Kyungtae Lee

Contact Information

Ph.D. Economics
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Education

Ph.D. Economics, City University of New York, Graduate Center	Present
M.S. Economics, University of Wisconsin, Madison	2019
B.A. Economics, The Pennsylvania State University, University Park	2016
B.A. Mathematics, The Pennsylvania State University, University Park	2016

Research interests

Econometrics, Development Economics, Energy Economics, Environmental Economics

Teaching Field

Intro Statistics, Econometrics, Principles of Microeconomics, Principles of Macroeconomics, Intermediate Macroeconomics, Financial Economics

Job Market Paper

From One LATE to Another: Machine Learning and the External Validity of IV Estimates (with *Alexander Kwon*)

We study when a local average treatment effect (LATE) estimated in one population can predict the LATE in another using only the target population's observed characteristics. We decompose the prediction error of interacted two-stage least squares into four terms and study which of them Double/Debiased Machine Learning (DML) can reduce. DML reduces the terms related to nonlinearity in the instrument propensity and outcome equations, but not the two terms related to nonlinear treatment effects and compliance weights. We find that this decomposition is important because the total error can be small even when the individual terms are large, as terms with opposite signs cancel each other out. We apply these results to two simulation studies, one of which is calibrated to data, and find supporting evidence.

Published

External Validity in an Instrumental Variable Setting
(with *Alexander Kwon*) — Evaluation Review (2025)

We examine the external validity of instrumental variable estimates under conditional external unconfoundedness among compliers. In a six-country study of solid-fuel use and women's cooking time, we find no evidence of violations in Ethiopia, Honduras, Kenya, or Zambia, but limited external validity in Cambodia and Nepal.

Geographical Factors Influencing Household Cookstove Choices in Nepal
(with *Alexander Kwon*) — Social Sciences & Humanities Open (2025)

We use a logit model to examine how geography affects household LPG stove adoption. Average slope has a robust, significant effect, while elevation's smaller effect varies across specifications. Both effects are nonlinear, and the Kathmandu region is important. Geographic factors matter similarly across expenditure quintiles, except the lowest.

Working Paper

Clean Energy Access and Home Production Improvement: Labor Supply and Gender Difference (**Top 4 Finalist for the Best Student Paper Award for 2025 USAEE Conference**)

Using nationally representative data from Nepal and addressing adoption endogeneity, I examine how clean cookstoves affect labor supply. Adoption increases men's labor participation, workdays, and hours, but reduces women's participation and workdays. The estimated effect on women's hours is negative but statistically insignificant.

Work In Progress

Carbon Pricing and Heterogeneous Abatement Responses: Evidence from Seven U.S. Cities (with *Jun Yoo*)

The Role of Accessibility in the Adoption of Clean Energy Stoves (with *Nadia Doytch*)

Conference Presentation

From One LATE to Another: Machine Learning and the External Validity of IV Estimates

- 2027 ASSA Conference (Poster)
- 2026 Africa Meeting of the Econometric Society (presented by coauthor)
- 2026 ASSA Conference (Poster)

Clean Energy Access and Home Production Improvement: Labor Supply and Gender Difference

- IAEE session at 2026 ASSA Conference
- 2025 USAEE/IAEE North American Conference

External Validity in an Instrumental Variable Setting

- 2025 ASSA Conference (Lightning Session)

Teaching Experience

Brooklyn College

Adjunct Instructor, Econometrics (Graduate Course) — Fall 2026

Adjunct Instructor, Intro Econometrics — Fall 2026

Adjunct Instructor, Financial Economics — Spring 2026

Average evaluation: 4.14/5.00

Adjunct Instructor, Intro Business Statistics — Spring 2026

Average evaluation: 4.28/5.00

Baruch College

Adjunct Instructor, Introduction to Microeconomics — Spring 2025–Fall 2026

Average evaluation: 4.02/5.00 (Spring 2026); 3.94/5.00 (Fall 2025); 3.91/5.00 (Spring 2025)

Class size: 75–85 students

The City College of New York

Adjunct Instructor, Principles of Macroeconomics — Summer 2026

Teaching Assistant, Principles of Microeconomics — Fall 2025

Average evaluation: 4.10/5.00

Adjunct Instructor, Principles of Statistics — Spring 2025

Average evaluation: 5.00/5.00

Adjunct Instructor, Intermediate Macroeconomics Spring 2022 – Spring 2023; Summer 2025

Average evaluation: 3.85/5.00

The Graduate Center

Teaching Assistant, Math for Economists (Econ Ph.D. program) Fall 2022

New York University

Teaching Assistant, Mathematics for Economists (Master's Program) Fall 2021

Average evaluation: 4.21/5.00

Teaching Resources

Interactive Economics Teaching Platform 2026 – Present

Developed a platform for my microeconomics and econometrics courses, used for interactive lessons, attendance, and live quizzes.

Work Experience

Short-term Consultant, The World Bank, Washington DC Sept 2023 - Dec 2024

- Analyzed electricity demand, affordability, and access patterns using household data.
- Supported cross-country comparisons of energy demand and access conditions to inform energy policy and market assessments.
- Designed and refined household survey instruments to support data collection on energy demand and affordability.

Scholarship and award

Connect New York Fellowship, Early Research Initiative, CUNY Graduate Center 2026
Dennis J. O'Brien USAEE Best Student Paper Finalist Award 2025
Tuition Fellowship, CUNY Graduate Center 2019 - 2024
Sallie Mae Awards, CUNY Graduate Center 2021

Technical Skills

STATA, R, Python, Julia, MATLAB, Git, SQL, Latex

Languages

English(Fluent), Korean(Native)

References

Wim P.M. Vijverberg (Advisor)
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(Updated: November 2026)