

# Offshoring and Wage Inequality: Theory and Evidence from Japan

Hiroyuki Nishiyama<sup>a,\*</sup>, Mina Nakano<sup>b</sup>, Mizuki Tsuboi<sup>c</sup>, Manabu Furuta<sup>d</sup>

<sup>a</sup>*School of Economics and Management, University of Hyogo, 8-2-1, Nishi-ku, Kobe, 651-2197, Japan*

<sup>b</sup>*Graduate School of Social Science, University of Hyogo, 8-2-1, Nishi-ku, Kobe, 651-2197, Japan*

<sup>c</sup>*School of Economics and Management, University of Hyogo, 8-2-1, Nishi-ku, Kobe, 651-2197, Japan*

<sup>d</sup>*Graduate School of Economics, Kobe University, 2-1, Rokkodaicho, Nada-ku, Kobe, 657-8501, Japan*

---

## Abstract

To examine whether offshoring widens or narrows wage inequality, we develop a tractable North-South model featuring firm heterogeneity, foreign outsourcing, and vertical specialization. In the baseline model with exogenous firms' outsourcing decisions, we show that increased outsourcing widens wage inequality. In an extended model with endogenous firms' outsourcing decisions, however, outsourcing either widens or narrows wage inequality, depending on the initial level of outsourcing. Using Japanese industry-level data, we then show that—in contrast to most findings for the U.S.—offshoring narrows wage inequality once we account for initial industry-level differences in the extent of outsourcing.

*Keywords:* Firm Heterogeneity; Foreign Outsourcing; Vertical Specialization; Wage Inequality; Japan

*JEL Classification:* F66, J31, L23

---

---

\*Corresponding author. We thank Keisaku Higashida, Yasukazu Ichino, Mitsuo Inada, Naoto Jinji, Isao Kamata, Atsuyuki Kato, Yoshitaka Kawagoshi, Hisaki Kono, Sawako Maruyama, Alireza Jay Naghavi, Noritsugu Nakanishi, Takahiro Sato, Takanori Shimizu, Kazuhiro Takauchi, Nobuyuki Takeuchi, Akihiko Yanase, Kazuhiro Yuki, and participants at the Japan Society of International Economics Kansai Branch Meeting, the International Economics Seminar at Kyoto University, and the KIES Special Meeting 2024 for helpful comments. We are extremely grateful to Yoshimichi Murakami and our discussant, Tatsuya Asami, for detailed comments and suggestions. This work was supported by JSPS Grants-in-Aid for Scientific Research [Grant Numbers JP21K01502, JP24K04883, JP25K05108, JP25K16641] and JSPS Bilateral Joint Research Projects [Grant Number JPJSBP120237903]

*Email addresses:* [nisiyama@em.u-hyogo.ac.jp](mailto:nisiyama@em.u-hyogo.ac.jp) (Hiroyuki Nishiyama), [nakanomina0607@gmail.com](mailto:nakanomina0607@gmail.com) (Mina Nakano), [miduki\\_tsuboi@em.u-hyogo.ac.jp](mailto:miduki_tsuboi@em.u-hyogo.ac.jp) (Mizuki Tsuboi), [furuta@econ.kobe-u.ac.jp](mailto:furuta@econ.kobe-u.ac.jp) (Manabu Furuta)