

MIT Economics **EDWARD WILES (NÉ DAVENPORT)**

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DOCTORAL STUDIES Massachusetts Institute of Technology (MIT)
PhD, Economics, Expected completion June 2025
DISSERTATION: “Essays in Development and Spatial Economics”

DISSERTATION COMMITTEE AND REFERENCES

Professor Esther Dufo
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PRIOR EDUCATION	London School of Economics MSc Economics (<i>Distinction</i>)	2018
	London School of Economics BSc Economics (<i>First Class Honours</i>)	2015

CITIZENSHIP United Kingdom, Canada **GENDER:** Male

LANGUAGES English, French

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FIELDS	Primary Fields: Development Economics	
	Secondary Fields: Spatial Economics, Organisational 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) TA to Professor Alwyn Young (LSE)	2018
RELEVANT POSITIONS	Research Assistant to Professor Nava Ashraf (LSE)	2018-2019
FELLOWSHIPS, HONORS, AND AWARDS	Undergraduate Economics Association TA of the Year Award Awarded annually to one TA in economics by the MIT UEA.	2024
	Graduate Student Council Teaching Award Awarded annually to one instructor in each of MIT's five schools for excellence in teaching a graduate-level course.	2022
	Arrow Award Awarded to the best paper in health economics in English in 2020, by the International Health Economics Association.	2020
	Kennedy Scholarship National merit scholarship awarded annually to up to ten British graduate students to study at MIT or Harvard.	2019
	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) with D. Houeix	2022
George and Obie Shultz Fund (\$6,000) with T. Garg	2022
Structural Transformation and Economic Growth (£11,960) with T. Garg.	2021
George and Obie Shultz Fund (\$12,000) with I. Puri	2020
International Growth Centre (£9,346) with N. Ashraf.	2019

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	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)

Information frictions have historically made it hard for small firms in lower-income countries to access foreign input markets. The growth in smartphone

ownership and social media usage has the potential to alleviate these barriers. Motivated by a model of relational contracting between a firm and a supplier, we design and implement a field experiment in which we leverage these technological tools to provide exogenous variation in information frictions in the context of a large international import market. We connect a randomly selected 80% of 1862 small garment firms in Senegal to new suppliers in Turkey to alleviate search frictions, and then cross-randomise the information that we provide about the types and incentives of these new suppliers to alleviate trust frictions. To measure the impact on access to foreign goods, we send mystery shoppers to all firms. In all treated groups, firms are 25% more likely to have the varieties the shopper requests and the goods supplied are 32% more likely to be high quality. However, the trust treatments are necessary for longer-term impact: 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, particularly among wholesalers in the upper tail.

Quantifying the Sensitivity of Quantitative Spatial Models (with Habib Ansari and Dave Donaldson)

A modern revolution in spatial economic modelling 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, or Pareto in applications of Melitz’s (2003) monopolistic competition 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 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) and Melitz (2003) models, 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 relatively similar distribution.

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-organised, 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 professionalising public service delivery agents has dynamic spillovers through improving aspirations of the next generation. To do this, we combine the experimental variation in Ashraf, Bandiera, Davenport, Lee (2020)--as well as the subsequent staggered rollout of the program--with data on the universe of exam scores in Zambia. We find that treated villages see large effects on education outcomes. Preliminary evidence suggests treatment effects in the order of 10% on the number of students taking the main Math, English, and Science exams, and similarly sized decreases in the average exam score, consistent with treatment inducing students on the margin to not drop out.

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.