

# The future of work after COVID-19

COVID-19 brought massive disruption to the workforce, highlighting the importance of physical proximity in work and spurring changes in business models and consumer behavior, many of which are likely to endure. This research examines the long-term impact of COVID-19 on work across several work arenas and in eight economies with diverse labor markets: China, France, Germany, India, Japan, Spain, the United Kingdom, and the United States. Key findings:

**The physical dimension of work is a new factor shaping the future of work, brought to the fore by health and safety considerations.** We group occupations in a novel way based on physical closeness, the frequency of human interactions, and where work is done. This analysis shows that the pandemic's short- and long-term impact is concentrated in four work arenas with high levels of proximity: leisure and travel venues (including restaurants and hotels) employing more than 60 million in the eight countries, on-site customer interaction including retail and hospitality (150 million), computer-based office work (300 million), and production and warehousing (more than 350 million). In less dense work arenas such as outdoor production sites, the pandemic's effects may fade quickly. Other work arenas such as medical care and personal care with high level of physical proximity may also see less change because of the nature of the occupations.

**COVID-19 accelerated three trends that could persist to varying degrees after the pandemic with different implications for work.** First, hybrid remote work could continue: 20 to 25 percent of workers in advanced economies and about 10 percent in emerging economies could work from

home three to five days a week, mainly in the computer-based office work arena. That is four to five times the level before the pandemic and may reduce demand for mass transit, restaurants, and retail in urban centers. Second, the growth in share of e-commerce and the "delivery economy," which was two to five times faster in 2020 than before the pandemic, is likely to continue. This trend is disrupting jobs in travel and leisure and hastening the decline of low-wage jobs in brick-and-mortar stores and restaurants, while increasing jobs in distribution centers and last-mile delivery. Finally, companies have enlisted automation and AI to cope with COVID-19 disruptions and may accelerate adoption in the years ahead, putting more robots in manufacturing plants and warehouses and adding self-service customer kiosks and service robots in customer interaction arenas.

**These trends will likely affect work arenas and countries in varying ways and raise new questions for cities.**

The four work arenas most affected by proximity account for about 70 percent of the workforce in the six advanced economies we looked at, whereas they amount to about 60 percent in China and just 40 percent in India, where more than half the workforce is engaged in outdoor work. Among advanced economies, too, there are variations. For example, computer-based office work is most prevalent in the United Kingdom and United States, whereas Germany has the highest indoor production from its large manufacturing base. This results in different potentials for remote work and job displacement. Large cities may feel the impact, as remote work reduces demand for transportation, retail, and food service, and smaller cities that were declining before the pandemic may benefit.

**Workforce transitions may be larger in scale than we estimated before the pandemic, and the share of employment in low-wage job categories may decline.** Depending on how extensively these trends stick, our scenarios suggest that more than 100 million workers in the eight countries may need to switch occupations by 2030, a 12 percent increase from before the virus overall and as much as 25 percent more in advanced economies. Workers without a college degree, women, ethnic minorities, and young people may be most affected. The share of employment in low-wage occupations may decline by 2030 for the first time, even as high-wage occupations in healthcare and the STEM professions continue to expand.

**Businesses and policy makers can accelerate many of the future of work imperatives that were already clear before COVID-19.** Companies have a new opportunity to reimagine how and where work is done, thinking through specific work arenas and occupational activities. Speedy and effective worker redeployment will be needed, for example by recruiting and retraining based on skills and experience rather than academic degrees. Policy makers might consider prioritizing equitable access to digital infrastructure as well as new ways of enabling occupational mobility. As the share of independent workers grows, more innovation may be required to secure benefits for them. The pandemic will eventually fade, but the agility and creativity of policy makers and businesses evident during the crisis will need to continue, to find effective responses to the looming workforce challenges.