SEOYUN (STELLA) HONG

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EDUCATION

Ph.D., Economics, Boston University, Boston, MA, May 2026 (expected)
    Dissertation Committee: Iván Fernández-Val (Main advisor), Hiroaki Kaido, Kevin Lang

M.A., Economics, Sungkyunkwan University (SKKU), Seoul, Korea, 2019

B.A., Economics and Statistics, Sungkyunkwan University, Seoul, Korea, 2017
    Exchange student, Leiden University, Leiden, Netherlands, Fall 2015

FIELDS OF INTEREST

Econometrics, Labor Economics, Industrial Organization

PUBLICATIONS

"Measuring the Effects of Bid-rigging on Prices with Binary Misclassification,"
(with Changsik Kim and Hyunchul Kim) *Review of Industrial Organization*, (2022)

WORKING PAPERS

"Heterogeneous Treatment Effects with Endogeneity and High-Dimensional Covariates,"
    October 2025. Job Market Paper.
"Distribution Regression with Censored Selection," (with Iván Fernández-Val), May 2025.
"Censored Quantile Regression with Many Controls," March 2023.

WORK IN PROGRESS

"Static Games with Machine Learning: Peer Effects in Analyst Recommendations"
    (with Hyungjin Kim)

PRESENTATIONS

Midwest Econometrics Group Conference, Urbana-Champaign, 2025
BC-BU Greenline Workshop in Econometrics, Boston, 2024
Midwest Econometrics Group Conference, Lexington, 2024
North American Summer Meeting of the Econometric Society, LA, 2023
Korea's Allied Economic Association (KAEA) Annual Meeting, Seoul, 2019
SKKU-Tufts University Joint Undergraduate Economics Conference, Boston, 2017

FELLOWSHIPS AND AWARDS

Graduate Student Organization Conference Travel Grant, Boston University, 2025
Gitner Prize for Excellence in Teaching, Boston University, 2024
Graduate Student Fellowship, Boston University, 2019-2025
Graduate Student Best Paper Award, KAEA Annual Meeting, 2019
Shim San Graduate Fellowship, SKKU, 2017-2019
Samsung Scholarship, Samsung Foundation, 2013-2016

WORK EXPERIENCE

Research Assistant to Iván Fernández-Val, Boston University, 2021-2024
Research Assistant to Changsik Kim and Hyunchul Kim, SKKU, 2018-2019
Research Assistant, Center for Econometrics Research, SKKU, 2017-2018

WORKSHOPS

Midwest Econometrics Group Female Economist Mentoring Workshop, 2024, Mentee
University of Chicago Booth: Machine Learning in Economics Summer Institute, 2022,
    Participant

REFEREE EXPERIENCE

Review of Industrial Organization

TEACHING EXPERIENCE

Instructor at Boston University
- Empirical Economic Analysis (Undergraduate), Summer 2023

Teaching Fellow at Boston University
- Advanced Econometrics 1 (Ph.D.), Spring 2025
- Econometrics (M.A.), Spring 2024
- Statistics for Economists (M.A.), Spring 2023
- Empirical Economic Analysis (Undergraduate), Spring 2021, Spring 2022
- Intermediate Macroeconomic Analysis (Undergraduate), Fall 2020
- Economics of Sports (Undergraduate), Fall 2020

Teaching Fellow at Sungkyunkwan University
- Introduction to Stata and MATLAB (Bootcamp for graduate students), Fall 2018
- Econometric Theory 1 (Graduate), Fall 2018
- Econometrics (Undergraduate), Spring 2018

DEPARTMENT SERVICE

Organizer of Econometrics Reading Group, Boston University, 2023 - 2025
Officer of the Graduate Economics Association, Boston University, 2021- 2022

CITIZENSHIP/VISA STATUS: South Korea/F1

REFERENCES

Professor Iván Fernández-Val	**Professor Hiroaki Kaido**	**Professor Kevin Lang**
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Boston University	Boston University	Boston University
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SEOYUN (STELLA) HONG

Heterogeneous Treatment Effects with Endogeneity and High-Dimensional Covariates (Job market paper)

This paper develops estimation and inference methods for heterogeneous treatment effects in settings with an endogenous treatment and high-dimensional covariates. I estimate heterogeneous treatment effects by interacting the treatment with the full set of covariates, allowing for flexible subgroups to explore heterogeneity. Instrumental variables and machine learning methods are employed to select the relevant interactions from a high-dimensional set of endogenous regressors. I establish asymptotic normality for the heterogeneous treatment effect parameters and provide simultaneous inference when many coefficients are of interest. In an application to Head Start, a public early childhood education program, I examine the complementary effects of Head Start center characteristics by children's background. I find that a structured curriculum delivers broad gains across subgroups, whereas home visits and providing transportation services are more beneficial for higher-need children.

Distribution Regression with Censored Selection (*with Iván Fernández-Val*)

We develop a distribution regression model with a censored selection rule, offering a semi-parametric generalization of the Heckman selection model. Our approach applies to the entire distribution, extending beyond the mean or median, accommodates non-Gaussian error structures, and allows for heterogeneous effects of covariates on both the selection and outcome distributions. By employing a censored selection rule, our model can uncover richer selection patterns according to both outcome and selection variables, compared to the binary selection case. We analyze identification, estimation, and inference of model functionals such as sorting parameters and distributions purged of sample selection. An application to labor supply using data from the UK reveals different selection patterns into full-time and overtime work across gender, marital status, and time. Additionally, decompositions of wage distributions by gender show that selection effects contribute to a decrease in the observed gender wage gap at low quantiles and an increase in the gap at high quantiles for full-time workers. The observed gender wage gap among overtime workers is smaller, which may be driven by different selection behaviors into overtime work across genders.

Censored Quantile Regression with Many Controls

This paper develops estimation and inference methods for censored quantile regression models with high-dimensional controls. The methods are based on the application of double/debiased machine learning (DML) framework to the censored quantile regression estimator of Buchinsky and Hahn (1998). I provide valid inference for low-dimensional parameters of interest in the presence of high-dimensional nuisance parameters when implementing machine learning estimators. The proposed estimator is shown to be consistent and asymptotically normal. The performance of the estimator with high-dimensional controls is illustrated with numerical simulation and an empirical application that examines the effect of 401(k) eligibility on savings.

October 2025