

Career-Connected Learning Can Improve Student Success and Strengthen the Economy

Career-connected learning offers individuals a pathway to employment through interactive education programs and partnerships that deepen postsecondary learning and skills attainment. Most jobs today require some form of postsecondary education or training; however, it can be difficult for individuals to identify and take the right steps to gain the skills needed to pursue their chosen career. Career-connected learning aims to address these challenges by establishing clear pathways from education to employment. It includes career awareness, preparation, and exploration activities, as well as career skills training, job training, or clinical experience.¹

Career-connected learning is effective, but the cost of these types of programs for the learner can vary widely based on how they are structured and the type of education or training sought. Public policy often serves the needs of traditional college students pursuing a bachelor's degree but can fail to consider other pathways to success. This brief explores innovative initiatives that states, nonprofits, and philanthropists are instituting to address these challenges and offers recommendations to federal and state policymakers on how they can foster more robust career-connected learning pathways.

Career Connected Learning Effectiveness and Projected Landscape

Students involved in career-connected learning programs gain valuable insight about potential future careers. Recent research has shown career-connected learning that incorporates real-world experiences and industry connections increases student engagement and motivation,² helps students better understand how their classroom knowledge connects to potential future jobs,³ and provides the opportunity to develop skills, such as critical thinking and communication, that are highly valued by employers.⁴ Students with greater exposure to career and technical education, a component of career-connected learning, have demonstrated higher high school graduation rates, higher community college enrollment rates, higher employment rates, and higher wages.⁵

Employers benefit from a talent pipeline of skilled and motivated candidates. There has been a notable rise in high school internships, with 38 percent of businesses now offering these opportunities, up from 30 percent five years ago. A third of businesses surveyed indicated they are likely to start a high school internship program, showing a growing interest in these initiatives.



Key Takeaways

- Career-connected learning programs, which can include baccalaureate degree programs, offer students a clear pathway to long-term financial stability and career success.
- Available student assistance programs, like 529 savings plans and the Pell Grant, do not currently have the flexibility to be used with non-traditional career-connected learning pathways.
- While promising education-to-employment pathways exist, policymakers should act to scale these programs and help more people find rewarding jobs.

Eighty-six percent of employers believe high school internships help fill the employment pipeline with diverse candidates.⁶ U.S. Department of Labor data also show strong and steady growth of apprenticeships, with the number of registered apprenticeships increasing 64 percent between 2012 and 2021.⁷ The growth in these on-the-job learning opportunities, combined with expanded federal and state support for career training and skills-based postsecondary education outlined later in this brief, point to the increasing importance of career-connected learning as a pathway for students and workers.

Wraparound support is a critical component of career-connected learning. Counselors provide navigation services and connect at-risk students with resources, support for basic needs, and other services to help them complete their program. A randomized controlled trial of Project QUEST, a program designed to help residents from low-income backgrounds access postsecondary education and gain the skills needed for in-demand jobs, found that the personal, financial, and academic support provided to students resulted in a significant increase in credential attainment and higher earnings after graduation.⁸

Federal Initiatives and Programs

Student assistance programs established by the federal government help individuals save and pay for college but frequently do not accommodate those who pursue non-traditional career-connected learning pathways. For example, students enrolled in short-term certificate or bootcamp programs, continuing education, and clinical experiences may find federal assistance fails to address their specific financing needs. These programs allow students to quickly gain specific skills needed to enter the workforce and meet the demands of employers, and address skilled personnel shortages in areas like healthcare, technology, manufacturing, and trades. What follows is a non-exhaustive list of federal programs that help families pay for education beyond high school with examples of how some of the policies or programs do not accommodate certain career-connected learning options:

529 Plans

529 Plans, or college savings plans, are investment accounts where earnings grow tax-free and expenses are tax-exempt for qualified reasons. These generally support traditional postsecondary pathways and expenses, but many people pursue forms of vocational education that may not align with the current 529 plan rules. The COVID-19 pandemic fueled more demand for professional certifications, but federal rules around uses of 529 funds have not kept pace with the marketplace.⁹

Pell Grants

Pell Grants are the cornerstone of the federal student aid programs for students from low-income backgrounds enrolled in postsecondary education. However, Pell Grant funding is only available for programs that are at least 15 weeks long. Students enrolled in shorter programs¹⁰ or students who have already earned a baccalaureate degree or higher¹¹ are not eligible for a Pell Grant, thereby removing this funding source for students who are turning to higher education for workforce development, reskilling, or upskilling.

Workforce Innovation and Opportunity Act (WIOA)

The Workforce Innovation and Opportunity Act (WIOA) provides almost half a billion dollars per year nationally for training unemployed or underemployed workers across a vast landscape of program offerings, typically short-term programs connected to in-demand fields.¹² Unfortunately, the per participant training vouchers have a low maximum cap and the majority of the participating programs prepare workers for low paying jobs.¹³

Educational assistance programs

Since March 2020, employers with educational assistance programs can help pay employee's student loans or help pay the cost of attendance for higher education courses tax free. Employers can pay up to \$5,250 per year per employee without the payments being taxable as wages. However, this provision is set to expire on January 1, 2026, unless legislation is passed to expand it.¹⁴

Student loan forgiveness programs

For individuals with federal education loan debt, student loan forgiveness programs exist for specific career paths, such as the Federal Teacher Loan Forgiveness Program and the Public Service Loan Forgiveness Program.¹⁵

Statewide Initiatives

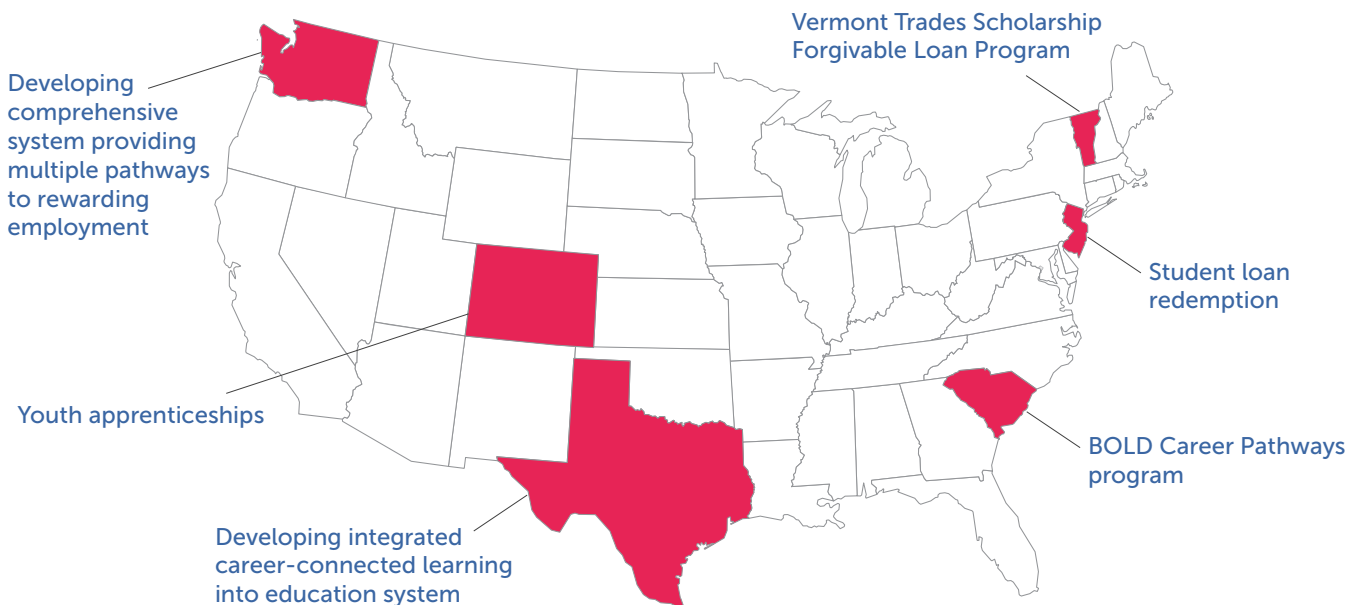
As many states face workforce shortages in key sectors – such as healthcare, education, and skilled trades – state leaders are increasingly supporting innovative career-connected learning pathways that provide individuals with the skills and certifications needed to fill these roles. This includes activities such as helping individuals finance skills training, loan repayment assistance, enacting skills-based hiring standards, and financial assistance for workforce credentialing programs. According to a 2024 analysis by HCM Strategists, states are investing \$5.6 billion per year in financial aid for short-term workforce credentialing programs, a significant increase over the \$4 billion in state funding provided in 2023.¹⁶

Student loan debt is a considerable concern for many individuals, particularly those in high-demand occupations that may not offer high starting salaries. Through a combination of upfront grant aid and loan repayment assistance, states can incentivize individuals to enter and remain in these critical fields.

Skills-based hiring is gaining significant traction among an increasing number of employers and states, as they remove traditional college degree requirements in favor of an assessment of durable skills and work experience. As of 2023, at least 16 states no longer require a four-year degree for most state jobs.¹⁷

States are actively expanding career-connected learning and providing financial support, including:

- New Jersey, through the Higher Education Student Assistance Authority, offers student loan redemption in a number of fields, including teaching, healthcare, and STEM occupations.¹⁸
- South Carolina residents can apply for the BOLD Career Pathways program, through South Carolina Student Loan, and be connected with an employer who will help cover educational costs to finish degrees in healthcare, teaching, finance, and information technology industries.¹⁹
- Washington is actively developing a comprehensive system that unites government, local businesses, K-12 schools, higher education, and workforce intermediaries to provide students with multiple pathways to rewarding employment and fulfilling lives.²⁰
- Colorado’s ambitious career-connected learning efforts are centered around youth apprenticeships, providing students with hands-on work experiences that align with their educational goals.²¹
- Texas is working to integrate career-connected learning into its education system, focusing on creating robust pathways that combine classroom learning with real-world work experiences.²²
- Vermont’s recently established Vermont Trades Scholarship Forgivable Loan Program, which awards funding for tuition, initial licensing fees, and exam fees for qualified recipients who enroll in high-need trades training and certificate programs.²³





Policy Recommendations

Congress should expand the definition of qualified expenses under 529 savings plans to include postsecondary training and credentialing such as licenses and certifications.

Expanding qualified expenses to broader definitions of learning will adapt the savings program to contemporary higher education and help support lifelong learning and career development.

Congress should expand the Pell Grant by allowing recipients to use the funding at shorter-term workforce-related programs.

Expanding Pell Grant eligibility to include shorter-term programs would help address current gaps in the education system and the labor market. It would increase access to affordable, relevant education, reduce student debt, and provide individuals with the skills needed to meet the demands of the modern workforce. This expansion would not only benefit students but also contribute to a stronger, more resilient economy.

States should establish and fund loan repayment programs for student loan borrowers working in high-demand occupations.

States can help solve critical workforce shortages, improve the affordability of higher education, and enhance the overall economic health of their regions. These programs provide targeted financial relief, encourage talent retention, and ensure that essential services remain strong and accessible to all.

Congress should encourage on-the-job education by providing employers regulatory safe-harbor for consumer-friendly training repayment agreements.

On-the-job education can help address skills gaps, reduce turnover, promote lifelong learning, and support economic growth, while helping to reduce debt for workers. Allowing employers to create affordable loan repayment agreements will expand this benefit to more workers and employers.

Congress should renew and make permanent the provision in the tax code that allows employers to annually repay up to \$5,250 of their employees' student loans tax-free.

This provision directly aids workers by reducing their debt and provides employers with a valuable benefit to attract and retain employees. Making this provision permanent would provide stability and help students and workers plan long-term educational goals.

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