

# Han Yan (she/her/hers)

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RESEARCH FIELDS	Applied Microeconomics, Energy and Environmental Economics, Development Economics	
EMPLOYMENT	Postdoctoral Associate, <a href="#">Center for Energy Studies</a> , <a href="#">Baker Institute for Public Policy</a>	July 2025-
EDUCATION	Ph.D. Economics, <a href="#">Rice University</a> , USA	May 2025
	Dissertation: <i>Essays on Household Energy Transition, Policy, and Welfare</i>	
	M.A. Economics, <a href="#">Rice University</a> , USA	2025
	M.Sc. Financial Statistics, <a href="#">The London School of Economics and Political Science</a> , UK	2017
	B.Sc. Financial Mathematics, Economics, ( <i>Summa Cum Laude</i> ), <a href="#">Wilson College</a> , USA	2016
HONORS AND SCHOLARSHIPS	Fellowship, <a href="#">Center for Energy Studies</a> , <a href="#">Baker Institute for Public Policy</a>	2020-2025
	Rice Graduate Student Fellowship, <a href="#">Rice University</a> ,	2019-2020
	Scholarship, <a href="#">International Association of Energy Economics (IAEE)</a> International Conference, 2024	
	Scholarship, IAEE European&International Conference,	2023
	Membership in <a href="#">Phi Beta Kappa</a> , <a href="#">Pi Gamma Mu</a>	2016
	Honours in the Major, <a href="#">Wilson College</a>	2016
	The William P. Van Looy Business Prize, <a href="#">Wilson College</a>	2015
	Dean's List, <a href="#">Wilson College</a>	2012-2016
	Presidential Scholarship, <a href="#">Wilson College</a>	2012-2016
Starr Foundation Scholarship, <a href="#">Wilson College</a>	2012-2016	
PUBLICATIONS	<a href="#">“A pathway towards energy transition: Urbanization and clean fuel adoption in Chinese homes”</a> <i>Energy Economics</i> (2026), Vol. 154.	
	<a href="#">“Catching the elusive herder: A second look at herding in heterogeneous samples”</a> with Alexander Munson, <i>Int. J. Financial Markets and Derivatives</i> (2017), Vol. 5, No. 2-4, 140–153	
WORKING PAPERS	<a href="#">“Efficiency Gains, Welfare Trade-offs: The Economics of Mandated Heat Pump Adoption”</a> [ <b>Job Market Paper</b> ; Finalist, 46 <sup>th</sup> IAEE International Conference Best Student Paper Award Competition]	
	ABSTRACT: The U.S. government’s push for net-zero emissions has accelerated the transition toward electrified homes, heat pump adoption, and natural gas restrictions. California, at the forefront of these efforts, faces a particular challenge as natural gas remains a key source for space heating, coupled with high electricity prices. While these regulations align with environmental goals, they raise concerns about increased energy costs for consumers and potential strain on the power grid. This study develops a structural model to analyze the impact of natural gas restrictions and heat pump adoption on consumer choices, welfare, and the broader implications for effective carbon mitigation policies. I assess the impact of natural gas restrictions on household energy usage patterns, examine the policy’s social costs, and evaluate the effectiveness of financial incentives in reducing potential consumer burdens. Results indicate that, although policy incentives promote heat pump adoption, they are insufficient to fully offset welfare losses. In the cooling season, a rebound effect leads to increased energy use, but the expenditures still decline due to efficiency gains. In contrast, no rebound effect is observed in the heating season, where high electricity prices cause welfare losses despite efficiency improvements and available rebates.	

“Heat Pumps and Low-Carbon Subsidies: A Closer Look at Income Level Disparities” (with Kenneth B. Medlock) [Draft available upon request.]

“The Grid-Household Feedback Loop: How Renewable Energy Thresholds Dictate Electrification’s Climate Payoff” [Draft available upon request.]

**WORKING IN PROGRESS** A Study about Creating a Deep Liquid Natural Gas Market in China (with Kenneth B. Medlock) [Empirical Strategy Design (Theoretical Framework Completed)]  
From Importer to Exporter: The Macroeconomic Effects of U.S. Energy Trade Shocks (with Kenneth B. Medlock) [Data Processed, Draft in Preparation]  
The loss of the Iron Rice Bowl-The Late 1990s Layoffs Wave and Intra-household Bargaining in China [Data Cleaning and Preliminary Analysis]

**TEACHING EXPERIENCE** **Lecturer**, Rice University: Math and Statistics Camp [G] 2020 - 2024  
**Teaching Assistant**, Rice University: Microeconomics of Energy Sector [G], Industrial Organization and the Energy Sector [G], Energy and the Macroeconomy [G], Economics of Energy & Environment[G], Corporate Finance for the Energy Sector[G], Taxation in the Energy Sector[G], Principles of Economics [UG], Macroeconomics [UG] 2019–2025

**ACADEMIC SERVICE** Member of the Scientific Committee, 47th IAEE International Conference, Chile 2026  
Student Representative, [IAEE Council](#) 2023 – 2024  
Moderator, IAEE European Conference 2023  
Reviewer, USAEE/IAEE North American Conference 2023  
PhD Day Co-Organizer, USAEE/IAEE North American Conference 2022  
Referee, *Resources Policy*, *Journal of Environmental Economics and Management*

**PROFESSIONAL EXPERIENCE** Research Assistant: Center for Energy Studies, Baker Institute for Public Policy 2020-May 2025  
Risk Advisory: Deloitte, Guangzhou, China 2018 – 2019  
Intern: Industrial and Commercial Bank of China, Wuhan, China Summer 2016  
Intern: Morgan Stanley, Summer Student Trading Camp, Beijing, China Summer 2014

**SEMINARS AND PRESENTATIONS** 2025 IAEE International Conference, Paris  
Annual USAEE/IAEE North American Conference, Fort Worth  
2024 Energy and the Intersection of Technology, Markets, and Policy Conference, Rice University  
USAEE/IAEE North American Conference, Baton Rouge  
2023 Brown Bag Seminar, Rice University  
USAEE/IAEE North American Conference, Chicago  
2022 Annual USAEE/IAEE North American Conference, Houston  
IAEE International Conference, Tokyo  
2021 Annual USAEE/IAEE North American Conference  
Berkeley Summer School in Environmental and Energy Economics

**SKILLS** Programming: MATLAB, Julia, R, C++,  $\LaTeX$   
Languages: Mandarin, English

REFERENCES

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