MIT Economics

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DOCTORAL STUDIES

Massachusetts Institute of Technology (MIT)
PhD, Economics, Expected completion June 2026
DISSERTATION: "Essays in Transportation"

DISSERTATION COMMITTEE AND REFERENCES

Professor Dave Donaldson
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Professor Nancy Rose
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PRIOR EDUCATION

University of Oxford — 2020
MSc in Statistical Science

University of Pittsburgh — 2017
B.S. in Neuroscience, B.A. in Economics

CITIZENSHIP USA **GENDER:** Female

FIELDS Primary Field: Industrial Organization
Secondary Fields: Trade, Urban Economics

TEACHING EXPERIENCE	Comparing Societies (PhD, MIT course 14.775) Teaching Assistant to Professors Jacob Moscona, Nathan Nunn, and James Robinson	2024, 2025
	Large Scale Decision Making and Inference (Undergraduate and Masters, MIT course 14.39/0) Teaching Assistant to Professor Isaiah Andrews	2024
	Applied Economics for Managers (Masters, MIT course 15.024)	2022, 2023
	Teaching Assistant to Professor Gilbert E. Metcalf	2023
	Teaching Assistant to Professor Tavneet Suri	2022
RELEVANT POSITIONS	Research Assistant to Professor Nikhil Agarwal	2020-21
	Research Assistant to Professor Heidi Williams	2018-19
	Research Assistant to Professors Sendhil Mullainathan, Ziad Obermeyer	2017-18
FELLOWSHIPS, HONORS, AND AWARDS	George and Obie Shultz Fund Grant x4	2022-26
	National Science Foundation Graduate Research Fellowship Program	2020-23
	Rhodes Scholarship	2019
	Truman Scholarship	2016

RESEARCH PAPERS

"The Welfare Effects of Consolidation in Container Shipping" (Job Market Paper)

Containerized shipping is crucial for global trade: it is responsible for two-thirds of it by volume and four-fifths by value. Shipping carriers use large vessels that stop at a sequence of ports, aggregating demand across markets in order to take advantage of potential scale economies. Over the last two decades, ship size and market concentration has increased, driven both by mergers of top carriers and by alliances that offer services jointly. For example, the share of the world fleet operated by the top 10 carriers went from roughly 45% in 2000 to over 80% in 2020. While this could allow carriers to reduce costs by exploiting economies of scale, it can also increase their ability to exercise pricing power. The effect of consolidation on consumers—and thus the merits of regulatory scrutiny—depends on the balance between these two forces. This paper studies the effect of consolidation on consumer welfare by estimating existing economies of scale and by testing alternative models of pricing behavior, adapting the conduct testing approach in Backus, Conlon and Sinkinson (2021). The method relies on estimates of demand for shipping services at the port-pair level based on comprehensive data on shipping prices, quantities, and costs. I find that there are considerable reductions in capital costs associated with vessel capacity. I also reject models of joint pricing at the service or alliance level in favor of individual carrier pricing. The results point to alliances being an efficient method for realizing cost savings, with the associated increase in market power causing limited harm to consumers.

RESEARCH IN PROGRESS

"Pricing and Quality Provision in Public Transit: Evidence from the MBTA" joint with Lindsey Currier

We study the problem of a budget-constrained transit provider setting both prices and quality. The provider cares both about its own surplus and a weighted sum of rider surplus by income type. It thus faces a tradeoff between lower fares and higher service quality—measured as transit speed. Its choice of quality depends on the difference in valuation of speed between the marginal and the average rider. Thus well estimated rider elasticities to changes in price and quality are important inputs to the agency's problem. This paper estimates such elasticities by using quasi-experimental variation—a subway fare increase and speed restrictions along certain routes—implemented by the Massachusetts Bay Transit Authority (MBTA) in 2019 and 2022. We then embed these moments in a discrete-choice model with rich substitution across routes and heterogeneity by neighborhood income. We find that higher-income areas place greater weight on quality, while lower-income riders are more price elastic. In this setting, infra-marginal quality insensitive riders should incentivize the agency to over-invest in quality; the solution to the budget-constrained welfare maximization problem cannot explain underinvestment in quality.

"Effects of Information Sharing on Competition: Evidence from the Poultry Industry" joint with Aroon Narayanan

In many markets, data providers allow exchange of confidential commercial information between firms, with ambiguous effects on competition. Most of the conduct testing literature restricts the information sets of firms to be complete, or at least known. We consider a case where membership in a data aggregator's subscription service is unobserved to the analyst, but the distribution of outcomes and common components of costs are. We develop a sequential method to identify firms' latent information structures and test between alternative conduct models. First, the information structure is identified using a firm's response to rivals' private cost shocks. Then, firm conduct is identified using standard exclusion restrictions conditional on the information structure. We discuss an application of this method to the poultry processing industry, where an aggregator (AgriStats) shares members' private cost information for a subscription fee.