MIT Economics

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DOCTORAL Massachusetts Institute of Technology (MIT)

STUDIES PhD, Economics, Expected completion June 2025

DISSERTATION: "Healthy Behavior: Essays in Behavioral and Health Economics"

DISSERTATION COMMITTEE AND REFERENCES

Professor Sendhil Mullainathan
MIT Department of Economics

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Professor Ashesh Rambachan MIT Department of Economics 77 Massachusetts Avenue, E52-506

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617-253-1000 asheshr@mit.edu Professor Frank Schilbach MIT Department of Economics 77 Massachusetts Avenue, E52-560

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Professor Amy Finkelstein MIT Department of Economics 77 Massachusetts Avenue, E52-442

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PRIOR Harvard University
EDUCATION A.B., Statistics

Summa Cum Laude

CITIZENSHIP USA GENDER: Male

FIELDS Primary Fields: Health, Behavioral

Secondary Fields: Machine Learning

MIT Economics

FIRST LAST OCTOBER 2024-- PAGE 2

TEACHING EXPERIENCE	Algorithms and Behavioral Science (graduate, MIT course 14.163) Teaching Assistant to Professors Sendhil Mullainathan and Ashesh Rambachan	2025
	Introduction to Statistical Methods in Economics (undergraduate, MIT course 14.30) Teaching Assistant to Professor Alberto Abadie	2024
	Nonlinear Econometrics (graduate, MIT course 14.385) Teaching Assistant to Professors Whitney Newey and Alberto Abadie	2021
	Econometric Data Science (undergraduate, MIT course 14.32)	2021
	Teaching Assistant to Professor Anna Mikusheva Introduction to Theoretical Statistics (undergraduate, Harvard course Statistics 111)	2016
	Teaching Assistant to Doctor Kevin Rader	
RELEVANT POSITIONS	Research Assistant to Professor Tamara Broderick Research Assistant to Professors Sendhil Mullainathan, Jens Ludwig, and Jann Spiess	2022 2018-19
		2018-19
FELLOWSHIPS, HONORS, AND AWARDS	Russell Sage Foundation Small Grant in Computational Social Sciences National Science Foundation Graduate Research Fellowship Derek Bok Certificate of Distinction in Teaching	2020 2019 2016
PROFESSIONAL ACTIVITIES	Referee: AER: Insights, Journal of Public Economics, Journal of the European Economic Association	
	Conference Reviewing: Early Career Behavioral Economics (2023), NeurIPS Workshop on Behavioral Machine Learning (2024)	
	Presentations: SITE (Psychology and Economics), Stanford University Early Career Behavioral Economics, briq Institute Advances with Field Experiments, University of Chicago	2022 2022 2022

PUBLICATIONS "When Guidance Changes: Government Stances and Public Beliefs" Journal of Public Economics, April 2021.

MIT Economics

FIRST LAST OCTOBER 2024-- PAGE 3

RESEARCH PAPERS

"X-Raying Experts: Decomposing Systematic Mistakes in Radiology" (Job Market Paper)

Abstract: Human experts often err. How many of these errors are preventable mistakes, and what drives them? I study these questions in the high-stakes field setting of radiology. Using anonymized health records from a large hospital, I compare radiologists' findings of cardiac dysfunction on chest x-rays to algorithmic predictions, adjudicating between the two with exogenously administered blood tests. I find that at least 46 percent of radiologists systematically mis-rank patients for signs of cardiac dysfunction. A decomposition shows that errors reflect individual radiologists falling short of best clinical practice (a "human frontier"), and a further gap between best practice and algorithmic predictions (a "machine frontier"). Raising radiologists to the human frontier could increase their true positive rates by 6% or decrease false positives by 20%; raising them to the machine frontier would further increase true positives by 4% or decrease false positives by 14%. Examining the incidence of error, I find evidence for behavioral inattention: radiologists react appropriately to salient details such as a patient's age and symptoms, but under-react to complex signals captured by algorithmic predictions.

"Managing Emotions: The Effects of Online Mindfulness Meditation on Mental Health and Economic Behavior"

Abstract: Mindfulness meditation has gained popularity, fueled by accessible smartphone apps and rising concerns about mental health. While such apps are claimed to affect mental well-being, productivity, and decision making, existing evidence is inconclusive due to limited sample sizes and high attrition. We address these concerns by conducting a large-scale, low-attrition experiment with 2,384 US adults, randomizing access and usage incentives for a popular mindfulness app. App access improves an index of anxiety, depression, and stress by 0.38 standard deviations (SDs) at two weeks and 0.46 SDs at four weeks, with persistent effects three months later. It also improves earnings on a focused proofreading task by 2 percent. However, we find near-zero effects on a standard cognitive test (a Stroop task), and on decisions over risk and information acquisition where past economics research has indicated that emotions affect choice. This study provides evidence that digital mindfulness improves mental health and can raise productivity, but suggests that these effects do not stem from traditional measures of cognitive skills nor do they accompany more primitive changes in the information and risk preferences we measure.