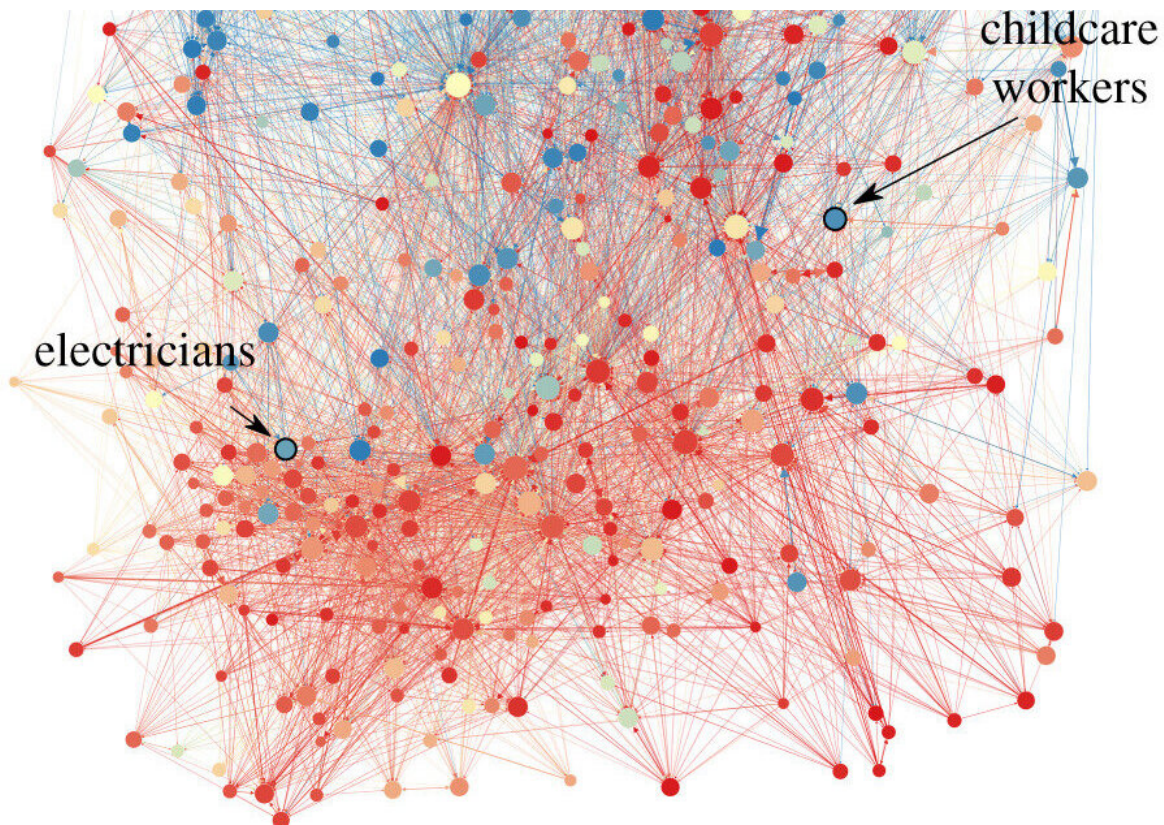


Low-wage workers at risk for automation: study

February 17 2021



Estimates of automatability in the occupational mobility network. (a) A histogram of the probability of computerization for different occupations as estimated by Frey and Osborne [8], suggesting a bimodal distribution. (b) The occupational mobility network, where nodes represent occupations and links represent possible worker transitions between occupations. Red nodes have high automatability, and blue nodes have low automatability. The size of the nodes indicates the logarithm of the number of employees in each occupation. Credit: *Journal of The Royal Society Interface* (2021). DOI: 10.1098/rsif.2020.0898

In a study published in the *Journal of the Royal Society Interface* in January 2021, SFI External Professor Doyne Farmer, first author Maria del Rio-Chanona, and their colleagues at Oxford University explore the impact of automation on low-wage workers. The COVID-19 pandemic is accelerating the pace of automation, and they determined that low-wage workers face a double-whammy of being more likely to lose their jobs to automation and less likely to have the skills to switch to newly created jobs.

This work is based on a data-driven model created to analyze how workers move through an empirically derived occupational mobility network in response to automation scenarios. By identifying workers most at risk of long-term unemployment, the researchers' model can better target [worker](#) support and retraining programs to help low-wage workers adapt to the changing economy.

The study also revealed unemployment risks aren't limited to those directly displaced by automation. Childcare workers, who are at low risk of automation, are likely to face a much more challenging job market due to other displaced workers attempting to enter their industry.

"Without proper action, automation could cause further deep distress," says Farmer. "But with the right policy frameworks in place, including well-targeted support for [low-wage workers](#), it could power a better economy for all."

"Occupational mobility and automation: a [data-driven model](#)" is published in the *Journal of the Royal Society Interface*.

More information: R. Maria del Rio-Chanona et al. Occupational mobility and automation: a data-driven network model, *Journal of The*

Royal Society Interface (2021). [DOI: 10.1098/rsif.2020.0898](https://doi.org/10.1098/rsif.2020.0898)

Provided by Santa Fe Institute

Citation: Low-wage workers at risk for automation: study (2021, February 17) retrieved 28 April 2024 from <https://phys.org/news/2021-02-low-wage-workers-automation.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.