# MIT Economics EDWARD WILES (NE DAVENPORT)

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DOCTORAL Massachusetts Institute of Technology (MIT)

PhD, Economics, Expected completion June 2025 STUDIES

DISSERTATION: "Essays in Development Economics and Trade"

DISSERTATION COMMITTEE AND REFERENCES

Professor Esther Duflo MIT Department of Economics 77 Massachusetts Avenue, E52-544

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Professor Dave Donaldson

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GENDER:

Male

PRIOR **EDUCATION** 

**London School of Economics** 

**MSc Economics** 

(Distinction)

**London School of Economics** 

**BSc Economics** (First Class Honours)

CITIZENSHIP United Kingdom, Canada

LANGUAGES English, French 2018

2015

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FIELDS	Primary Fields: Development Economics	
	Secondary Fields: Trade, Organizational Economics	
TEACHING EXPERIENCE	Development Economics: Micro (PhD level)  TA to Professors Esther Duflo and Ben Olken (MIT)	2021, 2024
	Political Economy and Development (Undergraduate level) TA to Professors Ben Olken and Abhijit Banerjee (MIT)	2022, 2024
	The Challenge of World Poverty (Undergraduate level) TA to Professors Esther Duflo and Frank Schilbach (MIT)	2021, 2023
	Macroeconomics (Masters level)	2018
	TA to Professor Alwyn Young (LSE)	
RELEVANT POSITIONS	Research Assistant to Professor Nava Ashraf (LSE)	2018-2019
HONORS AND AWARDS	TA of the Year Award Awarded annually to one TA in economics by the MIT	2024
	Undergraduate Economics Association.  Graduate Student Council Teaching Award  Awarded annually to one instructor in each of MIT's five	2022
	schools for excellence in teaching a graduate-level course.  Arrow Award  Awarded to the best paper in health economics in English in	2020
	2020, by the International Health Economics Association. Kennedy Scholarship National merit scholarship awarded annually to up to ten	2019
	British graduate students to study at MIT or Harvard.  John Hicks Prize  Awarded annually to the highest ranked student in LSE MSc Economics.	2018
RESEARCH GRANTS	International Science Partnerships Fund (£99,866) with N. Ashraf, O. Bandiera, V. Mukonka.	2024
	International Growth Centre (£19,981) with N. Ashraf, O. Bandiera.	2024
	George and Obie Shultz Fund (\$15,833.33) with D. Houeix	2024
	International Growth Centre (£20,000) with N. Ashraf, O. Bandiera.	2023
	Private Enterprise Development in Low-Income Countries (£31,000 with D. Houeix.	2023
	Private Enterprise Development in Low-Income Countries (£20,720 with T. Garg.	2023

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George and Obie Shultz Fund (\$14,251.67) with D. Houeix	2023	
George and Obie Shultz Fund (\$14,982.76)	2022	
with D. Houeix		
George and Obie Shultz Fund (\$6,000)		
with T. Garg		
Structural Transformation and Economic Growth (£11,960)		
with T. Garg.		
George and Obie Shultz Fund (\$12,000)		
with I. Puri		
International Growth Centre (£9,346)		
with N. Ashraf.		

### PROFESSIONAL ACTIVITIES

**Referee:** American Economic Review, Econometrica, Journal of Development Economics, Journal of Economic Behavior and Organization, Labour Economics, Economica

#### **Presentations:**

NEUDC, Northeastern University	2024
Cities and Development Workshop, Harvard University	2024
Initiative for the Digital Economy, MIT Sloan	2024
Junior Trade Workshop, LSE-Warwick	2024

#### **PUBLICATIONS**

Losing Prosociality in the Quest for Talent? Sorting, Selection, and Productivity in the Delivery of Public Services (with Nava Ashraf, Oriana Bandiera, and Scott S. Lee). *American Economic Review*, 2020, 110(5): 1355-1394.

We embed a field experiment in a nationwide recruitment drive for a new health care position in Zambia to test whether career benefits attract talent at the expense of prosocial motivation. In line with common wisdom, offering career opportunities attracts less prosocial applicants. However, the trade-off exists only at low levels of talent; the marginal applicants in treatment are more talented and equally prosocial. These are hired, and perform better at every step of the causal chain: they provide more inputs, increase facility utilization, and improve health outcomes including a 25 percent decrease in child malnutrition.

Awarded the Arrow Award for the best paper published in health economics in English in 2020 by the International Health Economics Association.

#### RESEARCH PAPERS

Relational Frictions along the Supply Chain: Evidence from Senegalese Traders (Job Market Paper) (with Deivy Houeix)

Search and trust frictions have historically made it hard for small firms in lower-

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> income countries to buy inputs from foreign markets. The growth in smartphone ownership and social media usage has the potential to alleviate these barriers. Informed by a dynamic model of relational contracting, we run a field experiment leveraging these technological tools to provide exogenous variation in (1) search frictions and (2) trust frictions (adverse selection and moral hazard) in a large international import market. In our search treatment, we connect a randomly selected 80% of 1,862 small garment firms in Senegal to new suppliers in Turkey. We then cross-randomize two trust treatments that provide additional information about the types (adverse selection) and incentives (moral hazard) of these new suppliers. Alleviating search frictions is sufficient to increase access to foreign markets: in all treated groups, firms are 26% more likely to have the varieties a mystery shopper requests and the goods sold are 30% more likely to be high quality. However, the trust treatments are necessary for longer-term impact: using both transaction-level mobile payments data and a follow-up survey, we show that these groups are significantly more likely to develop the connections into relationships that persist beyond the study. These new relationships lead to increases in medium-run profit and sales. Finally, we use the treatment effects to estimate the model and evaluate counterfactuals where we set various combinations of the frictions to zero, finding that the largest gains come from eliminating adverse selection.

# **Quantifying the Sensitivity of Quantitative Trade Models** (with Habib Ansari and Dave Donaldson)

A modern revolution in spatial economic modeling aims to answer quantitative counterfactual questions by using models that feature micro-level heterogeneity. This heterogeneity is then often assumed to come from particular parametric families---such as Frechet in Eaton and Kortum's (2002) Ricardian model. While these parametric choices greatly enhance the tractability of model simulations, it is unknown how sensitive the answers to counterfactual questions are to these assumptions of convenience because there are infinitely many alternative distributions of heterogeneity to be evaluated. We overcome this challenge by building a general trade model that leverages recent advances in the robustness literature. Our method calculates sharp bounds on the values of model counterfactuals that could obtain---while still exactly matching all aggregate trade data points, a gravity-like moment condition, and satisfying equilibrium constraints---under all possible distributions of underlying heterogeneity that lie within a given divergence from a chosen reference distribution. Applying this method to the Eaton and Kortum (2002) model, we find that the gains from trade in these models could be several times larger or smaller than they appear to be under standard benchmark distributions, even if heterogeneity is drawn from a distribution that is at least as similar to Frechet as are the types of parametric alternatives that are commonly explored in sensitivity analysis.

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### RESEARCH IN PROGRESS

# Quantifying the Benefits of Economic Integration: Evidence from a VAT Reform in India (with Tishara Garg)

We study the benefits of economic integration from reducing policy-induced barriers to trade. Using a landmark 2017 fiscal reform in India that substantially reduced barriers to crossing internal state borders as a natural experiment, we estimate gravity regressions using aggregate data and find that each additional border in a shipping route reduces trade by 15%. Calibrating a quantitative trade model to this elasticity, we find that reducing all such border frictions would increase GDP by 3%. To examine how supply chains may have re-organized, and the implications this has for gains from trade, we intend to exploit detailed micro-level data that we constructed from VAT records for the universe of firms in India.

### Selection into Public Service Delivery and Aspirations Spillovers: Evidence from Zambian Health Workers (with Nava Ashraf and Oriana Bandiera)

We study whether professionalizing public service delivery agents has dynamic spillovers through improving aspirations of the next generation. To do this, we study the rollout of a new health worker program in Zambia. We combine experimental variation in Ashraf, Bandiera, Davenport, Lee (2020) with a staggered rollout design, and use data from both surveys and the universe of exam scores in Zambia. In preliminary analysis, we find that treated villages see large effects on education outcomes. In particular, in treated villages, parents are 17% more likely to want their child to obtain post-secondary education, children miss 22% fewer school days, and around 10% more students sit the main national exams.

## **Internal Migration, Remittances, and Networks: Evidence from Senegal** (with Deivy Houeix)

We explore the relationship between internal migration, remittances, and financial and social networks in lower-income contexts, with a focus on Senegal. To establish new facts and causal evidence, we construct a unique dataset that links migration patterns to both remittance flows and social networks covering the near universe of Senegal's adult population, based on real-time GPS tracking of personal and business transactions and anonymized phone contact directories from the country's largest mobile money provider. We use this dataset to document patterns of migration and remittance flows to a high degree of spatial and temporal precision, and to explore how financial and social networks affect — and are affected by — these patterns, especially in response to economic or environmental shocks.