

Macro Roundup Article

Headline: [Firm Investments in Artificial Intelligence Technologies and Changes in Workforce Composition](#)

Article Link: <https://www.nber.org/papers/w31325>

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Publication	National Bureau of Economic Research
Publication Date	June 14, 2023

Tweet: [Between 2010 and 2018 firms that invested in AI shifted employment towards more junior employees with high educational attainment and technical expertise. @TaniaBabina @AnastassiaFedyk @AlexXiHe](#)

Summary: In terms of labor composition, we observe a general upskilling trend associated with larger AI investments. Firms that invest more in AI tend to increase their shares of workers with bachelors, masters, and doctoral degrees (correspondingly decreasing the share of workers without college education). For example, a one-standard-deviation increase in the firm's share of AI workers translates into a 3.7% increase in the share of workers whose maximal educational attainment is an associates or bachelors degree, a 2.9% increase in the share of workers whose maximal educational attainment is a masters degree, and a 0.6% increase in doctoral degrees. These increases in educated workers correspond to a 7.2% decline in the share of workers without college education.

Primary Topic: Innovation/Research

Topics: Academic paper, Database, High vs Low Skill, Innovation/Research, Investment, Productivity, Workforce Reorganization

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