

Career and Technical Education

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What Is the Issue and Why Does It Matter?

The notion that the U.S. has a growing skills gap — the difference between what employers need to fill in-demand positions and the skill of the current workforce — is [a hot topic among policymakers](#). By 2020, 65 percent of jobs will require postsecondary education and training beyond high school, [according to the Georgetown University Center on Education and the Workforce](#). Additionally, the report projects that the increase in demand for a technically trained and educated workforce will continue to grow beyond 2020. Research suggests that quality career and technical education (CTE) programs in high school can support students in building foundational technical skills, gaining practical experience and laying the foundation for future pursuits in postsecondary education and their careers.¹

State policymakers continue to seek ways their states can educate and train secondary students, so they graduate equipped to pursue postsecondary education or to meet the growing demand for a well-educated and skilled workforce. Throughout the 2017 and 2018 legislative sessions, states enacted secondary CTE policy in one or more of the following areas:

- **Awareness and Support:** Increasing awareness and providing support and guidance for students to access CTE.
- **Collaboration and Research:** Fostering cross-agency collaboration and industry involvement in planning for, and the oversight of, CTE within a state.
- **Graduation Requirements and Dual Credit:** Ensuring students can pursue CTE courses and work-based learning experiences while earning high school and/or postsecondary credit.
- **Work-Based Learning:** Offering programs targeted at providing high school students with work-based experiences and paths to earning credentials.
- **Funding:** Providing financial support for a range of CTE programs, including work-based learning opportunities.

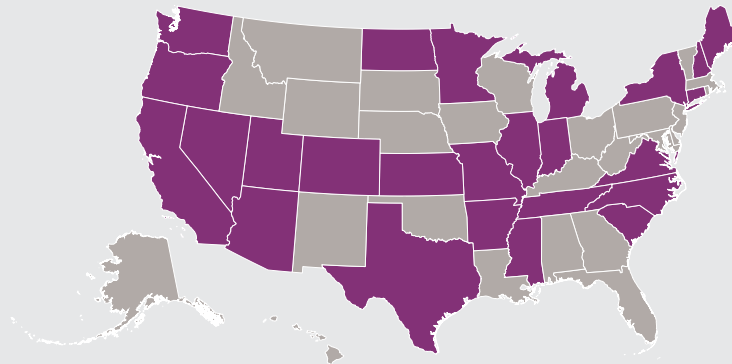
Research suggests that quality CTE programs in high school can support students in building foundational technical skills, gaining practical experience and laying the foundation for future postsecondary and career pursuits.

How Many States Considered CTE Legislation in 2017 and 2018?

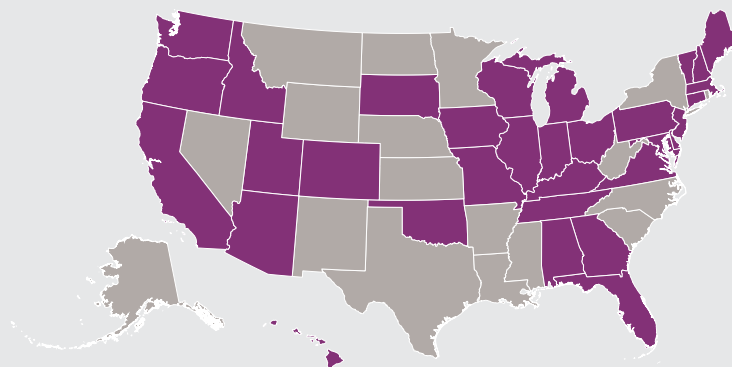
Based on a review of 2017 and 2018 legislative activity (as of Dec. 19) concerning CTE:

- At least 372 bills were introduced in at least 46 states and the District of Columbia.
- At least 35 bills were enacted in at least 25 states in 2017.
- At least 87 bills were enacted in at least 32 states and the District of Columbia in 2018.

Which States Enacted Legislation in 2017?



Which States Enacted Legislation in 2018?



For a full list of [enacted or vetoed](#) CTE bills, please visit Education Commission of the States' State Education Policy Tracking resource. If you are interested in following CTE bills in the current session from [introduction](#), please visit Education Commission of the States' State Education Policy Watch List.



Awareness and Support

Some states are adopting measures to promote CTE courses and learning experiences while ensuring students receive support in understanding CTE options in high school and the path to pursuing careers and postsecondary education. An increasing number of states are considering ways to gather relevant career and educational information while establishing processes for sharing information with students.

In 2017 and 2018, at least 17 states enacted legislation aimed at increasing awareness of CTE programs and providing support for students in understanding and navigating their options.

Examples of 2017 State Legislation



Texas: [H.B. 2729](#) requires the Texas Education Agency, Texas Higher Education Coordinating Board and Texas Workforce Commission to jointly develop and post on their websites an inventory of industry-based certifications and credentials that may be earned by high school students through CTE programs. The bill specifies that the inventory must include for each credential or certificate: (1) the associated career cluster; (2) the awarding entity; (3) the level of education required and any additional requirements for the credential or certificate; (4) any fees for obtaining the credential or certificate; and (5) the average wage or salary for jobs that require or prefer the credential or certificate.

Examples of 2018 State Legislation



Colorado: [H.B. 18-1266](#) extends the sunset date for the Career Development Success Program and requires participating schools to inform all high school students about the program and the potential benefits. The [Career Development Success Program](#) provides financial incentives to high school students to complete work-based learning programs, such as qualified industry credentials programs, construction pre-apprenticeships and apprenticeships or qualified advanced placement courses.



Virginia: [H. 399](#) requires school boards to implement a plan to notify students and their parents of the availability of internships, externships, apprenticeships, credentialing programs, certification programs, licensing programs and other work-based learning experiences.



Washington: [H.B. 2686](#) requires that seventh- and eighth-grade students who are eligible to receive guidance through a [High School and Beyond Plan](#) are provided information on dual credit and technical education course opportunities as part of the planning process.

Collaboration and Research

Not only have states pursued ways to understand the CTE landscape through research but they have also sought ways to build collaboration among governmental agencies, the business community and other stakeholders to establish CTE programs. States have formed working groups, commissioned studies and codified collaborations as a means to understand and advance CTE.

In 2017 and 2018, at least 14 states enacted legislation that established collaborations and called for further examination of CTE within their state.



Examples of 2017 State Legislation



Minnesota: [H.F. 2](#) establishes a rural CTE consortium as a voluntary collaboration of a service cooperative and other regional public and private partners that work together to provide CTE opportunities. The legislation specifies the consortia duties, establishes an advisory committee, allows consortia to receive private funding to supplement state funding, sets reporting requirements and identifies grant recipients for fiscal years 2018, 2019, 2020 and 2021.



Tennessee: [S.J.R. 107](#) charges the department of education and the state board of education with studying and reporting on the best practices of states around the country in funding programs focused on career preparation and providing postsecondary opportunities.

Examples of 2018 State Legislation



Indiana: [S.B. 50](#) creates the Governor's Workforce Cabinet, consisting of 21 members from workforce and education departments, higher education, secondary CTE districts and the business community. The cabinet is required to identify workforce needs in Indiana, recommend a strategic plan to meet the investment needs and develop a career navigation and coaching system for all high schools in the state. Additionally, the cabinet must assess the feasibility of creating a real-world career readiness program to provide students with CTE credentials to transition from school to the workforce.



Massachusetts: [H. 4549](#) requires the department of education, department of housing and economic development, the department of workforce development and the Massachusetts school building authority to conduct a study and issue a report on access to high-quality career, vocational and technical education. The report must address current funding for career, vocational and technical education; a list of current schools and their capital needs; current equipment needs of the schools; a list of advanced manufacturing programs in vocational schools, community colleges and other institutions; and the impact future employment demands will have on funding needs.



Missouri: [H.B. 1415](#) establishes the Career Readiness Task Force to study the possibility of offering a middle school career readiness course. The task force will consist of parents, students, teachers, CTE advisors and representatives from technical, community and four-year colleges; and it will report its findings and recommendations by Dec. 1, 2019.

Graduation Requirements and Dual Credit

Some states amended high school graduation requirements to recognize CTE courses as meeting certain requirements. States also considered measures that allow high school students to pursue their diploma while attending CTE centers instead of a traditional high school. Additionally, states are offering opportunities for high school students to use time spent in an apprenticeship toward high school graduation requirements and postsecondary credentials.

In 2017 and 2018, at least nine states enacted legislation that recognizes CTE courses in graduation requirements and offers dual enrollment opportunities in CTE.

Examples of 2017 State Legislation



New Hampshire: [S.B. 101](#) allows regional and CTE centers to enroll students who have attended one year of high school, regardless of the number of academic credits they have earned. The previous requirement stated that enrollees must have attended two years of high school prior to attending a technical education center.



Examples of 2018 State Legislation



Maryland: [H.B. 1234](#) authorizes a local board of education to count specified time spent in a registered apprenticeship program toward high school attendance and high school graduation and/or a postsecondary credential.



Oklahoma: [S.B. 1370](#) allows students to substitute one year of a full-time, three-hour career and technology program leading to an industry credential/certificate or college credit for a mathematics credit required for graduation. It also requires the State Board of Career and Technology Education to create rules to define the acceptable industry credentials.

Work-Based Learning

Work-based learning can include a range of activities from shadowing professionals to internships to apprenticeships.² States established work-based learning opportunities ranging from career exposure within a classroom setting to career preparation experiences at work sites. Some states extended work-based learning opportunities beyond high school to include middle school students.

In 2017 and 2018, at least 11 states enacted legislation to establish or expand work-based learning opportunities.

Examples of 2017 State Legislation



Nevada: [S.B. 66](#) authorizes a school district or charter school to offer a work-based learning program upon application to and approval from the state board. The bill permits students to earn one or more credits for completing a work-based learning program and allows districts and nonprofits to apply for grants from the state department to develop and implement work-based learning programs.

Examples of 2018 State Legislation



Georgia: [S.B. 3](#) expands the definition of career-oriented learning experiences under the Creating Opportunities Needed Now to Expand Credentialing Training program. The expansion includes participation in work-based learning programs, such as internships, apprenticeships, cooperative education or employability skill development. The state board of education must ensure that career-oriented learning experiences include industry credentialing. The department of education must work with industries in Georgia, the Technical College System of Georgia and the University System of Georgia to ensure alignment of secondary experiences with postsecondary opportunities.



Oklahoma: [S.B. 1171](#) creates the Work-Based Learning Program through the Oklahoma Office of Workforce Development. In administering the program, the Oklahoma Office of Workforce Development must work in collaboration with the department of education, state regents for higher education, the board of private vocational schools, secretary of state and business entities throughout the state. The program is focused on increasing the number of registered apprenticeships and internships by 20,000 positions by 2020. The program must (1) coordinate work-based learning opportunities through the state labor market and labor exchange system; (2) increase the number of youths and adults participating in work-based learning; (3) set standards for fair access to work-based learning experiences, especially for traditionally underserved populations; (4) promote quality work-based learning experiences that are developmentally appropriate, develop workplace skills and competencies, assess performance and provide opportunities for reflection; (5) develop industry-specific standards for internships with industry partners; and (6) prioritize paid internships.



Funding

Some states have continued to make investments in CTE programs, while others have established new programs and funding streams to support their growth. In addition to programmatic funding, some states established grant programs to support CTE facility expansions and equipment improvements.

In 2017 and 2018, at least 15 states enacted legislation that established funding streams for new programs and continued to support CTE programs.

Examples of 2017 State Legislation



Michigan: [S.B. 133](#) appropriates funding to career education planning districts to update equipment used in their CTE skilled trades initiatives.



North Carolina: [S.B. 257](#) establishes the Career and Technical Education Grade Expansion Program, which makes grant funding available to local school administrative units for CTE in sixth and seventh grade, in addition to other provisions relating to CTE in the state. The bill requires the Education and Workforce Innovation Commission to work with the state board of education and superintendent of public instruction to administer the program.

Examples of 2018 State Legislation



California: [A.B. 1808](#) appropriates \$150 million to establish the K-12 component of the Strong Workforce Program to expand the availability of high-quality, industry-aligned CTE. The legislation allocates funding to existing regional consortia based on the region's unemployment rate, total average daily attendance for students in grades seven to 12 and the proportion of projected job openings. Regional consortia are required to grant funds to districts to implement or expand CTE programs that are aligned with the consortia's regional plan.



Michigan: [S.B. 941](#) establishes the Marshall Plan for Talent, a series of grant programs, to support the purchase of equipment and programs focused on increasing the number of students who are career- and college-ready within districts.

Comprehensive Approaches to CTE Policy

While states generally addressed CTE policy through a piecemeal approach, some states enacted comprehensive legislation that addresses topics across the CTE and workforce spectrum. **Michigan** and **Vermont** are not the only states that have taken this approach, but their approaches are examples of ways to increase opportunities in high school that can be connected to future education and careers.

Michigan

In 2018, Michigan passed numerous pieces of legislation for various CTE initiatives, including the [Marshall Plan for Talent](#). This package of legislation seeks to create partnerships between educators, employers and other stakeholders to develop Michigan's workforce. CTE has a central role in the plan to develop Michigan's workforce, notably:

- Allocating \$100 million for grants to support CTE programming, the formation of curriculum, student guidance, teacher development and equipment. ([S.B. 941](#))



- Requiring the department of education to develop a model program of instruction in career development, in consultation with the department of talent and economic development. Beginning in 2019-20, schools must provide instruction to all students in grades K-12. ([H.B. 5139](#))
- Permitting districts to employ non-certified teachers with specific career expertise and credentials to teach in a CTE program. ([H.B. 5141](#))

Vermont

In 2017, Vermont passed [S. 135](#), which directs the commissioner of labor and the chair of the State Workforce Development Board to convene a working group on workforce development in Vermont. In January 2018, the working group released a [report](#) with numerous recommendations on how the state could integrate CTE programs and take action to meet workforce needs.

In 2018, Vermont passed [H. 919](#), which codifies many of the report recommendations and sets forth a three-year plan to amend the state's workforce system. Within the legislation, there were numerous provisions relating to CTE:

- Strengthen the role of the State Workforce Development Board. The board has 60 members, half of whom must come from the private sector. State-affiliated members come from a range of departments from education to transportation.
- Extend the use of career pathways in workforce development, engaging students beginning in middle school.
- Establish four CTE pilot projects to serve as a model for future programs.
- Strengthen apprenticeship programs and opportunities for high school students to pursue apprenticeships and learning experiences in a range of industries.
- Establish a system that reviews and elevates the rigor of industry-recognized credentials and certificates to create better value and relevance to both recipients and employers.
- Develop metrics and require the collection of data to measure the relative success of the state's program and to guide decision-making in the future.



Related Resources

[*Work-Based Learning: Model Policy Components*](#)

[*Putting Career and Technical Education to Work for Students: A Playbook for State Policymakers*](#)

[*The State of Career Technical Education: Career Advising and Development*](#)

[*Endorsements, Electives & More: CTE & State Graduation Requirements*](#)

[*Career Exploration in Middle School: Setting Students on the Path to Success*](#)

ENDNOTES

1. Sam Stringfield and James R. Stone III, "The Labor Market Imperative for CTE: Changes and Challenges for the 21st Century," *Peabody Journal of Education* 92, no. 2 (2017): 166-79.
2. *Career Connected Learning Continuum* (Seattle: Washington STEM, May 2017), <http://www.washingtonstem.org/wp-content/uploads/2018/05/Career-Connected-Learning-Framework-and-Continuum.pdf>.

AUTHOR

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About Education Commission of the States Legislative Tracking

Education Commission of the States tracks legislation on education issues from early learning through postsecondary and workforce. The team follows the bill's status from introduction through its final action, summarizes key provisions and assigns topics. The policy tracking helps keep an eye on trends, innovative policy approaches and the overall landscape of education-focused activity. This information is leveraged for several purposes, including Policy Snapshots that offer a brief background on a topic, a visual take on recent bills and summaries of selected state legislation.

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