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Robots could replace nearly a third of the U.S. workforce by 2030

By **Danielle Paquette** November 30, 2017

Over the next 13 years, the rising tide of automation will force as many as 70 million workers in the United States to find another way to make money, a [new study](#) from the global consultancy McKinsey predicts.

That means nearly a third of the American workforce could face the need to pick up new skills or enter different fields in the near future, said the report's co-author, Michael Chui, a partner at the McKinsey Global Institute who studies business and economics.

“We believe that everyone will need to do retraining over time,” he said.

The shift could displace people at every stage of their career, Chui said.

By 2030, the researchers estimated, the demand for office support workers in the U.S. will drop by 20 percent. That includes secretaries, paralegals and anyone in charge of administrative tasks.

During the same period, the need for people doing “predictable physical work” — construction equipment installation and repair, card dealing, security guarding, dishwashing and food preparation, for example — will fall by 30 percent.

Other advanced economies, such as Germany and Japan, will see at least a third of their workforce similarly disrupted, the report concludes.

China's share will be smaller (12 percent), since more employers there will still find it cheaper to employ humans.

Machines can increasingly perform tasks that people have long handled. They scan Tylenol and lip balm at the drugstore. They build pickup trucks. They take your [grilled cheese order at Panera](#).

Technology could replace up to 375 million employees worldwide by 2030, the McKinsey authors estimate.

The jobs most at risk involve repetitive tasks. About half the duties workers handle globally could be automated, according to the report, though less than 5 percent of occupations could be entirely taken over by computers.

Caretakers, psychologists, artists, writers — anyone who relies on empathy or creativity at work — can expect to have the most job security as automation continues to spread, said Jason Hong, a computer science professor at Carnegie Mellon University in Pittsburgh.

“Artificial intelligence is now taking over even white collar jobs,” he said, “but those that require lots of human touch and communication won’t be easily automated.”

Still, the McKinsey researchers foresee “substantial workplace transformations” across the globe, which they think calls for more public investment in job training centers and education.

“The shift could be on a scale not seen since the transition of the labor force out of agriculture in the early 1900s in the United States and Europe, and more recently in China,” the authors wrote.

A [May survey](#) from the Pew Research Center revealed anxiety among bosses. About a third of business leaders and technology watchers in a group of roughly 1,400 expressed “no confidence” that the country’s education system and job training programs will evolve quickly enough to meet the next decade’s labor demands.

But the McKinsey study, an eight-month endeavor, offers hope.

Susan Lund, a labor economist at the firm, said automation will open more jobs — workers who create robots, workers that run computers, occupations we can’t yet imagine — and ultimately boost U.S. productivity and general well-being, as long as the workforce can adequately adjust to a new climate.

Earlier this month, she pointed out, Stanford University researchers found that a machine [could better diagnose pneumonia](#) than radiologists.

“This is how our children could end up with a better standard of living than we have,” Lund said. “We want to be able to transition our workforce so that the people displaced can get new jobs and we can capture the benefits without the downside.”

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