# Zachary Barnett-Howell

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#### ACADEMIC APPOINTMENTS

#### 2018 | Yale University MacMillan Center

Postdoctoral associate in Economics and Political Science

Appointments at the Yale Research Initiative on Innovation & Scale and the South Asian Studies department

## EDUCATION

## 2018 | Ph.D. in Applied Economics and Political Science, University of Wisconsin-Madison

Subfields: Development Economics, International Relations, Quantitative Methods

Dissertation title: Migration and Optimization under Uncertainty

2009 M.A. in History, Bogazici University

2007 B.A., University of Washington

Majors: Political Science (Honors) and International Studies

#### JOB MARKET PAPER

"No Small Potatoes: Agricultural Risk and Investment under Uncertainty"

This paper investigates the role of learning in the use of agricultural technologies by smallholder farmers in low-income countries. I conduct a randomized experiment in Bangladesh to show that a risk-reducing technology can lead farmers to invest more in inputs such as fertilizer. Specifically, I use an alert system to enable farmers to take precautionary measures against crop disease. The intervention leads to higher yields as a result of increased investment. This outcome is driven by farmers who learn over the course of the season that they are receiving accurate alerts. This paper demonstrates how the effectiveness of an intervention is determined by how rapidly people can learn about its efficacy.

## PUBLICATIONS

"The Benefits and Costs of Social Distancing in Rich and Poor Countries" (with OJ Watson and A. Mushfiq Mobarak) accepted at the *Transactions of the Royal Society of Tropical Medicine and Hygiene* 

Covered in international newspapers including El Pais, Hindustan Times, Daily Star

"Social Networks Analysis in Agricultural Economies." (with A. Mushfiq Mobarak) forthcoming in *The Oxford Handbook of Agricultural Economics, volume 5*, eds. Chris Barrett and David Just.

#### WORKING PAPERS

"Labor Shocks and Migration in Southern Mali." (with Jeremy Foltz) under review

"Should I Stay or Should I Go: Microeconomic Determinants of Migration." Featured in the World Bank Development Impact blog

"Seasonal shocks and their effects on consumption." (with Kelsey Jack and A. Mushfiq Mobarak)

"Policy Determinants of International Migration."

"Power Plant Closures and Neighborhood Well-Being." (with Rachel Frattarola and Cristian Hernandez)

#### IN PROGRESS

"Tracking the spread of COVID-19 in Bangladesh using Symptomatic Data." (with Caroline Buckee, Steve Luby, Ayesha Mahmud, A. Mushfiq Mobarak) [data collection started]

"The limitations of technical solutions: water storage, education, and time use." (with A. Mushfiq Mobarak) [data collection complete]

"Inducing technology adoption in post-earthquake Nepal." (with Norihiko Matsuda and Naoki Nishimura) [data collection complete]

"Responses to insecurity and unexpected shocks." (with Elaine Denny and Libby Jenke) [laboratory game complete]

"Approximate Bandit Computation: Using Contextual Bandits to Estimate Recreation Choice."

## MEDIA WRITING

2020 "The value of social distancing is not equally distributed." in VoxEU CEPR "Poor Countries Need to Think Twice About Social Distancing." in Foreign Policy

TEACHING

## 2018-2021

Yale University:

Development Economics ECON 325: Fall and Spring 2018-2019, Spring 2020

Development Economics ECON 452: Fall 2020

Political Economy of Migration ECON 483: Fall 2019, Spring 2021 Senior thesis advisor: Eric Youshao, Elizabeth Dolan, Onyx Brunner

#### FIELD RESEARCH

2017 Ethiopia: Addis Ababa, Debre Markos, Bahir Dar (with NSF INFEWS research team)

## FELLOWSHIPS AND GRANTS

2020 Weiss Family Foundation: Monitoring COIVD-19 through Pharmacies in Bangladesh, \$75,000

2017 BRITE Lab Grant: Debating immigration policy, \$2,500

Political Science Summer Initiative Funding, \$2,000

Wisconsin Project on International Relations Grant, \$1,000

BRITE Lab Grant: optimal stopping time decisions under uncertainty, \$2,000

SRGC Travel Research Award: working at RIKEN AIP, \$,2000

2013–2015 Academic Year Foreign Language and Area Studies Fellowship: Kazakh, \$15,000/yr

2013 | Summer Foreign Language and Area Studies Fellowship: Kazakh, \$5,000

## SELECTED PRESENTATIONS

2020 AAEA: What Matters in Agricultural Economics? (invited) Zoom Conference.

2019 Y-RISE Annual Conference. Grand Cayman, Cayman Islands.

South Asian Studies Council Colloquium at Yale University (invited). New Haven, CT.

Student Conference on U.S. Affairs at West Point (invited chair). West Point, NY.

Florida International University (invited). Miami, FL.

Japanese Development Economics Conference. Tokyo, Japan.

MidWest International Economic Development Conference. Madison, WI.

Pacific Conference for Development Economics. Los Angeles, CA.

2018 Stanford Eleventh International Conference on Migration and Development. Palo Alto, CA.

Harvard Experimental Political Science Graduate Conference. Cambridge, MA. Oxford Centre for the Study of African Economies Conference. Oxford, UK.

2017 Annual Meeting of the Society for Political Methodology. Madison, WI.

Population Association of American Annual Conference, Chicago, IL.

2016 Agricultural & Applied Economics Association Annual Conference. Boston, MA.

# PROFESSIONAL SERVICE

2019 | Organizer. Yale Political and Economic Development Conference

#### SKILLS

Languages: Turkish, Kazakh, English (native)

Computing: R, Python, Stata

## REFERENCES

Ahmed Mushfiq Mobarak Professor Department of Economics Yale University ahmed.mobarak@yale.edu

Daniel Phaneuf Henry C. Taylor Professor and Chair Department of Agricultural & Applied Economics University of Wisconsin-Madison dphaneuf@wisc.edu

Jeremy Foltz Professor Department of Agricultural & Applied Economics University of Wisconsin–Madison jdfoltz@wisc.edu

Alexander Tahk Associate Professor Department of Political Science University of Wisconsin–Madison atahk@wisc.edu