Last updated: December 11, 2025

DEOKJAE JEONG

Korea Customs and Trade Development Institute
+82 (10) 2516-0461 ◘ ubuzuz@gmail.com
https://jayjeo.com

EDUCATION

Ph.D. in Economics, **University of California, Davis** 2024
M.S. in Economics, **University of Wisconsin, Madison** 2018
M.A. in Economics, **Sung Kyun Kwan University (Korea)** 2012 *(coursework complete)*
B.A. in Law, **Sung Kyun Kwan University (Korea)** 2010

RESEARCH INTERESTS

Applied Microeconomics, Labor Economics, Trade and Tariff

RESEARCH EXPERIENCE

Korea Customs and Trade Development Institute 2025 ~ Present
Research Fellow, Team Leader

Jeonbuk National University 2024
Postdoc, Economics

Korea Institute of Public Finance 2014 ~ 2015
Center for Performance Evaluation and Management
Research Associate

Korea Development Institute 2012 ~ 2014
Department of Human Resource Development Policy
Research Associate

PUBLISHED PAPERS

How the Reduction of Temporary Foreign Workers Led to a Rise in Vacancy Rates in South Korea (Forthcoming in the Journal of Human Capital)

Abstract: This study investigates the causal relationship between the reduction of low-skilled temporary foreign workers (TFWs) and job vacancies in South Korea's manufacturing sectors, utilizing the COVID-19 quarantine policy as a natural experiment. Employing a Difference-in-Differences methodology, the research reveals that sectors with high dependence on TFWs,

particularly for permanent positions, experienced significantly elevated vacancy rates for a two-year period following the onset of the pandemic. The inability of native workers to fill these positions highlights the critical role of foreign labor in mitigating labor shortages. Notably, vacancy rates began to decline only after the government relaxed quarantine restrictions, facilitating the re-entry of TFWs into the country. These findings are corroborated by local projection methods.

WORKING PAPERS

The Causal Effects of Tariff-Rate Quota Policies on Agricultural Product Retail Prices (한국어 버전: Unpublished Institutional Working Paper Korean version, Not peer-reviewed)
(with Youngmi Kim, Under Review, Agricultural Economics)

Abstract: Tariff-Rate Quotas (TRQs) can be administered either to protect domestic industry or to promote imports aimed at alleviating supply shortages and stabilizing consumer prices. Prior empirical studies have predominantly focused on protectionist TRQs; empirical evidence regarding trade-promoting TRQs remains scarce. This paper addresses this gap by examining Korea's voluntary TRQs implemented outside WTO/FTA commitments. We estimate the causal effect on retail prices for 40 agricultural products employing Local Projection Difference-in-Differences, which exploits staggered TRQ introductions and heterogeneous tariff reduction intensities. Averaging across treated products, TRQs do not significantly alter retail prices. However, effects exhibit substantial heterogeneity: for leafy and root vegetables (Group 1), retail prices do not decline, whereas for fruits (Group 2), a 1%p reduction in the tariff rate lowers retail prices by approximately 0.9%, implying a pass-through rate of roughly 90%. Mechanism analysis reveal no significant response in import volumes for either group, thereby ruling out a import quantity channel. Tariff-exclusive import prices remain unchanged, implying that tariff-inclusive import prices decreased and suggesting approximately 100% pass-through at the import stage. Wholesale pass-through diverges between groups: characterized by low import dependence, Group 1 exhibits elevated wholesale prices, indicating that wholesalers capture the tariff reduction gains; in contrast, characterized by high import dependence, Group 2 demonstrates wholesale price declines that transmit the gains from tariff reductions entirely to the retail stage.

Automation, Human Task Innovation, and Labor Share
(Under Review, Journal of Economic Behavior and Organization)

Abstract: This study examines the impacts of robotic innovation (RI) and human innovation (HI) on labor share across nine EU countries. Using a general equilibrium model and novel shift-share

instruments, we address endogeneity concerns by utilizing International Federation of Robotics data, US patents, and a Cognitive Tasks Index. Our findings show that until 2024, RI's negative impact has exceeded HI's positive effect on labor share. We estimate the elasticity of substitution between labor and non-robot capital at 0.52, and between labor and robots at 2.67. These results offer insights for policymakers addressing declining labor share, emphasizing the importance of fostering human innovation alongside technological advancement.

WORK IN PROGRESS

Measuring Routine and Cognitive Task Indices: Using Large Language Models to Analyze Occupational Change in the United States (with Tai Lee)

Abstract: This study proposes an innovative methodology for quantifying Routine Task Intensity (RTI) and Cognitive Task Intensity (CTI) using Large Language Models to analyze O*NET task descriptions. Employing these LLM-derived measures, we reveal a consistent decline in routine occupations across Service and Sales sectors, with Sales receiving limited attention in existing literature. Regression analysis indicates a significant upward trend in cognitive impact on wages for females, particularly in Service, Sales, and to a lesser extent, Management occupations, while routine coefficients remain stable across five decades. These results underscore the growing significance of cognitive skills, especially for women in the workforce. Despite limitations in LLM output reliability and replicability, our methodology offers a complementary perspective to existing approaches, enabling a comprehensive understanding of labor market transformations.

REFERENCES

Giovanni Peri
Professor
University of California, Davis
Department of Economics
gperi@ucdavis.edu

Oscar Jorda
Professor
University of California, Davis
Department of Economics
ojorda@ucdavis.edu

Athanasios Geromichalos
Professor
University of California, Davis
Department of Economics
ageromich@ucdavis.edu