

Samuel Thau

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EDUCATION

Stanford University

PhD in Economics

2022-

Primary Fields: Industrial Organization, Political Economy

Secondary Field: Applied Econometrics

Harvard College

A.B. in Applied Mathematics, Specialization in Economics

2022

Secondary in Political Science

PUBLISHED PAPERS

Interacting Policies in Containing a Disease

With Arun Chandrasekhar, Matthew O. Jackson, and Paul Goldsmith-Pinkham

Proceedings of the National Academy of Sciences

May 2021

WORKING PAPERS

Non-Robustness of Diffusion Estimates on Networks With Measurement Error

With Arun Chandrasekhar, Tyler McCormick, Paul Goldsmith-Pinkham and Jerry Wei

*Revise and Resubmit at **Econometrica***

Network diffusion models are used to study disease transmission, information spread, technology adoption, and other socio-economic processes. We show that estimates of these diffusions are highly non-robust to mismeasurement. First, even when the network is measured perfectly, small and local mismeasurement in the initial seed generates a large shift in the locations of the expected diffusion. Second, if the initial seed is known, small measurement error in links with the share of missed links close to zero causes diffusion forecasts to be significant under-estimates. Such failures exist even when the basic reproductive number is consistently estimable. We explore strategies for estimating the volume of measurement error in the network. Finally, we examine the empirical content of this non-robustness in the context of mitigating the spread of COVID-19 and in seeding of valuable information to maximize diffusion. Our results imply measurement error necessitates stronger disease mitigation efforts to achieve the same disease outcomes.

IN PROGRESS

The Political Content of College Courses

With Jacob Light and Gideon Moore

Debates over ideological bias in higher education have become highly salient. We develop a novel text embedding based method to measure two dimensions of ideological content in college courses: politicization, the extent to which the course engages in political content, and slant, the partisan valence of the political content. We compute our measures on a dataset of course descriptions from 571 colleges and universities from 2000 through 2025. We study both aggregate patterns in the data and evaluate contributions of instructor and student preferences to observed content in order to understand who would be impacted by proposed policies. We find a slight increase in the average politicization and a small increase in liberal slant. Both shifts are small relative to persistent cross field differences. Selective schools, on average, have slightly more political and liberal courses than non-selective schools with more pronounced shifts over time. Leveraging instructors moving between institutions, we find that instructors account for $\approx 60\%$ of cross-sectional variance in political course content. Ongoing work investigates student demand for political content.

Access Journalism: Theory and Evidence from Coverage of Congress

This project investigates the economics of access journalism, analyzing how relationship-specific capital between reporters and sources shapes the production of political news. I develop a dynamic model in which access improves information transfer but introduces a mechanism for media capture driven by the threat of future exclusion. To empirically analyze these forces, I construct a novel dataset of source-journalist relationships from over four million articles covering the U.S. Congress (1980–2019) using natural language processing. Preliminary evidence shows that relationships between legislators and journalists are highly persistent. Ongoing analysis uses journalist labor market transitions and exogenous shocks to legislative committee assignments to causally identify the value of these relationships to both legislators and journalists.

Learning-by-Doing and the Life Cycle of Innovation

With Gideon Moore and Janet Stefanov

TEACHING

Teaching Assistant, Graduate Industrial Organization

Stanford Department of Economics, for Ali Yurukoglu, Neale Mahoney, and Allan Hsiao

Winter 2026

Teaching Assistant, Graduate Industrial Organization

Stanford Department of Economics, for Ali Yurukoglu, Matthew Gentzkow, and Hunt Allcott

Winter 2025

Teaching Assistant, Real Analysis, Convexity, and Optimization

Harvard Extension School

Spring 2021

Teaching Assistant for Quantitative Methods in Economics

Harvard Department of Economics, for Elie Tamer

Fall 2020

PROFESSIONAL EXPERIENCE

Research Assistant for Professor Matthew Gentzkow

2023-2024

Algorithm Assisted Redistricting Methodology (ALARM) Project

Member, contributed to projects on state house redistricting.

2021-2022

Research Assistant for Professor David Yang

2021

World Data Lab, Research Analyst

2021

SERVICE AND PRESENTATIONS

Refereeing

AER: Insights

Conference Presentations

- * Network Science in Economics, University of Minnesota, 2024
- * Machine Learning in Economics Summer Conference, Chicago Booth, Summer 2025

FELLOWSHIPS

Ric Weiland Graduate Fellowship in the Humanities & Sciences

2025-2027

SKILLS

Programming Languages: R, Python, Julia, Stata, Matlab, and SQL

Languages: English – Native, Spanish – Beginner