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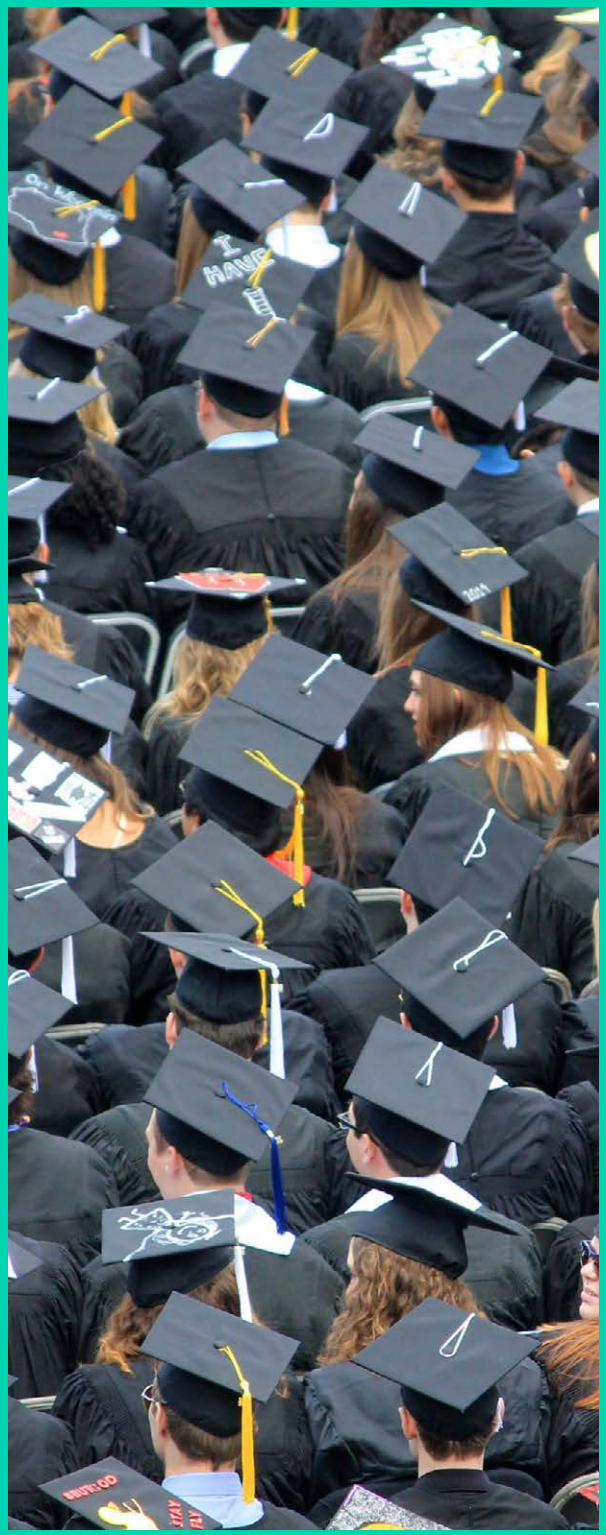
SO MANY JOBS, SO FEW QUALIFIED WORKERS:

Fixing the Education Disconnect



In the United States and across the world, nations are facing a serious education disconnect. The problem is not a lack of education — secondary schools are actually graduating more students and sending them on to college.

The percentage of students enrolling in college in the fall immediately following high school completion rose from 63.3 percent in 2000 to 69.8 percent in 2016, according to the National Center for Education Statistics. High school dropouts have declined by 10.9 percent. Nevertheless, though secondary schools are sending more people on to higher education, employers across the board are plagued by labor shortages and a widening gap between the skills they need and the capabilities workers have to offer.

These problems pose a real threat to the world's economies, and unless fundamental changes occur, projections show they are likely to grow worse.

Though secondary schools are sending more people on to higher education, employers across the board are plagued by labor shortages.

School administrators and teachers hold the key to providing today's students with promising futures — and employers with the skilled workers that they need. Through a combination of solid academic coursework and up-to-date career and technical education, they can better prepare students for the real world while increasing motivation and graduation rates.

Students who gain confidence from practicing in-demand skills have better choices. They may decide to further develop their skills in college, or attend college while doing meaningful and well-paying work. Or they may jump straight into the arms of a grateful employer. In today's labor market, the world is their oyster.

Solving the skills gap won't happen overnight, but with the right programs in place, the pieces will start to come together. The solution lies in connecting students with the training they need to succeed. As partnerships between schools, students, and employers grow, they will create a vital feedback loop that helps ensure continued success.

SO FEW QUALIFIED WORKERS

Here's an overview of today's education gap and some of the ways teachers and administrators can address it.

An Acute Labor Shortage

Employers are facing a crisis. Retiring baby boomers and a shrinking labor base create a growing pool of unfilled jobs. A recent Federal Reserve study found labor shortages across the United States, with numbers increasing sharply. Though digital skills are in high demand, the problem extends well beyond the technology sector. Offices and manufacturing plants can't find enough qualified workers. Jobs regularly go begging in construction, healthcare, finance, and hospitality.

In a survey by Associated General Contractors of America, 73 percent of businesses said they had a difficult time finding qualified workers. The problem affects everyone from big corporations to mom-and-pops, and it's keeping the economy from growing. In a U.S. Bank survey of small business owners, 61 percent said they couldn't find enough skilled workers to expand their businesses.

Part of the problem is that there just aren't enough people to fill all the jobs. At 4.1 percent, unemployment has reached its lowest point in 17 years. According to a recent U.S. Bureau of Labor Statistics report, the labor force has declined from a peak of 67 percent of the population in 2000 to less than 63 percent today, and will shrink to 61 percent by 2026. In the meantime, the number of jobs continues to grow. From now to 2027, the nation will face a shortage of 8.2 million workers, according to Thomas Lee, head of research at Fundstrat Global Advisors.

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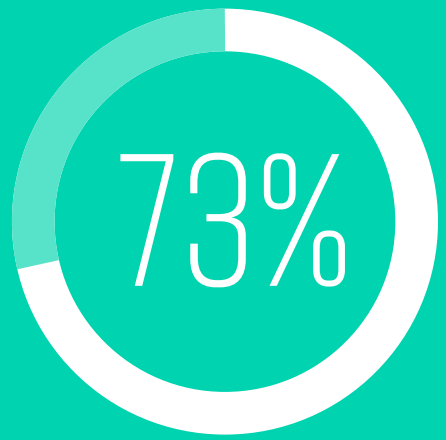
This labor shortage isn't confined to the United States. It's a global issue as well. Japan is facing its worst employment crisis in 40 years, with an unemployment rate of just 2.8 percent. Continental Europe, the UK, and other Asian countries are also extremely short on workers.



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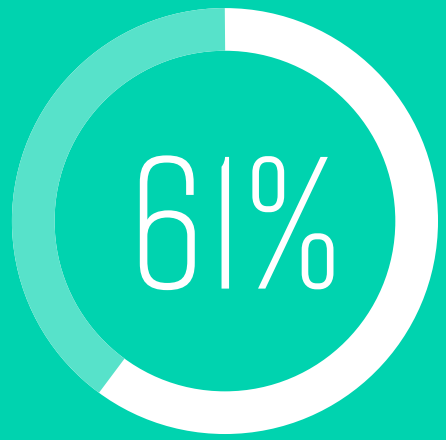

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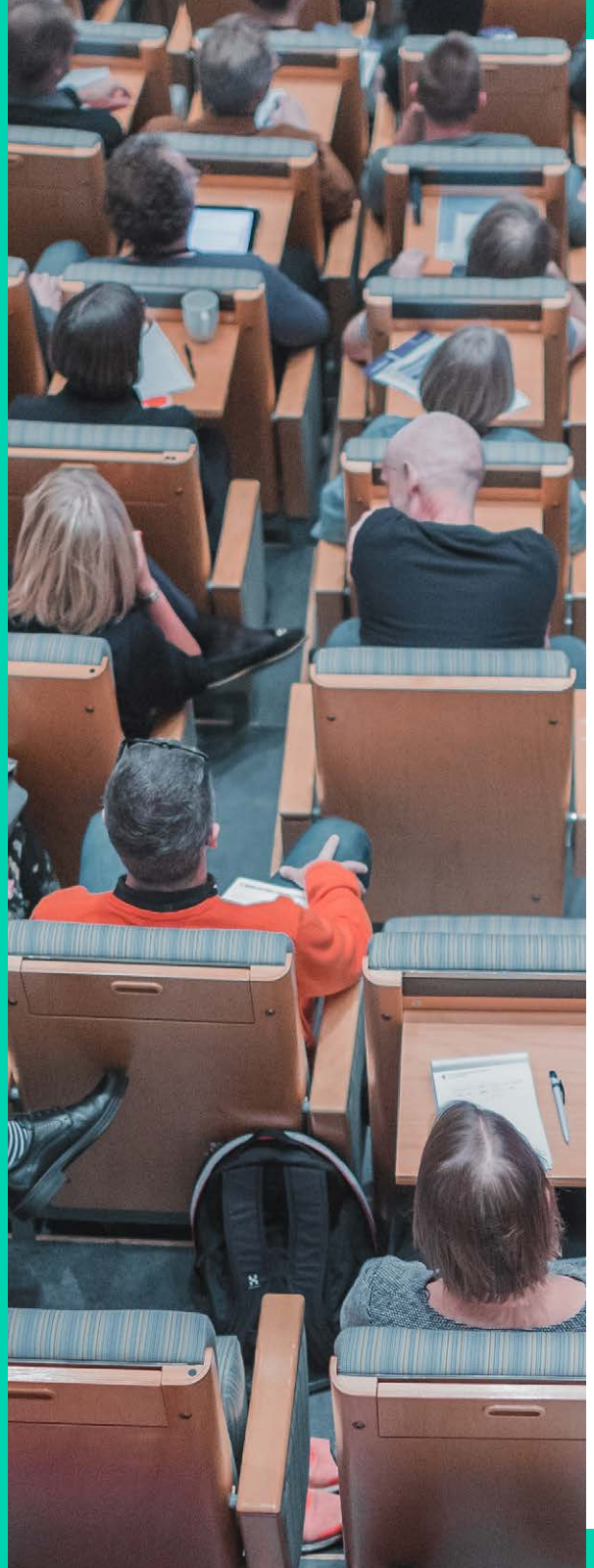

The average cost HR managers incur for extended job vacancies is more than $800,000 a year.

A Growing Skills Gap

Though demographics play a role in the labor shortage, the most serious problem employers face is a skills gap. They need help now, and job applicants aren't prepared to hit the ground running.

There are several reasons for this. Retiring older workers have knowledge and experience that's hard to replace. Younger workers are better educated than they used to be, but they lack practical skills, especially digital skills, which are in high demand and ever-changing. At the same time, employers have cut back on expensive on-the-job training. They want someone who can make widgets and solve computer problems now, not someone they have to pay to learn those skills.

The problem has been going on for some time. Even before the Great Recession, employer-sponsored training was on the wane. Today, there are just 200,000 new apprentices per year in a labor force of 160 million, according to the Society for Human Resource Management (SHRM).

Not having enough qualified workers is costing companies money. The average cost HR managers incur for extended job vacancies is more than $800,000 a year, according to a CareerBuilder survey. The survey found that 55 percent of employers experienced negative business impacts due to job vacancies, with 45 percent reporting a loss in productivity and 37 percent suffering from lower-quality work. Sixty-eight percent of employers had openings they couldn't fill, and 67 percent said they were concerned about the growing skills gap.

Abroad, the picture is just as bad, if not worse. In Japan, 81 percent of firms have difficulty finding qualified employees, as do over 60 percent of companies in India, Brazil, and Turkey, according to recent data from the OECD. More than four in 10 firms in Latin America and Europe have similar problems.

The result is a workforce that's not as productive or effective as it should be. Employers hire the best candidates they can find, but many workers know they're not really up to the job. In an OECD survey, 45 percent of workers worldwide—and 40 percent in the supposedly advanced European Union—felt they lacked the appropriate skills to perform their jobs effectively. Their lack of skill also impedes mobility. Just three in 10 workers believed they had enough skill to cope with more demanding work.

TACKLING THE SKILLS GAP

The skills gap exacerbates the problem of a declining labor force, and it hurts workers, companies, economies, and societies. What can be done?

Education and training programs must be developed to keep up with demand, the World Economic Forum says. According to the OECD, "Skills have become the global currency of 21st century economies." One estimate puts the long-term economic value of raising student performance for just half of one school year at $115 trillion over the working life of a generation of students.

In the past, the knowledge and problem-solving skills students acquired in school would last a lifetime. They still do, but it's no longer enough. The digital age has brought rapid change to work-related skills, making it extremely difficult for schools to keep up. But schools don't have to go it alone.

CTE: A Quantifiable Edge

Career and technical education (CTE) programs give students an edge, whether they land a job upon graduation or go on to college. Research compiled by the Association for Career and Technical Education (ACTE) shows that CTE students are significantly more likely than their peers to develop skills in problem-solving, project completion, research, communication, time management, and critical thinking. Their motivation and grades improve—and so do their graduation rates.

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Many studies support this conclusion. A Fordham Institute study found that CTE students were 21 percent more likely to graduate than others. A Massachusetts study of lower-income students also found a 21-point increase in graduation rates for CTE students, who also scored higher on standardized tests. CTE students in Philadelphia are 22 percent more likely to graduate on time than their peers. In a Gates Foundation study, 81 percent of students said that having more learning opportunities relevant to the real world would have helped them to finish high school.

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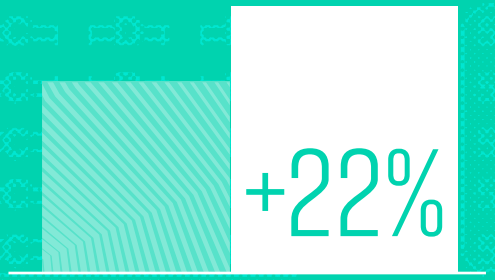

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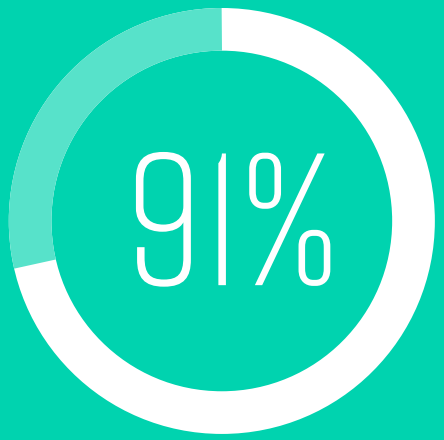
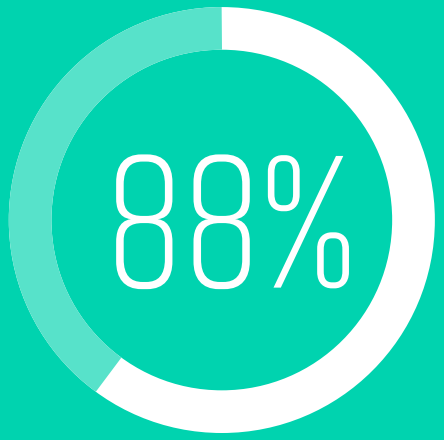


Those who earned one full CTE credit or more had a graduation rate of 91.7%.



More than 88% of CTE students continue their education in post-secondary schools.

Students with industry certification gain a sense of self-confidence that enables them to succeed in whatever path of life they choose.

In Oregon, students who earned just half a credit in a CTE class graduated at a rate of 86 percent, nine percentage points higher than the 77 percent state average. Those who earned one full CTE credit or more had a graduation rate of 91.7 percent. A longitudinal national study found that for each CTE course completed during the senior year, a student was 2.1 percent more likely to graduate on time and 1.8 percent less likely to drop out. Florida students who earn at least three hours in a certification program have a graduation rate of 95.99 percent, and 81.6 percent are employed or enrolled in post-secondary education after graduating.

CTE produces students who are not only career-ready, but also college-ready. More than 88 percent continue their education in post-secondary schools. And they're better prepared when they arrive. According to the Southern Regional Education Board, 80 percent of students who take both CTE and college prep courses meet college- and career-readiness goals, versus 63 percent of those in purely academic programs.

Industry Certification: Real-Life Results

CTE statistics are impressive, but they don't tell the whole story. When schools offer students not just career-related courses, but industry-recognized certification, they garner a stellar reputation among employers, who often seek out the schools to fill jobs. Students gain a sense of self-confidence that enables them to succeed in whatever path of life they choose.

Denise Spence, the IT programs manager and lead technology teacher at Dunbar High School in Ft. Myers, Florida has seen certification brighten the prospects of her students since the school started a Certiport program in 2004.

"They have more of a sense of purpose. They know they aren't just getting an 'A' in a course, but a skill they can use to get a real job," Spence said.

Graduation rates have improved under the program, which enrolls about 350 students a year in certification programs for Microsoft Office, Adobe, and Autodesk. The school has a high level of low-income students, yet most go on to college or the military after graduation.

"They send us letters saying, 'Thank you so much for what you offered at Dunbar. I was able to level up into a better position in the military because of my training in technology,'" Spence said.

Like many schools with certification programs, Dunbar faculty have developed relationships with local employers, who contact the school for help. "They reach out to us now. We've put our name out there as an academy for technical excellence," Spence said.

Students with certificate competency allow employers to maximize the value of their technology investment. Employers are often amazed at certificate holders' abilities.

At Pacific Tech Construction in Kelso, Washington, Ashley Masters, a Certiport Microsoft Office-certified high school student, taught accountants how to use formulas in Excel spreadsheets.

Ashley Masters, who earned a total of nine Microsoft Office certifications, says the certifications have changed her life.

Usually, when controller Diana Pafford hires people for Ashley's position, they can't do much in Excel beyond adding data in a column. But Ashley taught staff pivot tables and conditional formatting. "It's highly unusual to have a student do this type of work. We were very blessed to have her here at the company," Pafford said.

Ashley, who earned a total of nine Microsoft Office certifications, says the certifications have changed her life, giving her the confidence to pursue a four-year degree at Central Washington University, where she is studying business finance.

Enterprising students can use their certificates to start a company of their own. That's what Acquille Dunkley did after gaining certifications in Adobe Photoshop, Lightroom, and Illustrator. Now a student at Savannah College of Art and Design, he is still running the design company he started in high school. He has moved into enterprise work, creating hundreds of apparel mockup images for a clothing line in Atlanta and phone case designs for an accessories company in New York.

MARKETABLE SKILLS

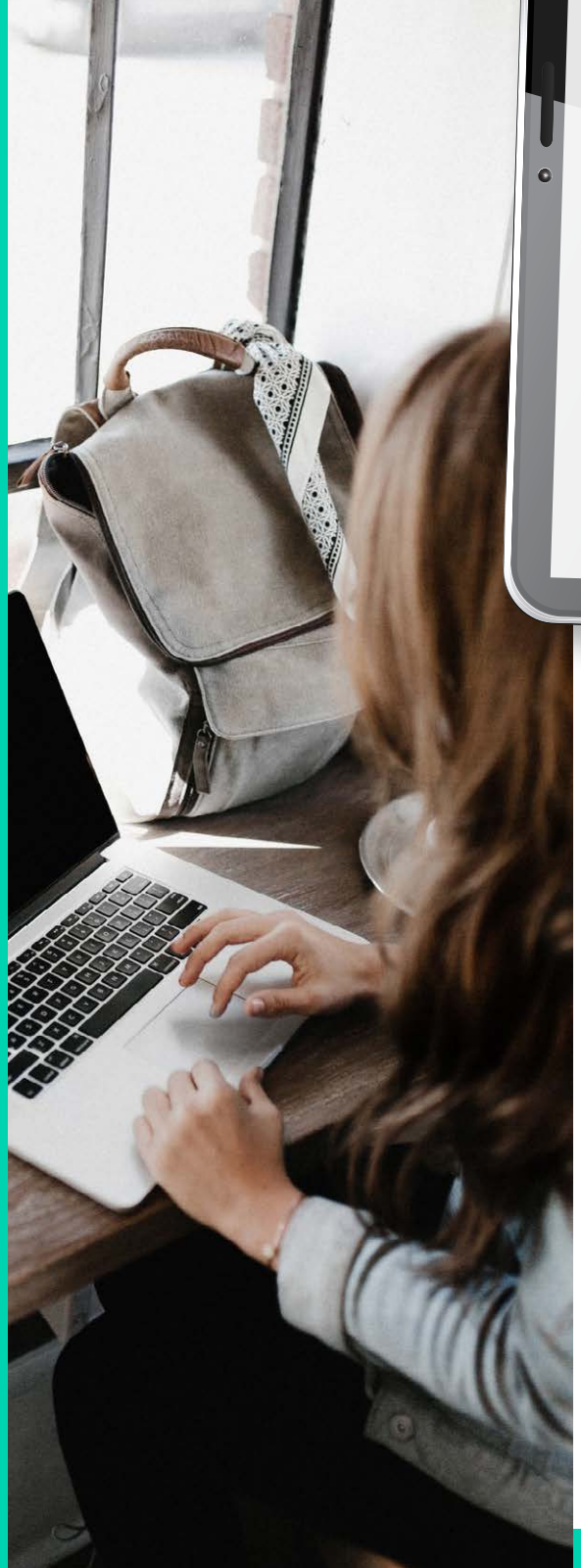
Students who graduate from certificate programs land lucrative jobs that help contribute to communities' tax bases. Some even out-earn college graduates. Having a certification also gives them an edge that leads to valuable internships and jobs. Here are just a few of many examples:

Ali Khan, **graduated from Purdue University with a triple major in computer science, data science, and applied statistics. He currently works at Amazon Lab126 as a software development engineer, but when he was in the middle of his studies, he did not have any work experience to position him for the opportunities he wanted. In this case, Ali's Microsoft certifications were key. They impressed a recruiter who then helped Ali land an internship with Amazon. During his internship, he was given significant responsibility and created a mobile app that the company is currently steering into production.**

Eliot Chang, **a computer science major at the University of Southern California, works part-time as a user-experience engineer for a startup called Fōkcus. He is the only undergraduate on the team—everyone else either has an advanced degree or is pursuing one.**

How did Eliot get this opportunity? To a large degree, it was the Adobe Photoshop and other design certificates he earned back in high school and his experience using the skills professionally as a freelance web designer.

"My certifications helped me land the job because I was one of the few applicants who actually had design experience," Eliot said.



As graduating certificate students carry their valuable skills into the workforce, they tend to out-earn their peers.

As graduating certificate students carry their valuable skills into the workforce, they tend to out-earn their peers. A study by Georgetown University's Center on Education and the Workforce studied both men and women who obtain career-related certificates and compared them to peers who earned associate and bachelor's degrees.

The study found that men with certificates in IT earned more than 72 percent of men with an associate degree and 54 percent more than those with a bachelor's degree. Women with IT-related certificates earned more than 75 percent of those with an associate degree and more than 64 percent of those with a bachelor's degree.

It's not just a technology edge. Women with certificates in office work earned more than 54 percent of those with an associate degree and more than 41 percent of those with a bachelor's degree. Men with certificates in technologies earned more than 65 percent of men with an associate degree and more than 48 percent of men with a bachelor's degree.

Employers in construction, healthcare, marketing, and many other fields hire students with certificates, but those with digital technology skills are often in greatest demand. For certificate holders, that's great news. IT jobs pay more than two-and-a-half times the average national wage, and the sector is expected to generate an additional 488,500 jobs through 2024.

solving the problem

MAKING A DIFFERENCE WITH CERTIFICATION

A certificate program works with your school's CTE curriculum, giving students a competitive edge and providing employers with concrete evidence they can do the job. Here's how to get started.

Develop a Plan

Create a committee that includes administrators, academic and CTE staff, local business leaders, and area colleges that offer career training. Determine what kind of industry certifications align with your existing curriculum and standards and also fill local needs. Plant the seeds for partnerships with state and local businesses so that by the time the first students receive their certificates, there will be a job or internship waiting for them—or an opportunity to continue advancing their skills at a local college.

But don't limit yourself to what's in your own backyard. Consider certificates in other promising fields that will allow students to broaden their horizons beyond the local market. A certificate provider can help you learn more about industry trends and the kinds of skills employers are looking for.

Examine Funding Options

When certificate program graduates find jobs, they contribute to state tax revenues, helping many CTE programs to fund themselves. In Wisconsin, taxpayers receive $12.20 in benefits for every dollar invested in the technical college system. Oklahoma's economy reaps a net benefit of $3.5 billion annually from graduates of the state's CareerTech System. In Washington state, taxpayers see a return of $9 for every $1 they invest in CTE training. Colorado's community college system adds $5.8 billion a year to the state's economy.

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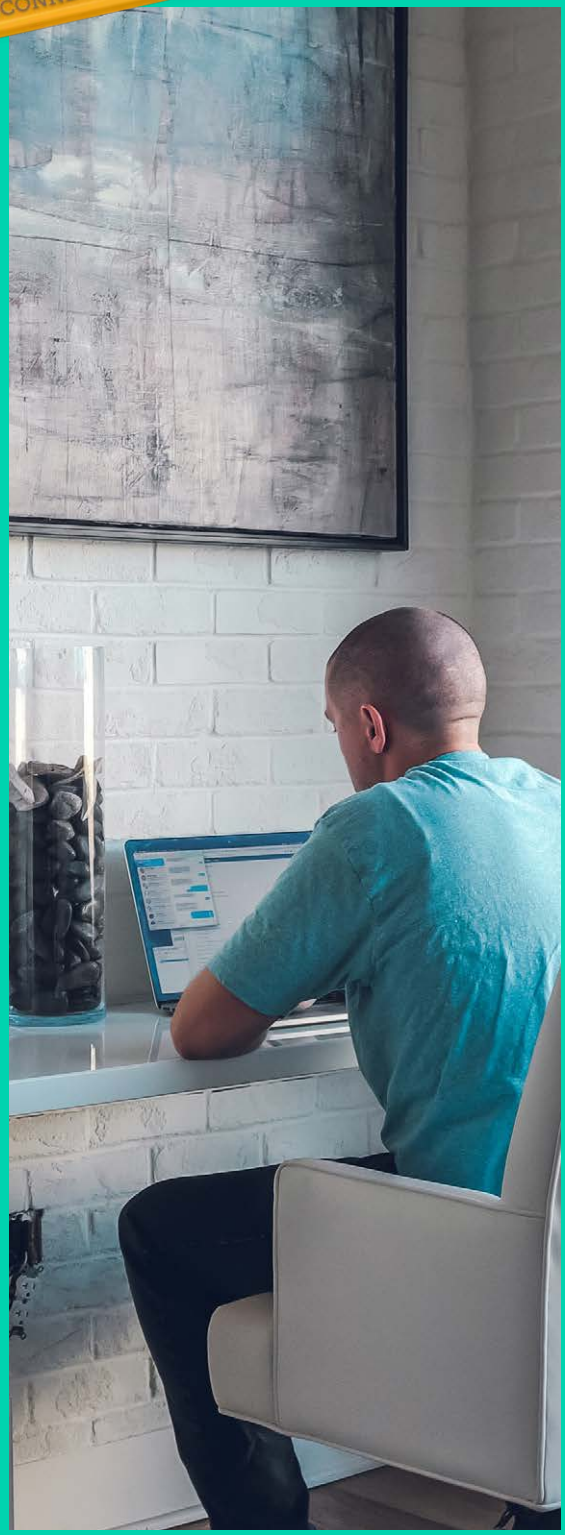
As they realize the benefits, states are funding more certificate programs. Some state CTE directors and administrators are also adapting their programs to strengthen core literacy and math skills in alignment with Common Core technical standards.



With the adoption of Common Core technical standards, schools are shifting toward helping students prepare for careers. They are also setting up more dual-enrollment courses, in which students acquire industry credentials as well as work toward a post-secondary degree.

Schools in all states can get funding for certificate programs through the the Carl D. Perkins Career and Technical Education Improvement Act, which provides states with money to distribute to high schools, colleges, and universities that offer programs integrating academic and career and technical education. Perkins grants are the most common funding source for CTE programs. The money is released to states every October.

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Other federal grants are available through the U.S. Departments of Labor, the U.S. Department of Education, and other departments, especially for STEM studies. You can also try these government funding search engines:

- Catalog of Federal Domestic Assistance (CFDA)
- Federal Audit Clearing House
- Fundbook
- Grants.gov
- USAspending.gov

In addition, some public school districts have foundations to supplement their educational funding. Post-secondary institutions can apply for a variety of private foundation grants, including from the Alfred P. Sloan Foundation, the Carnegie Foundation, and the Knight Foundation.

Teachers who want materials for CTE classes sometimes use Donors Choose, a sort of GoFundMe site for education projects.

Choose a Certification Partner

It's important to select a certification organization that employers respect. Choose one with a strong reputation and an outstanding track record in student placement and employer satisfaction. Make sure the program offers staff training when necessary. Certificate programs aren't about teaching to a test, but about helping students solve problems with real-world applications. In today's world, that means having thorough knowledge of the software businesses use so that students can hit the ground running. Considering that 83 percent of enterprises use Microsoft Office and the Windows operating system, students would be well-served to arrive at their doorstep with a strong grasp of Microsoft technology. Those who go to work for smaller businesses could benefit from industry certification in QuickBooks Online, which has over 2.5 million subscribers.

In today's environment, schools can't rely on an academic education alone to prepare students for successful careers or post-secondary education. Having certification programs can make a school shine, improving students' lifetime employment prospects, as well as raising graduation rates and lifting morale.

At Certiport, we can collaborate with you to create a top-notch and measurable program that works for your school, your students, and your budget.

THE CERTIPORT ADVANTAGE

Certiport, a Pearson VUE business, is the global leader in certificate education. Certiport is part of Pearson—the world's leading learning company.

Our portfolio includes officially endorsed certifications from the following sponsors:

- Adobe
- Apple
- Autodesk
- EC-Council
- Business Fundamentals
- IC3 Digital Literacy
- Microsoft
- Intuit
- Unity

We closely monitor business trends and update our offerings as needed to provide students with the latest skills employers are clamoring for.

With Certiport, you'll get a range of services from certificate development and implementation to staff training and program management. We deliver more than 3 million exams each year to the secondary, postsecondary, workforce, and corporate technology markets.

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