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# Skill endowment, routinization and digital technologies: Evidence from U.S. Metropolitan Areas

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ABSTRACT. Empirical evidence on the polarization of labour markets has triggered an intense debate on the drivers of this widespread phenomenon. The juxtaposition of international trade and technological change, in particular the digital revolution, have been touted as key determinants for the decrease in demand of routine jobs. The present paper focuses on these issues from a different perspective, and inquires whether deroutinization has harmed innovation? We address this question with an empirical study on advanced manufacturing technologies in the United States. Building on the literature on learning-by-doing and incremental innovation, our analysis focuses on American Metropolitan Statistical Areas, over the period 1990-2012. Results provide support to our hypothesis, namely that de-routinization is associated with a generalized decline of innovation performance.

Keywords: Innovation; Routine skills; Polarization; Manufacturing; Digital Technology

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**Useful readings:**

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