



Insight

# The Future of Apprenticeships

ISABEL SOTO | NOVEMBER 13, 2020

## Executive Summary

- The industry makeup of current federal apprenticeships has barely changed since the creation of Registered Apprenticeship Programs in 1937.
- Apprenticeships are still largely concentrated in goods-producing industries, but Bureau of Labor Statistics projections indicate that the majority of job growth will happen in the service sector, meaning that apprenticeship programs are currently not preparing workers for future labor-market demands.
- Identifying the occupations and skills needed in the future and developing apprenticeships in those areas could allow workers to move into roles with higher wages and better earnings potential and strengthen the labor force as a whole.

## Introduction

To serve workers, employers, and enable economic growth, apprenticeship programs need to be adaptable with an eye to the future. The traditional education system is often not equipping students cost-effectively with skills that will lead to success in the labor force. By offering hands-on training, apprenticeships can offer students and workers a better way to prepare for the labor force—if the skills being taught are needed by employers, and particularly those in rapidly growing industries. Given that 90 percent of active apprenticeships are concentrated in five industries, it is worth exploring if current apprenticeship programs are preparing workers for the jobs of the fastest growing industries. Comparing these two groups indicates there is a mismatch between current federal upskilling and reskilling opportunities and the jobs of the future, and workers would benefit from a better alignment between apprenticeship programs and these industries.

## The Current Apprenticeship Model

Following the passage of the Fitzgerald Act in 1937, which established the Registered Apprenticeship Program, apprenticeships were largely concentrated in construction and manufacturing. After the second World War, some expansion occurred with apprenticeships being used to train police, firefighters, and other emergency personnel. Since then, however, not much has changed in the industry makeup of apprenticeship programs.

Among all registered apprenticeships, 68 percent are in the construction industry. The strong and comparatively large network of construction-related apprenticeships is preparing workers well for construction jobs, and so long as there will continue to be demand for skilled labor in the construction industry, federal support for these apprenticeships makes sense.

That said, however, previous [American Action Forum](#) research found that while 75 percent of federal apprenticeships train workers in goods-producing industries (such as construction), those industries will only be responsible for .6 percent of job growth through 2024. The impact of rapidly developing automation technology on future job growth will require workers' roles and skills to shift.

## Changes to the Labor Force

According to a survey conducted by the [World Economic Forum](#), 43 percent of businesses indicate that they are likely to reduce their workforce due to increased technology implementation. In the short term, as workers and employers adjust to changes, there may be some job losses, but ultimately it is likely that technology will not only increase productivity but also open up more job opportunities. The survey also found that 34 percent of employers surveyed plan to expand their workforce due to technology. The nature of these jobs will change, however: [Research](#) shows that the types of skills needed in the labor force will change, affecting large numbers of workers. For those workers who remain in their roles, it's estimated that 42 percent of core skills that will change and 50 percent of all employees will need reskilling over the next 5 years. The challenge, therefore, is preparing a workforce that can move into these new roles.

While it is encouraging that the construction industry seems well equipped to provide rapid and high-quality training, it is certainly not the only industry that will require rapid upskilling or reskilling. As discussed [earlier in the series](#), workers and businesses would likely benefit from more apprenticeship offerings across a wider range of industries, and targeting that expansion (and thus the funding supporting it) would help to ensure more effective outcomes.

## Rapidly Growing Industries

Identifying where to target apprenticeship expansion is a challenge, but [Bureau of Labor Statistics](#) projections can offer helpful indicators of where job openings are likely to increase. Data show that six out of the 10 most rapidly growing occupations are concentrated in the health care sector. Furthermore, the service sector will be responsible for almost the entirety of [occupational growth](#) yet makes up a small fraction of current apprenticeship offerings.

Home health and personal aides are expected to see the largest increase in job growth, growing by 1.2 million workers over the next decade (or 33 percent job growth). Further, technological development has created the need for more specific skills to support occupations such as software developers and advanced programming. As computer and information technology occupations grow, so do the opportunities for workers to reskill into higher-paying roles. The median annual wage for [computer and information technology occupations](#) was \$88,240 in May 2019, which was higher than the median annual wage for all occupations, which stood at \$39,810. While looking at growing industries gives a general picture of where more apprenticeships can be developed, identifying specific high-value, in-demand skills is also crucial.

## Skills

According to research conducted by [LinkedIn](#), the top five “hard” skills companies need are centralized database management/blockchain capabilities, cloud computing, analytical reasoning, artificial intelligence, and user-experience design. Equally important are the sometimes-forgotten “soft” skills. Among these, employers indicate the top five skills they look for are creativity, persuasion, collaboration, adaptability, and emotional intelligence. Apprenticeships have the benefit of being able to teach both soft and hard skills simultaneously because of their work-based model, which enables participants to develop technical skills in the classroom and use them at work while learning soft skills. Given the expected growth in service sector occupations, soft skills will only grow in importance. The movement to [remote work](#) has also placed an emphasis on certain soft skills such as clear communication and collaboration, while hard skills have been shifting to data literacy and cybersecurity.

The in-demand hard skills are seemingly not being taught in the types of apprenticeships available in goods-producing industries. Ensuring that workers are trained not just for growing industries but for widely needed skills will help workers more by allowing them to move between industries and not remain tied to one specific role with one specific employer. Allowing increased worker flexibility by focusing on skills when expanding apprenticeships would better serve worker interests and create a more dynamic labor force better able to deal with economic shocks.

## **Conclusion**

Apprenticeships in the United States have received renewed attention as a result of declining labor force participation, rapidly changing labor-market needs, and unemployment as a result of the COVID-19 pandemic. Apprenticeships could offer a way to avoid long-term unemployment by connecting individuals to work and providing them with greater earning potential and portable credentials. The current apprenticeship program is largely concentrated in industries that are different than those projected to have much of the future job growth. Research shows that much of the job growth over the next decade will come from the service sector, with the fastest growing occupations relating to health care and computer and information technology. In order for apprenticeships to provide workers and the economy with the maximum amount of benefits, it’s crucial that programs are aligned with the needs of a rapidly changing labor force that is expanding into new industries.