Do Workplace Robotics and Trade shocks affect Disability Receipt?

Focal area 2: Addressing barriers to Disability Program and SSI Program Participation

Michael Easterday
Department of Economics
University of Kansas
Lawrence, KS 66045
Email: easterday@ku.edu

Donna K. Ginther
Roy A. Roberts & Regents Distinguished Professor, Department of Economics
Director, Institute for Policy & Social Research
University of Kansas
Lawrence, KS 66045
Research Associate, National Bureau of Economic Research
Email: dginther@ku.edu

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This study proposes to look at the effect that changes in workplace robotization have on disability application rates. Much of the automation literature focuses on the detrimental effects automation has on the labor market. Acemoglu and Restrepo (2020) found that commuting zone exposure to industrial robots reduced employment and wages after 1990. To the extent that disability is associated with heavy manufacturing jobs, replacing workers with fully autonomous robots that are able to do dangerous work in place of humans, might reduce disabling incidents and disability claims. While not barriers to entry, these reductions in disabling incidents may explain declines in DI and SSI applications. Alternatively, loss of employment opportunities as a result of robot exposure may increase the likelihood of filing for disability.

In order to disentangle these competing explanations, we will use methods originally employed by Acemoglu and Restrepo (2020) with data updated through 2018 to identify the causal effect of robot exposure in a commuting zone on subsequent DI and SSI receipt as well as self-reported disability using the American Community Survey. Deindustrialization also occurred as a result of the China Trade Shock (Autor, Dorn & Hansen 2016). Following both papers, we will control for these deindustrialization shocks to determine whether a reduction in manufacturing employment resulted in fewer people receiving disability benefits or reporting conditions that prevent work.

References:

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