

STEM Workforce: Post COVID-19

A recent McKinsey Global Institute report explored COVID-19's impact on the future of work in eight economies, looking at both trends in place before the pandemic and changes that it has accelerated. For STEM—unlike some sectors—the report found that the pandemic had boosted pre-COVID trends already favoring workforce expansion. But the study also concluded that the pandemic has increased the percent of workers in the broader economy likely to be displaced by automation.

China

STEM professionals
 2018 workforce: **23.4M**
 Post-COVID-19 net change 2018–30: **+34%**
 Difference pre- to post-COVID-19: **+0.7M**

Automation displacement
 2030 workforce: **23%**
 Difference pre- to post-COVID-19: **+14.4M**

France

STEM professionals
 2018 workforce: **1.8M**
 Post-COVID-19 net change 2018–30: **+19%**
 Difference pre- to post-COVID-19: **+81K**

Automation displacement
 2030 workforce: **25%**
 Difference pre- to post-COVID-19: **+0.6M**

Germany

STEM professionals
 2018 workforce: **3.2M**
 Post-COVID-19 net change 2018–30: **+11%**
 Difference pre- to post-COVID-19: **+142K**

Automation displacement
 2030 workforce: **27%**
 Difference pre- to post-COVID-19: **+0.9M**

India

STEM professionals
 2018 workforce: **5.3M**
 Post-COVID-19 net change 2018–30: **+94%**
 Difference pre- to post-COVID-19: **+0.5M**

Automation displacement
 2030 workforce: **10%**
 Difference pre- to post-COVID-19: **+3.2M**

Japan

STEM professionals
 2018 workforce: **2.5M**
 Post-COVID-19 net change 2018–30: **+20%**
 Difference pre- to post-COVID-19: **+113K**

Automation displacement
 2030 workforce: **31%**
 Difference pre- to post-COVID-19: **+1.9M**

Spain

STEM professionals
 2018 workforce: **1.0M**
 Post-COVID-19 net change 2018–30: **+16%**
 Difference pre- to post-COVID-19: **+45K**

Automation displacement
 2030 workforce: **24%**
 Difference pre- to post-COVID-19: **+0.5M**

United Kingdom

STEM professionals
 2018 workforce: **2.5M**
 Post-COVID-19 net change 2018–30: **+16%**
 Difference pre- to post-COVID-19: **+97K**

Automation displacement
 2030 workforce: **20%**
 Difference pre- to post-COVID-19: **+0.8M**

United States

STEM professionals
 2018 workforce: **8.3M**
 Post-COVID-19 net change 2018–30: **+24%**
 Difference pre- to post-COVID-19: **+0.7M**

Automation displacement
 2030 workforce: **27%**
 Difference pre- to post-COVID-19: **+8.4M**

PRE-COVID-19 TRENDS:

Automation, rising incomes, aging populations, increased technology use, climate change, infrastructure investment, rising education levels and marketization of unpaid work

POST-COVID-19 TRENDS:

All prepandemic trends, plus accelerated automation, accelerated e-commerce, increased remote work and reduced business travel

