in preparation for class.

Course Materials:

This course will be centered on influential journal articles and book chapters that effectively highlight the topics we will cover. To get the most out of this class and to ensure good class discussion, *it is important that you all have read the assigned articles prior to class.* For each class, we will generally cover two readings, which should be a reasonable workload. Even if you don't understand the entire paper, make sure that you at least have read the introduction, the conclusion and the results section, and that you come prepared to discuss the main methods and findings. To encourage an effective class discussion, I want each of you to submit 2 questions on each of the required readings before class (more on this under assignments)

The reading list below provides a comprehensive (but not exhaustive) overview of some of the seminal readings within each topic. This list of meant to serve as a reference only, and only readings marked with an asterisk are required (though I may reference some of the other articles in class). If you are particularly interested in a topic, you can use this reading list to further explore the literature. All required readings will be posted on Canvas, and the rest should be easily found through a simple Google search.

Prerequisites:

The formal prerequisite for this course is AEDE 8712, and this course is intended for students with graduate training in microeconomic theory and econometrics. Please come and see me if you have any questions regarding the adequacy of your background preparation.

Assignments:

In order to be good development economist (or any economist for that sake!), it is critical that you are able to 1) derive and solve your own theoretical models; 2) write publishable research articles; 3) critically assess existing research; and 4) present a paper orally to an audience. Fortunately, this course will offer you the opportunity to improve all those skills, by asking you to complete the following assignments:

1. **Research paper.** I ask you to prepare a draft paper on a subject of your choosing (but within the broad domain of micro-development economics). Besides a clear problem

statement, a good paper will include a sophisticated and critical literature review, as well as a formal model of the problem you are studying. Given the brevity of this class, you need not fully solve your model, but you should have a clear structure and at least preliminary intuition and results. If you wish to approach a problem more empirically, that is fine as well. In this case, you should at a minimum have a serious discussion of models, identification strategies and estimation methods appropriate for your question. There is no particular page limit, but a good paper would generally be between 15 and 25 pages double-spaced. This paper may complement the paper proposal that you will be writing in the spring for AEDE 7425, and my goal is that your paper should be an early draft version of your second-year research paper (in particular if your field is in development economics). Moreover, your submission should be original for this class, meaning that you may NOT use any version of a paper (even if slightly modified) submitted previously or for a different class. If you are in doubt whether your submission is sufficiently original, please come and see me. The paper is due on the day of your final exam (December 10 @ 5pm), although you are welcome (and strongly encouraged) to submit an earlier draft for me to review.

2. ***A theoretically oriented take-home exam.*** For this assignment, I will give you a few different theoretical problems, and I will ask you to pick one and to derive a theoretical model and its implications. Your submission should be structured as a research paper and not merely as the answer to a microeconomics problem set. You may pick up your take-up assignment any time between Thursday November 1 @ 2:30pm and Thursday November 8 @ 10:30am, but you must return it to me no later than 96 hours after you pick it up.
3. ***Referee report.*** Throughout the course of your career, you will be writing a number of referee reports for peer-reviewed journals that you publish in or intend to publish in. Writing referee reports is not only an important contribution to the field, but it's also a chance for you to gain exposure to front-of-the-line research and to develop your own eye for good research questions and methods. In this class, you will write one referee report, which should be held to the same standards as a good referee report written for a top field journal. You will choose one paper among a set of existing working papers, and we will discuss the format of the referee report in class. Your referee report is due on Tuesday October 2 @ 11:10am.
4. ***Presentation.*** Being able to present a research paper to an audience of economists is a critical skill, and one that may help you land your dream job. In this class, I want each of you to choose one paper from the syllabus (among the ones in bold/italic) and prepare a 40-minute presentation on it. In particular, you should plan to talk for 30 minutes and then lead a class discussion about your paper for 10 minutes. Please sign up for a paper (using the Google Sheet on Canvas) as soon as possible, as choices will be on a first-come, first-serve basis.

5. **Questions on readings.** In order to encourage effective class discussion, I ask that each of you to prepare one question on each of the required readings before class (typically 2 questions for each class). You will submit these questions in writing using Google Forms (see link on Canvas) at least one hour before class (10:10am), so that I have a chance to read through your questions and use them as a basis for our class discussion. Your questions can be general or specific, but they should demonstrate that you have a basic understanding of the paper. An example of a good question is: *“How exactly does equation 3 imply that, if risk is shared efficiently, individual income should have no effect on individual consumption? Is this simply because indirect utility isn't dependent on income as defined?”*

6. **In-class Participation.** I expect all of you to attend every class and to actively participate in class discussion. In addition, for each assigned reading, I will randomly choose one of you to provide a 3-minute summary of the main contributions and results to the rest of the class. The purpose of this exercise is to help you practice giving a succinct overview of a research paper, a skill that will be very important when you are on the job market (think “elevator pitch”).

Grading:

Your course grade will be based on the following components and weights:

Final paper:	30%
Take-home exam:	20%
Referee report:	15%
Presentation:	15%
Questions on readings:	10%
In-class participation:	10%

Course Schedule (subject to change – check Canvas for the most current version):

Date	Topic	Sub-topic	Readings	Assignments
Tue 8/21	Introduction to Development Research		None	
Thu 8/23	1. Household survey methods and analyses	A. Household surveys B. Econometric issues	Deaton, 1997 (Ch. 1.1-1.3) Deaton, 1997 (Ch. 2.4-2.6)	
Tue 8/28	2. Inequality and Poverty	A. Basic conceptual framework	Deaton, 1997 (Ch. 3.1)	
Thu 8/30		B. Inequality C. Poverty	Deaton and Paxson, 1994 Ligon & Schechter, 2003 Ravillion, 1996	
Tue 9/4	3. Agricultural Household Models	A. Basic conceptual framework	Singh et al., 1986 Taylor et al., 2003	
Thu 9/6		B. Missing markets	de Janvry et al., 1991 Arslan & Taylor, 2009	
Tue 9/11		C. Testing for separability	Benjamin, 1992 Jacoby, 1993	
Thu 9/13	4. Technology Adoption	A. Basic conceptual framework	Foster & Rosenzweig, 2010 Feder et al., 1985	
Tue 9/18		B. Learning and social networks	Conley and Udry, 2010 Foster & Rosenzweig, 1995	
Thu 9/20	5. Access to capital	A. Basic conceptual framework	Stiglitz and Weiss, 1981 Bester, 1985	
Tue 9/25			Carter, 1988 Boucher et al., 2008	
Thu 9/27			B. Econometrics of credit markets	Kochar, 1997 Kaboski & Townsend, 2011
Tue 10/2	6. Coping with risk	A. Overview of risk	de Mel et al., 2008 Karlan and Zinman, 2009	Referee report
Thu 10/4			C. Group Lending	Besley and Coate, 1995 Ghatak, 1999
Tue 10/9	6. Coping with risk	A. Overview of risk	Fafchamps, 2003, Ch. I-II & Ch. IV	
Thu 10/11	<i>Autumn Break - no class!</i>			

Date	Topic	Sub-topic	Readings	Assignments
Tue 10/16	6. Coping with risk	B. Consumption Smoothing and Asset Smoothing	Rosenzweig and Wolpin, 1993 Paxson, 1992	
Thu 10/18			Murdoch, 1995 Zimmerman and Carter, 2003	
Tue 10/23		C. Poverty Traps	Carter and Barrett, 2006 Arunachalam and Shenoy, 2017	
Thu 10/25		D. Risk sharing and informal insurance	Besley, 1995 Lybbert et al., 2004	
Tue 10/30			Fafchamps and Lund, 2003 Kazianga and Udri, 2006	
Thu 11/1			E. Index Insurance	Cole et al., 2013 Miranda and Gonzalez-Vega, 2010
Tue 11/6	Carter et al., 2016 Gine and Yang, 2009			
Thu 11/8	7. Experimental Development Economics	A. Basic conceptual framework	Cardenas & Carpenter, 2008 Harrison & List, 2004	
Tue 11/13		B. Risk and time preferences	Harrison et al., 2010 Tanaka et al., 2010	
Thu 11/15		C. Social interaction and norms	Karlan, 2005 Gine et al., 2010	
Tue 11/20	8. Behavioral Development Economics	A. Basic conceptual framework	Mullainathan, 2005 Demeritt and Hoff, 2017	
Thu 11/22	<i>Thanksgiving Break - no class!</i>			
Tue 11/27	8. Behavioral Development Economics	B. Aspirations and Identity	Janzen et al., 2017 Hoff and Pandey, 2006	
Thu 11/29		C. Perceptions and expectations	Laajaj, 2017 Carter et al., 2015	
Tue 12/4	Review and Reflections		TBD	
Mon 12/10				Final paper

Reading List (indicate required readings):**

1. Household survey methods and analyses

- *Deaton, Angus. *The Analysis of Household Surveys: A Microeconomic Approach to Development Policy*. Baltimore, MD: Published for the World Bank by Johns Hopkins University Press, 1997, Chapters 1-2.
- UNDP. 2005. "Household Sample Surveys in Developing and Transition Countries," In *Studies in Methods*. New York: UNDP, <http://unstats.un.org/unsd/hhsurveys/>.
- 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.
- 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/NTQLJEEEX00>.
- 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.

2. Inequality and Poverty

A. Basic conceptual framework

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

B. Inequality

- *Deaton, Angus S. and Christina Paxson. 1994. "Intertemporal Choice and Inequality." *Journal of Political Economy* 102(3):437-467.

C. Poverty

- *Ligon, Ethan, and Laura Schechter. "Measuring Vulnerability." *Economic Journal* 113, no. 486 (2003), p.95-102.
- *Ravallion, Martin. "Issues in Measuring and Modelling Poverty." *Economic Journal* 106, no. 438 (1996): 1328-43.
- Banerjee, Abhijit V. and Esther Duflo. 2007. "The Economic Lives of the Poor." *Journal of Economic Perspectives* 21(1):141-167.

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

3. Agricultural Household Models

A. Basic conceptual framework

- *Singh, I., L. Squire and J. Strauss, "An Overview of Agricultural Household Models-The Basic Model: Theory, Empirical Results, and Policy Conclusions." In Singh, Squire and Strauss (eds.), *Agricultural Household Models, Extensions, Applications and Policy*. World Bank and The Johns Hopkins University Press, 1986.
- *Taylor, J. Edward and Irma Adelman. "Agricultural Household Models: Genesis, Evolution and Extensions." *Review of Economics of the Household* 1(1):33-58, 2003.
- Barrett, C., M. Carter and C.P. Timmer. 2010. "A Century-Long Perspective on Agricultural Development." *American Journal of Agricultural Economics*. 92(2), 447-468.

B. Missing Markets

- *de Janvry, A., M. Fafchamps, and E. Sadoulet. "Peasant Household Behavior with Missing Markets: Some Paradoxes Explained." *The Economic Journal*, 101:1400-1417, 1991.
- *Arslan, Aslihan and J. Edward Taylor, "Farmers' Subjective Valuation of Subsistence Crops: The Case of Traditional Maize in Mexico." *American Journal of Agricultural Economics* 91(4):895-909, 2009.
- Barrett, C. B. "Smallholder Market Participation: Concepts and Evidence from Eastern and Southern Africa." *Food Policy* 33 (2008) 299–317.
- Stiglitz, J.E. "Markets, Market Failures, and Development." *American Economic Review* 79(2):197-203, 1989.

C. Separability

*Benjamin, D. 1992. "Household Composition, Labor Markets, and Labor Demand: Testing for Separation in Agricultural Household Models." *Econometrica*, 60(2), 287-322.

*Jacoby, H. 1993. "Shadow Wages and Peasant Family Labor Supply: An Econometric Application to the Peruvian Sierra." *Review of Economic Studies* 60: 903-921.

Carter, M. R. & Yang Yao. "Local versus Global Separability in Agricultural Household Models: The Factor Price Equalization Effect of Land Transfer Rights." *American Journal of Agricultural Economics* 84(3):702-715, January 2003.

Vakis, Renos, et al. "Testing for separability in household models with heterogeneous behavior: a mixture model approach." Department of Agricultural & Resource Economics, UCB (2004).

4. Technology adoption

A. Basic conceptual framework

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

*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.

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

B. Learning and 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.

*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.

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.

Magnan, Nicholas, David Spielman, Travis Lybbert and Kajal Gulati. 2013. "Leveling with Friends: Network Effects on Demand for an Agricultural Technology in Eastern Uttar Pradesh, India." IFPRI Discussion Paper #1302.

C. Heterogeneous returns and commitment problems

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

Duflo, E., M. Kremer, and J. Robinson. 2009. "Nudging farmers to use fertilizer: theory and experimental evidence from Kenya." NBER working paper.

5. Access to capital

A. Basic conceptual framework

*Stiglitz, Joseph E. and Andrew Weiss. 1981. "Credit Rationing in Markets with Imperfect Information." *American Economic Review* 71(3):393-410.

*Bester, H., 1985, Screening versus rationing in credit markets with imperfect information, *American Economic Review* 75, 850-855.

*Carter, Michael (1988). "Equilibrium Credit Rationing of Small Farm Agriculture," *Journal of Development Economics*.

*Boucher, Stephen and M.R. Carter and C. Guirkinger (2008). "Risk Rationing and Wealth Effects in Credit Markets," *Am J of Ag Econ*.

Jain, Sanjay (1999). "Symbiosis versus crowding out: the interaction of formal and informal credit markets in developing countries," *Journal of Development Economics* 59(2): 419-444.

Mansuari, G. (2007). "Credit layering in informal financial markets," *J of Dev Econ* 84, 715-730.

Andersen, T. and N. Malchow-Møller (2006). "Strategic interaction in undeveloped credit markets," *J of Dev Econ* 80(2):275-298.

Bell, Clive and G. Clemenz (2006). "The Desire for Land: Strategic Lending with Adverse Selection," *Journal of Development Economics* 79(1):1-25.

Basu, K. (1983). "The Emergence of Isolation and Interlinkage in Rural Markets," *Oxford Econ Pap* 35:262-80.

Braverman, A., and J. Stiglitz (1982). "Sharecropping and the Interlinkage of Agrarian Markets," *Amer Econ Rev* 72:695-715.

B. Econometrics of credit markets

*Kochar, A. (1997). "An Empirical Investigation of Rationing Constraints in Rural Markets in India," *J of Dev Econ* 53(2): 339-372.

*Kaboski, Joseph P. and Robert M. Townsend. 2011. "A Structural Evaluation of a Large-Scale Quasi-Experimental Microfinance Initiative." *Econometrica* 79(5):1357-1406.

*de Mel, Susresh, D. McKenzie and C. Woodruff (2008). "Returns to capital in microfinance: Evidence from field experiments," *Quarterly J of Econs* 123(4): 1329-1372.

- *Karlan, Dean S. and Jonathan Zinman. 2009. "Observing Unobservables: Identifying Information Asymmetries with a Consumer Credit Field Experiment." *Econometrica* 77(6):1993-2008.
- Sial, M. and M. Carter (1996). "Is Targeted Small Farm Credit Necessary? A Microeconometric Analysis of Capital Market Efficiency in the Punjab," *Journal of Development Studies* 32(5): 771-798.
- Mushinski, D. (1998). "An Analysis of Loan Offer Functions of Banks and Credit Unions," working paper, Department of Economics, Colorado State University.
- Bell, C., T.N. Srinivasan and C. Udry (1997). "Rationing, Spillover and Interlinking in Credit Markets: The Case of Rural Punjab," *Oxford Econ Pap* 49: 557-585.
- Boucher, S., C. Guirkinger and C. Trivelli 2009. Direct Elicitation of Credit Constraints: Conceptual and Practical Issues with an Application to Peruvian Agriculture. *Economic Development and Cultural Change*. 57:609-640.
- Boucher, S. B. Barham and M.R. Carter (2008). "Are Land Titles the Constraint to Enhanced Agricultural Performance? Complementary Financial Policies to Crowd-In Credit Supply And Demand in Risk-Constrained Rural Markets," working paper.
- Carter, Michael R. and Pedro Olinto (2003). "Getting Institutions Right for Whom? Credit Constraints and the Impact of Property Rights on the Quantity and Composition of Investment," *American Journal of Agricultural Economics* 85(1):173-186.
- Bannerjee, A. and E. Duflo (2002). "Do Firms Want to Borrow More? Testing Credit Constraints using a Directed Credit Program," MIT Working Paper.
- Karlan, D. and J. Zinman (2009b). "Expanding Credit Access: Using Randomized Supply Decisions to Estimate the Impacts," *Review of Financial Studies*.
- Udry, Christopher. 1994. "Risk and Insurance in a Rural Credit Market: An Empirical Investigation in Northern Nigeria." *Review of Economic Studies* 61(3):495-526.

C. Group lending

- *Besley, T. and S. Coate (1995). "Group Lending, Repayment Incentives and Social Collateral," *J of Development Economics* 46:1-18.
- *Ghatak, Maitreesh. 1999. "Group Lending, Local Information and Peer Selection." *Journal of Development Economics* 60(1): 27-50.
- Amin, S. A.S. Rai and G. Topa (2003). "Does Microcredit Reach the Poor and Vulnerable: Evidence from Northern Bangladesh," *J of Development Economics* 70:59-82.
- Gine, X., P. Jakiela, D. Karlan and J. Morduch (2010). "Microfinance Games," *American Econ Journal: Applied Economics* 60-95.
- Ghatak, M. (2000). "Screening by the Company You Keep: Joint Liability Lending and the Peer Selection Effect," *Econ Journal* 100:601-631.

- McIntosh, C., E. Sadoulet and A. de Janvry (2004). "How rising competition among microfinance institutions affects incumbent lenders," *Economic Journal* 115: 987-1004.
- de Janvry, Alain, Craig McIntosh and Elisabeth Sadoulet. 2010. "The Supply- and Demand-Side Impacts of Credit Market Information." *Journal of Development Economics* 93(2):173-188.
- Anderson, S., J-M Baland, K. Moene (2009). "Enforcement in informal savings groups," *J of Dev Econ*.

6. Coping with Risk

A. Basic conceptual framework

- *Fafchamps, M. 2003. *Rural Poverty, Risk and Development*: Edward Elgar Publishing
- 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*.

B. Consumption smoothing and asset smoothing

- *Rosenzweig, Mark R. and Kenneth Wolpin. 1993. "Credit Market Constraints, Consumption Smoothing, and the Accumulation of Durable Production Assets in Low-Income Countries: Investments in Bullocks in India." *Journal of Political Economy* 101(2):223-244.
- *Paxson, Christina H. 1992. "Using Weather Variability to Estimate the Response of Savings to Transitory Income in Thailand." *American Economic Review* 82(1):15-33.
- *Morduch, Jonathan. 1995. "Income Smoothing and Consumption Smoothing." *Journal of Economic Perspectives*. 9(3), 103-14.
- *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.
- Deaton, Angus S. 1991. "Saving and Liquidity Constraints." *Econometrica* 59(5):1221-1248.
- Deaton, Angus. *The Analysis of Household Surveys: A Microeconomic Approach to Development Policy*. Baltimore, MD: Published for the World Bank by Johns Hopkins University Press, 1997, Chapter 6.
- Jacoby, Hanan and Emmanuel Skoufias. 1997. "Risk, Financial Markets, and Human Capital in a Developing Country." *Review of Economic Studies* 64(3):311-335.
- Gertler, P., and J. Gruber. 2002. "Insuring Consumption against Illness," *American Economic Review* 92, 1: 51-70.

- Bengtsson, N., 2010. "How Responsive Is Body Weight to Transitory Income Changes? Evidence from Rural Tanzania." *Journal of Development Economics* 92(1): 53-61.
- 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.
- Hoddinott, John. "Shocks and Their Consequences across and within Households in Rural Zimbabwe." *Journal of Development Studies* 42, no. 2 (2006): 301-21.
- Lybbert, Travis J. and Michael R. Carter. "Who Smooths What? Asset smoothing, consumption smoothing & unmitigated risk in Burkina Faso" Working paper.

C. Poverty Traps

- *Carter, Michael R. and Christopher B. Barrett. 2006. "The Economics of Poverty Traps and Persistent Poverty: An Asset-Based Approach." *Journal of Development Economics* 42(2):178-199.
- *Arunachalam, Raj, and Ajay Shenoy. "Poverty traps, convergence, and the dynamics of household income." *Journal of Development Economics* 126 (2017): 215-230.
- 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.
- Dercon, Stefan. 2002. "Income Risk, Coping Strategies, and Safety Nets." *World Bank Research Observer* 17(2):141-166.
- 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 sharing and informal insurance

- *Besley, Timothy. 1995. "Nonmarket Institutions for Credit and Risk Sharing in Low-Income Countries." *Journal of Economic Perspectives*, 9(3): 115-127.
- *Lybbert, Travis J., Christopher B. Barrett, Solomon Desta and D. Layne Coppock. 2004. "Stochastic Wealth Dynamics and Risk Management among a Poor Population." *Economic Journal* 114(498):750-777.
- *Fafchamps, Marcel and Susan Lund. 2003. "Risk-Sharing Networks in Rural Philippines." *Journal of Development Economics* 71(2):261-287.
- *Kazianga, Harounan and Christopher Udry. 2006. "Consumption Smoothing: Livestock, Insurance and Drought in Rural Burkina Faso." *Journal of Development Economics* 79(2):413-446.
- Fafchamps, Marcel, Christopher Udry and Katherine Czukas. 1998. "Drought and Saving in West Africa: Are Livestock a Buffer Stock." *Journal of Development Economics* 55(2):273-305.
- Townsend, Robert M. 1994. "Risk and Insurance in Village India." *Econometrica* 62(3):539-591.

E. Index insurance

- * Miranda, Mario J., and Claudio Gonzalez-Vega. 2010. "Systemic risk, index insurance, and optimal management of agricultural loan portfolios in developing countries." *American Journal of Agricultural Economics* 93.2 (2010): 399-406.
- *Cole, Shawn, Xavier Gine, Jeremy Tobacman, Petia Topalova, Robert Townsend, James Vickery. 2013. "Barriers to Household Risk Management: Evidence from India." *American Economic Journal: Applied Economics* 5(1):104-135.
- *Gine, Xavier and Dean Yang. 2009. "Insurance, Credit, and Technology Adoption: Field Experimental Evidence from Malawi." *Journal of Development Economics* 89(1):1-11.
- *Carter, M.R.; Cheng, L.; Sarris, A. "Where and how index insurance can boost the adoption of improved agricultural technologies." *J. Dev. Econ.* 2016, 118, 59–71.
- *Clarke, Daniel J.. 2016. "A Theory of Rational Demand for Index Insurance." *American Economic Journal: Microeconomics*, 8(1): 283-306.
- Miranda, Mario J. and Katie Farrin. 2012. "Index Insurance for Developing Countries." *Applied Economic Perspectives and Policy* 34(3):391-427.

7. Experimental Development Economics

A. Basic conceptual framework

*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.

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

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

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

B. Risk and time preferences

* Harrison, Glenn W., Steven J. Humphrey, and Arjan Verschoor. 2010. "Choice under uncertainty: evidence from Ethiopia, India and Uganda." *The Economic Journal* 120.543 (2010): 80-104.

*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, Q., 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. Chytilova, 2010. "The Impact of Education on Subjective Discount Rate in Ugandan Villages." *Economic Development and Cultural Change* 58(4): 643-669.

C. Social interaction and norms

*Gine, X., P. Jakiela, D. Karlan and J. Morduch (2010). "Microfinance Games," *American Econ Journal: Applied Economics* 60-95.

*Karlan, Dean S. "Using experimental economics to measure social capital and predict financial decisions." *American Economic Review* 95.5 (2005): 1688-1699.

- 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.
- 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.
- Abbink, K., B. Irlenbusch, E. Renner, and H. Street. 2006. "Group Size and Social Ties in Microfinance Institutions." *Economic Inquiry* 44, 4: 614-628.
- 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.

8. Behavioral Development Economics

A. Basic conceptual framework

- *Mullainathan, Sendhil. "Development economics through the lens of psychology." *Annual Bank Conference on Development Economics 2005: Lessons of Experience*. 2005.
- *Demeritt, Allison, and Karla Hoff. 2017. "The Making of Behavioral Development Economics.", working paper
- 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.

B. Aspirations and identity

- *Janzen, Sarah A., et al. "Aspirations failure and formation in rural Nepal." *Journal of Economic Behavior & Organization* 139 (2017): 1-25.
- *Hoff, Karla, and Priyanka Pandey. "Discrimination, Social Identity, and Durable Inequalities." *American Economic Review* 96, no. 2 (2006): 206-11.
- Akerlof, G.-A., and R.—E. Kranton. 2000. "Economics and Identity." *Quarterly Journal of Economics* 115, 3: 715-53.

Copestake, J., and L. Camfield. 2010. "Measuring Multidimensional Aspiration Gaps: A Means to Understanding Cultural Aspects of Poverty." *Development Policy Review* 28(5):617-633.

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

Jensen, R.T. "Economic Opportunities and Gender Differences in Human Capital: Experimental Evidence for India." National Bureau of Economic Research.

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

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

C. Perceptions and expectations

*Carter, M.R., Ghada Elabed and Elena Serfilippi (2015). "Behavioral economic insights on index insurance design," *Agricultural Finance Review* 75(1).

*Laajaj, Rachid. "Endogenous time horizon and behavioral poverty trap: Theory and Evidence from Mozambique." *Journal of Development Economics* 127 (2017): 187-208.

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

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.

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.

Academic Accommodations:

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu>

Academic Misconduct:

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see http://studentaffairs.osu.edu/info_for_students/csc.asp.

Ignorance of the University’s Code of Student Conduct is never considered an “excuse” for academic misconduct; please review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct. Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages:
<http://oaa.osu.edu/coam/home.html>
- Ten Suggestions for Preserving Academic Integrity:
<http://oaa.osu.edu/coam/ten-suggestions.html>
- Eight Cardinal Rules of Academic Integrity
<http://www.northwestern.edu/uacc/8cards.html>

Taking Care of Yourself

A recent American College Health Survey found stress, sleep problems, anxiety, depression, interpersonal concerns, death of a significant other, and alcohol use among the top ten health impediments to academic performance. Students experiencing personal problems or situational crises during the quarter are encouraged to contact the OSU Counseling and Consultation Services (614-292-5766) for assistance, support and advocacy. This service is free and confidential.