Yayue Xiao

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Personal Profile

I am a PhD student in Economics at Waseda University with research interests in climate policy instruments and industrial decarbonization. I am proficient in Stata, Matlab, and Gams, with experience using these tools to conduct analysis. Currently, I am working as a research assistant for Tokyo Electric Power Company(TEPCO) and will begin my role as a researcher at the Research Institute for Environmental Economics and Management Waseda University in September 2024.
I am dedicated to addressing climate change issues related to human activities by improving the effectiveness of mitigation strategies.

Skills

Analysis	Matlab, Stata, Gams, Python, R
Language	English (TOEFL iBT 105), Japanese (JLPT, level N1), Chinese (Native)
Miscellaneous	LaTeX, Microsoft Office.

Education

Waseda University   *Tokyo, JP*
Ph.D in Economics   *4/2023 - Current*

Waseda University   *Tokyo, JP*
MA in Economics GPA 3.3/4.0   *4/2021 - 3/2023*
- **Courses (In English):** Industrial Ecology, Hybrid input-output analysis in Industrial Ecology
  Advanced Mathematics, Advanced Econometrics, Advanced Microeconomics, Advanced Macroeconomics, Advanced Game Theory

Aoyama Gakuin University   *Tokyo, Japan*
MA in International Economics GPA 3.7/4.0   *4/2020 - 3/2021*
- **Courses (In Japanese):** International Economics, Econometrics
- **Courses (In English):** Industrial Organization, Advanced Macroeconomics

Universiti Putra Malaysis   *Serdang, Malaysis*
Exchange Student in Economics and Management   *9/2016 - 2/2017*

Guilin University of Electronic Technology   *GuangXi, China*
BA in Logistics Management GPA 3.1/4.0   *9/2014 - 7/2018*

Research Experience

The impact of carbon tax on energy saving behavior in Japan (Working Paper)   *Tokyo Electric Power Company (TEPCO) & Waseda University*

First Author   *2024 - current*
- Utilized a Multi-regional Computable General Equilibrium (CGE) model to analyze the effects of a carbon tax on the transportation sector in Japan.
- Consider scenario including sector specific carbon tax, more
- **Technical Skills:** Gams, Python.

Analyzing the Impact of Carbon Tax on Transportation Choices in Japan: A Multi-regional CGE Approach (Working Paper)   *The Japan Research Center for Transport Policy & Waseda University*

First Author   *2023 - current*
- Utilized a Computable General Equilibrium (CGE) model with electricity data.
- Results demonstrated the need for region-specific strategies in implementing carbon taxes to balance economic equity and environmental effectiveness, highlighted by significant shifts in transportation preferences from personal automobiles to railways.
- **Technical Skills:** Gams, Python.

Explore carbon footprint across Japanese prefectures (Extended Study of master thesis, Ready to Submission)

Waseda University

First Author

2023 - 2024

- Conducted Multi-Regional Input-Output and Social Network Analysis to estimate carbon transfer across Japanese prefectures and sectors.
- Provided sector/prefecture-level results that enable generating effective mitigation policy, such as the transportation sector's net carbon emissions caused by Tokyo's requirement being 4.965/million-ton, with Chiba, Saitama, and Kanagawa contributing over 33% of Tokyo's requirement.
- **Technical Skills:** Matlab, Python.

Accounting for inter-regional carbon emission in Japan: A comparison between Consumption-based principle and Production-based principle (Master thesis)

Waseda University

First Author

2022 - 2023

- Conducted Multi-Regional Input-Output to estimate carbon emission under different accounting methods.
- Revealed significant carbon leakage, the inter-prefecture carbon leakage varied from 22.17% (Yamaguchi) to 63.90 percent (Kochi), and carbon leakage presisted event after trade adjustment.
- **Technical Skills:** Matlab, Python.

Electricity and Social Capital: An Evident from Rural Electrification Program (Under revision in Empirical Economics)

Asia Development Bank Institute & Waseda University

Research Assistant, Corresponding-author

12/2021 - 2023

- Utilized an instrumental variable (IV) strategy to investigate the impact of electricity on household-level social capital.
- Found that in the short-term, access to electricity had a positive effect on social capital for female-headed households, but not for households overall.
- **Contribution:** Independently conducted analysis in Stata and summarized the results using . Analysis including baseline IV regression, IV sensitivity tests, imperfect IV and heterogeneity tests.
- **Technical Skills:** Stata, R.

Can Energy Saving Discussion Reduce Electricity Consumption? Evidence from Quasi-Experimental Design

Ngawong Dendup, Waseda University

Research Assistant

10/2021 - 1/2022

- Estimated impact of energy Saving Discussion on energy conservation using quasi-experiment data
- Independently conducted difference-in-difference (DID) method to estimate the impact of the family meetings on energy conservation using Stata.
- Results showed no significant effect on energy conservation but may have influenced household energy-saving behavior.
- **Technical Skills:** Stata.

Teaching Experience

PSE, Waseda University

Tokyo, JP

Teaching Assistant - Environmental Economics Seminar (Toshi. H Arimura)

9/2022 - Current

- Provide professional advise in economics, analysis soft (**Stata**) and academic writing for undergraduate & graduate student.
- Check and correct Stata code errors in course report/thesis.

PSE, Waseda University

Tokyo, JP

Teaching Assistant - Economics Research (Y. Kondo)

7/2022 - 1/2023

- Provide professional advise in economics and analysis soft (**Matlab**) for undergraduate & graduate students.
- Check and correct Matlab code errors in course report/thesis.