Michael R. Karas

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Education

Ph.D., Economics, University of Colorado Boulder (expected)	2026
M.A., Economics, University of Colorado Boulder	2023
M.A., Applied Economics, University of Illinois Chicago	2020
B.A., Economics & History, Vanderbilt University	2017

Fields

Environmental Economics, Economic History, Industrial Organization

Job Market Paper

The Role of Incumbent Firms and Regulation in America's Natural Gas Energy Transition

This paper examines how incumbent firms' adoption of new energy technologies is shaped by the regulatory environment, focusing on the transition from manufactured to natural gas in the United States during the first half of the twentieth century. Using detailed, newly-digitized panel data on municipality-level gas utility services, I exploit variation in pipeline proximity for municipalities along its path and regulatory changes introduced by the 1938 Natural Gas Act to investigate incumbent utility firms' decision to switch from manufactured to natural gas. I find that incumbent firms delayed adopting natural gas during the initial unregulated period but accelerated adoption after the implementation of federal regulation. When considering the factors that predict early adoption by incumbents, ownership by a holding company is associated with switching before federal regulation, while higher switching costs are associated with switching after regulation. These results are consistent with federal regulation creating price consistency that eased transitions by narrowing the gap between regulated retail prices and previously unregulated pipeline wholesale prices, illustrating that coordination through regulation or holding company ownership can reduce uncertainty and expedite technological transitions.

Working Papers

The Effect of State Regulatory Commissions on Price and Product Quality in the Early Gas Utility Industry

In this paper, I re-evaluate the effects of the initial adoption of state regulation of public utilities, focusing on the gas utility market. While prior research has focused on prices, I consider the effects on both prices and product quality. I also implement a new empirical approach to better account for potential biases arising from differences in local economic conditions. Using novel digitized data, I find evidence that early state regulation may have allowed gas utilities to increase their monopoly power not by raising prices relative to municipal regulators but by allowing lower-quality gas. However, I also find that state regulators permitted smaller price increases in response to the input price shock caused by World War I, suggesting that regulatory constraints on firms changed over time. Additionally, I find evidence of increased regulatory frictions resulting from the move to non-local oversight and greater pricing flexibility under state regulation through the adoption of block pricing schemes.

Works in Progress

Energy Use During the Expansion of the Electricity and Gas Accessibility: A Discrete/Continuous Choice Approach to Urban and Rural Household Energy Demand in the Early 20th Century

The Diffusion of Declining Block Tariffs in the Manufactured Gas Industry

Research Experience

Research Assistant, University of Colorado Boulder — 2024-2025
Department of Economics, Reporting to Prof. Taylor Jaworski

Research Assistant, University of Colorado Boulder — 2021-2025
Leeds School of Business, Reporting to Prof. Stephen Billings

Research Assistant, University of Colorado Boulder — 2025
Department of Sociology, Reporting to Prof. David Pyrooz

Teaching Experience

Instructor of Record, University of Colorado Boulder — May 2025, Spring 2025, Fall 2023
Intermediate Microeconomic Theory

Instructor of Record, University of Colorado Boulder — Spring 2024
Principles of Macroeconomics

Instructor of Record, University of Colorado Denver — August 2025, August 2024
Master of Economics Math Camp (Calculus Section)

Teaching Assistant, University of Colorado Boulder — Fall 2025, Summer 2024, Spring 2023
Principles of Macroeconomics

Teaching Assistant, University of Colorado Boulder — Fall 2023, Spring 2022, Fall 2021
Principles of Microeconomics

Other Employment

Property Administrator, JLL — 2017-2019

Certificates

Certificate in College Teaching, University of Colorado Boulder — 2025

Scholarships, Awards & Fellowships

Stanford Calderwood Student Teaching Award — 2025
Department of Economics, University of Colorado Boulder

Third Year Paper Award — 2024
Department of Economics, University of Colorado Boulder

Reuben A. Zubrow Graduate Fellowship for the Teaching of Economics — 2023
Department of Economics, University of Colorado Boulder

Priscilla Call Craven Scholarship — 2013-2017
Vanderbilt University

Presentations

Colorado School of Mines Economics Seminar (scheduled) — 2026
Southern Economic Association Annual Meeting (scheduled) — 2025
Economic History Association Annual Meeting (poster)
NBER Summer Institute, Development of the American Economy (poster)
Front Range Energy Camp
The Canadian Network for Economic History Conference
University of Colorado Applied Economics Seminar
University of Colorado Environmental Economics Seminar
University of Colorado Graduate Student Seminar
University of Colorado Graduate Student Seminar — 2024
CU Environmental and Resource Economics Workshop — 2023
University of Colorado Environmental Economics Seminar

Professional Service

Organizer – University Colorado Boulder Graduate Student Seminar — 2024-present

Affiliations and Professional Memberships

Member, Economic History Association

Member, Southern Economic Association

Member, Illinois Economic Association

Skills

Software: Python, Stata, ArcGIS, R, Latex

References

Taylor Jaworski, PhD (co-advisor)
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