Job Market Candidates 2025-2026

MIT Economics

	Applied Econometrics	Behavioral	Development	Econometrics	Education	Energy Economics	Environmental Economics	Experimental Economics	Finance	Health	Industrial Organization	International	Labor	Macroeconomics	Market Design	Organizational	Political Economy	Public Finance	Public Economics	Urban Economics	Statistics	Theory	Trade
Caputi, Theodore	P									P									P				
Carlstein, Anne	S				P								P		S								
Carrasco, Alex												S		P				S					
Di Tella, Isabel													P	P									
Han, Raymond					S								P							S			
Hickok, Nathaniel						P	P				P												
Kocks, Geoffrey	S				P					S			P										
Koh, Andrew		S							S													P	
Kono, Haruki				P																	P	S	
Martinez-Bruera, Pedro												S		P									
Narayanan, Aroon			S								P					P						S	
Nigam, Vishan			P													S							P
Petrose, Lia											P									S			S
Rajah, Kailash		P	P																				
Rollet, Vincent											S						P			P			P
Sarfati, Reca	P		S	P				S															
Tadjfar, Nagisa					S								P						S				
Talesara, Ishaana			S										P	S									
Vira, Kartik		S			S								P										
Wickard, Arthur													P	P									

P= Primary Field, S= Secondary Field

MIT Economics

THEODORE L. CAPUTI

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
tcaputi@mit.edu
https://economics.mit.edu/people/phd-students/theodore-caputi

HOME CONTACT INFORMATION
50 Memorial Drive
Cambridge, MA 02139
Mobile: +1 (267) 312-8471

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Professor Jonathan Gruber
MIT Department of Economics
50 Memorial Drive, E52-318
Cambridge, MA 02142
gruberj@mit.edu

Professor Amy Finkelstein
MIT Department of Economics
50 Memorial Drive, E52-442
Cambridge, MA 02142
afink@mit.edu

Professor Joseph J. Doyle Jr.
MIT Sloan School of Management
100 Main Street, E62-518
Cambridge, MA 02142
jjdoyle@mit.edu

PRIOR EDUCATION

University of Pennsylvania — 2017
BS in Economics (*summa cum laude*, Phi Beta Kappa)
University College Cork — 2019
Master's in Public Health (Mitchell Scholar)
University of York — 2021
MS in Health Sciences (Marshall Scholar)

CITIZENSHIP United States **GENDER:** Male

FIELDS

Primary Fields: Health Economics
Secondary Fields: Public Economics, Applied Econometrics

TEACHING EXPERIENCE

TA for Single Variable Calculus — 2015
Prof. Dennis DeTurck

RELEVANT POSITIONS

RA for Prof. Amanda Pallais — 2019
RA for Prof. Jon Gruber and Prof. Jetson Leder-Luis — 2022

FELLOWSHIPS, HONORS, AND AWARDS

NBER Pre-Doctoral Fellow in Aging and Health (2023-2025)
NSF Graduate Research Fellow (2019-2024)
MIT Graduate Fellow (2019-2024)
Marshall Scholar (2019-2020)
Annual Cameron Lecture, University College Cork (2018)
Mitchell Scholar (2017-2018)
Clarendon Scholarship, University of Oxford (Declined) (2017)
Phi Beta Kappa, University of Pennsylvania (2017)
Beta Gamma Sigma, University of Pennsylvania (2016)
Leonard Davis Institute Undergraduate Research Prize, University of Pennsylvania (2015)

PROFESSIONAL ACTIVITIES

Member, American Economic Association (2019-Present)
Institutional Review Board Member, Treatment Research Institute (2012-2017)

Reviewer for: Addiction, Addictive Behaviors, American Journal of Preventive Medicine, American Journal of Public Health, Asia Pacific Journal of Public Health, Drugs: Education, Prevention, and Policy, Injury Prevention, International Journal of Drug Policy, JAMA: Journal of the American Medical Association, JAMA Network Open, Journal of Health Economics, Journal of Studies on Alcohol and Drugs, Substance Use and Misuse, Tobacco Control

PUBLICATIONS

"Dying or Lying? For-Profit Hospices and End of Life Care," American Economic Review, 2024 (with Jon Gruber, David Howard, and Jetson Leder-Luis)

The Medicare hospice program is intended to provide palliative care to terminal patients, but patients with long stays in hospice are highly profitable, motivating concerns about overuse among the Alzheimer's and Dementia (ADRD) population in the rapidly growing for-profit sector. We provide the first causal estimates of the effect of for-profit hospice on patient spending using the entry of for-profit hospices over 20 years. We find hospice has saved money for Medicare by offsetting other expensive care among ADRD patients. As a result, policies limiting hospice use including revenue caps and antifraud lawsuits are distortionary and deter potentially cost-saving admissions.

"The Need for Federal Regulation of Marijuana Marketing," JAMA, 2019 (with John Ayers and Eric Leas)

"Suicide Risk Behaviors Among Sexual Minority Adolescents in the United States, 2015," JAMA, 2017 (with John Ayers and Davey Smith)

RESEARCH PAPERS

"The Value of Pharmacies" (Job Market Paper)

Retail pharmacies play a central role in the delivery of healthcare in the United States, yet little is known about their causal impact on patient behavior and health. Understanding their value is particularly urgent as all three major U.S. pharmacy chains—CVS, Walgreens, and Rite Aid—have recently announced large-scale store closures. This paper estimates the effects of retail pharmacy closures on prescription drug use and health outcomes. Using Medicare claims data from 2009 to 2017, I identify closures through an algorithm that clusters pharmacy identifiers based on shared patients and exploit these events in a two-way fixed effects difference-in-differences design. I find that pharmacy closures significantly reduce prescription drug use, particularly among racial and ethnic minorities and beneficiaries with disabilities. However, the reduction in prescription drug use is offset by substantial adaptation: many switch to mail-order pharmacies or obtain longer prescription durations following a closure. Finally, I find minimal effects on downstream health outcomes or healthcare utilization.

"Recreational Marijuana Dispensaries and Fatal Car Crashes"

Car crashes are a leading cause of death among younger Americans and have become a central concern in the US marijuana policy debate. I construct a novel dataset of marijuana dispensary openings, which I use to present new evidence on the effect of marijuana on traffic fatalities. My intra-state differences-in-differences approach both increases power relative to past analyses and eliminates the potential of time-varying state-level confounding. I find that marijuana dispensary openings increase the rate of fatal car crashes by approximately 5.7%. I use a series of tests to discern between two plausible mechanisms – increased traffic and increased impairment – and ultimately find that the effect is primarily driven by impairment.

RESEARCH IN PROGRESS

"Sedation and Selection: Restricting Antipsychotics in Nursing Homes"
Antipsychotics have been a major source of policy debate in nursing home care since the 1980s. On one hand, antipsychotics are generally considered medically inappropriate for elderly populations as they increase the risk of cerebrovascular mortality. On the other hand, antipsychotics make caring for elderly patients easier. Use in nursing homes is common; 30-40% of long-stay nursing home patients receive antipsychotics. In this project, I study the effects of a federal policy intended to reduce antipsychotic prescribing in nursing homes on patient health and nursing home strategy. Antipsychotic prescribing in nursing homes decrease, but this reduction appears to be driven by change in patient mix.

PUBLIC HEALTH RESEARCH

"The Use of Academic Research in Medical Cannabis Marketing: A Qualitative and Quantitative Review of Company Websites," Journal of Studies on Alcohol and Drugs, 2022.

"Characterizing Help-Seeking Searches for Substance Use Treatment From

Google Trends and Assessing Their Use for Infoveillance: Longitudinal Descriptive and Validation Statistical Analysis," Journal of Medical Internet Research, 2022 (with Dan Abramovitz, John Ayers, Annick Borquez, Davey Johnson, Eric Leas, Alicia Nobles, Tyler Patton, and Steffanie Strathdee).

"Re: Observed Impact of Long-Term Consumption of Oral Cannabidiol on Liver Function in Healthy Adults and a New Cannabidiol Safety Study," Cannabis and Cannabinoid Research, 2022.

"What cannabis can learn from Covid: Hydroxychloroquine research suggests the next step for medical cannabis research," International Journal of Drug Policy, 2021.

"Proportion of U.S. Clinics Offering LGBT-Tailored Mental Health Services Decreased Over Time: A Panel Study of the National Mental Health Services Survey," Annals of LGBTQ Public and Population Health, 2021 (with Donte Chen, Chelsea Shover, and Ryan Watson).

"Monitoring HIV testing and pre-exposure prophylaxis information seeking by combining digital and traditional data," BMC Infectious Diseases, 2021 (with John Ayers, Davey Johnson, Eric Leas, Ming Liu, Alicia Nobles, Davey Smith, and Steffanie Strathdee).

"Impact of the Medicare Shared Savings Program on utilization of mental health and substance use services by eligibility and race/ethnicity," Health Services Research, 2021 (with Amanda Acevedo, Benjamin Cook, Michael McWilliams, Benjamin Mullin, and Anna Progovac).

"Suicide-Related Internet Searches During the Early Stages of the COVID-19 Pandemic in the US," JAMA Network Open, 2021 (with John Ayers, Mark Dredze, Davey Johnson, Eric Leas, Alicia Nobles, and Adam Poliak).

"Physical and Sexual Violence Among Gay, Lesbian, Bisexual, and Questioning Adolescents," JAMA Pediatrics, 2020 (with Chelsea Shover and Ryan Watson).

"Collateral Crises of Gun Preparation and the COVID-19 Pandemic: Infodemiology Study," JMIR Public Health and Surveillance, 2020 (with John Ayers, Sarah Burd-Sharps, Mark Dredze, and Nicole Suplina).

"What Search Data Shows About Americans and Guns During the COVID-19 Crisis," Everytown Research, 2020 (with John Ayers, Sarah Burd-Sharps, Mark Dredze, and Nicole Suplina).

"Commentary on Furr-Holden et al.: Drugs, class, and race—recent developments in the opioid epidemic call for urgent next steps," Addiction, 2020.

"News coverage of the E-cigarette, or Vaping, product use Associated Lung Injury (EVALI) outbreak and internet searches for vaping cessation," Tobacco Control, 2020 (with John Ayers, Joanna Cohen, Mark Dredze, Eric Leas, Alicia Nobles, and Shu-Hong Zhu).

"Internet Searches for Unproven COVID-19 Therapies in the United States," JAMA Internal Medicine, 2020 (with John Ayers, Mark Dredze, Aaron Kesselheim, and Ming Liu).

"Responses to addiction help-seeking from Alexa, Siri, Google Assistant, Cortana, and Bixby intelligent virtual assistants," npj Digital Medicine, 2020 (with John Ayers, Eric Leas, Alicia Nobles, Steffanie Strathdee, and Shu-Hong Zhu).

"The Medical Marijuana Industry and the Use of Research as Marketing," American Journal of Public Health, 2020.

"Alternative work arrangements," Annual Review of Economics, 2020 (with Alexandre Mas and Amanda Pallais).

"Internet Searches for Sexual Harassment and Assault, Reporting, and Training Since the #MeToo Movement," JAMA Internal Medicine, 2019 (with John Ayers and Alicia Nobles).

"Medical marijuana laws, substance use treatment admissions and the ecological fallacy," Addiction, 2019.

"Medical Cannabis Use," Health Affairs, 2019.

"Medical marijuana, not miracle marijuana: some well-publicized studies about medical marijuana do not pass a reality check," Addiction, 2019.

"Trends in Internet Searches for Cannabidiol (CBD) in the United States," JAMA Network Open, 2019 (with John Ayers, Mark Dredze, Eric Leas, Alicia Nobles, and Davey Smith).

"Substance Use Among Lesbian, Gay, Bisexual, and Questioning Adolescents in the United States, 2015," American Journal of Public Health, 2018 (with John Ayers, Laramie Smith, and Steffanie Strathdee).

"Medical Marijuana Users are More Likely to Use Prescription Drugs Medically and Nonmedically," Journal of Addiction Medicine, 2018 (with Keith Humphreys).

"Sex and orientation identity matter in the substance use behaviors of sexual minority adolescents in the United States," Drug and Alcohol Dependence, 2018.

"Online Sales of Marijuana: An Unrecognized Public Health Dilemma," American Journal of Preventive Medicine, 2018 (with John Ayers, Mark Dredze, and Eric Leas).

"Population-Level Analyses Cannot Tell Us Anything About Individual-Level Marijuana-Opioid Substitution," American Journal of Public Health, 2018 (with Kevin Sabet).

"Next generation media monitoring: Global coverage of electronic nicotine delivery systems (electronic cigarettes) on Bing, Google and Twitter, 2013-2018," PLOS ONE, 2018 (with Jon-Patrick Allem, John Ayers, Joanna Cohen, Mark Dredze, and Eric Leas).

"Don't quote me: reverse identification of research participants in social media studies," npj Digital Medicine, 2018 (with John Ayers, Mark Dredze, and Camille Nebeker).

"They're heating up: Internet search query trends reveal significant public interest in heat-not-burn tobacco products," PLOS ONE, 2017 (with John Ayers, Joanna Cohen, Mark Dredze, and Eric Leas).

"Google Searches for Cheap Cigarettes Spike at Tax Increases: Evidence from an Algorithm to Detect Spikes in Time Series Data," Nicotine & Tobacco Research, 2017.

"Assessing the Possibility of Leadership Education as Psychosocial-Based Problem Behavior Prevention for Adolescents: A Review of the Literature," Journal of Leadership Education, 2017.

"Whether medical marijuana is ever substituted for other substances is not the full story," Drug and Alcohol Review, 2017.

"Response to Comment by Hecht & Miller-Day on Truth and D.A.R.E.: Is D.A.R.E.'s new Keepin' it REAL curriculum suitable for American nationwide implementation?" Drugs: Education, Prevention and Policy, 2017 (with A. Thomas McLellan).

"The Charlie Sheen Effect on Rapid In-home Human Immunodeficiency Virus Test Sales," Prevention Science, 2017 (with Jon-Patrick Allem, Benjamin Althouse, John Ayers, Mark Dredze, Eric Leas, and Seth Noar).

"Truth and D.A.R.E.: Is D.A.R.E.'s new Keepin' it REAL curriculum suitable for American nationwide implementation?" Drugs: Education, Prevention and Policy, 2016 (with A. Thomas McLellan).
"The case for uniform controls in drug policy studies," International Journal of Drug Policy, 2016.

"Medicare Recipients' Use Of Medical Marijuana," Health Affairs, 2016 (with Keith Humphreys).

"Industry watch: heat-not-burn tobacco products are about to reach their boiling point," Tobacco Control, 2016.

"Commentary on New Perspectives on Drug Education/Prevention," Journal of Psychoactive Drugs, 2016 (with Kevin Sabet).

MIT Economics

ANNE CARLSTEIN

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
aecarls@mit.edu
https://economics.mit.edu/people/phd-students/anne-carlstein

HOME CONTACT INFORMATION
500 Memorial Drive
Cambridge, MA 02139
Mobile: 919-265-3596

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

Massachusetts Institute of Technology (MIT)
PhD, Economics, Expected completion June 2026
DISSERTATION: "Essays on Education Economics and Market Design"

DISSERTATION COMMITTEE AND REFERENCES

Professor Parag Pathak
MIT Department of Economics
77 Massachusetts Avenue, E52-426
Cambridge, MA 02139
617-253-7458
ppathak@mit.edu

Professor Joshua Angrist
MIT Department of Economics
77 Massachusetts Avenue, E52-436
Cambridge, MA 02139
617-253-8909
angrist@mit.edu

Professor Glenn Ellison
MIT Department of Economics
77 Massachusetts Avenue, E52-424
Cambridge, MA 02139
617-253-8702
gellison@mit.edu

PRIOR EDUCATION

Harvard University — 2020
A.B. *magna cum laude* with Highest Honors in Mathematics

CITIZENSHIP USA **GENDER:** Female

FIELDS

Primary Fields: Labor, Education
Secondary Fields: Market Design, Applied Econometrics

TEACHING EXPERIENCE

Microeconomic Theory III (PhD, 14.123, MIT)
TA to Prof. Drew Fudenberg — 2026, 2023
TA to Prof. Muhamet Yildiz — 2024
Game Theory (undergraduate, 14.12, MIT)
TA to Prof. Ian Ball — 2025, 2024, 2022
TA to Prof. Tomasz Sadzik — 2023

	Market Design (undergraduate, 14.19, MIT)	
	TA to Prof. Parag Pathak	2024
	Psychology & Economics (undergraduate, 14.13, MIT)	
	TA to Prof. Frank Schilbach and Prof. Kelsey Jack	2023
	Data, Economics & Design of Policy Program (MA, MIT)	
	Math Camp Instructor	2022
	Multivariable Calculus (undergraduate, Math 21, Harvard)	
	Course Assistant for Prof. Janet Chen	2018

RELEVANT POSITIONS

RA to Professors Parag Pathak and Joshua Angrist	2022
American Institute of Mathematics Summer School	2020
University of Chicago Mathematics REU participant	2019
IAS Women and Mathematics Program	2019
IAS/Park City Mathematics Institute	2018

FELLOWSHIPS, HONORS, AND AWARDS

NSF Graduate Research Fellowship Honorable Mention	2022
Clyo F. Castle Fellowship	2021-2022
Walter A. Rosenblith Presidential Fellowship	2020-2021
Friends of the Harvard Department of Mathematics Prize	2020
Harvard College Scholar Award	2018
National Merit Scholar	2016

PROFESSIONAL ACTIVITIES

Service:

Graduate Resident Advisor at MIT Next House	2021-2026
MIT-Harvard Application and Mentorship Program	2020-2024

RESEARCH PAPERS

"Randomizing Elite School Admissions" (Job Market Paper)

What happens if students are randomized to elite schools? This paper studies the causal effects of attending several highly sought-after public high schools in New York City (termed the "screened select") under two starkly different admissions regimes: a traditional screening process based on test scores and grades, and a partial lottery introduced in 2021. Leveraging this policy reform, I compare the impacts of screened select attendance before and after the admissions change using an IV strategy. While the screened select schools boosted overall SAT scores by approximately 30 points under traditional screened admissions, they had no positive impact in the post-reform lottery era. However, these effects are heterogeneous: students who would not be admitted under full screening saw positive impacts on SAT Math scores, and students who would have been admitted under screening saw negative impacts on SAT Math scores. I provide evidence that these effects are primarily driven by changes in the school peer composition rather than shifts in school resources or curricula. Using a stylized model of admissions, I formalize the tradeoff between equity and testing outcomes and derive conditions for when a partial lottery would be optimal.

"Right to Rank? Evaluating Ranked-Choice Voting Outcomes"

Ranked-choice voting has sparked intense debate in political circles as it has gained traction as an alternative to standard plurality rule (e.g., the New York City mayoral contest). Proponents of ranked-choice voting argue that it prevents spoiler effects and selects candidates that are widely accepted by the overall electorate (such as centrist candidates or the Condorcet winner, i.e., the candidate who would pairwise defeat all competitors if such a candidate exists). Restricting attention to the three-candidate case, I derive theoretical results which describe the performance of ranked-choice voting according to several metrics. These include the selection of consensus candidates, fairness to certain types of parties, and outcomes under strategic manipulation by voters. Under sincere voting, while ranked-choice voting dominates standard plurality rule in terms of Condorcet winner selection, it could further be strictly improved with a modified elimination rule. In comparison with a stylized sequential primary-then-general election setup, ranked-choice voting does not favor specific types of parties. Under strategic voting, ranked-choice voting rules out certain undesirable equilibria unfavorable to consensus candidates that plurality rule does not. I corroborate my theoretical findings with data from mayoral and congressional elections.

"Exploring Weak Strategy-Proofness in Voting Theory"

In the context of social choice theory, voting serves as a mechanism for aggregating individual preferences to determine a collective decision. Various voting rules (e.g., rank-order voting, plurality rule, majority rule, and approval voting) have been proposed to facilitate this aggregation. This paper examines the strategic manipulation of voters, where individuals may misrepresent their true preferences to influence the outcome in their favor. When no coalition of voters can strategically manipulate, then the voting rule is said to satisfy the axiom of Strategy-Proofness. A less restrictive axiom is Weak Strategy-Proofness (as defined by Dasgupta and Maskin (2019)), which allows for strategic manipulation by all but the smallest coalitions. Under certain intuitive conditions, Dasgupta and Maskin (2019) proved that the only voting rules satisfying Strategy-Proofness are rank-order voting and majority rule. I generalize their result, proving that rank-order voting and majority rule are surprisingly still the only voting rules satisfying Weak Strategy-Proofness.

RESEARCH IN PROGRESS

"Large-Scale Lotteries in the Wild"

In ongoing analysis, I study the impacts of using a partial lottery process for high school admissions across all screened programs in New York City (implemented in 2022). I consider the changes in school composition and use a preliminary difference-in-differences approach to evaluate the lottery impacts on enrollment effects on student outcomes. Next steps include studying the effects on exit from public high schools, and other city-wide impacts.

MIT Economics

ALEX CARRASCO

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
alexcm@mit.edu
https://economics.mit.edu/people//phd-students/alex-carrasco

HOME CONTACT INFORMATION
282 Rear Vassar Street, Apt. H-2
Cambridge, MA 02139
Mobile: 857-251-6296

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Professor Ivan Werning
MIT Department of Economics
77 Massachusetts Avenue, E52-536
Cambridge, MA 02139
617-452-3662
iwerning@mit.edu

Professor Martin Beraja
UC Berkeley's Haas School of Business
2220 Piedmont Avenue, F677
Berkeley, CA 94720
maberaja@berkeley.edu

Professor Christian Wolf
MIT Department of Economics
77 Massachusetts Avenue, E52-554
Cambridge, MA 02139
617-253-3399
ckwolf@mit.edu

PRIOR EDUCATION

Pontifical Catholic University of Rio de Janeiro (PUC-Rio) 2018
M.Sc. in Economics

2014
Universidad Nacional Federico Villareal (UNFV)
Bachelor in Economics

CITIZENSHIP Peru **GENDER:** Male

LANGUAGES Spanish (native), English (fluent), Portuguese (fluent)

FIELDS Primary Fields: Macroeconomics

Secondary Fields: International Economics, Public Economics

TEACHING EXPERIENCE

Dynamic Optimization Methods (graduate, MIT course 14.451) 2024
Teaching Assistant to Professor Christian Wolf
(overall rating, 6.2/7.0)

Dynamic Optimization Methods (graduate, MIT course 14.451) 2022
Teaching Assistant to Professor Christian Wolf
(overall rating, 7.0/7.0)

Economic Crises (graduate, MIT course 14.454) 2024
Teaching Assistant to Professor Ricardo Caballero
(overall rating, 7.0/7.0)

Economic Crises (graduate, MIT course 14.454) 2023
Teaching Assistant to Professor Ricardo Caballero
(overall rating, 7.0/7.0)

Economic Crises (graduate, MIT course 14.454) 2022
Teaching Assistant to Professor Ricardo Caballero

Intermediate Macroeconomics (undergraduate, MIT course 14.05) 2023
Teaching Assistant to Professor Christopher Cotton
(overall rating, 5.6/7.0)

Intermediate Macroeconomics (undergraduate, MIT course 14.05) 2022
Teaching Assistant to Professors Chris Wolf & Chris Cotton
(overall rating, 6.6/7.0)

RELEVANT POSITIONS

Research Assistant to Professor Martin Beraja & Chris Wolf 2021-2022
Research Assistant to Professor Ivan Werning 2021
Central Reserve Bank of Peru (BCRP)
Senior Analyst in Macroeconomic Modelling Division 2019-2020
Analyst in Macroeconomic Modelling Division 2015-2016

FELLOWSHIPS, HONORS, AND AWARDS

Department of Economics Fellowship 2021
MIT Presidential Fellowship 2020
FAPERJ Bolsa Nota 10 Scholarship, Highest GPA Award 2018
CNPq Scholarship for Master in Economics 2017
Central Bank of Peru Research Award, *First place* in Summer Course 2015

PUBLICATIONS

"External Shocks and FX Intervention Policy in Financially Dollarized Economies"
(with David Florian-Hoyle)
Journal of Macroeconomics, 2025
Abstract: We examine the role of sterilized FX interventions as a monetary policy tool in response to external shocks for dollarized emerging market economies. Our model highlights an agency problem that limits banks' ability to secure funds in both domestic and foreign currencies, with its intensity linked to currency mismatches in the banking sector. This leads to endogenous

deviations from the standard UIP condition, resulting in a non-neutral FX intervention policy. Sterilized FX interventions stabilize financial conditions not only by stabilizing real exchange rates but also by acting as a balance sheet policy that directly influences credit supply. Our quantitative analysis shows that FX policy rules that counteract exchange rate deviations reduce volatility in interest rate spreads including UIP deviations, credit, investment, and output, leading to significant welfare improvements compared to a flexible exchange rate regime.

RESEARCH PAPERS

"Life Expectancy, Inequality and Real Interest Rates: Endogenous Longevity through Health Investments" (Job Market Paper)

Abstract: This paper studies the macroeconomic consequences of the interplay between life expectancy and income inequality through health investments. Using U.S. microdata (HRS, MEPS, ATUS), I explore income gradients in longevity and healthcare spending over the life cycle. I then build a tractable overlapping-generations model in which income and mortality shocks generate heterogeneous health investments, shaping life expectancy, aggregate savings, and real interest rates. In laissez-faire, this longevity–income channel dampens the effect of rising inequality but amplifies the impact of longevity gains on the fall in real interest rates. I contrast these equilibrium outcomes with the first-best allocation, where capital and interest rates remain unchanged, showing that secular stagnation arises from market imperfections. Optimal policy in this environment requires redistribution, fair annuities, and Pigouvian taxes on health investments; under incomplete markets and imperfect redistribution, health subsidies become the preferred instrument to improve both efficiency and equity. A calibrated quantitative model demonstrates that declining fertility, rising longevity, and widening inequality jointly depress real interest rates, with the health–survival link serving as a central amplifying force for fiscal and macroeconomic outcomes.

"Hawkish Dove or Dovish Hawk? Optimal Monetary Policy with Reputational Concerns"

(with Pedro Martínez-Bruera and Tomás E. Caravello)

Abstract: We study the design of monetary policy when the public learns about the policymaker's preference for inflation stabilization. Relative to discretion, the optimal policy reacts more strongly: the central bank signals a stronger commitment to inflation stability, thereby anchoring short-run expectations and reducing the future cost of disinflation. Using cross-sectional variation of private forecasts about U.S. inflation and the output gap, we document that the data are consistent with the mechanisms highlighted in our model. A quantitative exercise shows that a simple delegation problem can provide a robust implementation of the optimal policy.

"Health Dynamics and Annuitization Decisions: The Case of Social Security"

(with Diego Ascarza-Mendoza)

Abstract: Why do two out of three Americans claim Social Security benefits

before reaching their Full Retirement Age? Why do even sufficiently rich people claim early very often? This paper resolves this puzzling phenomenon by extending a standard incomplete markets life-cycle model to incorporate health dynamics and bequest motives. Relative to the existing literature, health plays a broader role, affecting not only medical expenses and mortality but also directly the marginal utility of consumption. This role of health is disciplined using microdata on consumption, assets, income, and health from the Health and Retirement Study (HRS) and the Consumption and Activities Mail Survey (CAMS). The calibrated model successfully replicates the fraction of early claimers. Counterfactual exercises show that health-dependent preferences and bequest motives are crucial for this result. The model's success is explained by a novel channel that comes from the interaction between the negative effect of worsening health on the marginal utility of consumption, the downward health trend because of aging, and bequest motives. These two elements reduce the gains from delaying by 1) making individuals more impatient and 2) increasing the strength of bequest motives relative to future consumption. The results suggest that governments aiming to insure against longevity must consider the complementary interaction between individual incentives to insure against longevity and health risks.

"A Financial Frictions Model of FX Intervention in Emerging Market Economies"
(with César Vásquez)
Abstract: Due to structural characteristics such as foreign-currency debt and shallow domestic financial markets, emerging market economies are particularly vulnerable to external shocks. This paper examines the stabilization role of foreign exchange (FX) intervention following an increase in the foreign interest rate. I develop a small open economy model with market segmentation and financial frictions, in which banks are forward-looking and subject to balance sheet effects stemming from exchange rate movements. First, we show that incorporating balance sheet effects allows the model to replicate the empirical response of the uncovered interest parity (UIP) premium to foreign interest rate shocks. An unexpected exchange rate depreciation lowers banks' net worth and raises the UIP premium. Second, we investigate the effectiveness of FX intervention policies in this setting, finding that balance sheet effects are not important in shaping the general equilibrium responses, but the banks' forward-looking behavior is. Finally, we compare the performance of several FX intervention rules proposed in literature and policy.

RESEARCH IN PROGRESS

"Demographics, Real Interest Rate, and Inflation: The Role of Learning about Longevity"
(with Carlos Carvalho and Andrea Ferrero)

"Optimal Design of Pension and Health Systems in Dynamically Inefficient Economies"
(with Diego Ascarza-Mendoza)

"The Distributional Effects of Currency Devaluations in Emerging Market Economies"
(with Christian Velasquez and Hiroshi Toma)

POLICY WRITING

"La Tasa de Interés Natural en una Pequeña Economía Abierta y sus Determinantes"
(with David Florián-Hoyle)
Revista Moneda (BCRP), 2019

"Costos de Reducir la Inflación y la Credibilidad de la Política Monetaria"
Revista Moneda (BCRP), 2016

MIT Economics

ISABEL DI TELLA

OFFICE CONTACT INFORMATION
MIT Department of Economics 77
Massachusetts Avenue, E52-301
Cambridge, MA 02139
iditella@mit.edu

HOME CONTACT INFORMATION
243 Concord Ave, Apt 12
Cambridge, MA 02138
(617)-417-0212

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
(617)-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
(617)-324-5857

DOCTORAL STUDIES

Massachusetts Institute of Technology (MIT)
PhD, Economics, Expected Completion February 2025
DISSERTATION: "Essays in Labor and Macroeconomics"

DISSERTATION COMMITTEE AND REFERENCES

Professor David Autor
MIT Department of Economics
77 Massachusetts Avenue, E52-550
Cambridge, MA 02139
dautor@mit.edu

Professor Christian Wolf
MIT Department of Economics
77 Massachusetts Avenue, E52-460
Cambridge, MA 02139
ckwolf@mit.edu

Professor Simon Jaeger
Princeton University
Louis A. Simpson International
Building Princeton, NJ 08544
simon.jaeger@princeton.edu

Professor Martin Beraja
UC Berkeley Haas School of Business
2220 Piedmont Avenue, Faculty
Building F677
Berkeley, CA 94720
maberaja@berkeley.edu

PRIOR EDUCATION

Harvard University 2017
BA in Applied Mathematics, *Magna Cum Laude in Field*

CITIZENSHIP Argentina, USA, Belgium **GENDER**: Female

LANGUAGES English (fluent), Spanish (fluent)

FIELDS: Primary Fields: Labor and Macroeconomics

TEACHING EXPERIENCE

Principles of Macroeconomics (UG) 2021, 2022, 2023
TA to Profs Beraja, Poterba, and Caballero
Research and Communications in Economics (UG) 2022
TA to Profs Angrist and Donaldson

RELEVANT POSITIONS

RA to Prof Schmidt	2022
RA to Prof Jaeger	2021
RA to Profs Beraja and Wolf	2020
RA to Prof Caselli	2018-2019
Off-cycle Analyst, Goldman Sachs Global Investment Research	2017-2018
Intern, Central Bank of Argentina	2016

FELLOWSHIPS, HONORS, AND AWARDS

Phi Beta Kappa (2017)

RESEARCH PAPERS

The Effect of the Minimum Wage in Brazil (Job Market Paper)
(with Emilio Colombi**)**

We study the effect of regular and anticipated increases in the minimum wage on earnings and employment. Our focus is Brazil's annual minimum wage increases in 2016 and 2017. First, we find firm-level increases in average earnings that can be explained by significant disemployment. Second, aggregating to the region-industry level we find larger earnings effects but similar disemployment effects, indicating the presence of spillovers. Third, we find evidence that the wage setting schedule of exposed workers is anchored to the timing of the minimum wage. Finally, we introduce a minimum wage to the standard New Keynesian model to rationalize these findings and their effects at the aggregate level.

Formal Effects of Informal Labor and Work Permits: Evidence from Venezuelan Refugees in Colombia
(with Dany Bahar and Ahmet Gulek, *Submitted*)

We analyze the Venezuelan refugee crisis in Colombia to separately identify effects of informal immigration and work permit policies on labor markets. Using Synthetic Instrumental Variables and triple difference-in-differences designs, we find that the informal labor supply shock displaced native workers in both informal and formal sectors, indicating high substitutability between worker types (elasticity ≈ 11). Work permits reduced competition in the informal sector while increasing it in the formal sector, creating 24,440 new formal jobs and approximately $43 million in annual tax revenue. Results suggest work permits create productivity spillovers through reduced skill mismatch, providing economic rationale for immigrant integration policies.

RESEARCH IN PROGRESS

The Gender Gap in Post-job Displacement Outcomes and its Aggregate Consequences (with Martina Uccioli)

Occupational Choice as Intra-household Insurance (with Alex Martin)

Wage and Price Dynamics in Argentina (with Santiago Hermo)

MIT Economics

RAYMOND HAN

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-580
Cambridge, MA 02139
rwhan@mit.edu
https://economics.mit.edu/people/phd-students/raymond-han

HOME CONTACT INFORMATION
500 Memorial Dr
Cambridge, MA 02139
Mobile: 574-210-9864

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Joshua Angrist
MIT Department of Economics
77 Massachusetts Avenue, E52-436
Cambridge, MA 02139
617-253-8909
angrist@mit.edu

Parag Pathak
MIT Department of Economics
77 Massachusetts Avenue, E52-426
Cambridge, MA 02139
617-253-7458
ppathak@mit.edu

Dave Donaldson
MIT Department of Economics
77 Massachusetts Avenue, E52-552
Cambridge, MA 02139
617-258-6242
ddonald@mit.edu

PRIOR EDUCATION

University of Chicago — 2018
B.A. Economics, B.S. Mathematics

CITIZENSHIP USA **GENDER:** Male

FIELDS

Primary Fields: Labor Economics

Secondary Fields: Economics of Education, Urban Economics

TEACHING EXPERIENCE

14.32/320 Econometric Data Science (Undergraduate/Masters) — 2022
Teaching Assistant to Professor Joshua Angrist

RELEVANT POSITIONS

Research Assistant to Professor Simon Jäger — 2021
Pre-doctoral Research Fellow to Professors Joshua Angrist and Parag Pathak — 2018-2020

	Research Assistant to Professor Leonardo Bursztyn	2016-2018
FELLOWSHIPS, HONORS, AND AWARDS	William T. Grant Foundation Grant ($537,914, co-PI)	2023
	Amazon Evaluating Scholarship Impacts Gift ($100,000, co-PI)	2023
	MIT Integrated Learning Initiative Grant ($50,000, PI)	2022
	National Science Foundation Graduate Research Fellowship	2020-2025
	David S. Hu Undergraduate Thesis Award in Economics	2018
PROFESSIONAL ACTIVITIES	Referee: Journal of the European Economic Association	
	Service: MIT Graduate Resident Assistant	2024-2025
	MIT Economics Labor Tea Organizer	2020-2021

RESEARCH PAPERS

"The Equilibrium Effects of Neighborhood Schools" (Job Market Paper)
(with Clemence Idoux)

Public school districts increasingly allow households to enroll in schools outside their neighborhood. While school choice programs aim to decouple educational opportunity and residential geography, they also alter the relative desirability of neighborhoods across the district. This paper evaluates the equilibrium consequences of a return to traditional neighborhood-based assignment by studying Seattle's re-introduction of neighborhood schools in 2010. We document that the reform triggered substantial residential sorting, with households relocating toward preferred schools and housing prices adjusting across attendance boundaries. To quantify the aggregate and distributional consequences of neighborhood assignment, we develop and estimate an equilibrium model of joint residential and enrollment choices. We estimate that residential responses mitigate between 35-50% of the aggregate welfare loss that would occur if household locations were held fixed. Notably, through a combination of residential relocation and housing cost reductions in less-demanded areas, low-income households experience no net welfare loss from the elimination of choice. Moreover, neighborhood assignment neither exacerbates racial segregation nor leads low-income households to attend schools with lower value-added, challenging core arguments for voluntary public school choice.

RESEARCH IN PROGRESS

"The Cost of Choice: Public School Choice and Segregation"

Public school choice policies are often promoted as tools for integration, yet their effects on segregation are strongly debated. We combine theory and evidence to show that choice can deepen segregation even when families prefer the same schools. We develop a stylized model of residential and school choice demonstrating that when attending a non-neighborhood school carries a cost, choice can exacerbate segregation despite uniform preferences. We corroborate this prediction using administrative student data on applications and enrollments from Seattle and New York City. In both cities, white and Asian families disproportionately opt out of neighborhood schools in areas zoned to predominantly minority schools. Counterfactual analysis suggests that a return

to neighborhood assignment would integrate elementary schools in both cities. Leveraging variation across New York City's 32 community school districts, we demonstrate that choice's segregative impact depends critically on the spatial configuration of residential segregation: choice integrates schools only in districts where minority and majority households live in close geographic proximity.

"Private Scholarships: Access and Impact"
(with Joshua Angrist, Maggie Liu, Jack Mountjoy, and Andrew Whitten)

Private scholarship programs are a substantial source of college financial aid, but the impacts of these programs have not been rigorously evaluated. This project evaluates the impacts of over 100 unique programs that collectively awarded a total of over a quarter of a billion dollars through Scholarship America, the nation's largest distributor of private scholarships. To identify causal impacts, we leverage detailed data on scholarship applications and qualification cutoffs used by Scholarship America to assign awards to applicants. By linking applicants to administrative data on college enrollments and tax returns, this work will provide the first large-scale causal evidence on whether private scholarships effectively expand college opportunity and economic mobility.

MIT Economics

NATHANIEL HICKOK

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
nhickok@mit.edu
https://economics.mit.edu/people/phd-students/nathaniel-hickok

HOME CONTACT INFORMATION
50 Memorial Drive
Cambridge, MA 02142
Mobile: 973-519-1401

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

Massachusetts Institute of Technology (MIT)
PhD, Economics, Expected completion June 2026
DISSERTATION: "Essays in Industrial Organization and Environmental Economics"

DISSERTATION COMMITTEE AND REFERENCES

Professor Nikhil Agarwal
MIT Department of Economics
77 Massachusetts Avenue, E52-440
Cambridge, MA 02139
617-324-6804
agarwaln@mit.edu

Professor Tobias Salz
MIT Department of Economics
77 Massachusetts Avenue, E52-460
Cambridge, MA 02139
617-715-2266
tsalz@mit.edu

Professor Ben Olken
MIT Department of Economics
77 Massachusetts Avenue, E52-542
Cambridge, MA 02139
617-253-6833
bolken@mit.edu

PRIOR EDUCATION

Princeton University — 2020
AB, Economics, *summa cum laude*

CITIZENSHIP

USA

FIELDS

Industrial Organization, Environmental and Energy Economics

TEACHING EXPERIENCE

Introductory Macroeconomics (Princeton) — 2018-2019
Undergraduate Teaching Assistant to Dr. Elizabeth Bogan

Honors Analysis (Princeton) — 2018-2019
Undergraduate Teaching Assistant to Prof. Javier Gómez Serrano

RELEVANT POSITIONS

Research Assistant to Prof. Tobias Salz (MIT) — 2021
Research Assistant to Prof. Glenn Ellison (MIT) — 2020

	Research Assistant to Dr. Marco Del Negro (FRBNY)	2019
	Research Assistant to Prof. Gianluca Violante (Princeton)	2018

FELLOWSHIPS, HONORS, AND AWARDS

Martin Family Sustainability Fellowship (MIT)	2024
Society of Energy Fellowship (MIT)	2023
George and Obie Shultz Fund (MIT)	2022-2024
Robert M. Solow Fellowship (MIT)	2021
National Science Foundation Graduate Research Fellowship	2020
Halbert White ’72 Prize in Economics (Princeton)	2020
Phi Beta Kappa (Princeton)	2019

PROFESSIONAL ACTIVITIES

Refereeing: *Journal of Human Resources*
Conferences and Seminars: Microsoft Research (2024), IIOC (2023)
Service: MIT-Harvard Application Assistance and Mentorship Program

RESEARCH PAPERS

“Environmental Regulation with Irreversible Investments: Evidence from High Plains Aquifer Depletion” (Job Market Paper)
(with Aaron Berman)

Many of the world’s major aquifers are being rapidly depleted from agricultural irrigation, generating dynamic common-pool externalities by raising future extraction costs. Entry restrictions are commonly used to limit depletion because well drilling is easily monitored, but they are second-best compared to Pigouvian taxes that directly target the intensive margin of water use. When policies cannot be tailored to heterogeneous users, however, the relative effectiveness and political feasibility of entry fees and water-use taxes become theoretically ambiguous, depending crucially on the correlation between water users' productivity and externalities. To study this question, we develop a dynamic model of farmers’ joint well-drilling and water-use decisions, integrated with a physically realistic model of groundwater flows, and estimate it using field-level data on aquifer levels, water use, and crop production in the Kansas High Plains Aquifer from 1959 to 2022. We find that field-level productivity and water-use externalities are strongly positively correlated due to the spatial concentration of high-productivity fields, leading uniform taxes to outperform entry fees in terms of aggregate welfare. Nevertheless, entry fees are preferred by most users because the optimal uniform tax exceeds the marginal social cost of water use for all but the most productive fields. However, driven by irreversible well investments that lock in depletion from high-externality early entrants, the effectiveness and popularity of entry fees decline rapidly over time. These findings highlight how heterogeneity and irreversibility jointly shape the efficiency and political feasibility of environmental regulation.

“Optimal Urban Transportation Policy: Evidence from Chicago”
(with Milena Almagro, Felipe Barbieri, Juan Camilo Castillo, and Tobias Salz)
Revise and Resubmit, *Econometrica*, August 2024

We characterize and quantify optimal urban transportation policies in the presence of congestion and environmental externalities. We formulate a framework in which a municipal government chooses among transportation equilibria through its choice of

public transit policies—prices and frequencies—as well as road pricing. The government faces a budget constraint that introduces monopoly-like distortions and the potential need to cross-subsidize modes. We apply this framework to Chicago, for which we construct a new dataset that comprehensively captures transportation choices. We find that road pricing alone leads to large welfare gains by reducing externalities, but at the expense of travelers, whose surplus falls even if road pricing revenues are fully rebated. The optimal public transit price is near zero, with reduced bus and increased train frequencies. Combining transit policies with road pricing slackens the budget constraint, allowing for higher transit frequencies and lower prices, thereby increasing consumer surplus after rebates.

"Algorithm Design Meets Information Design: Price Recommendation Algorithms on Online Platforms"

Platforms often use price recommendation algorithms to suggest prices to firms based on the platform's private information about consumer demand. I develop a theoretical model and algorithmic experiments to study the impact of platform price recommendations under three types of firm conduct: collusion, competition, and algorithmic pricing. When firms behave either collusively or competitively, I prove that the platform's optimal price recommendation system is fully informative, and that this outcome is consumer-pessimal over the space of possible recommendation system designs. When firms instead use pricing algorithms, simulated algorithmic experiments show that the introduction of a price recommendation system reduces average consumer surplus by 31%.

"Out with the Old, In with the New: Equity and Efficiency of Secondary-Market Subsidies for Electric Vehicles"
(with Aaron Berman and Dam Linh Nguyen)

We study the cost-effectiveness and distributional impacts of consumer subsidies for electric vehicles in both the primary and secondary markets. In a stylized theoretical framework, we show that their relative cost-effectiveness is ambiguous: while new-vehicle subsidies always generate more overall adoption than used-vehicle subsidies, they can also entail greater inframarginal government spending due to consumer selection into resale. To analyze the equilibrium consequences of the two subsidy designs, we develop and estimate a dynamic empirical model of the vehicle market using granular data on vehicle registrations and transactions in Texas from 2015 to 2022. The model captures consumer sorting into resale through the endogenous scrappage and replacement decisions of forward-looking consumers. Counterfactual results show that secondary-market subsidies (i) are more cost-effective than primary-market subsidies due to large reductions in inframarginal spending, and (ii) deliver more progressive distributional impacts. Overall, our results highlight the role of secondary markets in shaping the equity and efficiency of subsidies for technology adoption.

MIT Economics

GEOFFREY KOCKS

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
gkocks@mit.edu
https://economics.mit.edu/people/phd-students/geoffrey-kocks

HOME CONTACT INFORMATION
100 Memorial Drive, Apt. 2-21B
Cambridge, MA 02142
Mobile: 810-908-1223

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

Massachusetts Institute of Technology (MIT)
PhD, Economics, Expected completion June 2026
DISSERTATION: "Essays on the Economics of Education"

DISSERTATION COMMITTEE AND REFERENCES

Professor Parag Pathak
MIT Department of Economics
77 Massachusetts Avenue, E52-426
Cambridge, MA 02139
617-253-7458
ppathak@mit.edu

Professor Joshua Angrist
MIT Department of Economics
77 Massachusetts Avenue, E52-436
Cambridge, MA 02139
617-253-8909
angrist@mit.edu

Professor Amy Finkelstein
MIT Department of Economics
77 Massachusetts Avenue, E52-442
Cambridge, MA 02139
617-253-4149
afink@mit.edu

PRIOR EDUCATION

Brown University 2018
Bachelor of Science with Honors in Applied Mathematics-Economics
Bachelor of Arts in Hispanic Studies
Magna cum laude

CITIZENSHIP USA **GENDER:** Male

LANGUAGES English (fluent), Spanish (professional proficiency)

FIELDS Primary Fields: Labor, Education

Secondary Fields: Applied Econometrics, Health

TEACHING EXPERIENCE

Applied Econometrics 2023
(graduate and undergraduate, MIT course 14.387)
Teaching Assistant to Professor Joshua Angrist
(overall rating: 6.9/7.0)

Why is There No Cure for Health? 2021
(undergraduate, Harvard course GenEd 1079)
Teaching Assistant to Professor David Cutler
(overall rating: 4.8/5.0)
Harvard University Certificate of Distinction in Teaching

RELEVANT POSITIONS

Research Assistant for Professor Parag Pathak 2020-23
MIT Blueprint Labs

Full-Time Research Assistant for Professor Amy Finkelstein 2018-20
MIT

Research Assistant for Professor Emily Oster 2016-18
Brown University

FELLOWSHIPS, HONORS, AND AWARDS

National Science Foundation Graduate Research Fellowship (2022-2026)
Center on Reinventing Public Education (CRPE) Post-Pandemic Recovery and Renewal Grant (2024-2025)
MIT Integrated Learning Initiative (MITili) Learning Effectiveness Grant (2023-2024)
NBER Pre-Doctoral Fellowship in Identifying and Developing Mathematical Talent Among Youth (2023-2024)
NBER Pre-Doctoral Fellowship in Aging and Health Economics (2022-2023)
MIT Castle Krob Fellow (2020-2022)
Phi Beta Kappa (2018)
Samuel Lamport Prize for Outstanding Honors Thesis in Economics (2018)
Voss Undergraduate Research Fellowship: Institute at Brown for Environment and Society (2017)

PROFESSIONAL ACTIVITIES

Referee: *AER: Insights* (Excellence in Refereeing Award 2021, 2022), *Journal of Population Economics*

Presentations:
Junior Workshop in the Economics of Education, CESifo/ifo, Munich, 2025
AEFP Annual Conference, Baltimore, 2024
AEA CSQIEP PhD Student Conference, San Diego, 2024
AEFP Annual Conference, Denver, 2023
NBER Conference on Racial and Ethnic Health Disparities, Cambridge, 2023
NBER Fall Education Program Meeting, Cambridge, 2022

Professional Affiliations:
US Census Bureau, Special Sworn Status

Service:
MIT Econ Application Assistance and Mentoring Program Mentor
MIT Undergraduate Research Opportunities Program Mentor
Math Tutor, Providence Public Schools

PUBLICATIONS

"Heterogeneity in Damages from a Pandemic"
*(*with Amy Finkelstein, Maria Polyakova, and Victoria Udalova).
Review of Economics and Statistics, 2024.

We use nationally-representative linked survey and administrative data to document socioeconomic and demographic disparities in the economic and health effects of the COVID-19 pandemic in the United States during its first two years. Impacts on all-cause mortality and on employment were concentrated in the same racial/ethnic, education, industry, and occupation groups. Black-White and Hispanic-White disparities in mortality impacts narrowed over the two years, but educational disparities persisted. For economic impacts, only Hispanic-White disparities narrowed. Lower-income individuals experienced greater mortality impacts and this gradient steepened in the second year. Our findings, using consistent methods and measures, highlight the pandemic's heterogeneous impacts.

"Racial Disparities in Excess All-Cause Mortality During the Early COVID-19 Pandemic Varied Substantially Across States"
(with Maria Polyakova, Victoria Udalova, Katie Genadek, Keith Finlay, and Amy Finkelstein).
Health Affairs, 2021.

"Initial economic damage from the COVID-19 pandemic in the United States is more widespread across ages and geographies than initial mortality impacts"
(with Marya Polyakova, Victoria Udalova, and Amy Finkelstein).
Proceedings of the National Academy of Sciences, 2020.

RESEARCH PAPERS

"Sorting or Supporting? The Effect of Gifted Education on Achievement and Access" (Job Market Paper) (with Jimmy Chin)

We study the impacts of New York City's kindergarten gifted and talented (G&T) programs on achievement and access to elite secondary schools. We combine two research designs: a regression discontinuity at a qualifying exam cutoff and a lottery design arising from centralized assignment. The latter permits the identification of effects for students scoring above the cutoff. While G&T markedly changes the classroom environment, there is no impact on achievement using both empirical strategies, with precise and insignificant effects smaller than 0.04σ when pooling the designs. In contrast, G&T boosts applications and enrollment in elite middle schools among lottery students. Effects on school access are largest among low-income students and those with the highest baseline abilities. We use our estimates to predict how a recent

admissions reform that replaced the G&T entrance exam with teacher recommendations affects elite school access. The reform increased the share of low-income students in G&T from 22 to 28 percent. A structural model of G&T demand shows that it also decreased the mean baseline ability of enrollees. The decline in baseline ability outweighs the gains in low-income enrollment, lowering the average treatment effect on elite school access for G&T enrollees. We trace out a policy frontier, revealing that both admissions regimes are suboptimal. Alternative policies could simultaneously increase diversity and treatment effects on access.

"The Algorithm Advantage: Ranked Application Systems Outperform Decentralized and Common Applications in Boston and Beyond"
(with Christopher Avery and Parag Pathak)
NBER Working Paper No. w34207

School choice systems increasingly use common applications, where students can apply to multiple schools on a single form, though schools make admission decisions independently. We model three application systems: a common application, a decentralized system with costly separate applications, and a ranked-choice system using a matching algorithm. Our model shows that while a common application may expand access, it increases competition and may produce worse matches than a decentralized system where application costs encourage more selective applications. Ranked-choice systems combine reduced application costs with preference-based matching that reduce mismatches. We examine these predictions by analyzing how Boston's charter school sector was affected when it adopted an online common application. Counterfactual simulations suggest the common application performs no better than alternatives on several metrics and did little to increase access for disadvantaged groups. A ranked system consistently outperforms a common application across various levels of competition and assumptions on preference stability between application and enrollment stages.

"School Desegregation and Long-Run Health"

I investigate the impact of court-ordered school desegregation that followed *Brown v. Board of Education* (1954) on long-run health outcomes and behaviors among Black Americans. Using detailed survey data on adults older than 50 years old from the Health and Retirement Study and a difference-in-differences design, I find that desegregation improved self-reported health, preventive care use, and mortality decades later. I find no detectable changes in chronic conditions or unhealthy behaviors such as smoking and drinking. Across demographic subgroups, self-reported health improvements are related to desegregation's positive effects on racial integration and high school completion, but changes in preventive care and mortality are not. Therefore, while desegregation's consequences for educational attainment may have facilitated improvements in some health outcomes, desegregation itself was also important for health, independent of its educational impacts.

RESEARCH IN PROGRESS	**"Massachusetts Charter School Recovery from Pandemic Learning Loss"**
	"Algorithmic Assignment and Determinants of Teacher Retention: Evidence from Teach for America"
	"State-Level Charter School Policies and Effects on School Closures and Student Achievement" (with Yang Song)
POLICY WRITING	**"After a Debacle, How California Became a Role Model on Measles"** (with Emily Oster). *The New York Times*, January 2018.

MIT Economics

ANDREW KOH

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
ajkoh@mit.edu
https://www.andrewjkoh.com/

HOME CONTACT INFORMATION
50 Rogers St
Cambridge 02142
Mobile: *857-928-4892*

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

Massachusetts Institute of Technology (MIT)
PhD in Economics, Expected completion June 2026
DISSERTATION: "*Essays on Learning and Games*"

DISSERTATION COMMITTEE AND REFERENCES

Professor Stephen Morris
MIT Department of Economics
77 Massachusetts Avenue, E52-422
Cambridge, MA 02139
+1 617-253-1000
semorris@mit.edu

Professor Drew Fudenberg
MIT Department of Economics
77 Massachusetts Avenue, E52-418
Cambridge, MA 02139
+1 617-253-1000
drewf@mit.edu

Professor Daron Acemoglu
MIT Department of Economics
77 Massachusetts Avenue, E52-446
Cambridge, MA 02139
+1 617-253-1000
daron@mit.edu

Professor Matthew Elliott
Cambridge University Faculty of Economics, Austin Robinson Building, 44
Cambridge, UK CB3 9DD
+44 1223-335250
matthew.elliott@gmail.com

PRIOR EDUCATION

Oxford University *2020-21*
MSc in Mathematical Sciences, *with Distinction*

Cambridge University *2017-20*
BA in Economics, *Triple-First Class Honors*
Ranked 1st/160 and Adam Smith Prize for Best Dissertation

CITIZENSHIP Singapore **GENDER:** Male

FIELDS Primary Fields: Theory

Secondary Fields: Finance, Behavioral

TEACHING EXPERIENCE

Advanced Mathematical Methods for Financial Engineering (MFin) — *2022*
Teaching Assistant to Paul Mende (teaching rated 6.70/7)

Principles of Microeconomics (Undergraduate) — *2023*
Teaching Assistant to Jonathan Gruber (teaching rated 5.80/7)

Mathematical Economic Modeling (Undergraduate) — *2024*
Teaching Assistant to Muhamet Yildiz (teaching rated 7.00/7)

FELLOWSHIPS, HONORS, AND AWARDS

2025 Stripe Economics of AI Fellowship
2024 Journal of Industrial Economics Fellowship
2024 Gordon B. Pye Dissertation Fellowship, MIT
2023 Winter Research Fellowship, Centre for the Governance of AI (GovAI)
2022 Robert Solow Fellowship, MIT
2021-23 Global Priorities Fellowship, Forethought Foundation
2021-23 Armen Avanessians Fellowship, MIT (deferred from 2020)
2020 Full scholarship for the master's in Maths, Jesus College Oxford
2020 Ranked 1st with highest overall mark in Cambridge cohort of 160 candidates
2020 Adam Smith Prize for Best Dissertation in Economics, University of Cambridge
2018-20 E.M. Burnett Prizes, Hughes Hall Cambridge

PROFESSIONAL ACTIVITIES

Referee
American Economic Review, Review of Economic Studies, Journal of Political Economy, American Economic Review: Insights, Journal of Economic Theory, American Economic Journal: Microeconomics, RAND Journal of Economics, Games and Economic Behavior, Journal of Mathematical Economics, Economic Theory

Selected talks
2025: SITE (`Dynamic Games Contracts and Markets'), AEA Meetings (`Policy Implications of Transformative AI' session), Johns Hopkins
2024: Harvard Computer Science, Berkeley-Columbia-Duke-MIT-Northwestern IO Conference (Duke), ACM EC'24 (Yale), Nuffield College Oxford, Cambridge University, National University of Singapore, Econometric Society Summer Meeting
2023: Singapore Management University

JOURNAL PUBLICATIONS

1. **"Capability Accumulation and Conglomeratization in the Information Age"** (with Jun Chen and Matthew Elliott)
Journal of Economic Theory 210 (2023): 105647.

JOB MARKET PAPER

2. **"Robust Technology Regulation"** (with Sivakorn Sanguanmoo) [link]

We analyze how uncertain technologies should be robustly regulated, and how regulation should evolve with new information. An adaptive sandbox comprising a zero marginal tax on R&D up to an evolving quantity limit is (i) robust: it delivers optimal payoff guarantees when the agent's learning process and/or preferences are chosen adversarially; (ii) dominant: it outperforms other robust mechanisms across all agent learning processes and preferences; (iii) time-consistent: it is the only robust mechanism that can be implemented without commitment. We argue that robustness is important—absent robust regulation, worst-case payoffs can be arbitrarily poor and are induced by weak but growing optimism that encourages excessive risk-taking. Our results offer optimality foundations for existing policy and speak directly to current debates around managing emerging technologies.

UNDER REVISION

3. **"Attention Capture"** (with Sivakorn Sanguanmoo) [link]
Revise and resubmit, Journal of Political Economy

We develop a unified analysis of how information captures attention. A decision maker (DM) faces a dynamic information structure and decides when to stop paying attention. We characterize the convex-order frontier and extreme points of feasible stopping times, as well as dynamic information structures which implement them. This delivers the form of optimal attention capture as a function of the designer and DM's relative time preferences. Intertemporal commitment is unnecessary: sequentially optimal information structures always exist by inducing stochastic interim beliefs. We further analyze optimal attention capture under noninstrumental value for information. Our results speak directly to the attention economy.

4. **"Market Segmentation through Information"** (with Matthew Elliott, Andrea Galeotti, Wenhao Li) [link]
Revise and resubmit, The Review of Economic Studies

We explore the power that precise information about consumers' preferences grants an intermediary in shaping competition. We think of an intermediary as an information designer who chooses what information to reveal to firms, which then compete a la Bertrand in a differentiated product market. We characterize the information designs that maximize consumer and producer surplus, showing how information can be used to segment markets to intensify or soften competition. Our analysis demonstrates the power that users' data can endow intermediaries with, and speaks directly to current regulatory debates of digital marketplaces.

5. **"An Economy of AI Agents"** (with Gillian Hadfield) [link]
Prepared for the NBER Handbook on the Economics of Transformative AI

   In the coming decade, artificially intelligent agents with the ability to plan and execute complex tasks over long time horizons with little direct oversight from humans may be deployed across the economy. This chapter surveys recent developments and highlights open questions for economists around how AI agents might interact with humans and with each other, shape markets and organizations, and what institutions might be required for well-functioning markets.

WORKING PAPERS (ALPHABETICAL)

6. **"Balanced Social Learning"** (with Ricky Li) [link]

   When and how can efficient social learning be achieved in the presence of multiple actions and heterogeneous preferences? We completely characterize the value and form of policies that control the flow of information from past to future. *Full transparency* in which all past information is disclosed guarantees efficiency if and only if (i) the experiment approaches noisy bad news where Type I errors dominate Type II errors; and (ii) preference dispersion satisfy a path-balance condition. *Adaptive evidence design* in which subsets of past signals are dynamically disclosed can guarantee efficiency if and only if priors are initially balanced, a far weaker condition than (i) and (ii). Finally, if efficiency cannot be guaranteed, we fully characterize the maximum probability it can be achieved under *adaptive information design*.

7. **"Data-Driven Automation"** (with Maryam Farboodi, Anchi Xia)
[draft online soon; available upon request]

   We build a model of data-driven automation in which data (i) is *heterogeneous*---different kinds of data are differentially valuable across different sectors; (ii) exhibits *spillover*s---one sector's data can augment the productivity of another (via transfers learning); and is (iii) *accumulated endogenously* in general equilibrium. We derive tight conditions for the economy to either exhibit a balanced data path to achieve full limit automation, or an imbalanced data path in which automation fizzles out. Data-driven automation can be *contagious*: cross sector spillovers via transfer learning is sufficient for full automation; but *inefficient*: small firms do not internalize the value of future data and equilibrium automation can be inefficiently fast or slow.

8. **"Delaying the Deviation"** (with Anna Merotto)
[draft online soon; available upon request]

   We show that delaying the deviation—randomizing incentives to delay attacks both across players and across time—uniquely implements not attacking in dynamic coordination games. Our mechanism is (i) *universal*: it prevents attacks even when attacking is both payoff- and risk-dominant; (ii) *first-best*: it incurs zero cost on-path and vanishing cost off-path; (iii) *sequentially optimal*: the designer is incentivized to follow-through at every history; (iv) *heterogeneity-robust*: it works against any distribution of players' payoff types; and (v) *strategically simple*: it relies only on players' first-order certainty of rationality. We discuss applications to bank runs, platforms, security design, and political regimes.

9. **"Flexible Demand Manipulation"** (with Yifan Dai) [link]

   We develop a simple framework to analyze how targeted persuasive advertising shapes market power and welfare. A designer flexibly manipulates the demand curve by influencing individual valuations at a cost. A monopolist prices against this manipulated demand curve. We fully characterize the form of optimal advertising plans under ex-ante and ex-post welfare measures. Flexibility per se is powerful and can substantially harm or benefit consumers vis-a-vis uniform advertising. We discuss implications for regulation, intermediation, and the joint design of manipulation and information.

10. **"Informational Puts"** (with Sivakorn Sanguanmoo, Kei Uzui) [link]
Extended abstract in 25th ACM Conference on Economics and Computation

    We analyze how dynamic information should be provided to uniquely implement the largest equilibrium in binary-action coordination games. The designer offers an informational put: she stays silent if players choose her preferred action, but injects asymmetric and inconclusive public information if they lose faith. There is *(i) no multiplicity gap*: the largest partially implementable equilibrium can be implemented uniquely; and *(ii) no commitment gap*: the policy is sequentially optimal. Our results have sharp implications for the design of policy in coordination environments.

11. **"Inertial Coordination Games"** (with Ricky Li, Kei Uzui) [link]
Extended abstract in 26th ACM Conference on Economics and Computation

    We analyze inertial coordination games: dynamic coordination games with an endogenously changing state that depends on (i) a persistent fundamental that players privately learn about over time; and (ii) past play. The speed of learning determines long-run equilibrium dynamics: the risk-dominant action is played in the limit if and only if learning is slow such that posterior precisions grow sub-quadratically. This generalizes results from static global

games and endows them with a learning foundation. Conversely, when learning is fast such that posterior precisions grow super-quadratically, shocks can propagate and generate self-fulfilling spirals.

12. **"Memory Correlated Equilibrium"** (with Sivakorn Sanguanmoo)
[draft online soon; available upon request]

    We develop a framework for modeling random and correlated memory in games: a memory correlated equilibrium (MCE) comprises of (i) a base extensive-form game; and a (ii) memory structure that delivers private self-locating information at each history. We show MCE exist and develop a revelation principle which paves the way for memory design in games. We illustrate applications to cooperation, mechanisms, coordination, and hold-up problems, as well as discuss implications for the design of algorithms and artificial agents.

13. **"Persuasion and Optimal Stopping"** (with Sivakorn Sanguanmoo, Weijie Zhong) [link]

    We analyze the interplay between persuasion, timing, and commitment. A principal conducts a sequence of statistical experiments to persuade an agent to stop at the right time, in the right state, and choose the right action. We develop a revelation principle which delivers a first-order approach for solving the principal's problem under commitment, and an anti-revelation principle which establishes that commitment is unnecessary and transforms the solution via indirect recommendations to restore dynamic consistency. We further characterize how time and action preferences jointly shape optimal strategies featuring a suspense-generation stage which optimally concentrates the agent's stopping time, followed by an action-targeting stage which maximally correlates/anticorrelates persuasion and delay.

14. **"Prices and Symmetries'"** (with Pedro Martinez-Bruera) [link]

    We analyze optimal interventions in networked economies with stochastic linkages. Linear taxes dominate quotas whenever shocks are symmetric because the ensuing equilibrium adjusts toward the first-best allocation, thereby correcting policy mistakes. Vice versa for antisymmetric shocks. Flexible interventions can implement the first-best allocation for each realized network whenever shocks are symmetric. Our results offer foundations for price interventions when shocks have a large common component, and for quantity interventions when policymakers are concerned about the correlation structure across links.

15. **"Speed vs Resilience in Contagion"** (with Stephen Morris) [link]

    We highlight a trade-off between speed (the rate at which behaviors propagate in the population) and resilience (the measure of initial adopters

required for spreading) in models of threshold contagion: contagion is faster in networks where it is harder to initiate contagion. We derive various orderings over networks under which this trade-off is stark. While this trade-off holds between pairs of networks for possibly different contagion thresholds, we also outline conditions under which, for a given contagion threshold, one network is both less resilient and propagates behaviors more quickly; this highlights the role of intermediate links as bulwarks against contagion.

MIT Economics

HARUKI KONO

OFFICE CONTACT INFORMATION

MIT Department of Economics
77 Massachusetts Avenue, E52-402
Cambridge, MA 02139
Webpage: https://economics.mit.edu/people/phd-students/haruki-kono

Email: hkono@mit.edu
Mobile: 857-928-8194

MIT PLACEMENT OFFICER

Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR

Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Professor Alberto Abadie
MIT Department of Economics
77 Massachusetts Avenue, E52-546
Cambridge, MA 02139
617-253-4669
abadie@mit.edu

Professor Whitney Newey
MIT Department of Economics
77 Massachusetts Avenue, E52-514
Cambridge, MA 02139
617-253-6420
wnewey@mit.edu

Professor Isaiah Andrews
MIT Department of Economics
77 Massachusetts Avenue, E52-530
Cambridge, MA 02139
617-452-3859
iandrews@mit.edu

Professor Victor Chernozhukov
MIT Department of Economics
77 Massachusetts Avenue, E52-524
Cambridge, MA 02139
617-253-4767
vchern@mit.edu

PRIOR EDUCATION

University of Tokyo, Japan — 2021
M.A. in Economics

University of Tokyo, Japan — 2020
B.A. in Economics

CITIZENSHIP Japan **GENDER:** Male

LANGUAGES English (fluent), Japanese (native)

FIELDS Primary Fields: Econometrics, Statistics

Secondary Fields: Economic Theory

TEACHING EXPERIENCE	14.382 Econometrics, MIT TA to Professor Isaiah Andrews and Anna Mikusheva	2024
	14.384 Time Series Analysis, MIT TA to Professor Anna Mikusheva	2023
RELEVANT POSITIONS	RA to Professor Alberto Abadie and Whitney Newey	2022-2024
	Research Fellow-DC1, JSPS	2021
	Goldman Sachs, Global Investment Research Internship	2020-2021
	Nowcast, Data Scientist Internship	2017-2020
FELLOWSHIPS, HONORS, AND AWARDS	Jerry A. Hausman Graduate Dissertation Fellow	2024-2025
	Jerry A. Hausman Fellow	2021-2023
	Funai Overseas Scholarship	2021-2023
	Shin-Nihon Scholarship	2020
	Grand Prize of President's Award, University of Tokyo	2020
	Distinguished Undergraduate Thesis Award, University of Tokyo	2020
PRESENTATIONS	Econometric Society World Congress, Seoul	2025
	Summer Workshop on Economic Theory, Hokkaido	2025
	Econometric Society North America Summer Meeting, Vanderbilt	2024
	Asian School in Economic Theory, Econometric Society, Keio	2023
	Decision: Theory, Experiments, and Applications, HEC	2023
	Risk, Uncertainty, and Decision, Kyoto	2023
	Japanese Joint Statistics Meeting, online	2020

PUBLICATIONS

"Well-Posedness of Second-Order Uniformly Elliptic PDEs with Neumann Conditions" *Applied Mathematics Letters*, Vol. 171, 109670, 2025. Journal. arXiv.

Extending the results of Nardi (2015), this note establishes an existence and uniqueness result for second-order uniformly elliptic PDEs in divergence form with Neumann boundary conditions. A Schauder estimate is also derived.

"Semiparametric Efficiency Gains from Parametric Restrictions on Propensity Scores" *Biometrika*, Vol. 112, Issue 1, 2025. Journal. arXiv.

We explore how much knowing a parametric restriction on propensity scores improves semiparametric efficiency bounds in the potential outcome framework. For stratified propensity scores, considered as a parametric model, we derive explicit formulas for the efficiency gain from knowing how the covariate space is split. Based on these, we find that the efficiency gain decreases as the partition of the stratification becomes finer. For general parametric models, where it is hard to obtain explicit representations of efficiency bounds, we propose a novel framework that enables us to see whether knowing a parametric model is valuable in terms of efficiency even when it is high dimensional. In addition to the intuitive fact that knowing the parametric model does not help much if it is sufficiently flexible, we discover that the efficiency gain can be nearly zero even

though the parametric assumption significantly restricts the space of possible propensity scores.

"Consistent Bayesian Information Criterion Based on a Mixture Prior for Possibly High-Dimensional Multivariate Linear Regression Models" (with Tatsuya Kubokawa) *Scandinavian Journal of Statistics*, Vol. 50, No. 3, 1022–1047, 2023. Journal. arXiv.

In the problem of selecting variables in a multivariate linear regression model, we derive new Bayesian information criteria based on a prior mixing a smooth distribution and a delta distribution. Each of them can be interpreted as a fusion of the Akaike information criterion (AIC) and the Bayesian information criterion (BIC). Inheriting their asymptotic properties, our information criteria are consistent in variable selection in both the large-sample and the high-dimensional asymptotic frameworks. In numerical simulations, variable selection methods based on our information criteria choose the true set of variables with high probability in most cases.

"Corrigendum to Crawford and Sobel (1982) "Strategic Information Transmission" (with Michihiro Kandori) *Econometrica*, Vol. 89, No. 4, 1-10, 2021. Journal.

In their analysis of strategic information transmission, Vincent Crawford and Joel Sobel (1982) showed the existence of partition equilibria (Theorem 1). Although the theorem itself is correct, the proof contains some incorrect statements. We present a counter-example and provide a correct version of the proof.

RESEARCH PAPERS

"Non-Crossing Quantile Regression with Shape Constraints" (Job Market Paper) Link.

Quantile regression is a widely used tool for studying heterogeneous effects of covariates across the outcome distribution. However, standard estimators such as Koenker and Bassett's (1978) often violate fundamental shape restrictions implied by probability or economic theory. Examples include the non-crossing property of conditional quantile functions, the monotonicity of output with respect to inputs, and the monotonicity of equilibrium bidding strategies in structural auction models. Such violations produce estimates that are theoretically inconsistent and risk undermining downstream economic analysis.

This paper develops a framework for shape-constrained quantile regression based on a variational characterization of quantile regression coefficients from optimal transport theory. We formulate an infinite-dimensional linear program whose unique solution defines the coefficients as a function of the quantile index.

This functional perspective allows restrictions to be imposed across the entire continuum of quantiles, including global non-crossing, derivative-based inequalities, and covariate monotonicity conditions. A computationally feasible estimator is obtained through finite-dimensional approximation, and its asymptotic properties are established.

Monte Carlo simulations demonstrate that the proposed estimator improves upon

both classical and existing non-crossing approaches. In an application to U.S. timber auctions, it delivers smooth, theory-consistent estimates of bid distributions, valuation distributions, and bidding strategies—contrasting with conventional methods that frequently violate basic economic restrictions.

"Random Utility with Unobservable Alternatives" (with Kota Saito and Alec Sandroni) 2nd round revision requested at *American Economic Review*. arXiv.

The random utility model, a cornerstone in economics, is axiomatized by Falmagne (1978) with the assumption that all choice frequencies from every subset are observable. However, in practice, it is common for some choice frequencies to remain unobserved. To address this discrepancy, we obtain the testable implications of the random utility model given an incomplete dataset, which consist of nonredundant inequality constraints on observed choice frequencies. Our findings indicate that the widespread empirical practice of aggregating unobserved alternatives into a single "outside option" fails to capture significant implications of random utility models.

"Untestability of Average Slutsky Symmetry" arXiv.

Slutsky symmetry and negative semidefiniteness are necessary and sufficient conditions for the rationality of demand functions. While the empirical implications of Slutsky negative semidefiniteness in repeated cross-sectional demand data are well understood, the empirical content of Slutsky symmetry remains largely unexplored. This paper takes an important first step toward addressing this gap. We demonstrate that the average Slutsky matrix is not identified and that its identified set always contains a symmetric matrix. A key implication of our findings is that the symmetry of the average Slutsky matrix is untestable, and consequently, individual Slutsky symmetry cannot be tested using the average Slutsky matrix.

"Local Identification in Instrumental Variable Multivariate Quantile Regression Models" arXiv.

In the instrumental variable quantile regression (IVQR) model of Chernozhukov and Hansen (2005), a one-dimensional unobserved rank variable monotonically determines a single potential outcome. Even when multiple outcomes are simultaneously of interest, it is common to apply the IVQR model to each of them separately. This practice implicitly assumes that the rank variable of each regression model affects only the corresponding outcome, without impacting other outcomes. In reality, however, it is often the case that all rank variables together determine the outcomes, resulting in structural correlations between them. To address this issue, we propose a nonlinear IV model that incorporates multivariate unobserved heterogeneity, treating each component of this heterogeneity as a rank variable associated with an observed outcome. We show that, under the condition of a sufficiently positive correlation between the IV and the treatment variable, the structural function of our model is locally identified.

MIT Economics

PEDRO MARTINEZ-BRUERA

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
pmbruera@mit.edu
https://economics.mit.edu/people/phd-students/pedro-martinez-bruera

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Professor Ivan Werning
MIT Department of Economics
77 Massachusetts Avenue, E52-536
Cambridge, MA 02139
617-452-3662
iwerning@mit.edu

Professor Christian K. Wolf
MIT Department of Economics
77 Massachusetts Avenue, E52-554
Cambridge, MA 02139
617-253-3399
ckwolf@mit.edu

Professor Ricardo Caballero
MIT Department of Economics
77 Massachusetts Avenue, E52-528
Cambridge, MA 02139
617-253-0489
caball@mit.edu

Professor Olivier Blanchard
MIT Department of Economics
blanchar@mit.edu

PRIOR EDUCATION

Universidad Torcuato di Tella — 2021
M.A., Economics

Pontificia Universidad Católica Argentina — 2017
B.A., Economics

CITIZENSHIP Argentina, Italy **GENDER:** Male

LANGUAGES English (fluent), Spanish (native), French (intermediate)

FIELDS Primary Fields: Macroeconomics

Secondary Fields: International Economics

TEACHING EXPERIENCE	Principles of Macroeconomics (undergraduate, MIT course 14.02) Teaching Assistant to Professor James Poterba	2025
	Economic Fluctuations (graduate, MIT course 14.453) Teaching Assistant to Professor David Romer	2025
	Principles of Macroeconomics (undergraduate, MIT course 14.02) Teaching Assistant to Professor Martin Beraja	2024
	Economic Fluctuations (graduate, MIT course 14.453) Teaching Assistant to Professor Ivan Werning	2024
	Principles of Microeconomics (undergraduate, MIT course 14.01) Teaching Assistant to Professor Jonathan Gruber	2023
	Principles of Macroeconomics (undergraduate, MIT course 14.02) Teaching Assistant to Professor Ricardo Caballero	2023
	Principles of Macroeconomics (undergraduate, MIT course 14.02) Teaching Assistant to Professor James Poterba	2022
RELEVANT POSITIONS	Research Assistant to Professor Ivan Werning	2020-2023
FELLOWSHIPS, HONORS, AND AWARDS	Castle-Krob Fellowship	2020-2022

PROFESSIONAL ACTIVITIES

Referee: *Journal of Political Economy: Macroeconomics*

RESEARCH PAPERS

"Reassessing Central Bank Reputation: Beyond Long-Run Expectations" (Job Market Paper)
(with Alex Carrasco-Martinez and Tomás E. Caravello)

We study the design of monetary policy when the public learns about the policymaker's preference for inflation stabilization. Relative to discretion, the optimal policy reacts more strongly: the central bank signals a stronger commitment to inflation stability, thereby anchoring short-run expectations and reducing the future cost of disinflation. Using cross-sectional variation of private forecasts about U.S. inflation and the output gap, we document that the data are consistent with the mechanisms highlighted in our model. A quantitative exercise shows that a simple delegation problem can provide a robust implementation of the optimal policy.

"Disentangling sign and size non-linearities" (with Tomás E. Caravello)

We study the identification of non-linear causal effects of macroeconomic shocks using local projections augmented by a non-linear function of the shock

of interest. Our analysis focuses on two types of non-linearities: by size and sign of the shock. We characterize the estimand of our non-linear local projections. Our main result is that the local projections identify pure sign non-linearities when they include an even non-linear function of the shock and vice-versa for size non-linearities and odd functions. We illustrate our method with an application to oil supply news shocks, documenting evidence in favor of size (but not sign) non-linearities.

"Prices and Symmetries" (with Andrew Koh)

We analyze the form and value of optimal interventions in networked economies with stochastic linkages. Among simple instruments, linear taxes dominate quotas when shocks to the network are symmetric because policy mistakes are self-correcting---shocks drive equilibrium allocations to adjust toward the first-best allocation, and vice-versa when shocks are antisymmetric. Bilateral instruments where (potentially nonlinear) taxes on a firm depends only on its own quantity achieve the first-best allocation when the network (expectation + shock) is symmetric. Flexible instruments where taxes can depend on the full allocation achieve the first-best allocation when only shocks are symmetric. Our results offer an optimality foundation for price interventions when shocks have a large common component, and for quantity instruments when policymakers are concerned about the correlation structure across linkages.

"Chronicle of a Dollarization Foretold: Inflation and Exchange Rates Dynamics" (with Tomás E. Caravello and Iván Werning)

We study the effects of an anticipated dollarization, announced today but planned to be implemented at some future date, in a simple open-economy model. Motivated by the profile of countries considering dollarization we make the following assumptions. First, the government faces a scarcity of dollars to pledge for the future conversion of domestic currency. Second, without dollarization monetary policy finances a deficit via seignorage. We focus on the pre-dollarization period. Our results are as follows. First, the announcement leads to a discrete devaluation on impact. Second, after this jump the devaluation rate also rises relative to the no dollarization benchmark. Finally, the devaluation and inflation rate may rises over time.

"Dollarization Dynamics" (with Tomás E. Caravello and Iván Werning)

This study explores the consequences of dollarizing an economy with an initial dollar shortage. We show that the resulting transitional dynamics are tantamount to that of a"sudden stop": consumption of tradable goods fall, the real exchange rate depreciates abruptly by a discrete drop in domestic prices and wages followed by a gradual appreciation from positive inflation. With nominal rigidities the economy first falls into a recession. This is true even if all prices and wages are allowed to adjust flexibly on impact. The subsequent

recovery in activity always "overshoots" the steady state: the non-tradable sector transitions from the initial recession to a boom, then asymptotes to its steady state.

RESEARCH IN PROGRESS

"Debt Sustainability and Multiple Equilibria" (with Olivier Blanchard)

High public debt raises concerns about fiscal sustainability, yet predicting crises is difficult due to the possibility of multiple equilibria. Investors' required interest rates depend on default expectations, while default risk depends on those same rates. At low debt, sustainability is assured; at high debt, default is inevitable; but in between lies a range with both "good" (low-rate) and "bad" (high-rate) equilibria. We present a simple framework that clarifies how debt levels and interest rates interact, the conditions under which multiple equilibria emerge, and why economists remain cautious in forecasting debt crises.

MIT Economics

AROON NARAYANAN

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
aroon@mit.edu
https://economics.mit.edu/people/phd-students/aroon-narayanan

HOME CONTACT INFORMATION
5 Royce Rd Apt 36
Boston MA 02134
Mobile: 617-229-9227

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

Massachusetts Institute of Technology (MIT)
PhD, Economics, Expected completion June 2026
DISSERTATION: "*Essays in the economics of governance and competition*"

DISSERTATION COMMITTEE AND REFERENCES

Professor Nikhil Agarwal
MIT Department of Economics
77 Massachusetts Avenue, E52-440
Cambridge, MA 02139
617-324-6804
agarwaln_jm@mit.edu

Professor Michael Whinston
MIT Department of Economics
77 Massachusetts Avenue, E62-533
Cambridge, MA 02139
617-258-8408
whinston_jm@mit.edu

Professor Robert Gibbons
MIT Department of Economics
77 Massachusetts Avenue, E62-519
Cambridge, MA 02139
617-253-0283
rgibbons_jm@mit.edu

Professor Tavneet Suri
MIT Sloan School of Management
100 Main Street, E62-515
Cambridge, MA 02139
617-253-7159
tavneet@mit.edu

PRIOR EDUCATION

Indian Statistical Institute Delhi — 2020
MS in Quantitative Economics

Indian Institute of Technology Madras — 2017
MTech & BTech in Electrical Engineering

CITIZENSHIP India **GENDER:** Male

LANGUAGES English (fluent), Hindi (fluent), Malayalam (native), Spanish (A2)

FIELDS Primary Fields: Industrial Organization, Organizational Economics

Secondary Fields: Microeconomic Theory, Development

TEACHING EXPERIENCE

Applied Economics for Managers (MBA, MIT course 15.024) Teaching Assistant to Professor Tavneet Suri	2025
Advanced Topics in Industrial Organization (graduate, MIT course 14.273) Teaching Assistant to Professors Nikhil Agarwal and Tobias Salz	2024
Microeconomic Theory I (graduate, MIT course 14.121) Teaching Assistant to Professor Parag Pathak	2023
Industrial Organization: Strategy & Public Policy (undergraduate, MIT course 14.20) Teaching Assistant to Professor Nancy Rose	2023
Applied Economics for Managers (executive MBA, MIT course 15.722) Teaching Assistant to Professor Robert Gibbons	2023
Organizational Economics (graduate, MIT course 14.282) Teaching Assistant to Professor Robert Gibbons	2022

RELEVANT POSITIONS

Business Analyst, McKinsey & Company	2017-18

FELLOWSHIPS, HONORS, AND AWARDS

Sloan Africa Fellowship	2025-26
Hausman Dissertation Fellowship	2024-25
George and Obie Schultz Fund Grant	2023, 2024
MIT Presidential Fellowship	2020-22
Gold Medal, Indian Statistical Institute	2020
Graduate Fellowship, Indian Statistical Institute	2018-20

PROFESSIONAL ACTIVITIES

Presentations:

Annual Conference on Economic Growth and Development	2024

PUBLICATIONS

"Risk preferences of learning algorithms," *Games and Economic Behavior,* 2024. (with Andreas Haupt)

"Ex-post implementation with interdependent values," *Games and Economic Behavior,* 2023. (with Saurav Goyal)

"Single peaked domains with designer uncertainty," *Social Choice and Welfare,* 2023.

"Coverage analysis in millimeter wave cellular networks with reflections," *IEEE Global Communications Conference,* 2017. (with T.V. Sreejith and Radha Krishna Ganti)

RESEARCH PAPERS

"Governance of Supply Relationships: Evidence from Indian Manufacturing" (Job Market Paper)

How should firms dynamically manage a supplier portfolio to improve contracting outcomes? This paper analyzes a large Indian buyer's policy of promoting high-performing suppliers to higher tiers that receive increased order volume. I estimate a structural dynamic principal-agent model to quantify the policy's value and disentangle its two mechanisms: retaining better suppliers by sorting them based on a persistent type, and mitigating moral hazard by using relational value and induced competition to incentivize effort. A novel two-stage estimation strategy first recovers the buyer's policy using an iterative algorithm to handle unobserved supplier tiers, then estimates a dynamic effort choice model of supplier behavior conditional on this policy. The policy improves performance by 12% over random allocation, with selection effects dominating incentive effects (66% vs. 34% of the total value). The economic value of this relational approach is significant—achieving the same performance improvement in a spot-market benchmark would require 18% higher payments to suppliers. Counterfactual analysis shows that a policy optimized for the estimated environment could improve performance by 28%, but the firm's current policy is more robust to facing a less capable supplier pool.

"Supply Chain Resilience via Partial Integration" (with Vishan Nigam)

How do firms adapt to ensure supply chain resilience? The typical answer, vertical integration, is limited in practice by its high costs and inflexibility. This paper considers partial integration, defined as targeted buyer interventions across firm boundaries, as an alternative. Using novel administrative data from Indian supply chains for fabricated steel products, we show that supplier underinvestment in inputs, stemming from working capital constraints and non-contractible input use, is the primary driver of disruptions in these supply chains. To reduce the incidence of disruptions, the buyer exerts control over supplier processes—through in-person monitoring, contingent contracts, and direct sourcing of raw materials—rather than only using cash advances. This buyer involvement escalates as disruption risk increases: an unanticipated input cost shock leads to direct buyer control of inputs for the most constrained suppliers. We develop a three-stage model that rationalizes these strategies. The model clarifies that buyers control input decisions to prevent resource diversion due to non-contractibility, while allowing suppliers to retain control of production in order to preserve output market incentives. It also predicts that relational buyers with low monitoring and sourcing costs enjoy a comparative advantage in fostering resilient trade with poor regions.

"Interest Caps, Competition, and Strategic Borrowing: Evidence from Kenya" (with Tavneet Suri and Prashant Bharadwaj)

We study Kenya's 2016 interest-rate regulation, which capped bank lending but left one digital platform, called M-Shwari, exempt on the lending side while imposing a deposit-rate floor across all lenders. Using borrower-level administrative data,

survey data, and an RD around the implementation date, we show three main results. First, lending on the exempt platform rose, with the safest borrowers substituting toward cheaper capped credit. Second, riskier borrowers increase their savings to build up their credit limits. Third, on the supply side, M-Shwari raises the limits for the safest borrowers in an attempt to retain them. We build and estimate a simple model of screening and credit limit-setting to interpret these reallocations and compute welfare. The observed carve-out for M-Shwari preserves access for high-risk borrowers but yields a slight aggregate welfare decline relative to pre-policy. However, a uniform (across all lenders) interest rate cap counterfactual generates substantially larger welfare losses by eliminating credit for high-risk borrowers.

RESEARCH IN PROGRESS

"Disaggregating Organizations: The Effect of CEOs on Firm Markups" (with Kartik Vira)

Do different CEOs within the same firm systematically set different markups, or are markups determined solely by firm-level optimization? To answer this question, we estimate a Two-Way Fixed Effects (TWFE) model of firm markups on CEO and firm dummies. We use the De Loecker et al. (2020) framework to estimate firm-year level markups, and use CEO movements between firms to identify CEO effects on markups. We address limited mobility bias using the leave-out estimator of Kline et al. (2020). To enable meaningful comparisons across different connected sets of firms and CEOs, we apply the normalization procedure of Best et al. (2023). After applying these corrections, we estimate that CEO effects explain 10-15% of the overall variance in markups.

"Competition and Information Sharing" (with Lia Petrose)

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 some 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.

MIT Economics

VISHAN NIGAM

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
vishan@mit.edu
https://economics.mit.edu/people/phd-students/vishan-nigam

HOME CONTACT INFORMATION
148 Allston Street, Apt 2
Cambridge, MA 02139
Mobile: 609-712-9922

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

Massachusetts Institute of Technology (MIT)
PhD, Economics, Expected completion June 2026
DISSERTATION: "Essays on Technology in Global Supply Chains"

DISSERTATION COMMITTEE AND REFERENCES

Professor David Atkin
MIT Department of Economics
77 Massachusetts Avenue, E52-550
Cambridge, MA 02139
203-936-9367
atkin@mit.edu

Professor Abhijit Banerjee
MIT Department of Economics
77 Massachusetts Avenue, E52-540
Cambridge, MA 02139
617-253-8855
banerjee@mit.edu

Arnaud Costinot
MIT Department of Economics
77 Massachusetts Avenue, E52-534
Cambridge, MA 02139
617-324-1712
costinot@mit.edu

PRIOR EDUCATION

Princeton University — 2018
AB in Economics, *summa cum laude*

CITIZENSHIP: USA **GENDER:** Male

LANGUAGES English (native), Spanish (fluent), Hindi (fluent)

FIELDS Primary Fields: International Trade, Development Economics [firms]

Secondary Fields: Organizational Economics

TEACHING EXPERIENCE

14.772: PhD Development Economics – Macro (firms, trade, industrial policy) — 2024
TA to Prof. Rob Townsend and Prof. Isabela Manelici

14.771: PhD Development Economics – Micro (households) — 2023
TA to Prof. Esther Duflo and Prof. Ben Olken

	14.73: Undergraduate Development Economics TA to Prof. Esther Duflo and Prof. Frank Schilbach	2023
RELEVANT POSITIONS	Research Assistant to David Atkin (MIT), Amit Khandelwal (Yale), and John van Reenen (LSE)	2020-23
	Predoctoral Fellow for Michael Greenstone (UChicago)	2020-22
FELLOWSHIPS, AWARDS, AND GRANTS	Dartmouth Globalization Fellowship [visitor]	Fall 2025
	MIT Jerry A. Hausman Dissertation Fellowship	2024-25
	NSF Graduate Research Fellowship	2020-23
	George and Obie Shultz Fund [automotive design project]	2024
	STEG PhD Grant [with Dan Ehrlich]	2024
	IGC Early Career Grant [with Brandon Tan]	2023
	George and Obie Shultz Fund [supply chain resilience project]	2022

SEMINAR PRESENTATIONS MIT Organizational Economics Seminar, LSE Junior Trade Workshop, MIT Sloan Priority Technologies Group (2025); NEUDC (2021)

RESEARCH PAPERS

"Specialization by Design: the Unequal Geographic Effects of Modular Product Design" (Job Market Paper)

This paper shows that modular product design – a revolution in how firms innovate – concentrates technology-intensive industries in large economies by magnifying their scale advantages. Modular products follow common design rules, and thus can share engines, batteries, and other technology-intensive inputs. Using a model of design and trade, new data on twenty years of global automotive development, and within-firm rollouts and merger exposure as adoption shocks, I show that modularization relocates input supply chains in two phases. In a first *globalization* phase, firms source more from abroad (by 45%) because shared inputs are produced in their largest markets to increase production scale. In a second *homogenization* phase, countries specialize less in characteristics (by 56%); for instance, poor countries export fewer inputs for affordable cars. In model counterfactuals, modularity concentrates aggregate input production and shapes the returns to industrial policy. Specifically, a fully modular technology – electric vehicles – doubles Chinese and American input production shares, deindustrializes Europe and most developing countries, and implies that U.S. tariffs on China (but not other countries) have larger reshoring effects.

Unreliable Firms: Evidence from Rwanda (with Brandon Tan)
Journal of Development Economics (forthcoming)

This paper develops a new measure of reliability – whether firms execute transactions on-schedule – for the universe of Rwandan formal firms using transaction timing data and describe the characteristics of reliable firms. Reliable firms have larger interfirm sales, export more, supply exporters and multinationals, and transact with other reliable firms. Reliable firms are less

sensitive to supply chain disruptions. Supplying an MNC increases seller reliability even when servicing non-MNC buyers.

Supply Chain Resilience via Partial Integration (with Aroon Narayanan)

How do firms adapt to ensure supply chain resilience? This paper introduces partial integration, defined as targeted buyer interventions across firm boundaries, as an effective alternative to full vertical integration. Using novel daily timeline data from Indian manufacturing supply chains, we show that supplier underinvestment in key inputs, stemming from working capital constraints and noncontractibilities in input use, are the primary driver of supply chain disruptions. To overcome these issues, buyers exert control over supplier processes—through in-person monitoring, contingent contracts, and direct sourcing of raw materials—rather than merely advancing cash. This buyer involvement escalates as disruption risk increases: an unanticipated working-capital shock leads to direct buyer control of inputs for the most constrained suppliers. We develop a three-stage model that rationalizes these strategies, which clarifies that buyers control input decisions to prevent resource diversion due to noncontractibility. The model predicts that relational buyers with low monitoring and sourcing costs enjoy a comparative advantage in fostering resilient trade with poor regions.

Who Picks Winners? Evidence from Industrial Policy Application Cycles (with Tishara Garg)

In many settings, bureaucrats are formally responsible for industrial policy, but politicians retain de facto power to disburse limited funds. Using confidential data on the universe of industrial subsidy applications in a large Indian state, we show that bureaucrats approve over 90% of applications, yet fewer than 30% of approved subsidies are ultimately paid, with an average delay of 3.5 years. Firm bargaining power (proxied by size and local headquarters) predicts earlier payouts, and payments often prioritize a specific high-profile plants or industrial cluster. Moreover, firms facing larger negative demand shocks—identified via a shift-share design—are more likely to receive payments for previously approved investments. These results highlight the challenge of insulating industrial policy from political influence, as constrained funds and opaque decision-making enable favoritism long after investments have been made.

RESEARCH IN PROGRESS

Managing the Machine: Organizing Production in the Automated Firm (with David Atkin, Amit Khandelwal, and John van Reenen)
A Bank on Every Corner? Informal Supply Chain Credit Amid Information Frictions (with Daniel Ehrlich)
The Spatial Reach of Family Business: Evidence from India (with Sukrit Puri and Shivram Viswanathan)

OTHER PUBLICATIONS

Does Social Distancing Matter? (with Michael Greenstone)
COVID Economics, 2020.

MIT Economics

LIA PETROSE

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
lpetrose@mit.edu
https://economics.mit.edu/people/students/lia-petrose

HOME CONTACT INFORMATION
10232 Ebb Tide Lane
Laurel, MD 20723

Mobile: 240-893-1052

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Professor Nikhil Agarwal
MIT Department of Economics
77 Massachusetts Avenue, E52-440
Cambridge, MA 02139
617-324-6804
agarwaln@mit.edu

Professor Dave Donaldson
MIT Department of Economics
77 Massachusetts Avenue, E52-552
Cambridge, MA 02139
617-258-6242
ddonald@mit.edu

Professor Nancy Rose
MIT Department of Economics
77 Massachusetts Avenue, E52-420
Cambridge, MA 02139
617-253-8956
nrose@mit.edu

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

In most American cities, public transit agencies are quasi-monopolists operating with a budget constraint. They set prices and product quality—measured as reliability—to maximize a weighted sum of producer and rider welfare subject to that budget constraint. Under our assumptions, economic theory (Spence, 1975) predicts that quality will be under-provided in this setting. However, empirical evidence is scarce for U.S. cities, partly due to the lack of plausibly random variation in transit prices. This paper studies the problem faced by the agency in the context of the Massachusetts Bay Transit Authority (MBTA). We estimate demand for public transit and the willingness to pay for quality using (i) an event study of a routine price increase by the MBTA, and (ii) a sharp increase in delays and slowdowns in 2022 on the MBTA. We find that riders have large elasticities with respect to measures of quality, but respond modestly to price changes. We then consider the case where the agency places heterogeneous weights on rider types, and is allowed to price discriminate along those dimensions. We conclude that more flexible pricing relative to the status quo would improve total surplus.

"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. Our identification of the information structure relies on firms' price responses to rival cost shocks being non-zero and maintaining the same sign for all cost shock realizations, if they observe them. Then, fixing the information structure, we can test which pricing conduct model best explains the observed prices.

MIT Economics

KAILASH RAJAH

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
krajah@mit.edu
https://economics.mit.edu/people/phd-students/kailash-rajah

HOME CONTACT INFORMATION
Mobile: 857-320-8320

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Professor Esther Duflo
MIT Department of Economics
77 Massachusetts Avenue, E52-544
Cambridge, MA 02139
617-258-7013
eduflo@mit.edu

Professor Frank Schilbach
MIT Department of Economics
77 Massachusetts Avenue, E52-560
Cambridge, MA 02139
fschilb@mit.edu

Professor Abhijit Banerjee
MIT Department of Economics
77 Massachusetts Avenue, E52-540
Cambridge, MA 02139
617-253-8855
banerjee@mit.edu

PRIOR EDUCATION

University of Chicago — 2018
Master of Arts in Public Policy (MACRM Program)
With Honors

The University of Adelaide — 2013
Bachelor of Civil and Structural Engineering (First Class Honors)
University Medal

FIELDS

Primary Fields: Development Economics, Behavioral Economics

TEACHING EXPERIENCE

Psychology and Economics (Undergraduate MIT course 14.13) — 2026
(Future) Teaching Assistant for Professor Frank Schilbach
Randomization Theory and Practice, JPAL/IPA Research Staff Training — 2024 — 2024

	Conducting Field Research, JPAL/IPA Research Staff Training	2014
	Engineering Modelling and Analysis (Undergraduate) *Teaching Assistant at The University of Adelaide*	
RELEVANT POSITIONS	Research Assistant for Esther Duflo	2022-25
	Research Assistant for Frank Schilbach	2022-25
	Pre-doc for Chris Blattman and Leonardo Bursztyn	2018-20
	Research Assistant for Raul Sanchez de la Sierra and Cyrus Samii	2015-16
	Research Intern at Innovations for Poverty Action, Sierra Leone	2014
FELLOWSHIPS, HONORS, AND AWARDS	Armen Avanessians (1981) Fellow, MIT	202-2022
	King Harris Scholarship, University of Chicago	2017-18
	University Scholarship, University of Chicago	2017-18
	Sir Arvi Parbo Medal, University of Adelaide *Top engineering student in graduating class of approx. 600 students*	2013
	University Medal University of Adelaide *Top 18 undergraduate student across all majors*	2013
	Robin Memorial Prize, University of Adelaide *Best civil engineering final year thesis*	2013
	Water and Environmental Research Group Prize, University of Adelaide	2013 2008-12
	Dean's Merit List, The University of Adelaide	2011-12
	Provost's Honors University of California, San Diego	2011
	Mobility in Asia and the Pacific Exchange Scholarship	2010
	SA Water Undergraduate Scholarship in Civil Engineering, University of Adelaide	
PROFESSIONAL ACTIVITIES	**Presentations:**	
	North East Universities Gender Day, Yale University	2025
	SITE, Gender Session	2025
	Advances with Field Experiments, University of Chicago	2025
	North-American Economic Science Association Conference	2025
	Northeastern Universities Development Consortium, Tufts University	2025
	Grants	
	Weiss Research Grant	2024
	George and Obie Shultz Fund	2021-24
	Weiss Travel and Piloting Grant	2023
	PEDL Exploratory Research Grant	2023
	The Agency Fund	2023
PUBLICATIONS	**Children's Arithmetic Skills Do Not Transfer Between Applied and Academic Math** (with Abhijit Banerjee, Swati Bhattacharjee, Raghabendra Chattopadhyay, Esther Duflo, Alejandro Ganimian, Elizabeth Spelke) *Nature (2025), 639, 673–68* https://doi.org/10.1038/s41586-024-08502-w	

Many poor children worldwide fail to master school mathematics and yet some use

mental arithmetic extensively outside of school. To investigate whether mathematics skills acquired in real-world settings transfer to the classroom and vice versa, we studied children working in markets in Kolkata and Delhi, India (N = 1,436). Nearly all the children used complex arithmetic effectively at work. They were also proficient in solving hypothetical market problems and verbal math problems that were anchored to concrete contexts. However, they failed to solve arithmetic problems of equal or lesser complexity when presented in the abstract format typically used in school. Children's performance in market math is not explained by memorization, access to help, lower stress with more familiar formats, or high incentives for correct performance in markets. In contrast, children with no market-selling experience (N = 471), enrolled in nearby schools, showed the opposite pattern: They performed more accurately on simple abstract problems but only 1% could correctly answer an applied market problem that over a third of working children solved ($p < 0.001$). School children used highly inefficient written calculations and could not combine different operations, arriving at answers too slowly to be useful in real-life or higher mathematics. These findings highlight the importance of educational curricula that bridge the gap between intuitive and formal mathematics.

RESEARCH PAPERS

The Female Labor Supply Constraints of Spousal Jealousy: Experimental Evidence from India (Job Market Paper)

This study presents evidence from two field experiments studying the role of spousal jealousy in constraining married women's employment. In a first experiment (N=1,400), I randomize married women in India to receive a two-week job in either a mixed or women-only workplace. Women randomized to the women-only workplace are 46 percent more likely to apply for a job (13 percentage points) and 31 percent more likely to turn up at the workplace (6 percentage points). A cross-randomized safety treatment suggests that workplace safety is not the main mechanism. Instead, the treatment effects are significantly stronger among women who report having more jealous and controlling husbands. In a second experiment (N=210), I directly test for a spousal jealousy mechanism by measuring whether women are more willing to interact with a male colleague if their husbands can monitor the interaction. I offer women a job that comes with a compulsory online peer support program and give them the option to forgo 20-35% of their salary to guarantee that the peer they are matched with will be a woman rather than a man. Fifty-three percent of women pay for the female peer when these remote interactions are one-on-one, but this drops to 34 percent once their husbands have the option of joining and can therefore monitor the conversations. One-third of households still pay for a female peer even if the mentoring simply involves watching pre-recorded videos of the peer, suggesting even the most innocuous interactions are enough to raise jealousy concerns.

Breadwinning Norms: Experimental Evidence from India
(with Ishaana Talesara)

How important are social norms in shaping women's labor supply relative to neo-classical economic forces? The widely studied "breadwinner norm" holds that it is socially undesirable for married women to earn more than their husbands. We test this prediction using a field experiment in India (N = 4,834). We randomly vary wage offers for salaried jobs among married women. If the norm binds, labor supply should be discontinuous or flatten when women are offered wages above their husband's income. We find no evidence that women withdraw from the labor force when offered wages that exceed their husbands' incomes and can reject negative discontinuities as small as 1.5 percentage points. Instead, labor supply is highly responsive to wages, consistent with standard economic models. These findings hold even in the most conservative households.

Financial Incentives, Health Screening, and Selecting Into Mental Health Care: Experimental Evidence from College Students in India
(with Emily Breza, Kevin Carney, Vijaya Raghavan, Thara Rangaswamy, Gautam Rao, Frank Schilbach, Sobia Shadbar and James Stratton)

Young adults worldwide experience high rates of depression and anxiety, but few seek treatment. While financial incentives may increase uptake, they might misallocate scarce resources to individuals with low clinical need. We conducted a randomized controlled trial in Chennai, India (N=340) to test how modest financial incentives and personalized mental health feedback affect the uptake of free therapy among college students. Despite 56% of students screening positive for at least mild depression or anxiety, only 3% in the control group attended therapy. A small cash incentive (~$6 USD) increased appointments by 9 pp (p=0.06) and slightly improved targeting. Personalized recommendations increased appointments by 10 pp (p=0.08) among symptomatic students while reducing them among asymptomatic students, thus improving targeting. Combining cash incentives with personalized recommendations increased appointments by 23 pp ($p < 0.01$) among symptomatic individuals, without generating take-up by asymptomatic individuals. These findings suggest that low-cost incentives coupled with screening information can effectively increase uptake while targeting limited mental health care resources to those with greater need.

OTHER PUBLICATIONS

Changes to the Temporal Distribution of Daily Precipitation (with Seth Westra, Michael Leonard, Gabriella Petrakis, Alice Turner, Tess O'Leary)
Geophysical Research Letters (2014), 41, no. 24: 8887-8894.
https://doi.org/10.1002/2014GL062156

Theoretical models of climate change generally predict that, at the global scale, increases in extreme precipitation will come at the expense of moderate and light precipitation events. We test this theory using a Gini coefficient to create a new measure of rainfall variability which we apply to data from over 12,000 rainfall stations. Contrary to standard models, we find that while some regions such as East

Asia, Central America, and Brazil have experienced a decrease in light precipitation days, other regions such as the US, South America, and Australia have experienced an increase in wet and light precipitation days. Our findings call for a more nuanced model of how the temporal and spatial distribution of rainfall may respond to global warming.

MIT Economics

VINCENT ROLLET

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
vrollet@mit.edu
https://economics.mit.edu/people/phd-students/vincent-rollet

HOME CONTACT INFORMATION
209 Hamilton Street, Apt 4L
Cambridge, MA 02139
Mobile: 857-335-6817

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Professor Dave Donaldson
MIT Department of Economics
77 Massachusetts Avenue, E52-552
Cambridge, MA 02139
617-258-6242
ddonald@mit.edu

Professor David Atkin
MIT Department of Economics
77 Massachusetts Avenue, E52-550
Cambridge, MA 02139
203-936-9367
atkin@mit.edu

Professor Tobias Salz
MIT Department of Economics
77 Massachusetts Avenue, E52-460
Cambridge, MA 02139
617-715-2266
tsalz@mit.edu

Professor Vincent Pons
Harvard Business School
Morgan Hall, 289 Soldiers Field
Boston, MA 02163
617-899-7593
vpons@hbs.edu

PRIOR EDUCATION

École Polytechnique — 2020
B.S. in Mathematics and Physics, M.S. in Economics

CITIZENSHIP French **GENDER:** Male

LANGUAGES English (Proficient), French (Native), German (Intermediate), Italian (Beginner)

FIELDS

Primary Fields: Urban Economics, International Trade, Political Economics

Secondary Fields: Industrial Organization

TEACHING EXPERIENCE

Public Economics I (14.471, MIT) — 2026
Teaching Assistant to Nathaniel Hendren, James Poterba, and Ivan Werning

	International Economics II (14.582, MIT) Teaching Assistant to David Atkin, Arnaud Costinot, and Dave Donaldson	2023/25/26
	Principles of Microeconomics (14.01, MIT) Teaching Assistant to Jonathan Gruber	2022
	Introduction to Economics (ECO361, École Polytechnique) Teaching Assistant to Olivier Gossner and Jean-Baptiste Michau	2020

RELEVANT POSITIONS

Research Assistant for Daron Acemoglu	2020-2021
Research Assistant for Vincent Pons	2019
Research Assistant for Pierre Boyer	2018
Analyst at the French Development Agency	2018

FELLOWSHIPS, HONORS, AND AWARDS

Jerry A. Hausman Dissertation Fellowship (2023-2024)
C. Lowell Harriss Dissertation Fellowship, Lincoln Institute of Land Policy (2023)
George and Obie Shultz Fund (2022-2025)
Pathways to Research and Doctoral Careers (PREDOC) Award (2022)
Roger Altman Family MIT Fellowship (2021)
Heising-Simons MIT Presidential Fellowship (2020)
École Polytechnique Research Internship Prize (2019)

PROFESSIONAL ACTIVITIES

Referee for: American Economic Review · Quarterly Journal of Economics · Journal of the European Economic Association · Economic Journal · Journal of Urban Economics · Journal of Law, Economics, and Organization

Invited presentations and conferences:
2025: Harvard · MIT · European UEA Meeting · PSE · CREST-École Polytechnique · UEA Summer School · NBER Summer Institute (Urban Economics/Real Estate) · North American UEA Meeting
2020-2024: Sciences Po · Harvard · CREST-École Polytechnique · Boston University · SIOE · MIT · NEUDC · CURE

Co-president, MIT Graduate Economics Association (2023-2024)
MIT Economics Mental Health & Peer Support Group (2021-2024)

PUBLICATIONS

Electoral Turnovers (with Benjamin Marx and Vincent Pons), *The Review of Economic Studies,* 2025.

In most national elections, voters face a key choice between continuity and change. Electoral turnovers occur when the incumbent candidate or party fails to win reelection. To understand how turnovers affect national outcomes, we study all presidential and parliamentary elections held globally between 1946

and 2018. We document the prevalence of turnovers over time and estimate their effects on economic performance, human development, and the quality of democracy. Using a close-elections regression discontinuity design across countries, we show that turnovers improve several measures of country performance. To explain these positive effects, we explore how electoral turnovers affect leader characteristics, shape policy decisions, reduce perceived corruption, and foster accountability.

RESEARCH PAPERS

Zoning and the Dynamics of Urban Redevelopment (Job Market Paper)
Best Student Paper at the 2025 European UEA Meeting

Cities increasingly grow through redevelopment—tearing down old buildings to make way for new ones. This paper studies this process and how it is influenced by zoning, which regulates the size and use of new buildings. I build a dynamic general equilibrium model of floorspace supply and demand, which I estimate using a newly constructed parcel-level panel of buildings and zoning in New York City. I validate the model using quasi-experimental variation from recent zoning reforms and apply it to evaluate the effect of relaxing regulation on construction and affordability. While zoning strongly constrains city growth, the effects of relaxing regulation take decades to materialize and are limited in inexpensive or densely built areas. This is due to the large fixed costs of redevelopment, which rise sharply with the size of existing buildings and generate considerable persistence in city structure. Furthermore, due to migration spillovers, the affordability benefits of zoning reform largely accrue to households outside the rezoned neighborhoods.

Ambient Density and Urban Crime: Evidence from Smartphone Data
(with Raphaël Lafrogne-Joussier)
Honorable Mention at the 2023 European UEA Meeting

Ambient density—the number of people in a given area at a given time—is believed to be an important determinant of urban safety. Testing this hypothesis has been hindered by the difficulty of measuring the movements of ordinary citizens, which we overcome by using smartphone data. We find that increasing the ambient density in a neighborhood raises the number of crimes reported there but lowers victimization rates. The beneficial effects of density are strongest in neighborhoods with more social capital, and low- to medium-density levels. Finally, we show how the rise of remote work may affect crime rates across the city.

Measuring Winners and Losers from Increasing Housing Supply
(with Laura Weiwu)

Local governments often restrict the construction of new housing through zoning and permitting hurdles. This resistance suggests that increasing the housing stock in an area may harm some of its existing residents. Understanding these losses is key to facilitating new housing construction. In

this paper, we measure who gains and who loses from a local increase in the housing supply, and why. We build a model of household location choices over time, allowing us to measure the effect of construction on amenities, prices, and local taxes. To estimate this model, we gathered detailed data describing individual housing units, households and their migration patterns, local public finances, and zoning regulations.

Quantifying Aggregate Impacts in the Presence of Spillovers
(with Dave Donaldson and Federico Huneeus)

A much-lamented threat to the validity of standard policy evaluation tools is the presence of spillovers between treated and untreated groups. Economic interactions across units of analysis—due to the flow of goods, factors, and payments to and from the government, for instance—result in bias in standard estimates of objects of interest such as the average treatment effect or the total effect of a program. In this paper, we develop a suite of approaches that can enable researchers to use theory and data about economic flows and distortions in order to overcome this bias. We apply this methodology to estimate the effects of a large earthquake that struck Chile in 2010.

The Lifecycle of Protests in the Digital Age
(with Pierre Boyer, Germain Gauthier, Yves Le Yaouanq, and Benoit Schmutz-Bloch)

We propose a theory of how social media affects the likelihood, size, intensity, and duration of protest movements. Social media reveals the potential for mobilization and the proportion of radicals among protesters. Thus, while it may spark mass protests, it also increases the risk of violence and subsequent loss of public support. We illustrate this phenomenon with the 2018 French Yellow Vests uprising, whose early success and popularity were abruptly undermined by street violence. Online mobilization initially helped organize large, peaceful protests, but these protests triggered a second wave of more radical online activity that ultimately crowded out moderate protesters.

The Global Incumbency Advantage
(with Raphaël Descamps, Benjamin Marx, and Vincent Pons)

This paper provides causal estimates of the incumbency advantage at the national level. Leveraging a close-elections regression discontinuity design and data from all national elections worldwide since 1945, we measure the extent to which an election victory increases winners' probability of staying in power beyond the term they were elected for. On average, incumbents benefit from an incumbency advantage, but these effects are short-lived and differ markedly across contexts: they are very large in Western Europe, North America and Africa, but muted or even reversed in Latin America, Asia and Oceania. In established democracies, the incumbency advantage reflects a boost in the subsequent electoral performance of election winners. In less democratic

regimes, it stems from institutional manipulation of elections' timing and results. These patterns echo incumbency advantage estimates at the local level, which we comprehensively survey in a meta-analysis.

DATA RESOURCES

National Elections Database
(with Benjamin Marx and Vincent Pons)

The National Elections Database provides information on the results of presidential and parliamentary elections conducted worldwide since 1789. The dataset covers 6,309 national elections (1,409 presidential elections and 4,900 parliamentary elections) held between 1789 and 2023 across 212 countries and independent territories. The dataset aims to achieve the broadest possible time and spatial coverage by compiling information from various sources.

BOOKS (IN FRENCH)

Introduction aux Sciences Économiques (with Olivier Gossner and Jean-Baptiste Michau), *Éditions Economica*, 2024
An introduction to economics textbook

La Théorie des Jeux, *Pandore*, 2020
A primer in game theory

La Physique Quantique, *Pandore*, 2014
A primer in quantum physics, over 14,000 copies sold

RESEARCH IN PROGRESS

Ideology and National Outcomes
(with Jean Lavallée, Benjamin Marx, and Vincent Pons)

We measure the ideological positions of over 8,000 political parties by harmonizing expert surveys and party manifestos, capturing stances on various topics including redistribution and taxation, market regulation, trade, and social values. We link these parties to the results of all presidential and parliamentary elections held worldwide since 1945. Using a close-elections regression discontinuity, we estimate the effect of electing parties with different ideologies on national policy.

MIT Economics

RECA SARFATI

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
sarfati@mit.edu
https://economics.mit.edu/people/phd-students/reca-sarfati

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Isaiah Andrews
MIT Department of Economics
77 Massachusetts Avenue, E52-530
Cambridge, MA 02139
617-253-4860
iandrews@mit.edu

Anna Mikusheva
MIT Department of Economics
77 Massachusetts Avenue, E52-526
Cambridge, MA 02139
617-324-5459
amikushe@mit.edu

Alberto Abadie
MIT Department of Economics
77 Massachusetts Avenue, E52-546
Cambridge, MA 02139
617-253-1000
abadie@mit.edu

PRIOR EDUCATION

Brown University 2018
Sc.B., Computer Science and Mathematics *(magna cum laude)*

CITIZENSHIP USA, Switzerland **GENDER:** Female

FIELDS

Primary Field: Econometrics
Secondary Fields: Development, Experimental

TEACHING EXPERIENCE

MIT

14.386 - New Econometric Methods (PhD) 2026
Teaching Assistant to Alberto Abadie and Anna Mikusheva

14.39/390 - Large-Scale Decision Making and Inference 2025
Teaching Assistant to Isaiah Andrews

14.381 - Estimation & Inference of Linear Models (PhD Core II) Teaching Assistant to Whitney Newey 2022-24

14.380 - Statistical Methods in Economics (PhD Core I) 2024
Teaching Assistant to Ashesh Rambachan

14.76/760 - Firms, Markets, Trade, and Growth 2023
Teaching Assistant to David Atkin and Dave Donaldson

14.009 - Economics and Society's Greatest Problems 2022
Teaching Assistant to Esther Duflo

BROWN UNIVERSITY

CSCI 1915K - Algorithmic Game Theory 2018
Teaching Assistant to Amy Greenwald

CSCI 1570 - Design and Analysis of Algorithms 2017
Teaching Assistant to Paul Valiant

CSCI 0160 - Intro to Algorithms and Data Structures 2017
Teaching Assistant to Seny Tamara

PLCY 2455 - Statistics for Public Policy (MPA) 2016
Teaching Assistant to John Friedman

PLCY 2460 - Microeconomics for Public Policy (MPA) 2016
Teaching Assistant to Emily Oster

RELEVANT POSITIONS

President, MIT Graduate Economics Association 2022-24

Research Analyst, Federal Reserve Bank of New York, Macroeconomic and Monetary Studies 2018-20

FELLOWSHIPS, HONORS, AND AWARDS

Best Graduate Teaching Assistant, *MIT Dept. of Economics* 2025

Graduate Research Fellowship, *National Science Foundation* 2020-26

Phi Beta Kappa & Sigma Xi, *Brown University* 2018

Women of Computer Science '84 Undergraduate Teaching Assistant Award, *Brown University*. 2017

PUBLICATIONS

"Online Estimation of DSGE Models," *The Econometrics Journal,* Vol. 24, Issue 1, January 2021**.** (with Michael Cai, Marco Del Negro, Edward Herbst, Ethan Matlin, and Frank Schorfheide). **[Paper]**

CONFERENCE PAPERS

"Estimating HANK for Central Banks," *Heterogeneity in Macroeconomics: Implications for Monetary Policy, 1st ed. Central Bank of Chile, 2024.* (with Sushant Acharya, Marco Del Negro, Ethan Matlin, William Chen, Keshav Dogra, Shlok Goyal, Donggyu Lee, Sikata Sengupta). **[Paper]**

"Hindsight and Sequential Rationality of Correlated Play," *Proceedings of the AAAI Conference on Artificial Intelligence,* May 2021. (with Morrill, Ryan D'Orazio, Marc Lanctot, James R Wright, Amy Greenwald, Michael Bowling). **[Paper]**

RESEARCH PAPERS

"Post Pre-Analysis Plans: Valid Inference for Non-Preregistered Specifications" (Job Market Paper) (with Vod Vilfort) **arXiv**

Pre-analysis plans (PAPs) have become standard in experimental economics research, but it is nevertheless common to see researchers deviating from their PAPs to supplement preregistered estimates with non-prespecified findings. While such ex-post analysis can yield valuable insights, there is broad uncertainty over how to interpret -- or whether to even acknowledge -- non-preregistered results. In this paper, we consider the case of a truth-seeking researcher who, after seeing the data, earnestly wishes to report additional estimates alongside those preregistered in their PAP. We show that, even absent "nefarious" behavior, conventional confidence intervals and point estimators are invalid due to the fact that non-preregistered estimates are only reported in a subset of potential data realizations. We propose inference procedures that account for this conditional reporting. We apply these procedures to Bessone et al. (2021), which studies the economic effects of increased sleep among the urban poor. We demonstrate that, depending on the reason for deviating, the adjustments from our procedures can range from having no difference to an economically significant difference relative to conventional practice. Finally, we consider the robustness of our procedure to certain forms of misspecification, motivating possible heuristic checks and norms for journals to adopt.

“Narrative-Hacking” [Draft]

Economists seldom base conclusions on isolated hypothesis tests. Rather, it is common to combine multiple atomic tests in a logical structure to serve higher-order purposes—such as distinguishing between competing theories, defending causal claims, diagnosing mechanisms, and arranging disparate facts into coherent stories. These economic "narratives" are foundational to how findings are framed, interpreted, and communicated—governing a paper's overarching message and ultimate societal impact. Yet, a single set of test outcomes can support many narratives, not all of which are true. While practitioners today recognize the importance of multiple testing corrections to guard against practices such as *p*-hacking, these procedures target *atomic* errors, not those of downstream narratives built upon them. This paper presents a general model for the construction and testing of narratives that admits a formal definition of Type I "narrative error." After partitioning narratives into two classes—monotonic (e.g., impact evaluations) and non-monotonic (e.g., balance checks)—we first show a positive result: if a narrative admits a representative test that is (weakly) increasing in atomic rejections, any procedure that controls the family-wise error rate (FWER) at level alpha automatically delivers uniform narrative size control at alpha. A corollary is a "free narrative shopping" guarantee: once atomic tests are fixed or preregistered, researchers may explore any monotone narratives ex post without inflating size, thereby immunizing them against potential concerns of ex post "narrative-hacking." We then find an impossibility result: when testing sets that include non-monotone narratives—e.g., a narrative and its negation—atomic FWER control cannot achieve uniform narrative size control with alpha < 0.5. To accommodate arbitrary collections of narratives, we provide a novel procedure that relates uniform size control to the construction of joint confidence sets. We show this approach is necessary and sufficient to control narrative error for any set of narratives, invariant to their number or composition.

RESEARCH IN PROGRESS

Balance Checks as Conditional Reporting (with Vod Vilfort)

Upon determining that "covariate balance has failed," it is common for researchers to adjust their intended specification—be this by moving from the short regression to the covariate-adjusted long regression, or not reporting findings at all. As any given finite sample will exhibit some chance imbalance, this selective reporting can yield distortions in the sampling distribution of the reported estimator, invalidating conventional unconditional inference procedures. We propose a residualized estimator as a solution to this selective reporting problem, and show that, under very general conditions, this estimator is an asymptotically optimal tool for treatment effect estimation in RCTs, offering superior efficiency and unique robustness against bias induced by balance-check-based selective reporting.

Inference with Selected Instruments (with Vod Vilfort)

Researchers in applied economics frequently select instrumental variables based on data-dependent criteria. This practice ranges from heuristic checks —such as discarding instruments that yield implausible point estimates or unstable results across specifications—to the common practice of pre-testing for instrument strength, wherein specifications are selected based on criteria like the first-stage F-statistic to avoid the well-known pathologies of weak instruments. In all these cases, the final estimation is performed conditional on a data-dependent selection event. This paper demonstrates that conventional inference is invalid when ignoring this data-driven, potentially non-linear selection step. While the potential for conditional bias has been informally recognized—motivating remedies like out-of-sample testing— these approaches sacrifice statistical power. We develop a formal inference procedure that provides valid inference by conditioning on the selection event. Our method accounts for the non-linearity of common selection rules (e.g., $F > 10$), remains robust to the underlying instrument strength, and uniformly dominates sample-splitting approaches in terms of power.

MIT Economics

NAGISA TADJFAR

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
ntadjfar@mit.edu
https://economics.mit.edu/people/phd-students/nagisa-tadjfar

HOME CONTACT INFORMATION
500 Memorial Drive
Cambridge, MA 02139
Mobile: 617-608-8838

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Professor David Autor
MIT Department of Economics
77 Massachusetts Avenue, E52-438
Cambridge, MA 02139
617-253-4669
dautor@mit.edu

Professor Jonathan Gruber
MIT Department of Economics
77 Massachusetts Avenue, E52-318
Cambridge, MA 02139
617-253-8892
gruberj@mit.edu

Professor Nathan Hendren
MIT Department of Economics
77 Massachusetts Avenue, E52-434
Cambridge, MA 02139
773-344-8990
nhendren@mit.edu

Professor Frank Schilbach
MIT Department of Economics
77 Massachusetts Avenue, E52-560
Cambridge, MA 02139
617-253-9299
fschilb@mit.edu

PRIOR EDUCATION

Massachusetts Institute of Technology (MIT) 2017
SB Physics and SB Materials Science and Engineering

CITIZENSHIP USA **GENDER:** Female

FIELDS

Primary Field: Labor

Secondary Fields: Public Economics, Education

TEACHING EXPERIENCE

PhD Labor Economics II (14.662), MIT 2026
TA to Professors David Autor and Nina Roussille

Microeconomic Theory and Public Policy (14.03), MIT 2024, 2025
TA to Professor David Autor

	Data Interpretation (ECON 21300), University of Chicago TA to Professor Steven Levitt	2019
	Solid-State Chemistry (3.091), MIT TA to Professors Niels Holten-Andersen and Robert Macfarlane	2016

RELEVANT POSITIONS

RA to Professor Amy Finkelstein	2020-21
RA to Professors Kerwin K. Charles and Erik Hurst	2019-20
RA to Professor Steven Levitt	2018-19
Investment Banking Analyst, Goldman Sachs	2017-18

FELLOWSHIPS, HONORS, AND AWARDS

Horowitz Foundation for Social Policy Grant	2025
AIBM Student Research Fellowship	2025-26
JPAL European Social Inclusion Initiative Grant ($26,000)	2025
NAEd / Spencer Dissertation Fellowship, *semi-finali*st	2025
Jerry A. Hausman Graduate Dissertation Fellowship	2023-24
George and Obie Shultz Fund	2021-25
Global Priorities Fellowship	2020
National Science Foundation Graduate Research Fellowship	2020
Department of Economics Fellowship	2020
Phi Beta Kappa	2017

PROFESSIONAL ACTIVITIES

Referee: Industrial and Labor Relations Review (ILR Review)

Conference Presentations: CEP Education Conference at LSE, Yale North East Universities Gender Day (co-author), IZA PhD Workshop in Labor and Behavioral Economics (co-author)

Service: Graduate Resident Advisor at MIT Next House**,** MIT Committee of Undergraduate Admissions and Financial Aid, MIT Labor Lunch Organizer, President of Graduate Economic Association, MIT-Harvard Application Assistance and Mentorship Program

RESEARCH PAPERS

"Prediction or Prejudice? Standardized Testing and University Access" (Job Market Paper) (with Kartik Vira)

Do high-stakes standardized tests expand or inhibit opportunity for low-SES students? We answer this question in the context of the UK's staggered elimination of pre-university exams in favor of teachers' predicted exam grades. Eliminating testing increases the university enrollment of low-income students by 3 percentage points (7%), while leaving wealthy students' enrollment unchanged. Marginal students induced to enroll in university attain employment at better firms and, in expectation, earn £50,000—£100,000 more over their careers, in net present value. Paradoxically, standardized exams exhibit no calibration bias against marginal low-income students—accurately predicting their university success—whereas teacher-supplied grades are systematically biased in their favor. Despite proper calibration, standardized

tests inhibit low-SES students by deterring human capital investment. When tests are eliminated, 5% of low-income students shift into academic tracks. These findings highlight how disparate impacts can arise even when screening algorithms are unbiased. When the measurement of information itself poses a direct disutility, standardized tests generate disparities that commence earlier in the pipeline.

"Friends in Higher Places: Social Fit and University Choice"
(with Kartik Vira)

Low-income students are less likely to attend elite universities than equally qualified high-income peers, in large part because they apply at lower rates. We study whether this reflects lack of exposure to students who have attended top universities, and how exposure affects students' perceptions. Using UK administrative data, we exploit "breakthrough" events when a school first sends a student to a top university. Applications from that school to that university subsequently rise by 30%. This access promotes upward mobility: marginal entrants graduate at typical rates and earn £4,000 more annually than matched control students, despite coming from relatively poor backgrounds. To understand why students who lack exposure might not apply, we turn to a field experiment in British schools. We find that a primary barrier is students' beliefs about their social fit. At baseline, low-income students are more pessimistic about their social fit at elite universities, but not their chances of receiving an offer or graduating. Students randomly assigned to view short videos of undergraduates discussing their experiences are 6 percentage points more likely to apply to the speaker's university. This treatment makes students more positive about their social fit at that university, with no effect on other beliefs. Finally, when matched with mentors, students primarily seek out information about social life. Our findings highlight perceptions of the social environment at elite universities as a central barrier to applications and illustrate scalable treatments to promote access and social mobility.

"Firms Believing Women Get Less Means They Do"
(with Nancy Wang)

This paper examines an employer-driven mechanism behind the early-career gender earnings gap using novel data on MIT graduates' job offers and negotiation process. We document three key findings. First, women receive lower initial compensation offers than men within an employer-occupation. Second, this gap is entirely concentrated in non-salary components—signing bonus and equity—with no gap in base salary. Third, we find no gender differences in job search, and women negotiate as frequently and successfully as men. These findings also generalize to a national sample of high-skill workers in a dataset from Levels.fyi. To understand these patterns, we develop a model showing that a small number of discriminatory firms leads all firms in the market to lowball women in equilibrium. This market-wide gender gap is sustained through outside offers and cannot be closed by changes in worker

behavior. We validate this mechanism using an incentivized resume evaluation experiment with recruiters, where we find that firms expect other firms to offer women less. Our results highlight the role of firm behavior—rather than worker decisions alone—in perpetuating gender pay disparities.

RESEARCH IN PROGRESS

"Confidence in Ability and Job Search"
(with Maxim Massenkoff and Nancy Wang)

Can a credible ability signal to high-skill workers augment job search behavior and improve worker allocation across firms? We partner with a large online interviewing platform that screens workers for employers in the tech sector and identifies exceptional users as "one of the best-performing coders on the platform," communicates this fact to the worker, and subsequently offers them access to interview with select firms. Using a fuzzy regression discontinuity (RD) design around the exogenous performance threshold used to identify these users, we find evidence of increased and more ambitious job search as a result of the signal. Workers just above the threshold are 20 percentage points more likely to switch jobs within a year, with effects concentrated among workers with less than 5 years of experience. Workers from lower-ranked universities who did not previously work at an elite firm see improved labor market outcomes 2-5 years after first using the platform—these workers are more likely to work at an elite tech firm and work at companies with 12% higher expected compensation. We find that more than 85% of job switches occur off-platform, suggesting that access to interviews on the platform did not mediate these effects. Instead, our findings are consistent with increased and more ambitious worker search after receiving a credible signal about their ability, particularly among groups that were previously less likely to have considered these opportunities. Our next steps include generating measures of worker self-confidence from self-assessments and video recordings of interviews and characterizing worker-firm match quality.

"No Strings Attached: The Distributional Effects of Unraveling in College Admissions"
(with Phi Adajar and Kartik Vira)

Competition for talent can cause labor market unraveling, where institutions create inefficient matches by extending offers before candidate ability is fully revealed. We study the impacts of early offers in the UK college admission system on college sorting and match quality. We build a theoretical model of student and university choices, generating three predictions about the resulting match, which we then validate empirically in this setting. First, universities with lower student quality are more likely to give early offers; we find that universities in the lowest quintile of yield are 9.4 percentage points more likely to use early offers than the highest quintile. Second, early offers divert high-ability students away from the most competitive universities; in our context, students are 9.6 percentage points less likely to attend an elite university. Finally, also consistent with our model, we find that universities preferentially

target high-achieving students with early offers. These early offers also benefit students directly: students who accept early offers are 6.2 percentage points more likely to graduate on time, though after three more years, this gap is statistically indistinguishable from zero. Universities collectively banned these offers in 2021; to understand the impact of this ban, we build a structural model to evaluate the effects on student match quality and labor market outcomes and compare this system to alternative market designs.

PUBLICATIONS

"Trade Competition and the Decline in Union Organizing: Evidence from Certification Elections" *Journal of Labor Economics, forthcoming.*
(with Kerwin K. Charles and Matthew S. Johnson)

MIT Economics

ISHAANA TALESARA

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
talesara@mit.edu
https://economics.mit.edu/people/phd-students/ishaana-talesara

HOME CONTACT INFORMATION
379 Harvard St. Apt 4
Cambridge, MA 02138
Mobile: 512-983-4749

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Professor David Autor
MIT Department of Economics
77 Massachusetts Avenue, E52-438
Cambridge, MA 02139
617-253-4669
dautor@mit.edu

Professor Daron Acemoglu
MIT Department of Economics
77 Massachusetts Avenue, E52-446
Cambridge, MA 02139
617-253-4669
daron@mit.edu

Professor Simon Jäger
Princeton Department of Economics
and School of Public and
International Affairs
Louis A. Simpson International
Bldg., Room 253A
Princeton, NJ 08544
609-258-6133
simon.jaeger@princeton.edu

PRIOR EDUCATION

The University of Texas at Austin 2020
B.A. Economics, B.S.A Mathematics

CITIZENSHIP USA **GENDER** Female

LANGUAGES English (native), Hindi (fluent)

FIELDS Primary Field: Labor Economics

Secondary Fields: Macroeconomics, Development Economics

TEACHING EXPERIENCE

Economics Research and Communication (MIT course 14.33) 2025
Teaching Assistant to Professor Nina Roussille

Why Markets Fail (MIT course 14.35) 2024
Teaching Assistant to Professor Nathaniel Hendren

RELEVANT POSITIONS

Research Fellow at Vienna University of Economics and Business 2024-
INEQ 2021-2022
Research Assistant to David Autor
Research Assistant to Michael Geruso 2018-2020

FELLOWSHIPS, HONORS, AND AWARDS

Jerry A. Hausman Graduate Dissertation Fellow (MIT) 2023
MIT Economics Alumni Fellowship 2021
National Science Foundation Graduate Research Fellowship 2020
Dean's Distinguished Graduate (UT Austin) 2020
Daniel Hamermesh Senior Thesis Prize in Economics (UT Austin) 2019

PROFESSIONAL ACTIVITIES

Service: MIT Labor Lunch Organizer (2023-2024), MIT Labor Coffee Organizer (2022-2023), MIT Women in Economics Co-President (2022-2023), MIT-Harvard Application Assistance and Mentoring Program Organizer/Mentor (2021-2024)

PUBLICATIONS

Inversions in US Presidential Elections: 1836–2016 (with Michael Geruso and Dean Spears) *American Economic Journal: Applied Economics*, (2022) 14(1), 327-357.

RESEARCH PAPERS

Worker Beliefs about Layoff Risk (Job Market Paper) (with Lukas Lehner and Arthur Wickard)

Job loss is one of the most costly economic risks workers face, but a firm's layoff risk is difficult to observe. We document substantial, persistent variation in firm layoff rates, creating scope for workers to change their job loss risk through firm choice. We exploit linked survey, experimental, and administrative data from Austria to examine how unemployed workers perceive and respond to information about firm-level layoff risk. Workers believe that past layoffs are predictive of future risk and prefer jobs at firms with lower historical layoff rates, but have significant misperceptions about which firms are safer. Providing workers with information about firm layoff histories causes them to redirect their search toward historically safer employers. Using a search and matching model, we show that imperfect information distorts equilibrium outcomes: it reverses the compensating differential for layoff risk and raises the average layoff rate by allocating more workers to high-risk firms.

Monopsony with Insurance (with Arthur Wickard)

Empirical evidence of monopsony power is often identified using shocks yet interpreted through static models which assume spot wages. But when risk averse workers receive insurance via wage contracts, firms' employment and

wage responses to shocks look like those from labor market power. We develop a general equilibrium dynamic monopsony model where firms contract with risk-averse workers over idiosyncratic shocks. Worker risk aversion can produce a more inelastic shock-identified labor supply elasticity without implying wider wage markdowns. Increasing risk aversion and reducing labor market competition both mute the wage pass-through, but only risk aversion smooths the wage response over time. We estimate the model using U.S. Census employer-employee matched data and show that risk aversion is necessary to match the relatively flat wage response observed following idiosyncratic shocks. We find the average worker's wage is marked down 8.3%—narrower than the typical 15%-50% range—and that workers exhibit considerable risk aversion. Insurance also distorts the job ladder, preventing productivity-improving job transitions from occurring.

Breadwinning Gender Norms: Experimental Evidence from India
(with Kailash Rajah)

How important are social norms in shaping women's labor supply relative to neo-classical economic forces? The widely studied "breadwinner norm" holds that it is socially undesirable for married women to earn more than their husbands. We test this prediction using an experiment in India. We randomly vary wage offers for salaried jobs among married women. If the norm binds, labor supply should be discontinuous or flatten when women are offered wages above their husband's income. We find no evidence that women withdraw from the labor force when offered wages that exceed their husbands' incomes and can reject negative discontinuities as small as 1.5 percentage points. Instead, labor supply is highly responsive to wages, consistent with standard economic models. These findings hold even in the most conservative households.

The Tipped Minimum Wage (with Arthur Wickard)

[working paper under IRS review for distribution: expected October 2025]
Labor market policy can regulate total pay (like the minimum wage) or specifically target a form of pay (like the tipped minimum wage). The tipped minimum wage has been the subject of considerable policy debate despite limited evidence on how it will affect workers and firms. In this project, we compare the tipped minimum wage to the minimum wage. Using IRS W-2 and firm tax data, we present new facts about the prevalence of tips in the US. We use state-level temporal variation in the tipped and standard minimum wages to study the effect of the policy on base wages, tips, the composition of earnings, and overall earnings. We also estimate effects on employment and revenue. Our findings contribute directly to the ongoing policy debate surrounding the tipped minimum wage and offer broader insights into the determinants of firms' compensation strategies. We present a monopsony model where firms choose wages and tips to rationalize the results.

RESEARCH IN PROGRESS	**The Labor Market Consequences of Moving Home** (with Nathan Lazarus and Arthur Wickard) Approved US Census RDC Project

MIT Economics

KARTIK VIRA

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
kvira@mit.edu
https://economics.mit.edu/people/phd-students/kartikeya-vira

HOME CONTACT INFORMATION
97 Inman Street, Apt 2
Cambridge, MA 02139
United States
Mobile:
US: +1 617-800-4821
UK: +44 7943 982891

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Professor Frank Schilbach
MIT Department of Economics
77 Massachusetts Avenue, E52-560
Cambridge, MA 02139
fschilb@mit.edu

Professor Daron Acemoglu
MIT Department of Economics
77 Massachusetts Avenue, E52-446
Cambridge, MA 02139
daron@mit.edu

Professor Parag Pathak
MIT Department of Economics
77 Massachusetts Avenue, E52-426
Cambridge, MA 02139
ppathak@mit.edu

PRIOR EDUCATION

Trinity College, University of Cambridge — 2018
B. A. Economics *(double first)*

CITIZENSHIP United Kingdom **GENDER:** Male

FIELDS

Primary Field: Labor Economics

Secondary Fields: Behavioral Economics, Economics of Education

TEACHING EXPERIENCE

Behavioral Economics (graduate, MIT 14.160) — 2023
Teaching Assistant to Professor Frank Schilbach

Public Finance and Public Policy (undergraduate, MIT 14.41) — 2022
Teaching Assistant to Professor Jonathan Gruber

RELEVANT POSITIONS

Research Assistant to Professors Taha Choukhmane and Lawrence Schmidt — 2023-25

Research Assistant to Professor Daron Acemoglu — 2021

	Research Assistant to Professor Frank Schilbach	2021
	Predoctoral Fellowship, Harvard University	2018-20
	Research Assistant to Professors John Beshears, James Choi, David Laibson, and Brigitte Madrian	
	Summer Student, Institute for Fiscal Studies	2017

FELLOWSHIPS, HONORS, AND AWARDS

J-PAL European Social Inclusion Initiative Grant	2025
NBER Global Math Talent Doctoral Fellowship	2023-24
George and Obie Shultz Fund Grant, MIT	2022-25
Carl (1976) Shapiro Fellowship, MIT	2020-22
Senior Scholarship, Trinity College, University of Cambridge	2017

PROFESSIONAL ACTIVITIES

Conference Presentations

LSE Centre for Economic Performance Education Conference	2025
IZA PhD Workshop in Labor and Behavioral Economics	2025

PUBLICATIONS

"The Rise and Rise of Women's Employment in the UK," (with Barra Roantree). IFS Briefing Note BN234, April 2018.

RESEARCH PAPERS

"Friends in Higher Places: Social Fit and University Choice"
(Job Market Paper) (with Nagisa Tadjfar)

Low-income students are less likely to attend elite universities than equally qualified high-income peers, in large part because they apply at lower rates. We study whether this reflects lack of exposure to students who have attended top universities, and how exposure affects students' perceptions. Using UK administrative data, we exploit "breakthrough" events when a school first sends a student to a top university. Applications from that school to that university subsequently rise by 30%. This access promotes upward mobility: marginal entrants graduate at typical rates and earn £4,000 more annually than matched control students, despite coming from relatively poor backgrounds. To understand why students who lack exposure might not apply, we turn to a field experiment in British schools. We find that a primary barrier is students' beliefs about their social fit. At baseline, low-income students are more pessimistic about their social fit at elite universities, but not their chances of receiving an offer or graduating. Students randomly assigned to view short videos of undergraduates discussing their experiences are 6 percentage points more likely to apply to the speaker's university. This treatment makes students more positive about their social fit at that university, with no effect on other beliefs. Finally, when matched with mentors, students primarily seek out information about social life. Our findings highlight perceptions of the social environment at elite universities as a central barrier to applications and illustrate scalable treatments to promote access and social mobility.

"Prediction or Prejudice? Standardized Testing and University Access" (with Nagisa Tadjfar)

Do high-stakes standardized tests expand or inhibit opportunity for low-SES students? We answer this question in the context of the UK's staggered elimination of pre-university exams in favor of teachers' predicted exam grades. Eliminating testing increases the university enrollment of low-income students by 3 percentage points (7%), while leaving wealthy students' enrollment unchanged. Marginal students induced to enroll in university attain employment at better firms and, in expectation, earn £50,000 - £100,000 more over their careers, in net present value. Paradoxically, standardized exams exhibit no calibration bias against marginal low-income students - accurately predicting their university success---whereas teacher-supplied grades are systematically biased in their favor. Despite proper calibration, standardized tests inhibit low-SES students by deterring human capital investment. When tests are eliminated, 5% of low-income students shift into academic tracks. These findings highlight how disparate impacts can arise even when screening algorithms are unbiased. When the measurement of information itself poses a direct disutility, standardized tests generate disparities that commence earlier in the pipeline.

RESEARCH IN PROGRESS

"No Strings Attached: The Distributional Effects of Unraveling in College Admissions" (with Phi Adajar and Nagisa Tadjfar)

Competition for talent can cause labor market unraveling, where institutions create inefficient matches by extending offers before candidate ability is fully revealed. We study the impacts of early offers in the UK college admission system on college sorting and match quality. We build a theoretical model of student and university choices, generating three predictions about the resulting match, which we then validate empirically in this setting. First, universities with lower student quality are more likely to give early offers; we find the universities in the lowest quintile of yield are 9.4pp more likely to use early offers than the highest quintile. Second, early offers divert high-ability students away from the most competitive universities; in our context, students are 9.6pp less likely to attend an elite university. Finally, also consistent with our model, we find that universities preferentially target high-achieving students with early offers. These early offers also benefit students directly: students who accept early offers are 6.2pp more likely to graduate on time, though after three more years, this gap is statistically indistinguishable from zero. Universities collectively banned these offers in 2021; to understand the impact of this ban, we build a structural model to evaluate the effects on student match quality and labor market outcomes, and compare this system to alternative market designs.

"Heterogeneity in Intertemporal Substitution: Evidence from $2 Trillion in Retirement Subsidies" (with Taha Choukhmane, Cormac O'Dea, Jonathan Rothbaum, and Lawrence Schmidt)

The elasticity of intertemporal substitution is a key parameter in models in macroeconomics and public finance, but credible estimates of this parameter require exogenous variation in the intertemporal price of consumption. We use variation in the formula by which employers match their employees' retirement savings contributions in the United States to credibly estimate this parameter jointly with inertia in savings contributions. We link administrative data on earnings and retirement plan contributions for the US population with data on the retirement savings policies at over 100,000 firms. We make use of bunching at kink points in the budget set induced by employer matching, employee responses to moves across firms, employee responses to within-firm plan changes, and responses to automatic enrollment policies to separately identify inertia, risk aversion, and the elasticity of intertemporal substitution. We develop a life-cycle model to exploit these different sources of quasi-experimental variation to estimate the level and heterogeneity in the elasticity of intertemporal substitution across the population.

"Disaggregating Organizations: The Effect of CEOs on Firm Markups" (with Aroon Narayanan)

Do different CEOs within the same firm systematically set different markups, or are markups determined solely by firm-level optimization? To answer this question, we estimate a Two-Way Fixed Effects (TWFE) model of firm markups on CEO and firm dummies. We use the De Loecker et al. (2020) framework to estimate firm-year level markups, and use CEO movements between firms to identify CEO effects on markups. We address limited mobility bias using the leave-out estimator of Kline et al. (2020). To enable meaningful comparisons across different connected sets of firms and CEOs, we apply the normalization procedure of Best et al. (2023). After applying these corrections, we estimate that CEO effects explain 10-15% of the overall variance in markups.

MIT Economics

ARTHUR WICKARD

OFFICE CONTACT INFORMATION
MIT Department of Economics
77 Massachusetts Avenue, E52-301
Cambridge, MA 02139
wickard@mit.edu
https://economics.mit.edu/people/phd-students/arthur-wickard

HOME CONTACT INFORMATION
15 Tremont Street Apt 1, 02139
Cambridge, MA 02139
Mobile: 207-216-5345

MIT PLACEMENT OFFICER
Professor David Autor
dautor@mit.edu
617-253-4669

MIT PLACEMENT ADMINISTRATOR
Mrs. Shannon Robinson
shmay@mit.edu
617-324-5857

DOCTORAL STUDIES

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

DISSERTATION COMMITTEE AND REFERENCES

Professor Daron Acemoglu
MIT Department of Economics
77 Massachusetts Avenue, E52-446
Cambridge, MA 02139
617-253-02139
daron@mit.edu

Professor Iván Werning
MIT Department of Economics
77 Massachusetts Avenue, E52-536
Cambridge, MA 02139
617-452-3662
iwerning@mit.edu

Professor Martin Beraja
Haas School of Business, UC Berkeley
220 Piedmont Ave,
Berkeley, CA 94720
martinberaja@gmail.com

PRIOR EDUCATION

Yale University 2020
B.A. in Mathematics, Economics (with Distinction)

CITIZENSHIP United States **GENDER:** Male

FIELDS Primary Fields: Macroeconomics, Labor Economics

TEACHING EXPERIENCE

14.582 International Economics (Graduate) 2024
Teaching Assistant to Professor Jose Vasquez and Professor Fadi Hassan

14.33 Research and Communication in Economics 2023
Teaching Assistant to Professor James Poterba

14.78 Shaping the Future of Technology 2023

Teaching Assistant to Professor Daron Acemoglu and Professor Simon Johnson

14.03 Microeconomic Theory and Public Policy — 2023
Teaching Assistant to Professor Tobias Salz

14.33 Research and Communications in Economics — 2022
Teaching Assistant to Professor Dave Donaldson

RELEVANT POSITIONS

Research Fellow at Vienna University of Economics, Institute for Economics of Inequality — 2024 - present

Research Assistant to Professor David Autor — 2021-2022

Research Assistant to Professor Michael Peters — 2018-2019

FELLOWSHIPS, HONORS, AND AWARDS

Jerry A. Hausman Graduate Dissertation Fellow (2024-2025)
George and Obie Shultz Fund (2024)
National Science Foundation Graduate Research Fellowship Program: Honorable Mention (2022)
National College Fed Challenge: 1st Place (2018)

PROFESSIONAL ACTIVITIES

IRS Joint Statistical Research Program and U.S. Department of Treasury Office of Tax Analysis Seminar [scheduled October 2025], NBER Behavioral Macroeconomics Research Bootcamp [2024], Princeton Initiative: Macro, Money, and Finance [2022]

RESEARCH PAPERS

Monopsony with Insurance (Job Market Paper) (with Ishaana Talesara)

Empirical evidence of monopsony power is often identified using shocks yet interpreted through static models which assume spot wages. But when risk averse workers receive insurance via wage contracts, firms' employment and wage responses to shocks look like those from labor market power. We develop a general equilibrium dynamic monopsony model where firms contract with risk-averse workers over idiosyncratic shocks. Worker risk aversion can produce a more inelastic shock-identified labor supply elasticity without implying wider wage markdowns. Increasing risk aversion and reducing labor market competition both mute the wage pass-through, but only risk aversion smooths the wage response over time. We estimate the model using U.S. Census employer-employee matched data and show that risk aversion is necessary to match the relatively flat wage response observed following idiosyncratic shocks. We find the average worker's wage is marked down 8.3% – narrower than the typical 15%-50% range – and that workers exhibit considerable risk aversion. Insurance also distorts the job ladder, preventing productivity-improving job transitions from occurring.

Worker Beliefs about Layoff Risk
(with Lukas Lehner and Ishaana Talesara)

Job loss is one of the most costly economic risks workers face, but a firm's layoff risk is difficult to observe. We document substantial, persistent variation in firm layoff rates, creating scope for workers to change their job loss risk through firm choice. We exploit linked survey, experimental, and administrative data from Austria to examine how unemployed workers perceive and respond to information about firm-level layoff risk. Workers believe that past layoffs are predictive of future risk and prefer jobs at firms with lower historical layoff rates, but have significant misperceptions about which firms are safer. Providing workers with information about firm layoff histories causes them to redirect their search toward historically safer employers. Using a search and matching model, we show that imperfect information distorts equilibrium outcomes: it reverses the compensating differential for layoff risk and raises the average layoff rate by allocating more workers to high-risk firms.

The Tipped Minimum Wage (with Ishaana Talesara)

[results under IRS review for distribution: expected October 2025] Labor market policy can regulate total pay (like the minimum wage) or specifically target a form of pay (like the tipped minimum wage). The tipped minimum wage has been the subject of considerable policy debate despite limited evidence on how it will affect workers and firms. In this project, we compare the tipped minimum wage to the minimum wage. Using IRS W-2 and firm tax data, we present new facts about the prevalence of tips in the US. We use state-level temporal variation in the tipped and standard minimum wages to study the effect of the policy on base wages, tips, the composition of earnings, and overall earnings. We also estimate effects on employment and revenue. Our findings contribute directly to the ongoing policy debate surrounding the tipped minimum wage and offer broader insights into the determinants of firms' compensation strategies. We present a monopsony model where firms choose wages and tips to rationalize the results.

RESEARCH IN PROGRESS

The Labor Market Consequences of Moving Home
(with Nathan Lazarus and Ishaana Talesara)
(approved U.S. Census Project)