

Economics 4610
Economic Development
University of Virginia

Instructor: Shan Aman-Rana
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TAs:
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Class time: MW 8:30-9:45am
Class location: Monroe Hall 116

Description

A large proportion of the world's population lives on less than \$2/day. The course will equip students to better understand the lives of the world's poor. Specifically, what price distortions and market failures hinder their quest to improve their well-being? Is there scope for policy to help the world's poor? We do not answer these questions with anecdotes. Rather, we examine detailed data of the world's poor, and study policies that have been attempted and evaluated scientifically.

The first part of the course studies the concept of development, poverty, growth and poverty traps. This is then followed by detailed overview of health and education, gender inequality, factor markets facing the poor: land and credit markets. The last part studies personnel economics of the state and explores contractual problems faced by the state along with corruption and e-governance and accountability mechanisms in developing countries. The course has a strong applied focus and so we will learn empirical methods such as: randomized control trials, difference-in-difference and instrumental variables etc.

This course requires a solid understanding of how to read and interpret statistics, as well as a basic understanding of economic principles. Economics 2010 and 3710 (or equivalent) are required; note that you will not be able to take the class without these prerequisites (no exceptions). Economics 2020, 3010/3110, and 3720 are helpful but not required.

Textbooks and Other Materials

Ray, Debraj. *Development Economics*. Princeton University Press, 1998. This is a slightly more technical treatment of the material, and the source for almost all the formal models taught in class. An online version is now available for a significantly lower price than the printed version, and feel free to buy used versions.

Abhijit Banerjee and Esther Duflo, *Poor Economics*. Public Affairs, 2011. This is less technical but much more up to date and the best representation of the field of development economics today.

Other readings – both required and recommended – are posted on Collab.

Lecture notes

Lecture notes will be posted to Collab *after* class.

Grading and assignments

Section Exercises (5%)

Participation in various exercises and a debate during sections.

Problem Sets (10%)

Problem sets due in class 9/18; 10/2; 10/9; 10/28; 11/11. They will be posted online one week before due date.

Mid Term Exam (25%)

In Lecture, Wednesday October 16th

Final Exam (45%)

Dec 9th 2pm-5pm, Monroe Hall 116

Final Group Project (15%)

You will work in groups of 5-6 to write a 5-page experiment brief; topics and more details will be provided during the term. Final write-ups due **December 2nd, 11:59pm**.

There are no makeup exams. If you miss an exam, your missing grade will be replaced by an average of your other grades, adjusted for why you missed the exam or quiz. Acceptable reasons include death in the family, critical illness validated with a note from the appropriate dean, or a University sponsored trip. Questions about grading of any assignment or exam must be addressed within two weeks of its return. Questions must be presented in writing, and the entire assignment or exam will be regarded, which means you might end up with a lower score than you started with.

Assignments are due on the date specified. Arrange a place where assignments are to be submitted with your TA. No late assignments will be accepted, no exceptions. Solution sets will be posted on Collab. You may discuss problem sets with others but are expected to write up own solutions.

I will make every attempt to respond to class-related emails within 24 hours. This policy does not apply to weekend days, so do not expect responses to emails during the weekend. I will also not respond to emails asking questions that are clearly answered on the syllabus or via prior emails: e.g. “when is the problem set due?”

Students with special needs

All students with special needs requiring accommodations should present the appropriate paperwork from the Student Disability Access Center (SDAC). It is the student’s responsibility to present this paperwork *by September 30, 2019* and follow up with me about the accommodations being offered. Accommodations for test-taking (e.g., extended time) should be arranged *at least two weeks before an exam*.

The SDAC is located in the Department of Student Health and can be contacted at 243-5180/5181.

Course Honor Policy

I trust every student in this course to comply fully with all of the provisions of the UVA Honor System. By enrolling in this course, you have agreed to abide by and uphold the Honor System of the University of Virginia.

Course Overview (blue highlight = problem set due; orange=final project due)

Week of	Monday (8:30-9:45)	Wednesday (8:30-9:45)	Sections
8/26/2019		Introduction to Development	
9/2/2019	Measures of poverty	Economic lives of the poor	Discussion: Understanding Purchasing Power Parity and Data exercise
9/9/2019	Causality	Growth theory and development: Solow Growth Model	Discussion: Causality experiments
9/16/2019	Growth theory through the lens of development	The idea of poverty traps Focus: Nutrition based poverty traps	Problem set recap: Poverty
9/23/2019	Health demand and supply	Externalities in health: Focus on worms in school children – I	Discussion: Education interventions
9/30/2019	Externalities in health: Focus on worms in school children – II + Review for Midterm	Education (Difference-in-difference) -I	Problem set recap: Nutrition based poverty traps
10/7/2019		Education-II	Review for midterm
10/14/2019	Gender: theoretical ideas and empirical evidence - I	MIDTERM	Problem set recap: Health
10/21/2019	Gender: theoretical ideas and empirical evidence - II	Introduction to Land	Midterm recap
10/28/2019	Land inequality, reforms and property rights	Introduction to credit	Problem set recap: Gender
11/4/2019	Microcredit	Role of the state in developing countries: Public sector markets	MFI Experiments (Recap)

11/11/2019	Corruption-I MAYBE: E-governance/transparency and accountability mechanisms	Corruption-II + Contractual problems in the public sector: Selection of bureaucrats	Problem set recap: land/credit
11/18/2019	Contractual problems in the public sector: Selection of bureaucrats	PROJECT MEETINGS	Project meetings
11/25/2019			
12/2/2019	Contractual problems in the public sector: Performance of bureaucrats	Review	Review for final

Detailed Course Outline

All readings required except those marked with **.

**** = recommended.**

DE=Development Economics. PE = Poor Economics.

Note: Lecture notes and all readings will be made available on Collab during the term. It is the student's own responsibility to manage their printing of any of these documents within any budget for printing they may have.

Statistical Background

You must understand everything in DE Appendix 2 before the course begins; you don't have to read it if you already know the concepts. We will learn concepts as well go but you might want to familiarize yourself with material from Angrist, Joshua D., and Jörn-Steffen Pischke. Mastering Metrics: The path from cause to effect. Princeton University Press, 2014. It is a useful book to understand problems of selection and the latest techniques to evaluate empirical studies. Glennster, Rachel, and Kudzai Takavarasha. Running randomized evaluations: A practical guide. Princeton University Press, 2013 is another extremely useful book. It has good practical advice for running experiments.

The concept of development

- Ghatak, Maitreesh. "Measures of Development—Concepts, Causality, and Context." In *Economics, Management and Sustainability*, pp. 3-11. Springer, Singapore, 2018.
 - **Sen, Amartya. "The concept of development." *Handbook of development economics* 1 (1988): 9-26.
 - **DE Chapter 2
 - **Lucas Jr, Robert E. "On the mechanics of economic development." *Journal of monetary economics* 22, no. 1 (1988): 3-42.

Poverty; Causal inference

What is poverty? How do we measure it?

- DE Ch. 8

- **Deaton, Angus (2004) Measuring Poverty. Research Program in Development Studies, Princeton University
- **World development report 1990 : Poverty. World Development Indicators. Washington, DC: World Bank Group.
- **Haughton, Jonathan, and Shahidur R. Khandker. Handbook on poverty and inequality. World Bank Publications, 2009.
- **Banerjee, Abhijit V., and Esther Duflo. "What is middle class about the middle classes around the world?." Journal of economic perspectives 22, no. 2 (2008): 3-28.

Intro to causal inference

- Chapter 1, Randomized Trials, Angrist, Joshua D., and Jörn-Steffen Pischke. Mastering Metrics: The path from cause to effect. Princeton University Press, 2014.

Who are the poor? And what is their life like?

- Banerjee, A.V. and Duflo, E. (2007). The Economic Lives of the Poor. The Journal of Economic Perspectives. 21(1):141–167

Growth; Poverty traps

Solow Model

- DE Ch. 3 & 4.1-4.3 **OR** N. Gregory Mankiw Macroeconomics 7th Edition, 2009 Chapter 7.1 and 7.3

Growth theory and development

- Banerjee, Abhijit V., and Esther Duflo. "Growth theory through the lens of development economics." Handbook of economic growth 1 (2005): 473-552
 - **Mankiw, N. Gregory, David Romer, and David N. Weil. "A contribution to the empirics of economic growth." The Quarterly Journal of Economics 107, no. 2 (1992): 407-437
 - **Acemoglu, Daron, Simon Johnson, and James A. Robinson. "The colonial origins of comparative development: An empirical investigation." American Economic Review 91, no. 5 (2001): 1369-1401.
 - **Acemoglu, Daron, Simon Johnson, and James A. Robinson. "Reversal of fortune: Geography and institutions in the making of the modern world income distribution." The Quarterly Journal of Economics 117, no. 4 (2002): 1231-1294.
 - ** *Chapter 3 Instrumental Variables*, Angrist, Joshua D., and Jörn-Steffen Pischke. Mastering Metrics: The path from cause to effect. Princeton University Press, 2014.

Nutrition-based poverty traps

- DE Ch. 8 (esp. 8.4), Ch 13.4
- PE Chapter 1 Section: "Trapped in Poverty"
 - ** Subramanian, Shankar, and Angus Deaton. "The demand for food and calories." *Journal of political economy* 104, no. 1 (1996): 133-162.

- ** Ghatak, Maitreesh: [Persistence of Poverty and Anti-Poverty Policies](#), in *The Economics of Poverty Traps*, eds C. Barrett, M. Carter, and J.-P. Chavas, National Bureau of Economic Research Conference Report, Chicago:University of Chicago Press, 2018. url: http://personal.lse.ac.uk/ghatak/NBER_Discussion.pdf

Health

Introduction to health; demand and supply of health

- PE Chapter 3: “Low-Hanging Fruit for Better (Global) Health”.
 - **Banerjee, Abhijit, and Esther Duflo. "Improving health care delivery in India." In Deaton Festschrift Conference, September, <http://economics.mit.edu/files/5172>. 2009
 - **Banerjee, Abhijit V., Esther Duflo, and Rachel Glennerster. "Putting a band-aid on a corpse: incentives for nurses in the Indian public health care system." *Journal of the European Economic Association* 6, no. 2-3 (2008): 487-500
 - ** Cohen, Jessica, Pascaline Dupas, and Simone Schaner. "Price subsidies, diagnostic tests, and targeting of malaria treatment: evidence from a randomized controlled trial." *American Economic Review* 105, no. 2 (2015): 609-45
 - ** Cohen, Jessica, and Pascaline Dupas. "Free distribution or cost-sharing? Evidence from a randomized malaria prevention experiment." *Quarterly journal of Economics* 125, no. 1 (2010): 1.

Externalities

- Miguel, Edward, and Michael Kremer. “Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities.” *Econometrica* 72, no. 1 (2004): 159–218.

Education

- PE Ch 4
 - **Glewwe and Kremer, “Schools, Teachers, and Education Outcomes in Developing Countries,” in *Handbook on the Economics of Education*, Elsevier, 2006.
 - **Kremer, Michael, “Randomized Evaluations of Educational Programs in Developing Countries: Some Lessons,” *American Economic Review*, May 2004.
 - **Muralidharan, Karthik and Venkatesh Sundaraman. Contract Teachers: Experimental Evidence from India. Mimeo, UCSD.
 - **Duflo, Esther (2001), “Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment,” *American Economic Review*, Vol. 91 (4), pp 795-813.
 - **Angrist, Joshua D., and Alan B. Keueger. "Does compulsory school attendance affect schooling and earnings?." *The Quarterly Journal of Economics* 106, no. 4 (1991): 979-1014

DID

- *Chapter 5 Differences in Differences*, Angrist, Joshua D., and Jörn-Steffen Pischke. *Mastering Metrics: The path from cause to effect*. Princeton University Press, 2014.

Gender: theoretical ideas and empirical evidence

- Alesina, Alberto, Paola Giuliano, and Nathan Nunn. "On the origins of gender roles: Women and the plough." *The Quarterly Journal of Economics* 128, no. 2 (2013): 469-530.

- Bernhardt, Arielle, Erica Field, Rohini Pande, Natalia Rigol, Simone Schaner, and Charity Troyer-Moore. "Male Social Status and Women's Work." In *AEA Papers and Proceedings*, vol. 108, pp. 363-67. 2018
- Gneezy, Uri, Muriel Niederle, and Aldo Rustichini. "Performance in competitive environments: Gender differences." *The Quarterly Journal of Economics* 118, no. 3 (2003): 1049-1074
- Gneezy, Uri, Kenneth L. Leonard, and John A. List. "Gender differences in competition: Evidence from a matrilineal and a patriarchal society." *Econometrica* 77, no. 5 (2009): 1637-1664
- Beaman, Lori, Esther Duflo, Rohini Pande, and Petia Topalova. "Female leadership raises aspirations and educational attainment for girls: A policy experiment in India." *Science* 335, no. 6068 (2012): 582-586
 - **Greenwood, Jeremy, Ananth Seshadri, and Mehmet Yorukoglu. "Engines of liberation." *The Review of Economic Studies* 72, no. 1 (2005): 109-133
 - **Marianne, Bertrand. "New perspectives on gender." In *Handbook of labor economics*, vol. 4, pp. 1543-1590. Elsevier, 2011
 - **Bursztyn, Leonardo, Thomas Fujiwara, and Amanda Pallais. "'Acting Wife': Marriage Market Incentives and Labor Market Investments." *American Economic Review* 107, no. 11 (2017): 3288-3319.
 - **Kleven, Henrik, Camille Landais, and Jakob Egholt Sogaard. *Children and gender inequality: Evidence from Denmark*. No. w24219. National Bureau of Economic Research, 2018
 - **Coate, Stephen, and Glenn C. Loury. "Will affirmative-action policies eliminate negative stereotypes?." *The American Economic Review* (1993): 1220-1240.

EXTRA READING (If interested in the topic)

- **Ponthieux, Sophie, and Dominique Meurs. "Gender inequality." In *Handbook of income distribution*, vol. 2, pp. 981-1146. Elsevier, 2015.
- **Chiappori, Pierre-André, and Costas Meghir. "Intrahousehold inequality." In *Handbook of income distribution*, vol. 2, pp. 1369-1418. Elsevier, 2015
- **Olivetti, Claudia, and Barbara Petrongolo. "The evolution of gender gaps in industrialized countries." *Annual review of Economics* 8 (2016): 405-434.
- **Duflo, Esther. "Women empowerment and economic development." *Journal of Economic literature* 50, no. 4 (2012): 1051-79
- **Fang, Hanming, and Andrea Moro. "Theories of statistical discrimination and affirmative action: A survey." In *Handbook of social economics*, vol. 1, pp. 133-200. North-Holland, 2011.
- **McIntyre, Matthew H., and Carolyn Pope Edwards. "The early development of gender differences." *Annual review of anthropology* 38 (2009): 83-97
- **Bertrand, Marianne. "Career, family, and the well-being of college-educated women." *American Economic Review* 103, no. 3 (2013): 244-50.
- **Becker, Gary Stanley, and Gary S. Becker. *A Treatise on the Family*. Harvard university press, 2009
- **Greenwood, Jeremy, Nezih Guner, and Guillaume Vandenbroucke. "Family economics writ large." *Journal of Economic Literature* 55, no. 4 (2017): 1346-1434.
- **Dhar, Diva, Tarun Jain, and Seema Jayachandran. *Reshaping Adolescents' Gender Attitudes: Evidence from a School-Based Experiment in India*. No. w25331. National Bureau of Economic Research, 2018.

- **Field, Erica, Seema Jayachandran, Rohini Pande, and Natalia Rigol. "Friendship at work: Can peer effects catalyze female entrepreneurship?." *American Economic Journal: Economic Policy* 8, no. 2 (2016): 125-53.
- **Dean, Joshua T., and Seema Jayachandran. "Changing Family Attitudes to Promote Female Employment." In *AEA Papers and Proceedings*, vol. 109, pp. 138-42. 2019.
- **Bernhardt, Arielle, Erica Field, Rohini Pande, and Natalia Rigol. *Household matters: Revisiting the returns to capital among female micro-entrepreneurs*. No. w23358. National Bureau of Economic Research, 2017
- **Bertrand, Marianne. "The glass ceiling." *Becker Friedman Institute for Research in Economics Working Paper* 2018-38 (2017).
- **Udry, Christopher. "Gender, agricultural production, and the theory of the household." *Journal of political Economy* 104, no. 5 (1996): 1010-1046.
- **Kleven, Henrik, and Camille Landais. "Gender inequality and economic development: fertility, education and norms." *Economica* 84, no. 334 (2017): 180-209.
- **Kleven, Henrik, Camille Landais, Johanna Posch, Andreas Steinhauer, and Josef Zweimüller. "Child penalties across countries: Evidence and explanations." In *AEA Papers and Proceedings*, vol. 109, pp. 122-26. 2019
- **Qian, Nancy. "Missing women and the price of tea in China: The effect of sex-specific earnings on sex imbalance." *The Quarterly Journal of Economics* 123, no. 3 (2008): 1251-1285
- **Chattopadhyay, Raghendra, and Esther Duflo. "Women as policy makers: Evidence from a randomized policy experiment in India." *Econometrica* 72, no. 5 (2004): 1409-1443.

Land

Land intro

- DE 11 & 12
 - **Foster, Andrew D., and Mark R. Rosenzweig. *Are there too many farms in the world? Labor-market transaction costs, machine capacities and optimal farm size*. No. w23909. National Bureau of Economic Research, 2017

Property rights and land reform

- Banerjee, Abhijit (1999), "Land Reform: Prospects and Strategies," *MIT Mimeo*.
- Christopher Woodruff, "Review of de Soto's *The Mystery of Capital*," *Journal of Economic Literature*, December 2001, 1215-1223.
 - **Udry, Christopher and Markus Goldstein. "The Profits of Power: Land Rights and Agricultural Investment in Ghana". *Journal of Political Economy*, 2008, vol. 116.
 - **Field, Erica, "Entitled to Work: Urban Property Rights and Labor Supply in Peru," Mimeo, Harvard, 2006.

Credit

Credit intro

- DE Ch 14
- PE Ch 7
 - **Dean Karlan and Jonathan Zinman, "Observing Unobservables: Identifying Information Asymmetries with a Consumer Credit Field Experiment," *Econometrica*, Nov 2009.

Microcredit

- Beatriz Armendariz and Jonathan Morduch, "Microfinance: Where do we stand?" in Charles Goodhart, editor, *Financial Development and Economic Growth: Explaining the Links*. Basingstoke, Hampshire, UK: Palgrave Macmillan, 2004.
- PE Chapter 9: "Reluctant Entrepreneurs"

The State in developing countries

Personnel economics of the state

- Finan, Frederico, Benjamin A. Olken, and Rohini Pande. "The personnel economics of the developing state." In *Handbook of Economic Field Experiments*, vol. 2, pp. 467-514. North-Holland, 2017.
- Dixit, Avinash. "Incentives and organizations in the public sector: An interpretative review." *Journal of human resources*, no. 4 (2002): 696-727.
 - **Banerjee, Abhijit V. "A theory of misgovernance." *The Quarterly journal of economics* 112, no. 4 (1997): 1289-1332.
 - **Besley, Timothy, and Torsten Persson. "The origins of state capacity: Property rights, taxation, and politics." *American Economic Review* 99, no. 4 (2009): 1218-44.
 - **Besley, Timothy, and Torsten Persson. "State capacity, conflict, and development." *Econometrica* 78, no. 1 (2010): 1-34.
 - **Sanchez de la Sierra, Raul. "On the Origin of States: Stationary Bandits and Taxation in Eastern Congo," *Journal of Political Economy*, Forthcoming.

Corruption and e-governance

Corruption

- Olken, Benjamin and Rohini Pande (2012). "Corruption in Developing Countries", *Annual Review of Economics*.
- Wade, Robert (1982) "The system of administrative and political corruption: Canal irrigation in South India." *Journal of Development Studies*, 18(3), 287-328.
 - **Bardhan, Pranab. "Corruption and development: a review of issues." *Journal of economic literature* 35, no. 3 (1997): 1320-1346.
 - **Ben Olken, "Monitoring Corruption: Evidence from a Field Experiment in Indonesia," *Journal of Political Economy* 115(2), 200-249, April 2007.
 - **Raymond Fisman and Edward Miguel, "Cultures of Corruption: Evidence from Diplomatic Parking Tickets," *BREAD Working Paper* #122, May 2006.
 - **Niehaus, Paul, and Sandip Sukhtankar. "Corruption dynamics: The golden goose effect." *American Economic Journal: Economic Policy* 5, no. 4 (2013): 230-69
 - **Sukhtankar, Sandip, and Milan Vaishnav. "Corruption in India: Bridging research evidence and policy options." In *India Policy Forum*, vol. 11, no. 1, pp. 193-276. National Council of Applied Economic Research, 2015.
 - **Sukhtankar, Sandip. "The impact of corruption on consumer markets: Evidence from the allocation of second-generation wireless spectrum in India." *The Journal of Law and Economics* 58, no. 1 (2015): 75-109.
 - **Niehaus, Paul, and Sandip Sukhtankar. "The marginal rate of corruption in public programs: Evidence from India." *Journal of public Economics* 104 (2013): 52-64

E-governance and accountability mechanisms

- Muralidharan, Karthik, Paul Niehaus, and Sandip Sukhtankar. "Building state capacity: Evidence from biometric smartcards in India." *American Economic Review* 106, no. 10 (2016): 2895-2929.
 - **Banerjee, Abhijit, Esther Duflo, Clement Imbert, Santhosh Mathew, and Rohini Pande. "Can e-governance reduce capture of public programs? Experimental evidence from a financial reform of India's employment guarantee." Accessed February 15 (2014): 2017.
 - **Banerjee, Abhijit, Rema Hanna, Jordan Kyle, Benjamin A. Olken, and Sudarno Sumarto. "Tangible information and citizen empowerment: Identification cards and food subsidy programs in Indonesia." *Journal of Political Economy* 126, no. 2 (2018): 451-491.
 - **Avis, Eric, Claudio Ferraz, and Frederico Finan. "Do government audits reduce corruption? Estimating the impacts of exposing corrupt politicians." *Journal of Political Economy* 126, no. 5 (2018): 1912-1964.
 - **Dhaliwal, Iqbal, and Rema Hanna. "The devil is in the details: The successes and limitations of bureaucratic reform in India." *Journal of Development Economics* 124 (2017): 1-21

Contractual problems in the public sector

(a) Recruitment of bureaucrats

- Dal Bo, E., Finan, F., Rossi, M.A., 2013. Strengthening state capabilities: the role of financial incentives in the call to public service. *Quarterly Journal of Economics* 128 (3), 1169e1218
- Ashraf, Nava, Oriana Bandiera, and Scott Lee. "Losing prosociality in the quest for talent? Sorting, selection, and productivity in the delivery of public services." (2018)
 - **Hanna, Rema, and Shing-Yi Wang. 2017. "Dishonesty and Selection into Public Service: Evidence from India." *American Economic Journal: Economic Policy*, 9 (3): 262-90.
 - **Ashraf, N., Bandiera, O., Lee, S.S., 2015. Do-gooders and Go-getters: Career Incentives, Selection, and Performance in Public Service Delivery (Working Paper)
 - **Besley, Timothy, and Maitreesh Ghatak. "Competition and incentives with motivated agents." *American economic review* 95, no. 3 (2005): 616-636.
 - **Callen, M., Gulzar, S., Hasanain, A., Khan, Y., Rezaee, A., 2015. Personalities and Public Sector Performance: Evidence from a Health Experiment in Pakistan. NBER Working Paper 21180.

(b) Promotion and transfers of bureaucrats

- Aman-Rana, Shan (2019) In Self Interest? Meritocratic Promotions in a Bureaucracy through Discretion of Seniors, Working Paper
- Jia, Ruixue, Masayuki Kudamatsu, and David Seim. "Political selection in China: The complementary roles of connections and performance." *Journal of the European Economic Association* 13, no. 4 (2015): 631-668.
 - **Xu, Guo. 2018. "The Costs of Patronage: Evidence from the British Empire." *American Economic Review*, 108 (11): 3170-98.
 - **Iyer, Lakshmi, and Anandi Mani. "Traveling agents: political change and bureaucratic turnover in India." *Review of Economics and Statistics* 94, no. 3 (2012): 723-739.

Performance of bureaucrats

- Banerjee, Abhijit, and Esther Duflo. 2006. "Addressing Absence." *Journal of Economic Perspectives*, 20 (1): 117-132.
- Khan, Adnan Q., Asim I. Khwaja, and Benjamin A. Olken. "Tax farming redux: Experimental evidence on performance pay for tax collectors." *The Quarterly Journal of Economics* 131, no. 1 (2015): 219-271.
 - **Khan, Adnan Q., Asim Ijaz Khwaja, and Benjamin A. Olken. "Making moves matter: Experimental evidence on incentivizing bureaucrats through performance-based postings." *American Economic Review* 109, no. 1 (2019): 237-70.
 - **Fisman, Raymond, and Yongxiang Wang. 2017. "The Distortionary Effects of Incentives in Government: Evidence from China's "Death Ceiling" Program." *American Economic Journal: Applied Economics*, 9 (2): 202-18.
 - **Marianne Bertrand, Robin Burgess, Arunish Chawla, Guo Xu, The Glittering Prizes: Career Incentives and Bureaucrat Performance, *The Review of Economic Studies*, , rdz029, <https://doi.org/10.1093/restud/rdz029>