



Automation will disproportionally impact low-wage workers

What can state governments do about it?

What can state governments do to protect low income workers?

Twenty percent of Texans earning under \$65,000 are likely to experience job loss in the next five years due to automating technologies. That represents two million jobs lost, or one out of every six jobs in Texas. Faethm's predictive AI engine analyzed the Texan workforce to determine how technology will impact different sectors of the workforce across the state. Learn how companies, governments, and educators can understand and prepare for the future state of the workforce and the impending influx of automating technologies.

Emerging technologies are reshaping the world of work across industries. Business process automation has already begun to eliminate many jobs while augmenting technologies are transforming others dramatically. These digital impacts will leave some workers struggling to find a new place in the workforce and many workers will require extensive reskilling to maintain their positions.

Our analysis of the Texas workforce showed that low-wage workers are most at danger of being forced out of the workforce by automation. Low-wage workers tend to work in roles that involve many repetitive, procedural tasks. Tasks of this kind are most likely to be taken over by automating technologies, leading to a reduction of workers in these types of roles.

Low-wage workers will require reskilling and education in order to acquire the necessary skills to move into the new roles that will be needed in the workforce of the future. However, with planning and forethought, emerging technology can be an opportunity for growth, not crisis.

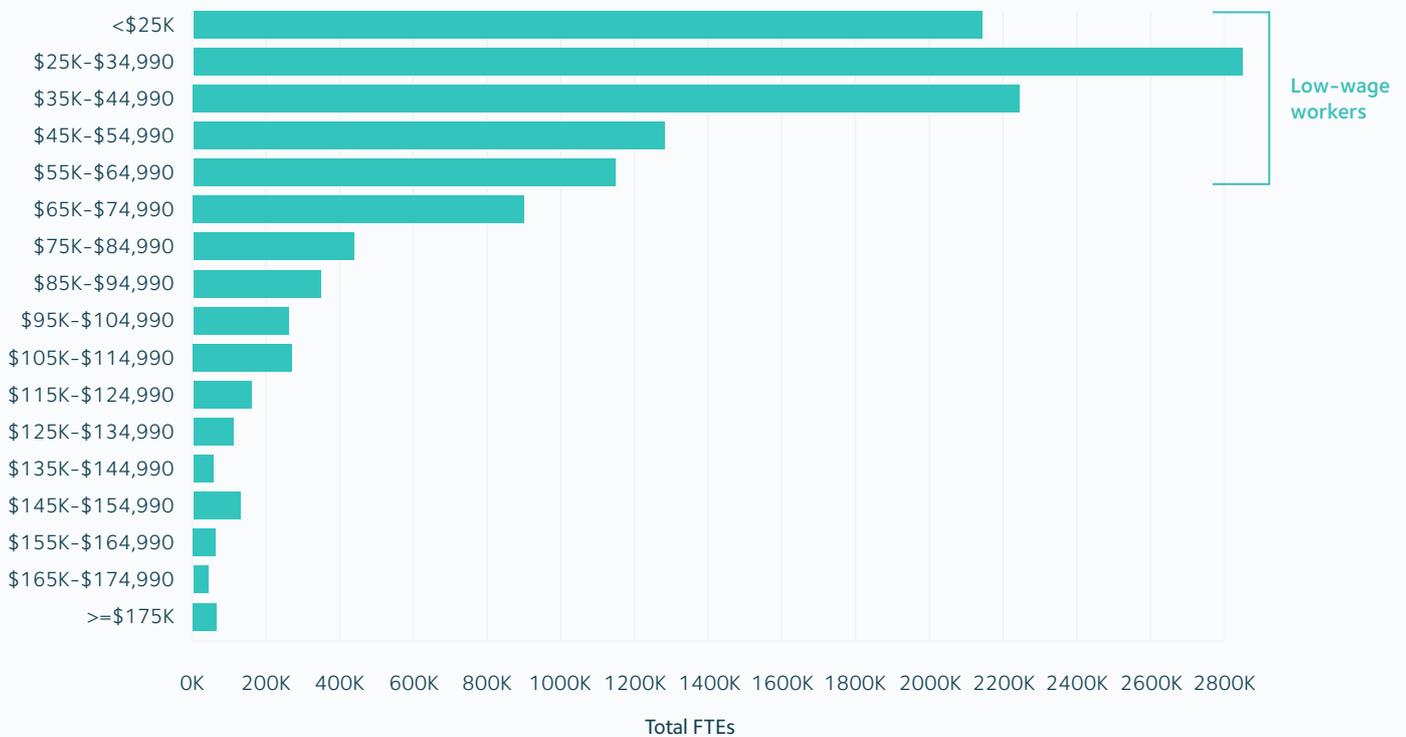


Defining low-wage workers

United For ALICE is a research and advocacy project that assesses the cost of living in every US county and provides a comprehensive look at financial hardship across the United States¹. ALICE is an acronym for Asset Limited, Income Constrained, Employed. The ALICE threshold is widely used in place of the Federal Poverty Level, which many consider outdated and too broad to be meaningful. In Texas, the ALICE threshold for a family of four is \$64,512. The average Texan family has 3.5 members. The Bureau of Labor Statistics indicates that one in three Texan households with a child under the age of six operates with a single incomeⁱ.

There are over 9.7 million Texans earning less than \$65,000 for full-time work. Of those, more than five million are earning less than \$35,000, meaning that even in a dual-income household, two such workers would still be unlikely to meet the ALICE threshold. We will refer to workers earning less than \$65,000 as low-wage workers.

Texas full-time equivalent by salary band



1. <https://www.unitedforalice.org/overview>

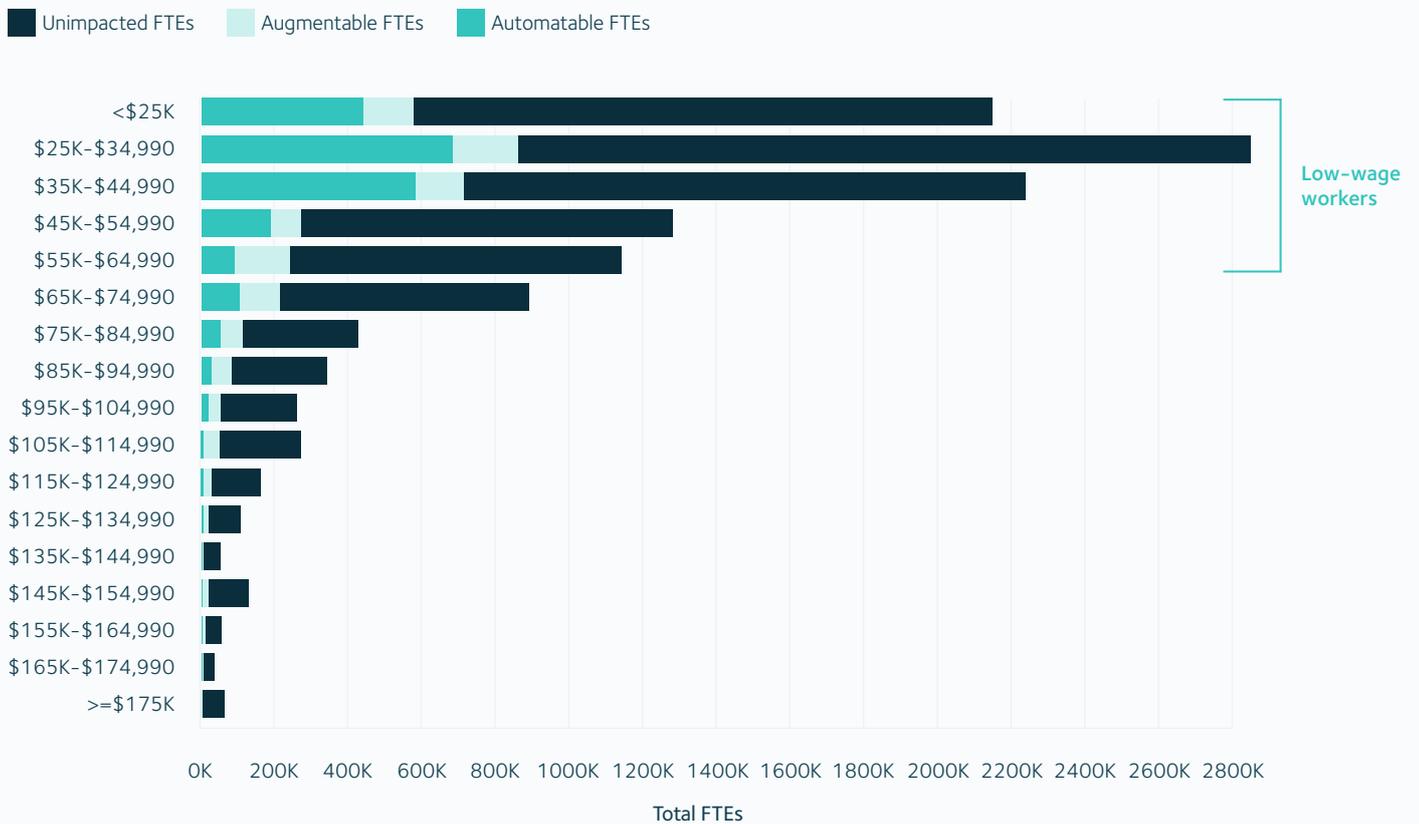
i. Julie Sullivan, "Comparing characteristics and selected expenditures of dual- and single-income households with children," Monthly Labor Review, U.S. Bureau of Labor Statistics, September 2020, <https://doi.org/10.21916/mlr.2020.19>.



The specter of automation

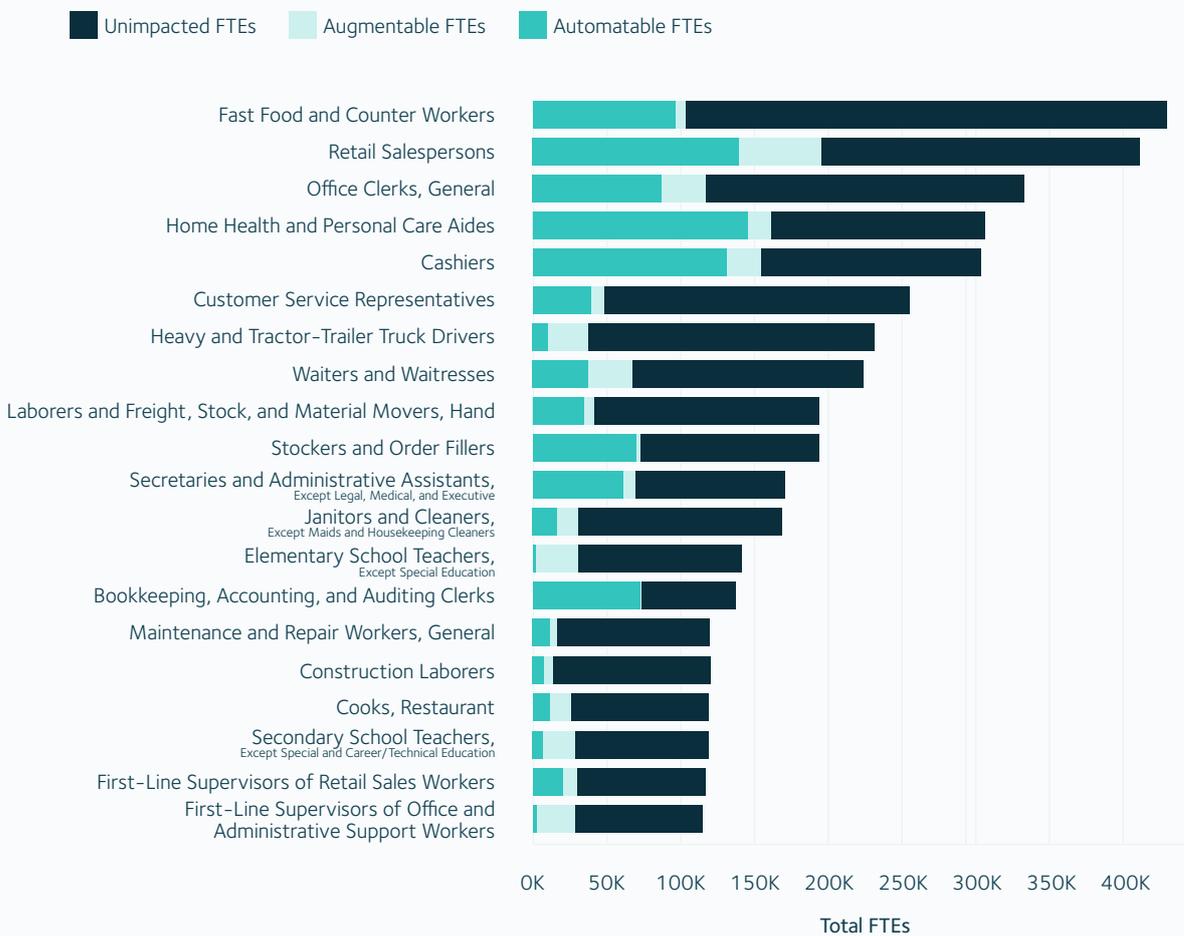
Our analysis indicates that automation will impact low-wage workers more heavily than other groups. Nearly two million workers in this group are likely to experience job loss in the next five years due to automating technologies.

Automation and augmentation by salary band



The largest contingent of workers in this low-wage group are Fast Food and Counter Workers, followed by Retail Salespersons and Office Clerks. These roles consist mainly of repetitive, procedural tasks that are low-hanging fruit for automating technologies.

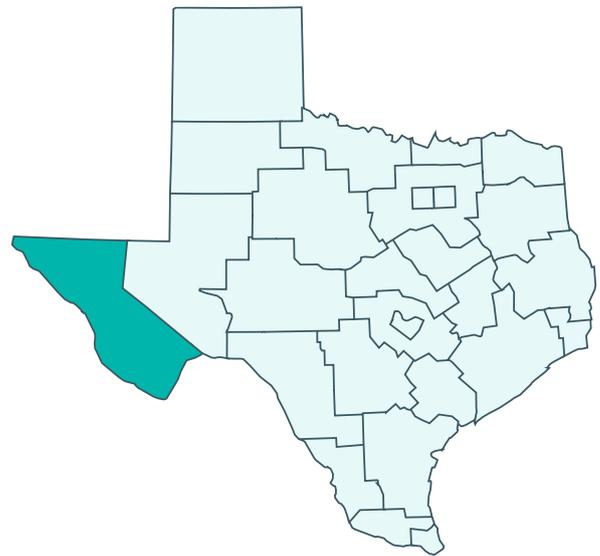
Top roles earning <\$65K



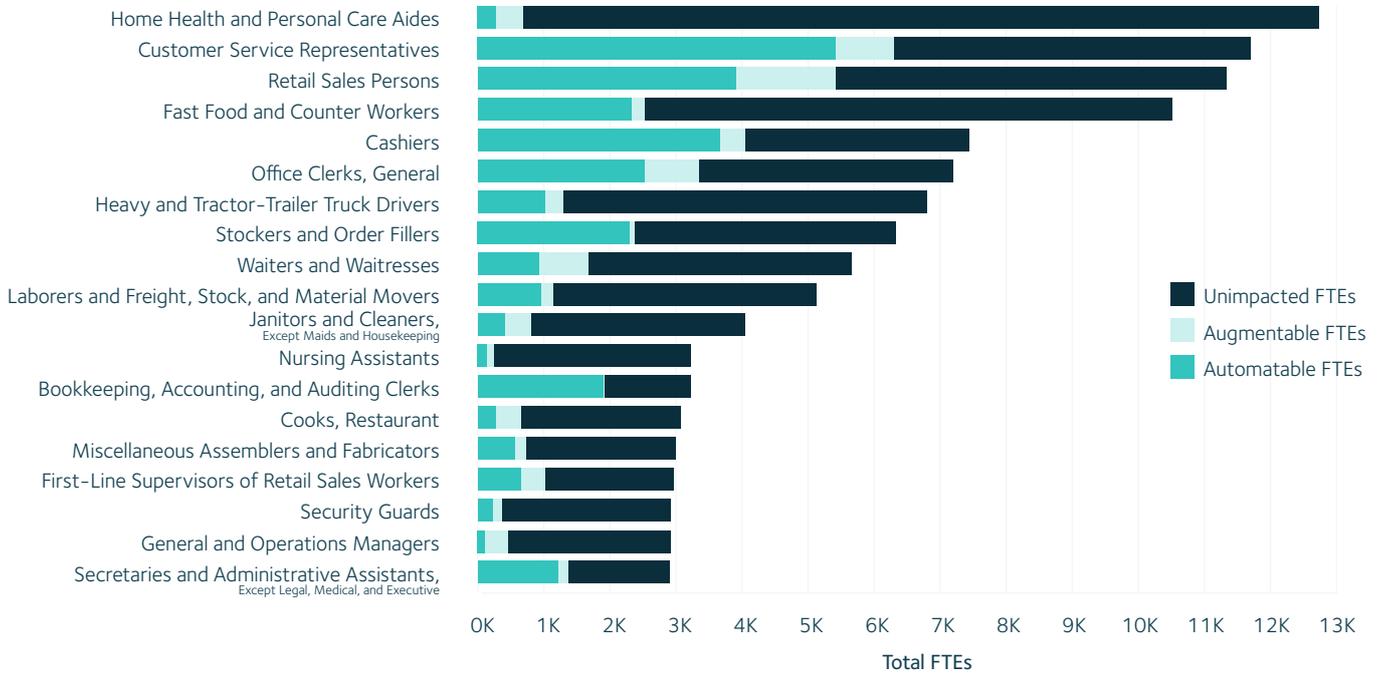
A closer look

Texas is divided into 28 Workforce Development Areas (WDAs). By analyzing the workforce of just one of these areas, we can capture a more localized view of the impacts of technology on the workforce. In our modeling, we chose to focus on the Borderplex WDA, which is the area around El Paso, in the westernmost wing of the state.

In this area, the jobs that are most vulnerable to automation are also the most populated jobs earning under \$65,000.



Top roles earning <\$65K, Borderplex WDA

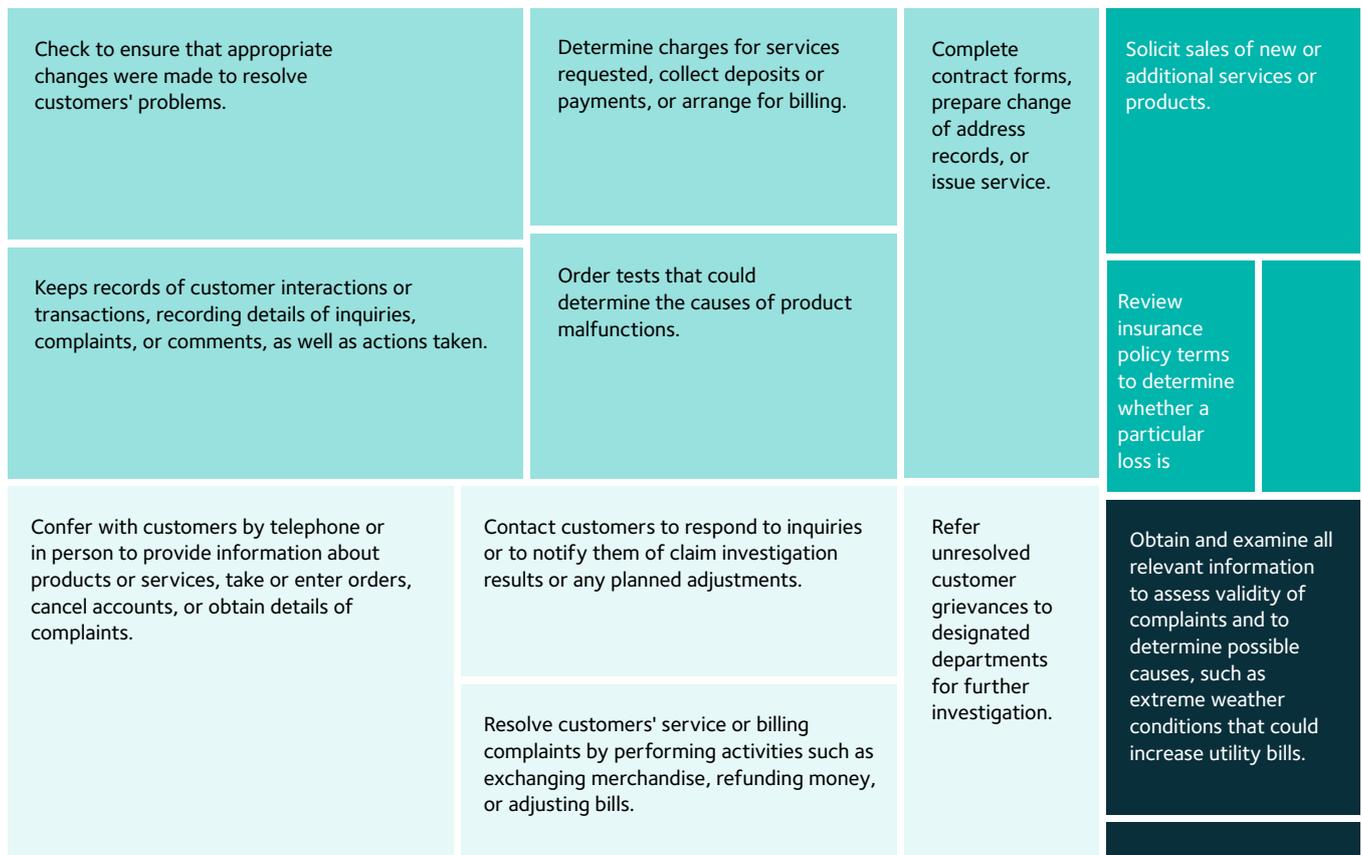


Jobs most vulnerable to automation, Borderplex WDA



In the Borderplex WDA, Customer Service Representatives are the most vulnerable to automation. To understand why, we examine the tasks performed by Customer Service Representatives and identify the types of technology that are likely to impact those tasks.

Customer service representative tasks by time spent



Impacting technology ■ Decision Generation ■ Predictive Analysis ■ Process Automation ■ Suggestion Provision

Our analysis shows that the technology types most likely to impact the tasks on which Customer Service Representatives spend the most time are Process Automation and Suggestion Provision. These two categories of technology are already widely adopted, with adoption expected to accelerate in the coming years. As these technologies become more advanced, more Customer Service Representatives will lose job opportunities.



What can be done?

Understanding the impact of technology is critical to preparing for the future. It's no longer sufficient to consider the current state of the workforce when planning education and employment initiatives. State governments and other entities must envision and anticipate the future state of work in order to effectively strategize. Faethm's predictive analytics can enable data-driven decisions about this future state.

Faethm's Job Corridor tool exposes the pathways for workers to move from roles that are at high risk of automation into roles with in-demand skills. Often these roles also provide a path out of poverty as they come with higher salaries and more room for advancement and growth. The Job Corridor assigns a job fit score from 1-100 for each transition. The score indicates the amount of reskilling needed to make the transition, as well as the overlap of skills, knowledge, personal attributes, and context needed for each role. The higher the job fit score, the easier the potential transition will be.

To the right, we can see potential transitions for a Customer Service Representative into future roles. These roles generally earn salaries that are above the ALICE threshold and have opportunities for advancement.

Job transitions for Customer Service Representatives into high-paying roles

Job fit ■ Best ■ High ■ Medium

List of Target Jobs

Miscellaneous First-Line Supervisors,
Protective Service Workers

Insurance Sales Agents

Sales Representatives of Services, Except
Advertising, Insurance, Financial Services,
and Travel

Sales Representatives, Wholesale and
Manufacturing, Except Technical and
Scientific Products

Computer User Support Specialists

Human Resources Specialists

Compensation, Benefits, and Job Analysis Specialists

Public Relations Specialists

First-Line Supervisors of Transportation and
Material Moving Workers, Except Aircraft Cargo
Handling Supervisors

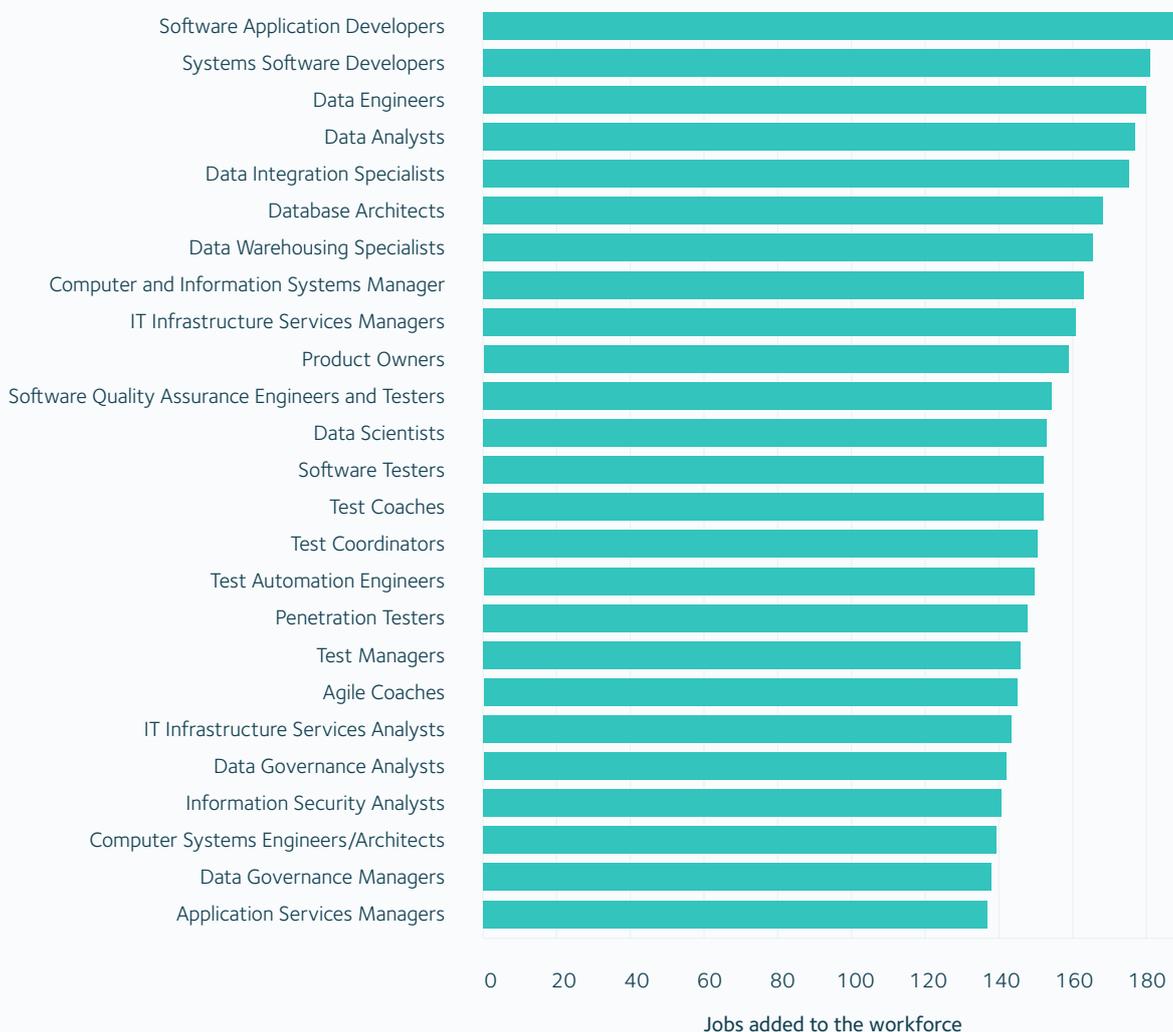


The good news

While technology will lead to certain jobs becoming scarce, it will also create demand for new jobs. Faethm analysis indicates that, in the Borderplex WDA alone, there will be 11,500 new roles in technology that will need to be filled in the next five years. This represents five percent of all roles in the area.

Knowing that these roles are coming, educational institutions can take action now to ensure they are preparing students for the jobs of the future. Workers in vulnerable roles may be encouraged to pursue educational opportunities to prepare for these roles. In addition, state and local governments can leverage policy and investment that promotes retraining and redeployment.

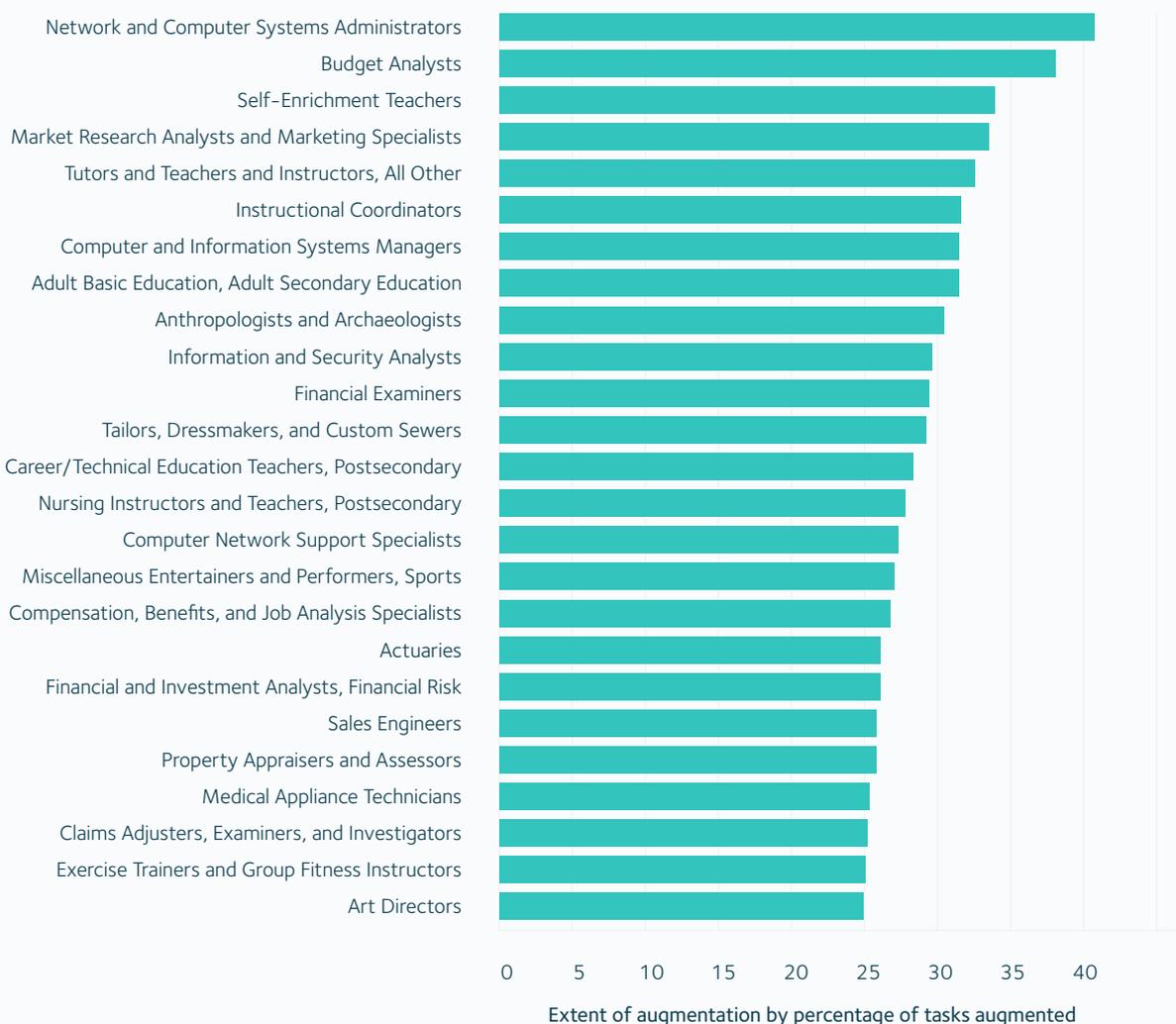
Growth in technology jobs by 2026



Technology impacts everyone

Those workers whose jobs will not be impacted by automation will also need to prepare for the future of work. Many roles will be transformed by augmenting technologies which will make certain tasks more efficient. These technologies will allow workers to take on either a higher volume of work or engage in high-value tasks. For example, 40 percent of tasks performed by Network and Computer Systems Administrators will be made more efficient by technology by 2026. Workers in these roles, and the educators who build their skills, would be well advised to prepare for the influx of new technologies and to examine how their work will be augmented and transformed.

Jobs that will be transformed by technology



Conclusions

Emerging technologies will impact workers of every level. Low-wage workers will bear the brunt of job losses, but much can be done to prepare for these changes. It's imperative that lawmakers, employers, educators, and workers understand the future state of the workforce and identify critical skill gaps. With forethought and planning, it's possible to prepare everyone for the future of work.

To learn more about Faethm's workforce economics tool and how it might support your organization, we invite you to get in touch. [Click here](#) to book a demo of Faethm's AI-powered predictive analytics platform or [click here](#) to contact our team.





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