

Gretchen Sileo

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ACADEMIC POSITIONS

Temple University	Philadelphia, PA
<i>Assistant Professor of Economics</i>	2023–Present

EDUCATION

Georgetown University	Washington, DC
<i>Ph.D. Economics</i>	2017–2023
<i>M.A. Economics</i>	
Rensselaer Polytechnic Institute	Troy, NY
<i>M.S. Applied Mathematics</i>	2010–2014
<i>B.S. Mathematics and Psychology, Minor in Economics</i>	

WORKS IN PROGRESS

Proactive and Reactive Infrastructure Investment

Maintaining infrastructure requires investment. Faced with uncertain quality degradation, managers choose to invest proactively to prevent failure or reactively to address problems. Using a new dataset on drinking water systems, I estimate a dynamic discrete choice model of infrastructure investment. Simulations indicate that tightening regulations without financial support increases failures and raises costs. Reactive projects enable timely intervention as systems approach noncompliance, reducing disparities stemming from income and size. Efficiently restoring compliance for all systems requires expanded proactive investment to maintain quality and an even greater increase in reactive funds to address unexpected failures.

Phoning Home: The Procurement of Telecommunications for Incarcerated Individuals in the United States

with Marleen Mara and Nathan Miller

Incarcerated individuals in the U.S. purchase goods and services from monopoly vendors selected by their correctional authority. We study telecommunications services, which have come under bipartisan scrutiny due to the high prices inmates pay for phone calls. Prospective providers are evaluated on their technical capabilities, the prices they would charge, and the “commission” they would pay the correctional authority. Using data from public records requests, we estimate a first-score auction model with evaluation uncertainty and multi-dimensional bidder heterogeneity. Our results indicate that reducing the role of commissions in procurement lowers prices, whereas increasing competition among providers mainly raises commission payments. Moreover, recently promulgated federal regulation that bans commissions and caps prices likely preserves providers’ profitability.

Technology and Market Power: The United States Cement Industry, 1974–2019

with Nathan Miller, Matthew Osborne, and Gloria Sheu

We examine the evolution of market power in the cement industry over more than four decades using a structural model of procurement. The model matches aggregated outcomes in the data, and implies transportation costs, shipping distances, and demand elasticities that are consistent with external sources. Evaluating county-level outcomes throughout the contiguous United States, we find that market concentration and markups increase but that prices do not rise. We attribute these patterns to a technological innovation—the precalciner kiln—that lowered variable costs, increased plant-level capacities and economies of scale, and contributed to an industry shakeout in which many plants closed.

The United States Paid Plasma Industry

with Peter Jaworski and Kaitlyn Wilson

The Dynamics of Emissions Pricing and Technology Adoption

with Sarah Armitage, Nathan Miller, and Matthew Osborne

PUBLICATIONS

New Frontiers in Research on Industrial Decarbonization

with K. Gillingham, L. Barrage, S. Armitage, D. Burtraw, J. Colmer, L. de Preux, J. Hawkins-Pierot, C. Holt, V. J. Karplus, A. Lofgren, R. Martin, N. Miller, M. Muuls, M. Osborne, E. Severnini, W. Shobe, V. Smirnyagin, T. Stoerk, A. Tsyyvinski, K. Wagner, and X. Wu. *Science*, 390(6771): 338-340 (2025).

TEACHING EXPERIENCE

Temple University

Instructor

- ECON-3536 – Economics of American Industry
- ECON-3503 – Introduction to Econometrics

Philadelphia, PA

2023–Present

Georgetown University

Teaching Assistant

- ECON-433 – Public Sector Economics
- PECO-201 – Analytical Tools for Political Economics
- ECON-121 – Economic Statistics
- ECON-122 – Introduction to Econometrics

Washington, DC

2018–2023

PROFESSIONAL EXPERIENCE

Georgetown University

Research Assistant to Professor Nathan Miller

Washington, DC

2019–2021

Research Assistant to Professor Dan Cao

2018

U.S. Department of Justice, Antitrust Division

Graduate Economics Intern

Washington, DC

2019

Deloitte & Touche LLP

Senior Consultant, Business Risk

Boston, MA

2016

Consultant, Business Risk

2014–2016

HONORS AND AWARDS

Georgetown University 26th Razin Prize, Best Graduate Student Paper

2023

Georgetown University Summer Dissertation Fellowship

2020

Georgetown University Graduate School Fellowship

2017–2018

Deloitte Outstanding Performance Award

2015

Rensselaer Polytechnic Institute Summa Cum Laude

2014

Rensselaer Polytechnic Institute Founders Award for Excellence

2013

SEMINARS AND CONFERENCE PRESENTATIONS

2025 NYU - Stern; International Industrial Organization Conference; University of Florida

2023 Southern Economic Association; Women in Empirical Microeconomics Conference; Seminar in Water Economics onLLine; International Industrial Organization Conference; The Ohio State University; Temple University; University of Wisconsin-Madison; Baruch College, Zicklin School of Business; Arizona State University; U.S. Department of Justice; U.S. Department of Transportation — Office of the Inspector General; Federal Trade Commission; Center for Naval Analyses; Charles River Associates

2022 Southern Economic Association

ADVISING AND DISSERTATION COMMITTEES

Temple University

Luke Mafrica (PhD committee), Penn State Abington

2023

PROFESSIONAL SERVICE

Temple University

Economics Seminar Committee

2023-Present

Search Committee

2024-2025

Referee

*International Journal of Industrial Organization, Journal of Public Economics, Journal of Law and Economics,
Water Resources and Economics*