

**Economics 425-2 – Winter 2022**  
**Development Economics**  
**Northwestern University**

Chris Udry

This course is the second of a three-part graduate sequence on development economics, focusing mainly on microeconomic topics. The goal of this sequence is to introduce students to the central issues in development economics and to explore the application of microeconomic analysis to gain deeper insights into these questions. Prof. Seema Jayachandran taught the Fall course; Prof. Lori Beaman will teach the Spring course. To satisfy the field requirement, you must take the entire sequence.

I will assume that you have taken the first-year graduate sequences in microeconomics and econometrics.

The goal of this course is to prepare you for research in development economics. This quarter is organized topically, starting with production and allocation in households, then discussing risk, insurance, saving and credit, and continuing with agricultural technology and markets.

**Graduate Office Hours**

Tuesdays 3:30pm – 5:00pm

**Zoom address when necessary:**

<https://northwestern.zoom.us/my/cudry>

**Course Requirements (% of final grade):**

A primary goal of this course is a critical reading of the current literature on the empirical microeconomics of development. I expect you to do all of the required reading and to participate in class discussion. This will include guiding the discussion on one paper. Papers eligible for presentation are marked with a double asterisk. (25%)

2 referee reports. (25%)

Due 2/3: Emma Riley. 2020. “Resisting Social Pressure in the Household Using Mobile Money”

Due 3/4: Moscana, Jacob and Karthik Sastry. 2021. “Inappropriate Technology: Evidence from Global Agriculture”

Final project: an outline of a research project on any topic in development economics. This can build on your research proposal from the Fall or be a new project. Deadline 1: 1/31 in class: a 1-2 paragraph proposal for your project. Tell me if you are building on your proposal from the Fall, or starting something new. If the former, include your proposal from the Fall and propose what you will do this term. If the later, state the new research question and a plan for addressing it. Deadline 2: 3/18. Research outline, length and content as determined from stage 1 (50%).

You are encouraged to attend the Development Lunch on Wednesdays and the Development Workshop on Thursdays. Students in their second year and above who anticipate having development faculty as advisors are expected to attend these regularly.

## **Other Policies**

### [Accessibility](#)

Any student requesting accommodations related to a disability or other condition is required to register with AccessibleNU ([accessiblenu@northwestern.edu](mailto:accessiblenu@northwestern.edu); 847-467-5530) and provide professors with an accommodation notification from AccessibleNU, preferably within the first two weeks of class. All information will remain confidential.

### [Sexual Misconduct and Reporting](#)

Northwestern University is committed to fostering an environment where students are safe and free from sexual misconduct. [Confidential resources](#) are available to those who have experienced sexual misconduct. Faculty, instructors, and TAs are not confidential resources and are required to report incidents of sexual misconduct, whether discussed in your assignments or in person, to the Office of Equity, which can provide information about resources and options. I encourage students who have experienced sexual misconduct to talk with someone to get support. For more information, including how to request interim protective measures and academic accommodations or file a complaint, see [the Get Help page](#).

### [Discrimination and Sexual Harassment](#)

Northwestern University's Policies on Discrimination, Harassment, and Sexual Misconduct apply to all members of the University community, including students, staff, faculty, and third parties. Any student, staff, or faculty member, or third party, who believes that they have been discriminated against or harassed on the basis of their race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, pregnancy, parental status, marital status, age, disability, citizenship, veteran status, genetic information or any other classification protected by law, should contact the Office of Equity at (847) 467-6571. Additional information about the University's discrimination and harassment policies, including the campus resources available to assist individuals with discrimination or harassment concerns, is available online on the [Office of Equity website](#). Students, staff, and faculty who report harassment, discrimination, or sexual misconduct are also protected under the [University's Policy on Non-Retaliation](#).

## Class Schedule

### 1. Agricultural households

#### January 3: Neoclassical separation

\*LaFave, D., & Thomas, D. (2018). "Farms, Families, and Markets: New Evidence on Agricultural Labor Markets" *Econometrica*. <https://ipl.econ.duke.edu/dthomas/docs/ppr/16May-FarmHH.pdf>

Jayachandran, Seema (2006) "Selling Labor Low: Wage Responses to Productivity Shocks in Developing Countries," *Journal of Political Economy*, 11 (3): 538-575.

#### Jan 5: Gender and Distribution

Deaton, *The Analysis of Household Surveys* Chapter 4.2

\*\*Qian, Nancy. "Missing Women and the Price of Tea in China." *Quarterly Journal of Economics* 123, no. 3 (2008): 1251-1285.

\*Anderson, Siwan, and Debraj Ray. "Missing women: age and disease." *The Review of Economic Studies* 77.4 (2010): 1262-1300.

#### Jan 10: Intra-household Decision-Making – Income pooling?

\*\*Duflo, Esther (2003), "Grandmothers and Granddaughters: Old Age Pension and Intra-household Allocation in South Africa," *World Bank Economic Review*, Vol. 17 (1), pp. 1-25.

Pitt, Mark, Mark Rosenzweig and MD Nazmul Hassan. 2010. "Short- and Long-Term Health Effects of Burning Biomass in the Home in Low-Income Countries" <http://www.pstc.brown.edu/~mp/papers/iapchild7.pdf>

Hanna, Rema, Esther Duflo, and Michael Greenstone. *Up in smoke: the influence of household behavior on the long-run impact of improved cooking stoves*. National Bureau of Economic Research, 2012.

#### Jan 12: Collective Households

Chiappori, Pierre-Andre, and Maurizio Mazzocco. 2017. "Static and Intertemporal Household Decisions." *Journal of Economic Literature*, 55(3): 985-1045.

Attanasio, Orazio and Valerie Lechene. 2014. "Efficient Responses to Targeted Transfers" *Journal of Political Economy*

\*\*Calvi, Rossella. 2020. "Why Are Older Women Missing in India? The Age Profile of Bargaining Power and Poverty." *Journal of Political Economy* 128:7, 2453-2501

Duflo, Esther and Chris Udry. 2003. "Intra-household Resource Allocation in Côte d'Ivoire: Social Norms, Separate Accounts and Consumption Choices"

#### Jan 19: Production and Household Efficiency

\*Udry, Christopher. 1996. "Gender, Agricultural Productivity and the Theory of the Household." *JPE*.

Rangel, Marcos and Duncan Thomas. 2019. "Decision-Making in Complex Households."

Beaman, Lori, Dean Karlan and Christopher Udry 2020. "Households, Gender and Family on Farms in Mali"

\*\*Ashraf, Nava, Erica Field, and Jean Lee. "[Household Bargaining and Excess Fertility: An Experimental Study in Zambia.](#)" *American Economic Review* 104, no. 7 (July 2014).

Jan 24: Contingency day

## 2. Risk

### Jan 26: Foundations

\*Townsend, Robert (1994) 'Risk and Insurance in Village India.' *Econometrica* 62(3), 539–591. [Link](#).

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. [Link](#).

### Jan 31: Saving

Deaton, Angus. [The Analysis of Household Surveys](#), Chapter 6: Savings and consumption smoothing. John Hopkins, 1997.

\*\*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. [Link](#).

Rosenzweig, M. and K. Wolpin. 2000. "Natural 'Natural Experiments' in Economics". *Journal of Economic Literature*. Section 4.

### Feb 2: The Efficient Allocation of Risk

\*Kazianga, Harounan, and Christopher Udry. 2006. "Consumption Smoothing? Livestock, Insurance and Drought in Rural Burkina Faso." *Journal of Development Economics* 79 (2): 413–446.

Mauricio Mazzocco and Shiv Saini (2012). [Testing Efficient Risk Sharing with Heterogeneous Risk Preferences](#), *American Economic Review*, 102(1): 428–468.

**Feb 7: Microfinance 1 – Prof. Dean Karlan**

**Feb 9: Microfinance 2 – Prof. Dean Karlan**

**Feb 14: Barriers to Efficient Risk Sharing**

Casaburi, Lorenzo and Jack Willis. 2018. [Time versus State in Insurance: Experimental Evidence from Contract Farming in Kenya.](#) (PDF, 804 KB) with Jack Willis, *American Economic Review*, 108.12: 3778-3813.

William Jack and Tavneet Suri (2014) "[Risk Sharing and Transaction Costs: Evidence from Kenya's Mobile Money Revolution](#)", *American Economic Review* Vol. 104, No. 1: 183-223.

\*\*Kinnan, Cynthia. "Distinguishing barriers to insurance in Thai villages." *Journal of Human Resources* (2021): 0219-10067R1.

Riley E. 2018. Mobile money and risk sharing against aggregate shocks. *Journal of Development Economics*

**Feb 16: Barriers to Saving**

\*\*Dupas, P. and J. Robinson (2013), "[Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya](#)," *American Economic Journal: Applied Economics* 2013, 5(1): 163–192.

\*Michael Callen, Suresh de Mel, Craig McIntosh, Christopher Woodruff, What Are the Headwaters of Formal Savings? Experimental Evidence from Sri Lanka, *The Review of Economic Studies*, Volume 86, Issue 6, November 2019, Pages 2491–2529.

Anderson, Siwan, and Jean-Marie Baland (2002), "The Economics of ROSCAs and Intra-Household Resource Allocation," *Quarterly Journal of Economics* 117 (3): 963-995.

Emma Riley. 2020. "Resisting Social Pressure in the Household Using Mobile Money"

**Feb 21: Equilibrium Effects**

Burgess, Robin, and Rohini Pande. 2005. "Do Rural Banks Matter? Evidence from the Indian Social Banking Experiment." *American Economic Review*, 95 (3): 780-795

\*Egger, Dennis, Johannes Haushofer, Edward Miguel, Paul Niehaus, Michael Walker. 2019. "General equilibrium effects of cash transfers: experimental evidence from Kenya" NBER working paper.

\*\*Balboni, Clare, Oriana Bandiera, Robin Burgess, Maitreesh Ghatak, Anton Heil. (2020) "[Why Do People Stay Poor?](#)"

Mark R. Rosenzweig and Hans P. Binswanger (1993). Wealth, Weather Risk and the Composition and Profitability of Agricultural Investments. *The Economic Journal*, Vol. 103, No. 416 (Jan., 1993), pp. 56-78. [Link](#).

### **Feb 23: Returns to Capital**

Karlan, D., Mullainathan, S. and Roth, B.N., 2019. Debt traps? Market vendors and moneylender debt in India and the Philippines. *American Economic Review: Insights*, 1(1), pp.27-42.

Kremer, M., Rao, G., Schilbach, F., 2019. Behavioral development economics. *Handbook of Behavioral Economics* 2.

Dean Karlan, Robert Osei, Isaac Osei-Akoto, and Christopher Udry (2014) "Agricultural Decisions after Relaxing Credit and Risk Constraints" *Quarterly Journal of Economics* 129 (2): 597-652

\*Suresh de Mel and David McKenzie and Chris Woodruff (2008). "Returns to Capital in Microenterprises: Evidence from a Field Experiment," *Quarterly Journal of Economics*, Vol 123(4), pp. 1329-1372.

Rosenzweig, Mark R., and Christopher Udry. (2020) "External validity in a stochastic world: Evidence from low-income countries." *Review of Economic Studies* 87.1 343-381.

## **3. Agriculture**

### **Feb 28: Technology**

\*Suri, Tavneet and Christopher Udry. 2022. "Agricultural Technology in Africa" *JEP*

\*Moscanca, Jacob and Karthik Sastry. 2021. "Inappropriate Technology: Evidence from Global Agriculture"

Gollin, Douglas and Christopher Udry. 2021. "Heterogeneity, Measurement Error, and Misallocation: Evidence from African Agriculture" *JPE*

### **March 2: Learning**

\*Foster, Andrew, Mark Rosenzweig. 1995. "Learning by Doing and Learning from Others: Human Capital and Technical Change in Agriculture." *Journal of Political Economy*.

\*\*Hanna, Rema, Sendhil Mullainathan, and Joshua Schwartzstein. 2014. *Learning through noticing: theory and experimental evidence in farming*. QJE.

## March 7: Social Learning

\*Conley, Timothy and Chris Udry. 2010. "Learning About a New Technology: Pineapple in Ghana." *AER*

Casaburi, Lorenzo, Michael Kremer, Sendhidl Mullainathan, and Ravindra Ramrattan. 2019. "Harnessing ICT to Increase Agricultural Production: Evidence from Kenya." Working Paper.

\*\*Beaman, Lori, Ariel BenYishay, Jeremy Magruder and Mushfiq Mobarak. 2021. "Can Network-Theory-based Targeting Increase Technology Adoption." *American Economic Review*

Karlan et al "Information, Market Access and Risk: Addressing Constraints to Agricultural Transformation in Ghana" Manuscript: Northwestern