Jaepil Lee

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Education

Ph.D. Economics, Carnegie Mellon University	2025 (Expected)
minor in Statistics and Machine Learning	
M.S. Economics, Carnegie Mellon University	2020
MSc Economics, London School of Economics	2017
B.B.A. Business Administration, B.S. Mathematics, Korea University	2016

Research Interest

Applied Microeconomics (Labor, Health, Public), Applied Econometrics, Structural Econometrics

Research Projects

"A Structural Analysis of Opioid Misuse: Health, Labor, Policy, and Misperception on Opioid Misuse Risk" (Job Market Paper, link)

Presented at: MEA 2024, SEA 2024 (Structural Micro Session), UNC-Chapel Hill, KLI, KIEP, KIPF

Abstract: This paper examines the heterogeneous responses of opioid misuse across health and labor status during 2015-2019. Three aggregate changes that characterize this period are considered: increased probability of death from opioid misuse, the spread of state-level policies on opioid prescribing, and fluctuating prices for illegally traded opioids. The economic agent is characterized by a dynamic model of opioid misuse and labor supply with a stochastic misperception of the risk of misusing opioids, where the misperception induces agents to discount the probability of dying from opioid misuse more than the rational economic agent. By estimating the model with a novel estimation strategy, I show that labor status is just as important as health conditions in determining opioid misuse. Counterfactual analysis indicates that the decrease in opioid misuse is mainly due to the increased risk of death from opioid misuse. Policies targeting opioid prescription generally do not affect the overall opioid misuse rate but alter the share of people using illegal opioids. No evidence is found for the impact of illegally traded opioid prices on opioid misuse. Lastly, correcting the perception of opioid misuse risk would be effective in decreasing opioid misuse among the unemployed and those with poor mental health.

"Identification of Dynamic Discrete Choice Models with Quasi-Hyperbolic Discounting under Finite Dependence"

Abstract: I generalize the representation theorem in dynamic discrete choice models in Arcidiacono and Miller (2019) that incorporates quasi-hyperbolic discounting. Then, I show identification results given the two-period finite dependence and exclusion restriction in a finite horizon model. Monte Carlo simulation shows that the exclusion restriction is strong enough to separate the discount factor and present bias.

"Externality in Sending Children Back Home: A Structural Approach to Foster Care Incentives"

Abstract: This paper examines the unintended consequences of the foster care policy on children aimed at reunifying families. Although child abuse and neglect are rare, its recurrence and foster readmission are notably high. This raises concerns over the policy's efficacy in children's safety and health. Leveraging the Child and Caregiver Outcomes Using Linked Data (CCOULD) published by the U.S. Department of Health and Human Services, this study aims to (1) assess the impact of child maltreatment and foster care re/admission on children's health; (2) evaluate whether Medicaid data can be used to predict future child maltreatment; (3) build a dynamic model of foster care system that flexibly captures its institutional incentive to send children back to their families and incentive to care for children's welfare, and (4) examine how would additional information from Medicaid change foster care system's decision on children and how much it would change children's welfare, measured by Medicaid expenditure.

"Sufficient Conditions for Identification of Dynamic Discrete Choice Models under Finite Dependence"

Abstract: This paper investigates the role of finite dependence paths in identifying dynamic discrete choice models. I prove constructively that there exists a maximum number of these paths for identification in discrete state space. The number of finite dependence paths that provide information for identification grows exponentially by the number of states and choices. This growth explains the lack of consensus on the number of paths for reliable identification. In the one-period finite dependence setting, identification of flow utilities is achieved by the full rank condition of the linear system of equations of conditional value function differences. By examining a two-period finite dependence setting as a special case of multiple-period finite dependence, I demonstrate methods to determine identification for utility primitives.

Presentations

2025: UNC-Chapel Hill, Korea Labor Institute, Korea Institute of International Economic Policy, Korea Institute of Public Finance, 2024: MEA, SEA

Research Experience

Research Assistant to Rebecca Lessem	Feb 2021-Jul 2021
Research Assistant to James Albertus (PNC Research Assistantship)	Dec 2020-Feb 2021
Research Assistant to David Childers	Dec 2018-Jan 2019

Teaching Experience

Instructor (4.64/5.0)

Principles of Microeconomics	Undergraduate	Summer 2021

Teaching Assistant		*Instructor*	
Econometrics III (Structural Models)	Ph.D.	Robert Miller	S22, S21
Econometrics II	Ph.D.	Robert Miller	F22, F21, F20, F19
Dynamic Competitive Analysis	Ph.D.	Stephen Spear	F20
Microeconomics I	Ph.D.	Stephen Spear	F20, F19
Computational Method for Economists	Ph.D.	David Childers	S20
Statistical Decision Making	MBA	Dennis Epple	S21, S20
Strategic Corporate Management	MBA	Robert Miller	F22, S22, S21, S20
Trade and Investment Strategy	MBA	Robert Miller	F22, F20, F19
Principles of Microeconomics	Undergraduate	John Gasper	F20

Honors

Tepper Health Care Initiative, Carnegie Mellon University	2022-2023
William Larimer Mellon Fellowship, Carnegie Mellon University	2018-2023
Honors Scholarships, Korea University	2009-2013
Seongnam Scholarships, Seongnam Municipal Scholarship Association	2010

Other Positions

University of Wisconsin-Madison	Honorary Fellow	2022-2024
Korea Development Institute (KDI)	Research Associate	Oct 2017-Jul 2018
Seoul Metropolitan Police Agency	Military Service	2013-2015

Other

Citizenship	South Korea
Other Status	F-1 visa holder, U.S. Census Special Sworn Status
Programming	Matlab, Julia, Stata, Python, R
Language	English (fluent), Korean (native), Spanish (basic, DELE B2)

References

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