

The US Economy Needs 5.25 Million Additional Workers with Education and Training Beyond High School Through 2032, 4.5 Million of Whom Will Need at Least a Bachelor's Degree, Georgetown University Report Says

Significant investment in postsecondary education and training is necessary to avoid critical skills shortages, particularly in light of current immigration policies.

(Washington, DC, Sept. 16, 2025) The US economy is facing a skills shortage crisis in critical occupations, according to new research from the Georgetown University Center on Education and the Workforce (CEW). From 2024 through 2032, 18.4 million experienced workers with postsecondary education are expected to retire, far outpacing the 13.8 million younger workers who will enter the labor market with equivalent postsecondary educational qualifications. Compounding the problem, the US economy is expected to add 685,000 new jobs requiring postsecondary education and training over the same period. CEW's research projects that the nation will need an additional 5.25 million workers with postsecondary education through 2032, 4.5 million of whom will need a bachelor's degree or higher.

Falling Behind: How Skills Shortages Threaten Future Jobs explores the causes and magnitude of anticipated skills shortages through at least 2032. In addition, the report highlights nine occupations that will be particularly affected by skills shortages: accountants, attorneys, construction workers, doctors, engineers, managers, nurses, teachers, and truck drivers. CEW researchers also examine potential strategies to address and mitigate impending skills shortages and their economic impacts.

“Without massive and immediate increases in educational attainment, 171 occupations of the 561 we analyzed will face skills shortages through 2032. In addition, we identified nine occupations that warrant further discussion because of the size of expected shortfalls, the prominence of the occupations, or the social and economic needs they fill,” said Nicole Smith, lead author and chief economist at CEW. “For example, both teacher and nursing shortages are pressing concerns with far-reaching implications for the nation's education and healthcare systems. Addressing these shortages must be a priority.”

CEW projects a shortfall of 611,000 teachers, 362,000 nurse practitioners and registered nurses, and 42,000 licensed practical nurses through 2032. High turnover rates due to burnout from the COVID-19 pandemic and declining college enrollments in related preparation programs have exacerbated these shortages. Further complicating the nursing shortage is a related shortage of teaching faculty in nursing preparation programs, which may be due to faculty salaries that are lower than nurses can make in the field.

While skills shortages in teaching and nursing occupations are significant, the largest projected shortage through 2032 will be in management positions (2.9 million), a broad category that includes CEOs, construction managers, facilities managers, financial managers, general and operations managers, and sales managers. Managers cut across all industries and help organizations effectively navigate challenges,

implement strategies, and achieve goals. While no single path or credential leads to management jobs, a majority (56%) of workers currently in management positions hold a bachelor's degree or higher and 82% have education beyond a high school diploma. Shortages in key occupations that don't require bachelor's degrees, such as drivers/sales workers and truck drivers (402,000) and construction workers (200,000), may be driven in part by the characteristics of jobs in these occupations, including inflexible hours and industry norms that may deter younger workers.

The US also faces a skills shortage in engineering (210,000). "Engineers drive innovation, technological advancements, and infrastructure development, so the engineering shortage hinders the nation's ability to maintain economic growth and global competitiveness," said Smith. "Not enough young people are both qualified and interested in these careers. In addition, there is tremendous political pressure to reduce immigration, despite the fact that the US has increasingly relied on immigrants to fill advanced technical occupations. Current initiatives aimed at bolstering the engineering workforce aren't keeping pace with these trends."

Increasing workforce participation is one promising strategy that could help address skills shortages. If the US could bring the labor-force participation rate (LFPR) back to its historic high (67.3% in 2000) and the unemployment rate to 4.1% (as it was in the same year), the workforce would increase by 12 million, more than double the number of workers needed to fill projected shortages through 2032. However, simply increasing the LFPR would not fully address the skills shortage. Many of these 12 million potential workers would likely need more education and training, as current projections indicate that 52% would not have any education or training beyond high school.

"Skills shortages present an opportunity for millions of workers, particularly those from low-income households and marginalized racial/ethnic groups, to gain better access to economic opportunity, and for American industries to connect with enormous untapped talent," said co-author and CEW Director Jeff Strohl. "The transition to a majority-minority population has already occurred among American youth. As a result, addressing the skills gap will require teaching and counseling strategies that are adaptable and responsive to the evolving socioeconomic and racial/ethnic demographics of our classrooms."

Additional strategies to address skills shortages include studying skills-based hiring to improve its effectiveness; investing in reskilling for workers who need to update their abilities; using technology to increase worker productivity; and expanding visa programs to prioritize immigrants with in-demand skills.

To learn more about projected skills shortages through 2032, visit:

<https://cew.georgetown.edu/skills-shortages>.

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