

# ICT, Offshoring, and the Demand for Part-time Workers: The Case of Japanese Manufacturing

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## Abstract

This paper examines the effects of information and communication technology (ICT) and offshoring on the skill demand in Japanese manufacturing. One of the contributions of this paper is that we focus explicitly on the demand for low-wage part-time workers (i.e., low skilled workers). Estimating a system of variable factor demands for the period 1980–2011, we found that industries with higher ICT stock shifted demand from middle-low to middle-high skilled workers. Offshoring is associated with the increasing demand for high skilled workers but it has insignificant effects on the demand for middle-high, middle-low, and low skilled workers. The results together suggest that the increasing demand for low-wage part-time workers can be attributable to ICT in Japan.

Key words: Offshoring; Information and Communication Technology; Skills; Part-time Workers; Polarization

JEL classification codes: F14; J31

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