

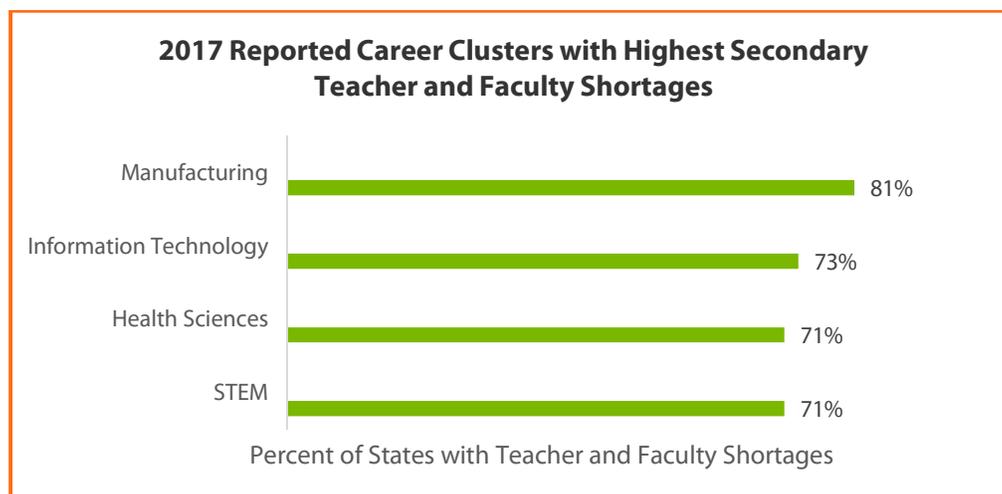
CTE Teacher and Faculty Shortages

The fourth principle in [Putting Learner Success First: A Shared Vision for the Future of CTE](#) promotes learning facilitated by knowledgeable experts.¹ A high-quality educational experience must include an instructor with passion, experience and expertise who can prepare learners for both college and careers.

However, there is a consistent and persistent trend of teacher and faculty shortages in the Career Technical Education (CTE) [Career Clusters](#)® that reflect the most in-demand industries. As the job market expands, more learners wish to enroll in related programs, and teachers and faculty are needed to meet this increased demand. At the same time, it is difficult to persuade an industry expert to transition to teaching when their profession is seeing new growth. This makes it challenging to prepare a new workforce to meet the knowledge and skill requirements employers are seeking.

Advance CTE conducted a survey of state CTE directors in August 2017 to gather information about how states are implementing provisions in the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins). The results provided data on trends in teacher and faculty shortages and related uses of funds.

CTE Teacher and Faculty Shortage Trends



- The above data from 2017 has remained largely consistent over the past 10 years:
 - In **2008**, the highest shortages were reported in **Science, Technology, Engineering & Mathematics (STEM), Health Sciences** and **Manufacturing**, with over 50 percent of state CTE directors reporting shortages in each.
 - In **2012**, the highest shortages were in **Health Sciences, STEM** and **Agriculture/Food/Natural Resources**, each with 35 percent or more of states reporting a shortage.

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- The Career Clusters with the largest teacher and faculty shortages align with what the Bureau of Labor Statistics (BLS) predicted to be the **fasted growing careers in CTE fields**. BLS found:
 - Information Technology comprised five of the 20 fastest-growing “real output industries.”
 - Health services comprised seven of the 20 industries with the fastest growing output.
 - Healthcare-related jobs make up 17 out of 30 of the projected fastest-growing occupations and that these jobs will account for over one-third of jobs added through 2026.⁴
- Predicting upcoming shortages has proved difficult. In 2012, only nine states predicted a shortage in STEM teachers and faculty in the following five years, and only seven states predicted a shortage in Manufacturing. Yet, in 2017 the top three greatest reported shortages were in these Career Clusters.

Increased Demand in Manufacturing Industry

Manufacturing did not have one of the highest teacher shortages in 2012, but became the Career Cluster with the highest reported shortage in 2017. From 1991 through 2015, there was an overall decline in manufacturing jobs.² Since 2015, the industry has grown. In 2017, 138,000 manufacturing jobs were created between January and November alone, following 15 consecutive months of growth. Many positions remain vacant, though, because the workforce lacks the necessary skills.³

The renewed market demand for manufacturing skills leaves a circular challenge. As workforce demand for experienced manufacturers grows, so too does the demand for qualified manufacturing instructors.

Teacher and Faculty Recruitment as a Funding Priority

- In the 2017 Perkins survey, a number of states reported using state **leadership funds for teacher recruitment and retention**:
 - Thirty-six states reported spending some state leadership funds on improving CTE teacher recruitment and retention and/or transition to teaching from business and industry.
 - Five states (Kentucky, Mississippi, Missouri, North Dakota and Texas) reported that the investment in teacher recruitment and retention is among the top three largest investments made with their Perkins state leadership dollars.
 - Of all required or permissible uses of state leadership funds, 31 states dedicate the majority to professional development for new and current teachers. Allocating money to professional development signals a focus on teacher retention, rather than only teacher recruitment.
- The **Perkins Act is the federal government’s largest investment in CTE**, yet funding has not kept pace with increasing demand in a growing economy. Perkins funding has been relatively flat since 1991, and between Federal fiscal year 2004 and FY 2017, Perkins funding decreased by about 28 percent in inflation-adjusted dollars.⁵ While states are investing in CTE teacher recruitment and retention, this is not enough to supplement the loss of federal funds. **To address the skills gap and prepare the next generation of learners for work in high-demand industries, a stronger pipeline of teachers and faculty is needed. More Perkins funding is necessary to help close teacher and faculty gaps and related labor market shortages!**

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A Continued Challenge

Mitigating teacher and faculty shortages in the most in-demand industries is a consistent challenge that is difficult to fully address without greater investments and policy prioritization. In order to prepare the workforce to respond to industry demand, CTE must have adequate access to teachers and faculty who can prepare learners with the necessary knowledge and skills. New investments are needed to incubate innovative teacher and faculty preparation, recruitment and retention models. To learn more about this topic, read Advance CTE's report [*The State of Career Technical Education: Increasing Access to Industry Experts in High School*](#).⁶

¹ https://cte.careertech.org/sites/default/files/Vision_FinalWeb.pdf

² <https://goodjobsdata.org/wp-content/uploads/Good-Jobs-States.pdf>

³ <http://money.cnn.com/2017/12/04/news/economy/manufacturing-jobs-trump-2017/index.html>

⁴ <https://www.bls.gov/opub/mlr/2017/article/projections-overview-and-highlights-2016-26.htm>

⁵ https://cte.careertech.org/sites/default/files/Funding_CTE_American_Imperative_2018.pdf

⁶ <https://www.careertech.org/resource/state-of-cte-increasing-access-to-industry-experts>

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