KATRINA SUCHOSKI
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EDUCATION

Ph.D., Economics, Boston University, Boston MA, January 2026 (expected)
Dissertation Title: *Rare Diseases and Small Businesses*
Dissertation Committee: Randall P. Ellis, Jihye Jeon, Marc Rysman

M.A., Political Economy, Boston University, Boston MA, 2018

B.S., Mathematics *(Honors, Summa Cum Laude)*, Michigan State University, East Lansing, MI, 2014

FIELDS OF INTEREST

Health Economics, Industrial Organization

WORKING PAPERS

"Discovered During COVID—Explaining Shifts in Rare Disease Prevalence," September 2025. Job Market paper.
"Set-Aside Impact on Federal Government Procurement Quality," September 2025.
"Pooling Cross Product Matrices to Maintain Confidentiality While Enabling Data Sharing and Enhanced Linear Predictive Models," (with Corinne Andriola, Randall P. Ellis, Hugo Guillermou, Grégoire Mercier), September 2025.

PRESENTATIONS

Boston University, Applied Micro Dissertation Workshop, Boston MA, 2016, 2017, 2018, 2020, 2021
Stanford University, Risk Adjustment Network (Randall P. Ellis), Palo Alto CA, 2025

FELLOWSHIPS AND AWARDS

Graduate Teaching Fellowship, Graduate School of Arts and Sciences, Boston University, 2015-2019
Graduate Student Fellowship, Graduate School of Arts and Sciences, Boston University, 2014

WORK EXPERIENCE

PROFESSIONAL EXPERIENCE

Data Scientist Intern, BAE Systems, Sterling Heights MI, January 2021-September 2022
Data Scientist, Wayfair, Boston MA, June 2019-November 2020

TEACHING EXPERIENCE

Instructor, Intermediate Microeconomics, Department of Economics, Boston University, Summer 2018
Head Teaching Fellow, Managerial Economics (MBA), Questrom School of Business, Boston University, Fall 2017-Spring 2019

Teaching Fellow, Introductory Microeconomics, Department of Economics, Boston University, Fall 2015, 2017 Spring 2016, 2019
Teaching Fellow, Empirical Economics, Department of Economics, Boston University, Fall 2018, Spring 2018
Teaching Fellow, Introductory Macroeconomics, Department of Economics, Boston University, Spring 2017
Teaching Fellow, Intermediate Microeconomics, Department of Economics, Boston University, Fall 2016

LANGUAGES: English (Native)

COMPUTER SKILLS: R, SAS, Python, STATA, SQL, MATLAB, LaTeX

TOOLS: Spark, Hive, Git, Vertica, Presto, Power BI

CITIZENSHIP/VISA STATUS: United States of America

REFERENCES

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KATRINA SUCHOSKI

Discovered During COVID—Explaining Shifts in Rare Disease Prevalence (Job Market Paper)
In this paper, I investigate a surprising rise in rare neurological disease diagnoses during the COVID-19 pandemic, despite the absence of a direct medical link between these diseases and COVID itself. I document a stepwise increase in rare disease prevalence beginning during the pandemic that persists in the post-COVID period, contrasting with stable trends for more common conditions. I propose a model in which telehealth increases physician effort and diagnostic intensity, particularly for rare conditions that are often underdiagnosed. Using a difference-in-differences framework with a continuous treatment variable, I estimate the impact of increased telehealth usage on disease prevalence and treatment intensity (telehealth claims and telehealth patients). I find that prior to the start of COVID, telehealth was primarily used as a substitute for in-person visits. However, this does not hold post-COVID where higher telehealth usage is associated with a decrease in healthcare for common diseases but is an expansion for rare diseases. For common nervous system diseases, prevalence rates fall along with reductions in telehealth patients and telehealth claims. For rare conditions, telehealth adoption is expansionary. Ultra-rare diseases (< 1 per 100k) exhibit significant increases in prevalence (71.6 persons per 100k per 10 percentage point increase in telehealth usage, $p < 0.01$), claims (141.9, $p < 0.01$), and patients (80.8, $p < 0.01$). Similarly, diseases with prevalence between 1–10 per 100k turn strongly positive post-COVID. Moderately rare groups (10–100 per 100k) show weaker or negative post-COVID effects. These findings suggest that providers reallocated effort away from common conditions toward rarer diseases, leading to new diagnoses that may have otherwise remained undetected. Telehealth acted as a mechanism that expanded diagnostic reach, particularly benefiting rare disease populations. My research highlights how system-wide shocks like COVID can reshape health care, especially for under-diagnosed populations, and shows the potential of telemedicine to reduce diagnostic delays in rare disease care.

Set-Aside Impact on Federal Government Procurement Quality
This paper evaluates how small business set-aside programs affect federal contract performance. Using a 2011 policy change that raised the Simplified Acquisition Threshold (SAT) from $100,000 to $150,000 as an instrument, I identify the causal impact of set-asides on contract outcomes in Federal Procurement Data. I find that while set-asides increase competition—adding roughly 16.6 bids per contract ($p < .01$)—they reduce performance quality: contracts experience $55,000 higher cost overruns ($p < .05$), 1.7 more modifications (ns), and a 20 pp higher termination rate ($p < .01$). I introduce two new metrics—breach (excess spending from unanticipated modifications) and breach frequency—and find set-asides significantly raise both, adding about $16,000 in breach-related costs ($p < .01$). These effects are not driven by inexperienced firms, as first-time contractor rates are similar across groups. Overall, the findings suggest that while set-asides broaden participation and competition, they lower procurement efficiency and increase fiscal costs, quantifying the trade-off between equity and efficiency in public contracting.

Pooling Cross Product Matrices to Maintain Confidentiality While Enabling Data Sharing and Enhanced Linear Predictive Models *(with Corinne Andriola, Randall P. Ellis, Hugo Guillermou, Grégoire Mercier)*
We introduce a novel methodology for enabling statistical collaboration and model sharing across confidential datasets by using pooled cross-product matrices (Z′Z). Motivated by restrictions to data sharing for sensitive health care data, the approach allows researchers to estimate linear models, compare coefficients across institutions, and assess classification systems without sharing sensitive individual-level data. We propose a framework where only cross-product matrices are shared, preserving confidentiality while enabling valid regression analysis. Several applications demonstrate the utility of this method: evaluating changes in disease prevalence, comparing classification models across health systems, and integrating external knowledge into constrained estimation procedures. Using data from the US and France, we show how pooled Z′Z matrices can be used to examine rates of rare diseases during COVID internationally. This approach broadens the scope for collaborative research in environments with strict confidentiality constraints and has immediate applications in healthcare, government, and other sensitive sectors.

October 2025