

# Weiting Miao (繆炜婷)

Social Sciences Building  
Duke University  
Durham, NC 27708

Email: [weiting.miao@duke.edu](mailto:weiting.miao@duke.edu)  
Website: <https://weiting-miao.github.io>

## Education

---

### Duke University, Durham, USA

Ph.D., Economics	2019 – 2025 (expected)
M.S., Statistics (concurrent, GPA: 4.0/4.0)	2019 – 2025 (expected)
M.A., Economics (terminal, GPA: 4.0/4.0)	2017 – 2018

### Central University of Finance and Economics (CUFE), Beijing, China

B.A., Economics (GPA: 90.8/100)	2013 – 2017
---------------------------------	-------------

## Research Fields

---

**Primary:** International Trade, Industrial Organization

**Secondary:** Macroeconomics, Environmental Economics

## Working Papers

---

### *Technology Rivalry and Resilience Under Trade Disruptions: The Case of Semiconductor Foundries* (Job Market Paper)

This paper studies the impact of industrial policies on technology competition and consumer welfare amid rising global trade disruption risks. Distilling key empirical features from novel data on the semiconductor foundry industry, I develop and estimate a dynamic oligopoly model that integrates step-by-step innovation, trade disruption risk, and industrial policies. While distortions from market power and technological externalities justify subsidies, their optimal levels depend on the magnitude of trade disruption risk: when the risk is low, the optimal subsidy rate remains low, as the welfare benefits are distributed globally, but the costs are borne exclusively by the subsidizing government. My quantitative model shows that a 35% trade disruption risk makes the 25% investment subsidy under the U.S. CHIPS Act optimal, resulting in a 6% welfare improvement for the U.S. The paper also analyzes the CHIPS Act's restrictions on investments in rival countries, intended to secure technological leadership against their firms. Its efficacy depends on the strength of technology spillover restrictions and the scale of the rival home market secured for rival firms.

### *The Geographical Leakage of Environmental Regulation: Evidence from the Clean Air Act* (with Mark Curtis, Felix Samy Soliman, Juan Carlos Suárez Serrato, and Daniel Yi Xu)

How large is geographic leakage resulting from place-based environmental policy? We study this question in the context of the landmark US Clean Air Act Amendments. Our paper makes three primary contributions. First, using modern event-study techniques and confidential data from the US Census Bureau, we

revisit seminal results that characterize the effects of this environmental regulation on directly regulated plants and industries. Second, we extend prior work by quantifying leakage to unregulated regions and identifying multi-unit firms as a key pathway through which this leakage occurs. Our third contribution is to combine these new results with an industry equilibrium model that captures both within-firm and cross-location leakage. The model quantifies the economic cost of the regulation, the contribution of multi-unit firms to leakage across regions and the role of the Clean Air Act in redistributing industrial production across the US.

## Work in Progress

---

### *R&D, Innovation, and Productivity* (with Matthias Kehrig and Daniel Yi Xu)

We compile a comprehensive database of federal R&D awards linked to patent records to track which awards resulted in patents, and we plan to match it with Census data on firms' private and public R&D in the U.S. to analyze the returns on these R&D efforts.

### *Two Tales of Innovation and Nascent Acquisitions*

I develop a model with firm entry, R&D investment, acquisitions, and post-acquisition development to study how nascent acquisitions impact innovation across industries.

### *Labor Share Decline in Chinese Industrial Sector*

Using firm-level data, I find that the decline in aggregate labor share in China's industrial sector from 1998 to 2007 is primarily driven by within-firm decline rather than reallocation between firms, with state-owned firms reducing their labor share more than private firms through massive layoffs.

## Research Experience

---

2018 – present	RA for Daniel Yi Xu, Duke
2021 – 2023	RA for Matthias Kehrig, Duke
2017 – 2018	RA for Attila Ambrus, Duke
2016 – 2017	RA at Case Center, Cheung Kong Graduate School of Business

## Teaching Experience

---

2020 Fall	TA for Craig Burnside and Francesco Bianchi, Macroeconomics I (Ph.D. core), Duke
2021 Spring	TA for Cosmin Ilut and Andrea Lanteri, Macroeconomics II (Ph.D. core), Duke

## Professional Activities

---

### Presentations and Workshops

2024	Duke (Trade & IO & Macro), Triangle Micro Conference (UNC), Federal Reserve Bank of Dallas
2023	Duke (Trade & Macro)
2022	Duke (IO & Macro), NBER Entrepreneurship Research Boot Camp

**Referee:** Journal of Productivity Analysis

## Awards and Fellowships

---

2024 Summer	AEA Summer Fellow, Federal Reserve Bank of Dallas
2022, 2023 Summer	Department of Economics Summer Research Fellowship, Duke
2020, 2021 Summer	Graduate School Summer Research Fellowship, Duke
2019-2020	Economics Department Graduate Fellowship, Duke
2019	Master's Program Award for Academic Excellence, Duke
2018 Spring, 2018 Fall	M.A. Merit Scholarship, Duke
2016, 2017	Scholarship of Academic Merit, CUFE
2015, 2016, 2017	Academic Excellence Award, CUFE

## Other Information

---

Programming: Julia, Python, MATLAB, Stata, R, Mathematica,  $\LaTeX$

Languages: English (fluent), Mandarin (native), Cantonese (intermediate)

Security Clearance: U.S. Census Bureau Special Sworn Status

## References

---

### **Daniel Yi Xu (Chair)**

Professor of Economics

Duke University

✉ [daniel.xu@duke.edu](mailto:daniel.xu@duke.edu)

### **Matthias Kehrig**

Associate Professor of Economics

Duke University

✉ [matthias.kehrig@duke.edu](mailto:matthias.kehrig@duke.edu)

### **Kei-Mu Yi**

M. D. Anderson Chair in Economics

University of Houston

✉ [kyi3@central.uh.edu](mailto:kyi3@central.uh.edu)

### **Laura Castillo-Martinez**

Assistant Professor of Economics

Duke University

✉ [l.castillo-martinez@duke.edu](mailto:l.castillo-martinez@duke.edu)

Last updated in November, 2024  
[Click here for the latest version](#)