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## Report Suggests Nearly Half of U.S. Jobs Are Vulnerable to Computerization

Oxford researchers say that 45 percent of America's occupations will be automated within the next 20 years.

Rapid advances in technology have long represented [a serious potential threat to many jobs](#) ordinarily performed by people.

A recent report (which is not online, but summarized [here](#)) from the Oxford Martin School's [Programme on the Impacts of Future Technology](#) attempts to quantify the extent of that threat. It concludes that 45 percent of American jobs are at high risk of being taken by computers within the next two decades.

The authors believe this takeover will happen in two stages. First, computers will start replacing people in especially vulnerable fields like transportation/logistics, production labor, and administrative support. Jobs in services, sales, and construction may also be lost in this first stage. Then, the rate of replacement will slow down due to bottlenecks in harder-to-automate fields such engineering. This "technological plateau" will be followed by a second wave of computerization, dependent upon the development of good artificial intelligence. This could next put jobs in management, science and engineering, and the arts at risk.

The authors note that the rate of computerization depends on several other factors, including regulation of new technology and access to cheap labor.

These results were calculated with a common statistical modeling method. More than 700 jobs on [O\\*Net](#), an online career network, were considered, as well as the skills and education required for each. These features were weighted according to how automatable they were, and according to the engineering obstacles currently preventing computerization.

“Our findings thus imply that as technology races ahead, low-skill workers will reallocate to tasks that are non-susceptible to computerization—i.e., tasks that required creative and social intelligence,” the authors write. “For workers to win the race, however, they will have to acquire creative and social skills.”