Development Economics I

Coordinator: Anna Tompsett
Other lecturers: Tessa Bold (IIES), Andreas Madestam (SU)

Course Objectives: The aim of this sequence is to familiarize students with the field of development economics so that they can (1) come up with interesting and original research topics and (2) acquire methodological skills (both theoretical and empirical) that are essential in the field. An integral part of the course is to combine economic theory with empirical research.

Development economics is a vast and heterogeneous field. We will cover most of the major topics in the field through the Development sequence, although they are not the exhaustive list of development economics research agenda. In Development I, we will study overarching topics essential to understanding development economics, many of which are also relevant to understanding broader questions about human welfare in other fields.

The course consists of nine 3-hour lectures. An overview is below, and a provisional reading list follows. See here for an up to date schedule.

Lecture 1 Institutions (AT)
Lecture 2 The "Big Push" (AT)
Lecture 3 Household economics (AM)
Lecture 4 Property Rights (AT)
Lecture 5 Environment (AT)
Lecture 6 Gender (AM)
Lecture 7 Conflict (AM)
Lecture 8 Climate (TB)
Lecture 9 Structural transformation (TB)

Method of Evaluation: Course participation, which may include but is not limited to presentation of empirical papers in class, referee reports, reports on seminar presentations, or problem sets **20%**; a **replication assignment** with a group and an individual component, presented at a workshop and evaluated based on a written submission **80%**.

Additionally, all students are expected to attend **at least two research seminars or brown bags**, in development or other applied subjects, each week.

Useful links

Michael Kremer (undated) “Writing papers: a checklist”
Jesse Shapiro (undated) “How to give an Applied Micro Talk”
Rachael Meager (2017) “Public speaking for academic economists”
Don Davis (2001) “Ph.D. Thesis Research: Where do I Start?”
de Janvry and Sadoulet (2004) ‘‘Guidelines for Referee Reports”
Duncan Thomas (undated) Information about data for development research
Chris Udry (2003) Fieldwork, Economic Theory and Research on Institutions in Developing Countries
The Development Impact Blog

Methodological References

Acemoglu, D. (2010). Theory, general equilibrium, and political economy in development economics. *Journal of Economic Perspectives*, *24*(3).

Angrist, J. D., & Pischke, J. (2009). *Mostly harmless econometrics*. Princeton University Press.

Bruhn, M., & McKenzie, D. (2009). In pursuit of balance: Randomization in practice in development field experiments. *American Economic Journal: Applied Economics*, *1*(4).

Duflo, E., Glennerster, R., & Kremer, M. (2006). *Using randomization in development economics research: A toolkit*. BREAD Working Paper 136.

Reading List for Development I (tentative)

Lecture 1: Institutions

Readings

Acemoglu, D. (2008). Introduction to modern economic growth. (Chap. 22, 23). Princeton University Press.

Bai, J., Jayachandran, S., Malesky, E. J., & Olken, B. A. (2019). Firm growth and corruption: Empirical evidence from Vietnam. *Economic Journal*, *129*(618).

Carranza, E., Donald, A., Grosset, F., & Kaur, S. (2023). *The social tax: Redistributive pressure and labor supply.* Working paper.

Das, S. (2023). *Democratic backsliding in the world's largest democracy.* https://ssrn.com/abstract=4512936.

Foltz, J. D., & Opoku-Agyemang, K. A. (n.d.). *Do higher salaries lower corruption? A policy experiment on West African highways.* Working paper.

Jones, B. F., & Olken, B. A. (2005). Do leaders matter? National leadership and growth since World War II. *Quarterly Journal of Economics*, *120*(3), 835–864.

Mayshar, J., Moav, O., & Pascali, L. (2022). The origin of the state: Land productivity or appropriability? *Journal of Political Economy*, *130*(4).

Michalopoulos, S., & Papaioannou, E. (2013). Pre-colonial ethnic institutions and contemporary African development. *Econometrica*, *81*(1).

Olken, B. A. (2007). Monitoring corruption: Evidence from a field experiment in Indonesia. *Journal of Political Economy*, *115*(2).

Olken, B. A., & Pande, R. (2012). Corruption in developing countries. *Annual Review of Economics*, *4*.

Pande, R., & Udry, C. (2009). Institutions and development: A view from below. In *Advances in economics and econometrics: Theory and applications, ninth world congress, volume ii.* Cambridge University Press.

Sanchez de la Sierra, R. (2020). On the origins of the state: Stationary bandits and taxation in Eastern Congo. *Journal of Political Economy*, *forthcoming.*

Svensson, J. (2005). Eight questions about corruption. *Journal of Economic Perspectives*, *19*(3).

Lecture 2: The "Big Push"

Readings

Banerjee, A., Duflo, E., & Qian, N. (2012). *On the road: Access to transportation infrastructure and economic growth in China.* Working Paper.

Burgess, R., Jedwab, R., Miguel, E., Morjaria, A., & i Miquel, G. P. (2015). The value of democracy: Evidence from road building in Kenya. *American Economic Review*, *105*(6).

Casaburi, L., Glennerster, R., & Suri, T. (2013). *Rural roads and intermediated trade: Regression discontinuity evidence from Sierra Leone.*

Dinkelman, T. (2011). The effects of rural electrification on employment: New evidence from South Africa. *American Economic Review*, *101*(7).

Donaldson, D. (2018). Railroads of the Raj: Estimating the impact of transportation infrastructure. *American Economic Review*, *108*(4-5).

Duflo, E., & Pande, R. (2007). Dams. *Quarterly Journal of Economics*, *122*(2).

Gonzalez-Navarro, M., & Quintana-Domeque, C. (2016). Paving streets for the poor: Experimental analysis of infrastructure effects. *Review of Economics and Statistics*, *98*(2).

Rosenstein-Rodan, P. N. (1943). Problems of industrialisation of Eastern and South-Eastern Europe. *Economic Journal*, *52*(210/211).

Lecture 3: Household economics

Readings

Ashraf, N. (2009). Spousal control and intra-household decision making: An experimental study in the Philippines. *American Economic Review*, *99*(4).

Bardhan, P., & Udry, C. (1999). Development microeconomics. (Chap. 2). Oxford University Press, Oxford.

Becker, G. (1981). A treatise on the family. (Chap. 8). Harvard University Press.

Bergstrom, T. (1989). A fresh look at the rotten kid theorem and other household mysteries. *Journal of Political Economy*, *97*(5).

Duflo, E. (2003). Grandmothers and granddaughters: Old age pension and intra-household allocation in South Africa. *World Bank Economic Review*, *17*(1).

Duflo, E., & Udry, C. (2004). *Intrahousehold resource allocation in Côte d'Ivoire: Social norms, separate accounts and consumption choices*. NBER Working Paper No. 10498.

Thomas, D. (1990). Intra-household resource allocation: An inferential approach. *Journal of Human Resources*, *25*(4).

Udry, C. (1996). Gender, agricultural production, and the theory of the household. *The Journal of Political Economy*, *104*(5), 1010–1046.

Lecture 4: Property Rights

Readings

Acemoglu, D., & Johnson, S. (2005). Unbundling institutions. *Journal of Political Economy*, *113*(5).

Agyei-Holmes, A., Buehren, N., Goldstein, M., Osei, R., Osei-Akoto, I., & Udry, C. (2020). *The effects of land title registration on tenure security, investment and the allocation of productive resources*. World Bank Policy Research Working Paper No. 9376.

Ali, D. A., Deininger, K., & Goldstein, M. (2014). Environmental and gender impacts of land tenure regularization in Africa: Pilot evidence from Rwanda. *Journal of Development Economics*, *110*.

Besley, T. (1995). Property rights and investment incentives: Theory and evidence from Ghana. *The Journal of Political Economy*, *103*(5), 903–937.

Bühler, M. (2021). *On the other side of the fence: Property rights and productivity in the united states*. Working paper.

Coase, R. H. (1960). The problem of social cost. *Journal of Law and Economics*, *3*.

Field, E. (2007). Entitled to work: Urban property rights and labor supply in Peru. *Quarterly Journal of Economics*, *122*(4), 1561–1602.

Goldstein, M., & Udry, C. (2008). The profits of power: Land rights and agricultural investment in Ghana. *Journal of Political Economy*, *116*(6).

Hardin, G. (1968). The tragedy of the commons. *Science*, *162*(3859).

Hornbeck, R. (2010). Barbed wire: Property rights and agricultural development. *Quarterly Journal of Economics*, *125*(2).

Wren-Lewis, L., Becerra-Valbuena, L., & Houngbedji, K. (2020). Formalizing land rights can reduce forest loss: Experimental evidence from Benin. *Science Advances*, *6*.

Lecture 5: Environment

Readings

Acemoglu, D., & Johnson, S. (2007). Disease and development: The effect of life expectancy on economic growth. *Journal of Political Economy*, *115*(6), 925–985.

Alix-Garcia, J., McIntosh, C., Sims, K. R. E., & Welch, J. R. (2013). The ecological footprint of poverty alleviation: Evidence from Mexico's Oportunidades program. *Review of Economics and Statistics*, *95*(2).

Burgess, R., Hansen, M., Olken, B. A., Potapov, P., & Sieber, S. (2012). The political economy of deforestation in the tropics. *Quarterly Journal of Economics*, *127*(4).

Burke, M., Hsiang, S. M., & Miguel, E. (2015). Global non-linear effect of temperature on economic production. *Nature*, *527*.

Davis, L. W. (2004). The effect of health risk on housing values: Evidence from a cancer cluster. *American Economic Review*, *94*(5).

Dell, M., Jones, B. F., & Olken, B. A. (2012). Temperature shocks and economic growth: Evidence from the last half century. *American Economic Journal: Macroeconomics*, *4*(3).

Dell, M., Jones, B. F., & Olken, B. A. (2014). What do we learn from the weather? The new climate-economy literature. *Journal of Economic Literature*, *42*(3).

Duflo, E., Greenstone, M., Pande, R., & Ryan, N. (2013). Truth-telling by third-party auditors and the response of polluting firms: Experimental evidence from India. *Quarterly Journal of Economics*, *128*(4).

Greenstone, M., & Hanna, R. (2014). Environmental regulations, air and water pollution, and infant mortality in India. *American Economic Review*, *104*(10).

Greenstone, M., & Jack, B. K. (2015). Envirodevonomics: A research agenda for an emerging field. *Journal of Economic Literature*, *53*(1).

Grossman, G., & Krueger, A. (1995). Economic growth and the environment. *Quarterly Journal of Economics*, *110*(2).

Hansen, G. D., & Prescott, E. C. (2002). Malthus to solow. *American Economic Review*, *92*(4).

Hsiang, S. M., & Jina, A. (2014). *The causal effect of environmental catastrophe on long-run economic growth: Evidence from 6,700 cyclones*. NBER Working Paper No. 20352.

Jayachandran, S. (2021). *How economic development influences the environment*. Working paper.

Kremer, M., Leino, J., Miguel, E., & Zwane, A. P. (2011). Spring cleaning: Rural water impacts, valuation, and property rights institutions. *Quarterly Journal of Economics*, *126*(1).

Madhok, R. (2023). *Infrastructure, institutions, and the conservation of biodiversity in India*. Working paper.

Wilebore, B., Voors, M., Bulte, E. H., Coomes, D., & Kontoleon, A. (2019). Unconditional transfers and tropical forest conservation: Evidence from a randomized control trial in Sierra Leone. *American Journal of Agricultural Economics*, *101*(3).

Lecture 6: Gender

Readings

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

Behr, P., Beck, T., & Madestam, A. (2018). Sex and credit: Do gender interactions matter for credit market outcomes? *Journal of Banking Finance*, *87*.

Duflo, E. (2011). *Women's empowerment and economic development.* NBER Working Paper No. 17702.

Miguel, E. (2005). Poverty and witch killing. *Review of Economic Studies*, *72.*

Miller, G. (2008). Women's suffrage, political responsiveness, and child survival. *Quarterly Journal of Economics*, *123*(3).

Qian, N. (2008). Missing women and the price of tea in China: The effect of sex-specific income on sex imbalance. *Quarterly Journal of Economics*, *123*(3).

Sen, A. (1990). Over 100 million women are missing. *New York Times Review of Books.*

Lecture 7: Conflict

Readings TBC.

Lecture 8: Climate

Readings TBC.

Lecture 9: Structural transformation

Readings TBC.

Replication Assignment

The main course assignment is to replicate an empirical paper related to development economics. You may work individually or in pairs on the first part of the replication assignment. Each individual or pair will be assigned a faculty mentor throughout the process.

The replication task involves the components listed below. Assignments will be penalized for lack of clarity either in the descriptions or the tables or figures. Acquiring the skills to produce a professional and clear description of a piece of research is a key component of your training. The task is evaluated as follows:

Working individually or in pairs (Total: 40/80)

1. Obtain the data for the empirical paper (either from journal websites, author websites, or primary data sources)
2. (20/40) Replicate the main results i.e. the central table and figure that summarize the main results of the study, and the specification tests or robustness checks that you consider to be the most critical to the case in defense of the identification strategy. Agree these in advance with your faculty mentor.
3. (10/40) Provide a descriptive analysis of the process of replication, including obtaining the data, understanding the data, any difficulties in understanding the specification from the paper, and to what extent and how you were able to resolve these difficulties.
4. (10/40) Provide additional evaluation of the empirical strength of the paper, and use this, in combination with the original evidence provided, to draw a conclusion about the empirical strength of the original paper. Additional evaluation of the empirical strategy might include:
   - Alternative visualizations of the data or results
   - Alternative robustness checks

Working individually (Total: 40/80)

5. (20/40 Evaluate to what extent the paper successfully answers the question it set out to answer and to what extent the paper advances our knowledge on this research question. To address this question, you will need to review the literature identified in the paper as constituting the research frontier and critically evaluate the papers claims with respect to contribution to the literature. For older papers, you may reflect on how the paper influenced later literature.
6. (20/40) Develop a short research proposal for possible further work, drawing on your replication assignment and evaluation of the contribution of this paper to the literature. Try to identify further questions that are raised by the paper or unanswered dimensions of the original question.

Key milestones

The replication assignment has a number of key milestones which you need to hit. These are essential to completing a high-quality replication. You do not need to hand in any written work for the first two deadlines.

Deadline 1: Friday 16th September 2022

You must choose a paper for replication by this date, and have this approved by the course coordinator, verbally or over email. Once it is approved, you will be assigned a faculty mentor. You are free to choose one of the course readings.

Deadline 2: Friday 30th September 2022

By this date you should *as a minimum* have completed step 1, i.e. obtained the data, or at the least, have made considerable efforts to obtain the data. By this point, you should also have agreed with your faculty mentor, verbally or over email, what the main results, figures and robustness checks constitute.

Deadline 3: Thursday 1st December 2022

You must present progress in a class workshop. We expect you to have completed most of the replication analysis at this time and be ready to discuss your individual component. Depending on the final number of groups, you should expect to present and discuss your individual or group work on the replication for around **15-20 minutes** and your idea for future research for around **5-10 minutes**

Deadline 4: TBC

Submit the final report to the course faculty by email.

Where to start with the replication exercise

The paper you choose should be **relevant**, **replicable** and **worth replicating**, defined as follows.

1. **relevant** for understanding important questions related to development economics. You must justify this.

2. **replicable** the replication must be feasible i.e. you must be able to obtain and use the data from the paper, based on an initial evaluation.

3. **worth replicating** the empirical strategy employed in the paper must be sufficiently plausible to be worth replication i.e. the paper must provide a clear identification strategy or a clear testable hypothesis. Alternatively, the paper must be sufficiently influential to be worth replicating, even if we have ex-ante concerns about identification, in which case the replication must involve a thoughtful discussion of these concerns.

There are three main places you can obtain replication data:

Journal websites More and more journals are adopting replication policies, meaning that papers that have recently been published in top general interest or field journals are likely to have replication data available, with a direct link from the journal website. A caveat is that not all original data sources are publicly available: sensitive data, particularly on health outcomes, is unlikely to be readily available. Check that **all** key data sources are publicly accessible before deciding on a paper to replicate i.e. don't just verify that a file labelled replication data and code exists, but confirm that it actually contains the data that you need, or instructions for how to obtain the data that are feasible for you to follow (watch out for data that needs special permissions or costs money to access).

Minor note: articles in the American Economic Review May issue (volume 5 in any given year) are Papers and Proceedings from the AEA conference. They are typically shorter and less developed than papers from a regular issue.

Researcher websites Another approach is to look on researcher websites. If there's a paper you like on this course, look at the other papers that the same author or authors have worked on, and see if there is data posted. Some researchers post data even for much older papers which pre-date contemporary replicability requirements.

Other data repositories Finally, there is data available on repository sites such as the Harvard Dataverse, so if you really like a paper but cannot find the data on the journal website or author website, it's worth googling the name of the paper and"replication data" and checking if the data has been posted anywhere else.

Age of paper and replicability The relationship between paper age and replicability is an inverse U. In general, the older the paper, the harder it is to find replication data. However, very influential older papers may have replication data available somewhere. Some may even have been replicated publicly elsewhere. (If so, we expect you to also have read the replication reports that are publicly available and to reference them in your report.) Older papers may have empirical problems by today's standards that were not recognized as problems at the time of publication (e.g. weak instruments, or standard errors that don't correctly account for correlation between units of analysis or over time). *Very* new papers (i.e. working papers or papers that are forthcoming at a journal) may not yet have replication data available, although those that use accessible data may still be replicated.

Use of code Replication materials vary. Sometimes, you may simply find the data available, with no code posted. Other times, the code may be available, but may not run immediately. Other times, the code may have errors. In some cases, rarer than they should be, the code may run perfectly and produce exactly the results of the paper. We do not take a strong stance on how you should use the available code. Some students prefer to try to replicate the results without using the code, then refer to the code if they have difficulty producing the same results. Others prefer to work through the code line by line, being sure to understand each step correctly.

Note that the goal of the exercise is to *understand* and *reflect critically* on the empirical approach and how it is implemented, so the assignment requires you to do more than simply reproduce the results.

Important notes

Replication is often difficult, and you will almost certainly encounter obstacles to replicating the empirical papers you choose. Throughout the assignment, we give credit for effort exerted and thoughtful reflections on challenges faced. There is no penalty, conditional on effort and reflection, for being "unsuccessful" in replicating a paper.

In general, however, **please do not reach out and contact the authors of the studies without first discussing the problems you face with your faculty mentor**. Contacting authors during a replication is quite reasonable, but it's important to be strategic about how and when to approach them, and to first rule out the possibility that the obstacle is your own understanding, or perhaps your own coding errors, rather than a problem with their data, code or description.