The Strengthening Career and Technical Education (CTE) for the 21st Century Act (Perkins V, P.L. 115-224) provides new opportunities for states to serve learners with disabilities in CTE. Perkins V specifies that learners with special population status, including learners with disabilities, need to be prepared for high-wage, high-skill, in-demand employment opportunities or post-secondary education. Perkins V requires state and local leaders to describe how CTE will be made available to learners with special population status and provides flexible funding and policy levers to achieve that goal.

To understand how states are leveraging Perkins V to support learners with disabilities in CTE, researchers at the University of Massachusetts Chan Medical School partnered with Advance CTE to conduct an online survey of State CTE Directors. While the survey was intended to lay the groundwork for a subsequent narrower focus on learners with emotional disturbance, the questions focused on the broader population of all high school learners with disabilities. Survey findings show that many state Perkins V plans provide an opportunity to better serve learners with disabilities in CTE, and that the work to achieve this goal has begun. This brief highlights survey results on strategies and practices and provides policy and programmatic recommendations for state leaders to support CTE learners with disabilities.

Why CTE is important for learners with disabilities.

The secondary school experience and post-high school outcomes are poor for youth with disabilities compared to youth without disabilities. Despite federal programs promoting their work experiences, youth with disabilities engage in paid and unpaid work experiences at lower rates during high school and have lower employment rates (17% for youth with disabilities vs. 29% for those without disabilities). Children who receive supplemental security income as a result of a disability have lower employment rates than peers without disabilities, and dependency on Social Security disability benefits as adults is a common outcome. Poor outcomes for students with emotional disturbance include higher drop-out rates, limited post-secondary education enrollment, fewer social networks, and justice system involvement.

Key Takeaways

» State CTE Directors aim to leverage Perkins V to improve equitable access, success and outcomes for learners with disabilities in CTE.
» State CTE Directors are partnering with other state leaders to support learners with disabilities in CTE; however, engagement does not always translate to direct action.
» State level commitments to learners with disabilities may not be brought to practice on the local level.
» Many states do not disaggregate CTE data by disability type, even though this information is available through IDEA.
» Learners with disabilities can access opportunities to earn credentials in high-skill, in-demand industries; however, few states offer interventions, accommodations or programs that address their specific needs.
However, research shows that CTE coursework in high school provides opportunities to improve employment and post-secondary outcomes for learners with disabilities. CTE has led to higher rates of on-time graduation and more competitive paid jobs for secondary students with disabilities.

The benefits of CTE apply as well to learners with emotional disturbance. In one longitudinal analysis, when students that have these disorders took a concentration of general CTE courses, they were four times more likely to obtain full-time competitive employment in the early post-high school years compared to others with the same disabilities who did not take CTE.

**Challenges to supporting learners with disabilities in CTE**

Although CTE holds promise for learners with disabilities, states and schools face challenges to promoting their success in CTE. Some CTE programs may not be able to offer settings and supports required by learners’ Individualized Education Programs (IEPs). CTE instructors may have limited training on supporting these learners, and CTE facilities may not be equipped to accommodate learners with physical disabilities. Learners with emotional disturbances may need innovative strategies such as flexible attendance policies to succeed in CTE. The Coronavirus pandemic added new barriers to the success of CTE learners with disabilities, such as providing hours needed for credentialing in a virtual environment, although some states have pivoted and innovated to meet these challenges for youth with disabilities.

**Opportunities to Support Special Populations and Learners with Disabilities through Existing Legislation**

States can leverage federal laws designed to support learners with disabilities in CTE. In addition to Perkins V (2018, P.L. 115-224), the Individuals with Disabilities Education Act (IDEA, P.L. 114-95), the Elementary and Secondary Education Act (ESEA, P.L. 89-10), and the Workforce Innovation and Opportunity Act of 2014 (WIOA, P.L. 113-128) share similar goals for expanding workforce preparation activities and improving attainment of recognized postsecondary credentials among learners with special population status including students with disabilities. In addition to the summary below, an analysis and crosswalk of Perkins V, IDEA, ESEA, and WIOA is available.

**Perkins V** encourages states to expand equitable access to CTE for learners with disabilities and to ensure they are prepared for employment in high-skill, high-wage, in-demand occupations. Perkins V equips states with certain leadership levers. These include funding, such as the leadership set-aside for recruiting learners with special population status into CTE or the state reserve fund; professional development and technical assistance to build local capacity; and requirements for approving CTE programs. Perkins V also requires state and local leaders to report data on enrollment and performance of students with disabilities in CTE and requires local recipients to conduct a Comprehensive Local Needs Assessment (CLNA) to identify and address inequities in access, participation, and outcomes.

**IDEA** ensures public education, including special education and related services, is available to children with disabilities. Specifically, IDEA requires that transition plans and post-secondary goals are written for students with disabilities receiving special education services in their Individualized Education Program (IEP). Transition plans must describe the related services or courses needed to reach post-secondary education, training, or employment goals. This could include CTE and work-based learning experiences.

**ESEA** supports high-quality education in elementary and secondary schools. The law requires states to collect and report data on student growth and achievement annually that is disaggregated by subgroups, including learners with disabilities. The law also emphasizes provision of a well-rounded education, which includes CTE and other career preparation activities. Through ESEA, nearly every state is reporting indicators of career readiness for high school learners.

**WIOA** has provisions for greater coordination and collaboration between state workforce development, (especially vocational rehabilitation [VR]), education and CTE. WIOA has specific requirements for youth with disabilities that dovetail with CTE. WIOA mandates that state vocational rehabilitation agencies provide students with disabilities Pre-Employment Transition Services (Pre-ETS) that includes work-based learning experiences such as are available in CTE.
Purpose of this brief

Even though Perkins V is in the early stages of implementation (the law went into full effect on July 1, 2020), states can leverage facets of the new law to address the challenges of supporting CTE access and success among learners with disabilities. Perkins V emphasizes supporting learners with special population status, giving states an opportunity to:

1. Build upon prior equity work to provide greater access to CTE among learners with disabilities.
2. To restructure systems and policies to better support these learners.

To explore how this opportunity has been used by states in their Perkins V plans, the University of Massachusetts Chan Medical School partnered with Advance CTE to survey State CTE Directors for secondary education. A web-based survey was completed by 38 State CTE Directors or designees from states, the District of Columbia, American Samoa, and Guam (from here on the term 'states' is used to characterize all respondents). This brief summarizes survey results, provides state examples, and offers policy and programmatic considerations.

Who are Youth with Disabilities?

Youth with disabilities is a heterogeneous group among whom there may be sensory, neurologic, physical, emotional/behavioral disorders and/or learning disabilities. Policies and interventions to support learners with disabilities need to be tailored to suit these individual needs. Additionally, youth with disabilities often intersect with other special population categories such as individuals from economically disadvantaged families, and access and success in CTE may also be affected by racial, ethnic and gender inequities. Such intersectionality can further complicate CTE access and outcomes among learners with disabilities.

Figure 1.
Common State Strategies to Ensure Equitable Access, Success, and Outcomes for Learners with Disabilities

The Individualized Education Program (IEP) can be an effective way of integrating CTE into education and training for students with disabilities.

State CTE Directors aim to leverage Perkins V to improve equitable access, and success and outcomes for learners with disabilities in CTE.

State CTE leaders recognize that Perkins V provides an opportunity to ensure access to and success in CTE for learners with disabilities and they intend to use the legislation to ensure equitable opportunities. Among the 38 survey respondents, 84% report plans to use opportunities afforded by Perkins V to support access and success for learners with disabilities.

States responding to the survey indicated that they use a variety of strategies to ensure equitable access to CTE among learners with disabilities (Figure 1). Highest among these strategies

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Access</th>
<th>Success &amp; Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnering with state special education director</td>
<td>79%</td>
<td>89%</td>
</tr>
<tr>
<td>Training on recruitment strategies</td>
<td>68%</td>
<td>73%</td>
</tr>
<tr>
<td>Reviewing disaggregated data</td>
<td>61%</td>
<td>58%</td>
</tr>
<tr>
<td>Using Perkins V state set-asides</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>Developing tools/materials to recruit learners with disabilities</td>
<td>37%</td>
<td>34%</td>
</tr>
</tbody>
</table>
is partnering with state special education personnel (89%). North Dakota developed a grant program called Enhancing CTE Educational Opportunities for Students from Special Populations Grant to award up to $2,500 to local Perkins V recipients to increase enrollment and performance of learners with special population status in CTE. The North Dakota Department of Career and Technical Education also makes connections to the State Department of Education’s Special Education committees and state teacher organizations for special populations for training on how to increase access. Other common state strategies include providing training or professional development to school leaders and educators on strategies to recruit learners with disabilities in CTE (68%), and/or disaggregating data to understand the outcomes of CTE among learners with disabilities (61%).

States report that they use a variety of strategies to support equitable outcomes and success in addition to ensuring access. A common strategy for supporting outcomes and success is partnering with state special education personnel (79%). For example, Arkansas developed a model for supporting learners with disabilities through a partnership between the Arkansas Department of Education, Division of Elementary and Secondary Education, Special Education Unit, Transition Services and the Division of Rehabilitation Services with assistance from National Technical Assistance Center on Transition (NTACT).

Wisconsin implemented employability skills standards for use in special education and developed a series of train-the-trainer modules for working with special populations. In addition, Wisconsin Transition Improvement Grant Coordinators have been working with the CTE team on presentations, podcasts and a course that helps educators understand the connection between CTE and special education. Other strategies reported by states include offering CTE educators professional development (63%) and disaggregating data to understand the outcomes of CTE among learners with disabilities (58%).

Figure 2.
State Strategies to Coordinate CTE Services and Supports for Learners with Disabilities

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Percent of states using strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration with state special education personnel</td>
<td>84%</td>
</tr>
<tr>
<td>Data sharing across agencies</td>
<td>55%</td>
</tr>
<tr>
<td>Inter-agency collaboration at local level</td>
<td>55%</td>
</tr>
<tr>
<td>Inter-agency training/professional development</td>
<td>47%</td>
</tr>
<tr>
<td>Braided funding across Perkins V and other state/federal programs</td>
<td>34%</td>
</tr>
<tr>
<td>Inter-agency coordination on Pre-ETS services</td>
<td>32%</td>
</tr>
<tr>
<td>There are no specific coordination activities</td>
<td>5%</td>
</tr>
</tbody>
</table>

State CTE Directors are partnering with other state leaders to support learners with disabilities in CTE; however, engagement does not always translate to direct action.

State CTE Directors frequently collaborate with state special education offices to ensure access to CTE among learner with disabilities (90%) and to coordinate their services and supports (84%) (Figure 2). Perkins V required State CTE Directors to engage other state agencies in the development of their state plans, and many states have continued ongoing engagement and collaboration with special education through Perkins V implementation. States are using different strategies for collaboration. North Carolina developed a memorandum of understanding to formalize a partnership among CTE, special education and vocational rehabilitation. Oregon has an ongoing partnership with the Offices for Enhancing Student Opportunities that oversees students with disabilities and with the state agency of vocational rehabilitation. Oregon uses Perkins V leadership funds to support joint analysis of data and sharing of information with special education directors. In Missouri, the CTE office coordinates with district special education coordinators and career (vocational) resource educators to support access to CTE for students with disabilities. In districts where a resource educator is not present, the special education director works with school counselors to help place learners in CTE programs.

Engagement across state offices does not always translate to action, and strategies to effect actual collaboration are underutilized by states. States are less likely to share data across agencies, braid funds, or conduct cross-agency training (Figure 2). Other innovative strategies for effecting real collaboration at the state level can have substantial impacts on learners with disabilities in CTE. For example, Perkins V State Leadership set aside funds can be aligned with secondary IDEA transition programming to help learners with disabilities achieve their post-secondary goals through CTE opportunities. Additionally, WIOA requires all states to build strategic plans that align vocational rehabilitation and CTE. One clear opportunity for alignment is the provision of Pre-Employment Transition Services (Pre-ETS).

In Connecticut, CTE, special education, and vocational rehabilitation collaborate to provide high school learners with disabilities work-based learning opportunities, a Pre-ETS mandated service, aligned with IEP transition plans and services. Connecticut also encourages districts to coordinate and align funding with vocational rehabilitation to expand access to CTE for learners with disabilities. For more examples of how states can align funding to support access to CTE, see Advance CTE’s resource, Braiding Funding to Support Equitable Career Pathways.

State-level commitments to learners with disabilities may not be brought to practice on the local level.

While there is a wide-spread commitment among State CTE Directors to partner with state-level special education personnel, strengthening partnerships and coordination is needed at the local level. Barriers to enrolling learners with disabilities in high-quality CTE programming on the local level include: 1) a lack of coordinated planning between CTE and special education; 2) a lack of staff/educator training on learners with disabilities; 3) hesitancy to enroll learners with disabilities in CTE due to behavioral plans or safety issues; and 4) no local level reporting of enrollment and outcomes of learners with disabilities (Figure 3).
State leaders can address these issues through technical assistance and professional development at the local level. Several states provided examples of how this is occurring in their respective states. In Washington State, CTE partnered with the Special Education Division to co-deliver professional development and developed a resource to illustrate how local school counselors, teachers and families can align Individualized Education Programs (IEP) with the state’s High School and Beyond Plan to help learners with disabilities plan for their future after high school. They demonstrated translation services during webinars to set an expectation for accessible, technical-based professional development. Vermont facilitates technical assistance meetings with special education teachers and administrators at regional CTE centers. Ohio has regional State Support Team consultants who provide additional support to education districts for their learners with disabilities in CTE.

Another challenge is that local employers offering work-based learning opportunities may also be unprepared to provide the necessary accommodations to foster participation and success among learners with disabilities. Establishing close communication between local education leaders and employers can help improve the quality and relevance of classroom-based instruction and ensure employers are prepared to accommodate learners with disabilities in the workplace. Employers can provide information regarding industry-specific needs to help educators teach skills that are valued in that industry. Simultaneously, vocational rehabilitation can provide technical assistance and guidance to support employers working with students with disabilities. Additional support and resources from the state can help foster local education and industry partnerships. In Minnesota, for example, the state Department of Education (MDE) provides additional state funding for CTE programs, including work-based learning experiences, that provide modifications to students with a disability. MDE also partners with Vocational Rehabilitation Services to expand opportunities for learners in transition programs. The two agencies have shared costs and coordinated professional development efforts to develop a work-based learning framework and to support special education teachers obtaining their work-based learning endorsement.
Many states do not disaggregate CTE data by disability type, even though this information is available through IDEA.

Disaggregating CTE data by disability type can help state and local leaders monitor access and outcomes of learners with different disabilities. However, only 13% of survey respondents reported they share data by disability type with local recipients to ensure equitable access. Disaggregating data by disability type can be an important effort because the supports and/or accommodations needed by learners with disabilities will vary depending on the nature of their disability. Collecting and reviewing data by disability type can inform needed professional development and technical assistance. Data by disability type may also help states determine where discretionary funding, such as leadership funds or the reserve fund, can be best directed to support the needs of learners with disabilities in CTE.

IDEA requires the collection of student data by disability type, which means that all states and localities should be able to obtain more accurate and nuanced data on the number of learners with disabilities by sharing data with special education. Some states have established partnerships to obtain these data. However, data silos between state agencies often make matching CTE and disability data challenging.

Learners with disabilities can access opportunities to earn credentials in high-skill, in-demand industries; however, few states offer interventions, accommodations or programs that address their specific needs.

Nearly all survey respondents (90%) indicated their state uses one or more strategies to ensure that CTE programs lead to high-skill, high-wage, in-demand occupations for learners with disabilities. These strategies include offering work-based learning experiences for learners with disabilities in CTE. (Figure 4). This finding underscores recent state efforts to improve CTE program quality. State CTE Directors have made commitments in their state Perkins V plans to improve CTE program quality and labor market alignment through the program approval process and by defining core quality criteria in their size, scope and quality definitions.

Similarly, most states (90%) indicated that they ensure that learners with disabilities have opportunities to earn industry-recognized credentials, reflecting the expansion of credentialing opportunities for all high school CTE learners. To underscore these efforts, 22 states (43%) selected recognized postsecondary credential attainment as their secondary CTE program quality indicator for Perkins V, meaning they will report this data publicly in aggregate and by learner subgroup and special population status.

However, program improvement efforts are often generalized to all learners instead of targeting specific learner populations. Less than half of respondents say they provide accommodations to learners with disabilities participating in credential examinations, and only 24% indicated they are part of other statewide initiatives to improve credential attainment among learners with disabilities (Figure 5). More direct interventions and investments may be necessary to support learners with disabilities to access and earn credentials with value in the labor market.

Stacking credentials can be another approach to support credential attainment among learners with disabilities. This involves developing badges for accomplishing smaller steps that lead to a credential or

Seventy-one percent of states offer work-based learning opportunities to ensure CTE programs lead to high-skill, high-wage, in-demand occupations for learners with disabilities.
identifying credentials that can build on one another across the learner’s career pathway. Developing creative strategies that allow learners to make up lost time due to long absences may also facilitate credentialing. A strategy that is less often used by states is providing information on labor market needs to families and learners with disabilities. This information can be shared through existing mechanisms such as special education IEP meetings where parents and learners can collaborate with CTE and special educators to make decisions about career pathways that can lead to in-demand occupations. The Pennsylvania Department of Education has a useful brief on what IEP teams need to know for CTE and special education\textsuperscript{24}.

**Figure 4.**
Measures to Ensure CTE Programs Lead to High-skill, High-wage, In-demand Occupations for Learners with Disabilities

**Figure 5.**
Measures Used by States to Ensure that Learners with Disabilities have Opportunities to Earn Industry Recognized Credentials
Recommendations

States have made substantial commitments to ensure CTE programs are inclusive of learners with disabilities. However, survey responses suggest that additional steps are needed to follow through on these commitments to further the access, success, and outcomes for the full range of learners with disabilities in CTE. To that end, State CTE Directors could:

Leverage the relationships built through the Perkins V planning process to increase collaboration between CTE, special education, and vocational rehabilitation.

Relationships between CTE, vocational rehabilitation, and special education are in various stages at the state and local levels. Inter-agency partnership and collaboration on the state level can maximize resources, ensuring an efficient and coordinated sequence of supports for learners with disabilities. Collaboration at the state level that was initiated or accelerated during the Perkins V planning period can facilitate change for learners with disabilities at the local level.

Ensure state and local decision makers have access to CTE data disaggregated by disability type.

At the state level, CTE leaders can establish data sharing agreements with special education partners to match CTE and disability data. This data can be used to inform state programmatic decision-making for learners with disabilities and increase their access to CTE. Additionally, states should make sure that CTE data is disaggregated by disability type when it is made available to local leaders.

Build the capacity of local leaders to support and guide learners with disabilities into and through high-quality CTE programs.

CTE educator training and cross-training with special education and state agencies of vocational rehabilitation can increase understanding of learners with disabilities, what their needs are, and how to best serve them. Local CTE educators can be trained on how to leverage the IEP to incorporate CTE for learners with disabilities. Training for educators and employers in developing and using accommodations could contribute to the retention and ultimate success of CTE for learners with disabilities.

More states can effectively use accommodations to foster the success of learners with disabilities.

Educational accommodations can address challenges with task management, performance, and memory by using visual and technology cues, or by conducting task analysis to create a sequence of manageable task “chunks”. Creative accommodations may be needed to assure the success of learners with emotional/behavioral disorders. For example, previewing tasks and lessons with learners may alleviate anxiety. Quick guides with accommodations and supports for that can be used for students with disabilities are available from the Transitions to Adulthood Center for Research; National Technical Assistance Center on Transition: The Collaborative (NTACT:C) and the Florida Department of Education.26,27,28

Methodology

The web-based survey of State CTE Directors (Advancing Employment for Secondary Learners with Disabilities through CTE Policy and Practice) was conducted in collaboration with the University of Massachusetts Chan Medical School and Advance CTE. The survey link was sent to the State CTE Directors (n=56) affiliated with Advance CTE, with directions to respond with respect to secondary CTE programs. Responses were collected from 38 states and territories (70% response rate). Two thirds (63%) of the surveys were completed by the State CTE Director at the secondary level, 11% were completed by the State Special Populations Coordinator, and the remainder (26%) were completed by people holding other roles (e.g., Perkins Program Specialist or Associate State CTE Director).
Endnotes


11 Hehin, T., Dougherty, S.M. & Grindal, T. Students with Disabilities in Massachusetts Career and Technical Education Programs. 2013, Commonwealth of Massachusetts, Department of Elementary and Secondary Education. p. 16


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