

The effect of automation on routine work and intercity migration

Chigusa Okamoto *

With the tremendous progress of technology in recent years, the automation of production is proceeding. Moreover, it is said that the development of artificial intelligence will accelerate automation. These new technologies replace routine works in which middle-class workers mainly engage, and this effect on the labor market attracts attention. Recent studies such as Autor and Dorn (2013) show that automation brings job polarization: wage and employment rise up in low- and high-class jobs and go down in middle-class jobs. In order to tackle the question of how production automation will change the city's structure and agglomeration, which has not been discussed well, this study analyzes how automation will change people's movement using migration flow data in the U.S. from 2005 to 2014. Especially, this study analyzes how each area's initial employment structure, which reflects the magnitude of impact from automation, changes migration flows.

Keywords: Automation, Skills, Migration flow, Spatial allocation
JEL code: J21, J61, R12

*Graduate School of Economics, The University of Tokyo, email: okamoto-chigusa546@g.ecc.u-tokyo.ac.jp