DONG WOO HAHM

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PROFESSIONAL POSITION

Postdoctoral Scholar   University of Southern California, Department of Economics, 2022–

EDUCATION

Columbia University in the City of New York   New York, USA

    Ph.D., Economics   2022
    M.Phil., Economics   2019
    M.A., Economics   2018

Seoul National University   Seoul, South Korea

    B.A., Economics   2015

FIELDS OF SPECIALIZATION

Economics of Education, Industrial Organization, Market Design

- Combines **quasi-experimental reduced-form analysis** and **causal inference methods** (e.g., instrumental variables approach, differences-in-differences, regression discontinuitiy design, propensity score matching, multi-level modeling) with **tools from empirical industrial organization** (e.g., structural estimation of static and dynamic individual-level/market-level choice models) to gain insights into individuals' academic decision-making processes

DATA EXPERIENCE

- Administrative data on NYC public school students
    - Annual data across 15 years on 1.2 million students acquired via negotiation with the NYC Department of Education
    - Linked and analyzed multiple datasets on demographics, school application, attendance, academic performance etc.
- NYC Housing cost, structure, and local amenities data
    - Combined and analyzed data from multiple sources including the NYC Department of Finance Rolling Sales Files, the Primary Land Use Tax Lot Output (PLUTO), NYC Consumer and Worker Protection data, NYC OpenData GIS data files, and the American Community Survey (ACS) data
- Administrative and survey data on Seoul National University students
    - Annual data across 6 years on 500 students acquired via negotiation with the Admissions Office
    - Administered surveys to collect information on students' major choices
    - Linked and analyzed multiple datasets on demographics, GPA, and major choice
- Programming skills
    - Proficient in STATA, MATLAB, R, Microsoft Office, QGIS

SELECTED ACADEMIC PROJECTS

[1] "Leveraging Uncertainties to Infer Preferences: Robust Analysis of School Choice"
(with Yeon-Koo Che and YingHua He)

- Proposes a theoretically-based and computationally easy method to infer students' true preferences from their reported preferences (i.e., application data), and applies it to NYC high school choice data to predict policy effects
- Combines large market matching theory with structural discrete choice modeling and estimates the model using Bayesian hierarchical methods based on Markov chain Monte Carlo (MCMC) methods

[2] "A Dynamic Framework of School Choice: Effects of Middle Schools on High School Choice" (with Minseon Park)
– Extended Abstract in ACM EC 2022

- Builds a dynamic structural model of students' middle and high school choices based on the causal effects identified from quasi-experimental reduced form analysis (propensity score matching and instrumental variables approach) on NYC middle and high school data
- Estimates the dynamic model using Expectation Maximization (EM) algorithm with sequential maximization steps
- Provides empirical evidence that students' attended middle schools affect subsequent high school applications and assignments, and policymakers can leverage this dynamic effect to design more effective policies

[3] "Location Choice, Commuting, and School Choice" (with Minseon Park)
– Extended Abstract in ACM EC 2023

- Builds a dynamic structural model of families' decisions of where to reside and their school applications based on the causal effects identified from quasi-experimental reduced form analysis (boundary discontinuity design) using data on NYC middle schools, housing cost, structure, and local amenities
- Estimates the dynamic model using Expectation Maximization (EM) algorithm with sequential maximization steps
- Provides empirical evidence that households decide where to live considering that locations determine access-to-school—admissions probabilities and commuting distances to schools—and that any admissions reform neglecting such endogenous reponses may fail to achieve the intended policy goals

[4] "Prestige Seeking in College Application and Major Choice"
(with Yeon-Koo Che, Jinwoo Kim, Se-jik Kim, Olivier Tercieux)

- Builds a theoretical model of how students' concerns to signal their hidden abilities affect their major choices and provides empirical evidence of the theoretical predictions using Seoul National University major choice data
- A structural modeling of individual major choices which is estimated using discrete choice model approaches based on maximum likelihood estimation (MLE)

GRANTS AND AWARDS

Runner-up, Wueller Pre-Dissertation Award, Columbia University	2020
Winner and Runner-up, Wueller Teaching Awards: Best TA, Columbia University	2019
Runner-up, Vickrey Prize: Best 3rd year Paper in Economics, Columbia University	2019
PER Summer Research Fellow, Columbia University	2018, 2019, 2020, 2021
Young-Iob Chung Fellowship, Columbia University	2018–2019
Dean's Fellow, Columbia University	2016–2021

PROFESSIONAL EXPERIENCE

Academic Presentations
2020 12th World Congress of the Econometric Society
2021 New York City Department of Education
2022 University of Tokyo, North Carolina State University, UNC-Chapel Hill, Tulane University, UC San Diego, Seoul National University, NASMES 2022, ESAM 2022, ACM EC 2022, Econometric Society DSE 2022, UC Riverside, KAEA Applied Micro Seminar, HUFS
2023 USC, UC Santa Barbara, WEAI 2023, AMES 2023, NASMES 2023, Columbia University, SEA 2023, 2023 KAEA Job Market Conference, NBER Market Design Working Group Meeting

Journal Refereeing
Review of Economics and Statistics, Management Science, Econometrica, Journal of Public Economics

Teaching
Instructor:

Empirical Industrial Organization (Ph.D. level, ECON 688), USC	2023, 2024 Spring

Teaching Assistant:

Introduction to Econometrics (Seyhan Erden, Simon Lee), Columbia University	2017 Fall, 2018 Spring
Intermediate Microeconomics (Susan Elmes), Columbia University	2018 Fall, 2019 Fall
Introduction to Econometrics II (Ph.D. level, Jushan Bai and Simon Lee), Columbia University	2019 Spring

Other Information

Citizenship: South Korea (currently on F-1 STEM OPT, expires on 7/16/2025)
Language: English (fluent), Korean (native)

References

Yeon-Koo Che (co-sponsor)
Kelvin J. Lancaster Professor of Economic Theory   Department of Economics, Columbia University
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Miguel Urquiola (co-sponsor)
Dean of Social Science; Professor of Economics and International Affairs   Department of Economics, Columbia University
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