



New State CTE Director Leadership Program

Module 2: Driving Quality through Programs of Study

Winter 2018

A Note from the Executive Director

When we developed *Putting Learner Success First: A Shared Vision for the Future of CTE* in 2015 with more than 200 stakeholders and six co-convening partners, we called for a systemic transformation of the education system. It was as clear then as it is now that Career Technical Education (CTE) should play a central role in achieving this bold vision. Just as importantly, we also knew that we as the CTE community must hold ourselves accountable to the highest standards of quality and excellence. This meant doing what we say we do, and that's why programs of study are at the heart of this vision's first principle.

In this module, we urge you to take a critical look at your state's program of study offerings, and – as you did with the module exploring the Carl D. Perkins Career and Technical Education Act – challenge the status quo. Look at your data and ask how you know your current programs of study are effectively serving learners in your state. Does your state vision for CTE match how you allocate your funding? Be courageous and ask whether some legacy programs should evolve or even retire.

You will see that this module is structured differently than the previous module. We chose to focus on the major policy levers to advance programs of study, because each facet contains critical questions that you must explore to build or strengthen your state's framework of high-quality programs.

Getting this right is crucial to the overall health of your state CTE system, and moreover the future success of the learners in your state. For our part, Advance CTE is here to support you in making these tough but necessary decisions through this module such as this and even virtual or in-state meetings.

We look forward to continuing this journey with you.

Kimberly Green
Executive Director
Advance CTE

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How to Use the Modules

The New State Director Leadership Program is designed to fit the natural learning curve of new State CTE Directors as they explore their state CTE system as well as the policies and decisions that undergird it. To that end, Advance CTE has developed a 12-month curriculum with two in-person meetings, two webinars and intermittent optional phone calls to provide comprehensive supports to these new leaders. The program, with its curriculum, touchpoints and mentorship, is designed to allow new State Directors to access the support they need, when they need it.

This module is part of the 12-month curriculum that is designed to help you be inquisitive about your state's current "state of play," evaluate the responses and information you gather, see what gaps exist and determine if, how and when you may want to take action. By answering the guiding questions and adding data where appropriate, you will be able to better visualize both where you are currently and where you want to take your state system.

The modules are laid out to help you organize your thoughts and guide effective discussions with your mentor and Advance CTE staff who can help you consider and benchmark your findings, as well as provide resources, support and targeted technical assistance as you work your way through the modules.

Disclaimer: The modules do not constitute or replace legal advice. We encourage you to check with any relevant state and federal guidance and regulatory requirements to ensure compliance. Further, the examples listed within are not endorsements nor should be considered a comprehensive list.

Module Objectives & Pre-Module Survey

Module Objectives

This module is designed to help you take action around programs of study, primarily by:

- Understanding the major components of a high-quality program of study;
- Learning how programs of study can and do advance your vision for high-quality CTE;
- Assessing how your state currently structures its CTE programs of study and leverages policies such as program approval, evaluation and federal monitoring to ensure quality and fidelity of implementation;
- Identifying areas for strengthening your state’s CTE program offerings and approval policies;
- Providing key resources to assist in deepening your content knowledge; and
- Defining next steps with a timeline for completion.

Pre-module Survey

To begin this module, please take this brief self-assessment, and choose the “Programs of Study” option: <https://www.surveymonkey.com/r/NewSDpre-test>

Getting Started

Programs of Study Refresher

As a first step, we encourage you to review the following resources to acquaint yourself with the major components of a program of study, and ways in which states have built policies and processes to strengthen and expand their CTE program offerings.

- [CTE and Programs of Study](#) fact sheet
- [Core Elements of a CTE Program Approval Policy](#)
- [Raising the Bar: State Strategies for Developing and Approving High-quality Career Pathways](#)

To help answer the questions below, you may want to have the following information on hand:

- Any state policies related to program and/or program of study approval, review and funding at the secondary and postsecondary levels
- Your state plan for the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins)
- Your local plan requirements regarding programs and programs of study
- Your state's list of CTE program offerings (secondary and postsecondary)

Also consider who you need to talk to in order to gather information, both inside and outside of your office.

KEY DEFINITION

Programs of study are non-duplicative sequence of academic and technical courses that extend across secondary and postsecondary and culminate in a degree or credential of value. States are required to support at least two programs of study and all local Perkins recipients are required to support at least one program of study. This was a new requirement under the 2006 reauthorization.

Inventory

It will be helpful to gather key information on your state's current requirements around programs of study (and other CTE or career-focused programs the state authorizes through Perkins or otherwise). Knowing and understanding the current state of play can be critical to making a thoughtful evaluation of whether those policies and programs are leading to quality experiences for learners and a reliable pipeline for your industry partners.

State Vision for CTE

The first principle in [Putting Learner Success First: A Shared Vision for the Future of CTE](#), is that "All CTE programs must meet the highest standards of excellence."

Specifically, this principle calls on states, districts, schools and institutions to support and offer only high-quality CTE programs of study that provide strong pathways for learners and reflect industry relevance. To do this, states must use all of their tools and levers to define high-quality programs of study and then ensure only those deemed quality are funded and sustained over time.

To that end, building on Module 1, reflect on your state's vision for CTE and consider: How do programs of study currently advance this vision with respect to:

- Offering rigorous and relevant pathways to college and careers for learners?
- Alignment between secondary and postsecondary systems?
- Alignment between program offerings and labor market demand?

State Definitions and Requirements

Programs of study can be a powerful tool for driving learner success and industry satisfaction – both in the design and ongoing implementation. This module will help you explore the decisions made by your predecessors, learn why those decisions were made, consider and re-evaluate those decisions and conclude whether or not (or sometime in the near future) you should choose a new answer to a question. The next series of questions will help you gather information regarding the “what, how and why” of your program of study definitions and requirements.

Program Offerings

- What is the full breadth of your state's CTE program offerings (both programs of study and other programs) at the secondary and postsecondary level? How many Career Clusters® does your state use? How many Career Pathways?
- Does your state have different offerings for “programs” and “programs of study” at the secondary and/or postsecondary levels?

Program of Study vs. Program of Study Requirements

- How does your state define a “program of study?” Are there different definitions for programs of study at the secondary OR postsecondary vs. true secondary-postsecondary programs of study?

- How does your state define a “CTE program” at the secondary and/or postsecondary level (if there is a distinction between that and a “program of study”)?

- How are programs of study at both learner levels addressed via the Perkins local application? Does your state require more than the federally required minimum one program of study?

- How much Perkins funding is required to be spent on programs of study at each learner level?

- How are programs of study developed and implemented in your state:
 - Locals develop programs of study; state approves;
 - State develops programs of study; voluntary local use; and/or
 - State develops programs of study; mandatory local use?

CTE Standards

- What is your state’s process for developing or approving CTE course or program-level standards at the secondary and postsecondary levels? For reviewing/revising such standards?

Ensuring Quality Programs of Study

Now that you have gathered some background information on how your state defines and approves programs of study, it's time to jump into ways in which you can strengthen your own policies, programs and processes around CTE program offerings at the secondary and postsecondary levels.

This module is structured differently than the previous module. We chose to focus on the major policy levers to advance programs of study, because each facet contains critical questions that you must explore to build or strengthen your state's framework of high-quality programs.

Through this module, we will walk through:

- CTE program of study approval policies;
- Secondary-postsecondary alignment;
- The core elements of high-quality programs of study; and
- CTE program of study review and re-approval policies.

Throughout the module, we will ask you to consider how your state structures, supports and advances:

- Programs of study vs. CTE programs (and what the differences are in terms of design, policies and outcomes);
- Federal vs. state levers (and where these may diverge, and can be better aligned); and
- Secondary-to-postsecondary alignment (how we move from separate programs and systems to truly seamless pathways for learners through programs of study design and delivery).

We also will share information, point you in the direction of states that you might want to investigate further and offer some leading questions for reflection. We encourage you to consider using this time as a new State Director to be inquisitive – and through that inquisitiveness, challenge assumptions.

Building a CTE system around programs of study that are fully aligned between secondary and postsecondary *and* balance student interest with labor market demand is not easy work. It may put you in direct conflict with the status quo, but if designed correctly, programs of study can provide a relevant framework of industry-aligned, rigorous courses that allow learners to progress in knowledge and skills year after year.

Section 1: Program of Study Approval Policies & Processes

The federal definition of a program of study can be found in section 122(c)(1)(A) of Perkins.¹ While this definition provides the “floor” in terms of requirements, your state's policies for program approval and programs of study can and should go beyond it and form a foundation of your state's CTE system. What's important to remember is that these federal guidelines determine what your state finds *minimally* acceptable for what programs are offered to the learners in your state.

Helpful Resource: CTE Program of Study Approval Rubric:

[https://cte.careertech.org/sites/default/files/Program Approval Policy Benchmark Tool Section 2.pdf](https://cte.careertech.org/sites/default/files/Program%20Approval%20Policy%20Benchmark%20Tool%20Section%202.pdf)

¹ http://s3.amazonaws.com/PCRN/docs/perkins_iv.pdf

This rubric is part of Advance CTE's larger policy benchmark tool for CTE program approval, which was developed to help states evaluate and strengthen their CTE program approval policies and processes (and ensure ALL of their CTE programs were at the level of rigor and relevance as a program of study).

To receive additional assistance on how to use this rubric, please email our State Policy Manager Ashleigh McFadden at amcfadden@careertech.org. Advance CTE is happy to provide virtual and in-person technical assistance to any state that wishes to review its program approval policies.

Program Approval Requirements

Options & Opportunities

Perkins only requires states to approve two programs of study at the state level and that each local recipient is only required to offer one program of study, meaning states have tremendous flexibility in requiring and incentivizing a CTE system that prioritizes high-quality programs of study over less rigorous pathways.

Since the passage of Perkins IV in 2006, an increasing number of states have decided to go "all in" on programs of study by making them the minimum expectation for all approved programs. According to Advance CTE's 2017 survey about Perkins implementation, 11 states reported requiring 100 percent of Perkins funds to be distributed at the local level to programs of study. In 2010, only eight states required at least 76 percent of their Perkins funds to flow to programs of study at the secondary and postsecondary levels – a number that jumped to 15 in 2017.

One key point to remember – you have the ability to make changes *at any time* to your program approval policies and requirements.

The current federal law allows states the flexibility to choose how programs and programs of study are approved, the process that is used, and what evidence is required.

The types of decisions left open to states include:

- The approval/re-approval cycle;
- The number of courses or credits included within a program of study;
- The role of industry and labor market data in the approval process;
- The role of secondary and postsecondary in program of study development; and
- The definition/denominators for Perkins core performance indicators, which can set programs of study as the norm.

State Examples

Tennessee has developed – and only supports – statewide programs of study, which include a sequence of courses, opportunities for dual enrollment, work-based learning experiences and appropriate industry certifications. Locals must use the state-developed program of study or use a waiver process to submit a locally developed program with regional labor market demand.

[Link](#)

Maryland requires local applicants to complete a “program sequence matrix” as part of their program of study application, along with demonstrating the sequence of courses, industry demand, employer involvement, etc. [Sample application link](#) (Word doc) and [Link](#)

Key Questions: Program of Study Approval

Answer the questions below in the space provided. While these questions are all optional, we encourage you to capture your thoughts here so that you can easily refer back to them.

	Key Questions	State Response
Program of Study Approval	What are the minimum expectations for local Perkins recipients regarding programs of study? Are they the same at the secondary and postsecondary levels? If not, why not?	
	Why are you investing in programs of study to the degree you are? If less than 100 percent, what’s the motivation for funding non-programs of study?	
	Do you have data on the outcomes of state-approved and supported <i>programs of study vs. programs</i> ? <ul style="list-style-type: none"> • What is the “return on your investment” for programs of study? 	

State-developed Versus State-approved Programs of Study

One important lever, or decision point, is whether programs of study are developed or approved (or both) at the state level.

Options & Opportunities

Although Perkins sets a minimum number of state-level and local (state-approved) programs of study, it does not address the state role in the *development* of those programs of study.

Some states, for example, set requirements for programs of study (and CTE programs) and then approve locally developed programs. Other states design their own programs of study to either serve as models for local innovation or to be adopted as local programs.

According to the 2017 Perkins implementation survey:

- Nine states develop programs of study that are mandated for local use;
- Sixteen states develop programs of study that are optional for local use; and
- Thirty-six states approve locally developed programs of study.

You may notice that those numbers add up to more than 50, as a number of states both develop programs of study for local use and approve locally developed programs of study that meet certain criteria. (As a note, even those states solely requiring adoption of state-developed programs of study often have a waiver or similar policy to allow for local innovation or limited exceptions).

Ultimately, when considering whether to develop and/or approve programs of study, there are a few key issues to consider:

- The breadth of local programs of study (e.g., programs of study aligned with emerging priority sectors);
- Access to local programs of study (e.g., diversity of offerings in various communities and articulation opportunities); and
- Capacity at the state and local levels for developing quality programs of study.

State Examples

Delaware's streamlined approval process allows districts to either adopt a secondary program of study from a menu of state-model programs or develop a local model, which is submitted and approved by the state. Delaware shifted to this approach in 2014-15 to send a signal to locals of their more rigorous expectations for programs of study, which were designed by the state Department of Education with a clear role for postsecondary and labor.

[Link](#)

Texas used Perkins state leadership funds to develop model programs of study with postsecondary instructional teams within the 16 Career Clusters. According to Texas' 2016 Perkins State Plan update, postsecondary programs in Texas were

previously more “job” focused; the current process was used to ensure that program of study models are “career” focused.
[Link](#)

Key Questions: State-developed Versus State-approved Programs of Study

Answer the questions below in the space provided. While these questions are all optional, we encourage you to capture your thoughts here so that you can easily refer back to them.

	Key Questions	State Response
State-developed or State-approved Programs of Study	What do you see as the benefits of state-developed (and required) programs of study vs. locally developed programs of study? What about the downsides?	
	<i>(If applicable)</i> Are locally developed programs consistently meeting a high standard of excellence or is there too much variability across districts and postsecondary institutions?	
	How can state-developed programs or models be leveraged to build capacity at the local level?	
	<i>(If applicable)</i> What does your data tell you about state-developed vs. locally developed/state-approved programs of study?	
	Are there any Career Clusters or fields largely unattended to that would benefit from state-developed programs of study (i.e., emerging fields)?	

Program of Study Funding

Again, Perkins is impartial on how much funding is directed to programs of study – which leads to a range of investments as described above. However, there are other levers you can consider for supporting programs of study, including Perkins Reserve funds and state-level funds.

Helpful Resource: This program's first module, "[Maximizing the Impact of Your State's Carl D. Perkins Career and Technical Education Act Allocation](#)," provided extensive information and state examples of how to best leverage Perkins funds to advance your statewide vision for CTE. You can access the module through the Advance CTE website. You will need your log-in and password, as this is on a members-only page.

Options & Opportunities

Even if your state is not ready to require programs of study across the board, there are other ways to incentivize locals to adopt or develop them.

According to the 2017 Perkins implementation survey, 21 states reported that at least one of the policy goals for the Perkins reserve fund (Section 112) is to incentivize the development of programs of study. Additionally, 24 states reported that incentivizing the implementation of programs of study was one of the fund's policy goals.

A number of states also provide incentive grants using leadership funds and/or incentivize pooling of funds at the local level to encourage program of study development and implementation.

In addition, CTE programs of study typically receive a significant amount of state funding. At a minimum, states must maintain some level of funding for CTE to remain in compliance with the law. Beyond that, states may use standards development and adoption processes and funds (see below), general funds or incentive grants – supported by funds outside of Perkins – to support and advance programs of study.

Finally, accountability through the Every Student Succeeds Act (ESSA) is another lever states can now use to support programs of study. While 35 states some include career-focused indicator in their accountability system, about a third of those states explicitly include completion of a CTE program in their ESSA plan. While some states use generic language – completion of a CTE program – others, like Delaware and West Virginia, specifically require the completion of a "state-approved" program of study.² This provision opens up Title I funds and other opportunities to support programs of study.

State Examples

Montana received a federal [Rigorous Program of Study](#) grant in 2009, which it used to develop voluntary "Big Sky Pathways" jointly across secondary schools and postsecondary institutions. The state used its [Perkins Reserve Fund](#) to supplement and sustain this work after the grant ended. Based on lessons learned from this initiative, Montana just changed its program approval policy to make programs of study (or "pathways") the new minimum for all state-approved programs.

² <https://careertech.org/resource/mapping-career-readiness-essa-full>

The **Kentucky** Department of Education and Council on Postsecondary Education, with support from the state legislature, issued a request for applications in 2017 to local districts to develop or scale Energy Tech Career Pathways, an emerging sector in the state. While these are for middle and high school-located programs, they are expected to have agreements in place with postsecondary institutions.
[Link](#)

Rhode Island plans to distribute 50 percent of its Title I school improvement funds through competitive grants to local education agencies (LEA). One such grant, the School Improvement Innovation Grant, is being designed to help LEAs increase student access to CTE pathways and other learning opportunities that prepare learners for college and career success.
[Link](#)

The **California** Career Pathways Trust is an investment from the state legislature to incentivize the development of cross-system pathways, spanning K-12 through community colleges.
[Link](#)

Key Questions: Program of Study Funding

Answer the questions below in the space provided. While these questions are all optional, we encourage you to capture your thoughts here so that you can easily refer back to them.

	Key Questions	State Response
Program of Study Funding	Does your state use any funding incentives (using state or federal funds) to support programs of study, such as: <ul style="list-style-type: none"> • Perkins Reserve funds? • Perkins State leadership funds? • WIOA funds? • Legislatively provided funds? 	
	Which funding streams provide sustainability for programs of study? Which provide opportunities for innovation?	
	Are there any funds not currently being used at the secondary and postsecondary level that can support the development and implementation of programs of study?	

Section 2: Secondary & Postsecondary Alignment

The intent of Perkins' program of study requirement was to have states develop and approve programs that fully bridge secondary and postsecondary institutions and systems. This was in large part driven by the fact that the vast majority of good jobs require some education and training behind high school, requiring CTE programs of study to provide clear and seamless pathways into postsecondary.

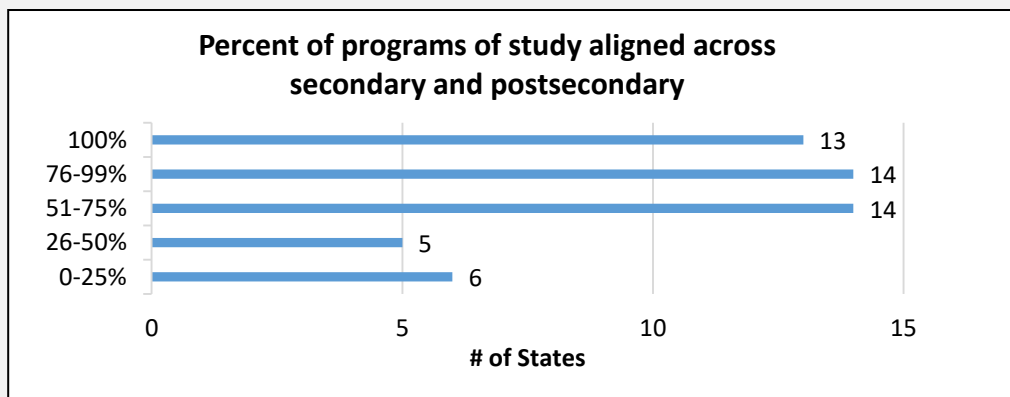
Unfortunately, too often states and local recipients often consider "secondary programs of study" and "postsecondary programs of study" to be two different types of programs. From our perspective, any and all programs of study should be common across secondary AND postsecondary institutions and systems.

Program Design

Options & Opportunities

Despite Perkins' intent, we know that it's unfortunately all too rare for fully aligned programs of study to be offered at scale. While individual secondary programs of study may offer a dual enrollment opportunity or have an articulation agreement with a local postsecondary institution, that is different than building a system of fully aligned programs of study that offer seamless transitions consistently and at scale.

In the 2017 Perkins survey, half of states report that at least 76 percent of their programs of study are fully aligned across secondary and postsecondary systems. Conversely, while 13 states reported that all of their state-approved programs of study are aligned across secondary and postsecondary, only five of those states reported that 100 percent of their local Perkins funds are required for secondary-postsecondary programs of study. This disparity indicates that the number of fully aligned programs of study continues to take a lot of forms in the remaining 45 states.



You can support stronger K-12 and postsecondary alignment in the design and development of programs of study in myriad ways. For example, you can leverage regional models or consortia, as discussed in Module 1. Or, if you do not require regions or consortia, you can prioritize such activities and alignment in your local plans.

Another option is to direct Perkins state leadership funds. As of 2017, 42 states spend leadership funds to establish agreements between secondary and

postsecondary CTE programs (but only three states identify that strategy as one of the top three uses of these funds). Eighteen states use leadership funds to support initiatives that facilitate student transitions from sub-baccalaureate programs to baccalaureate degree programs.

If your state develops statewide programs of study, you can consider making those full 9-14 pathways (or even extend down to middle school and up through four-year programs) so that they include both secondary and postsecondary components from the beginning.

And, of course, your program approval policy can require that postsecondary and secondary each be involved in the design of programs of study at both levels.

State Examples

In **Oregon**, the statewide CTE standards (known as Skill Sets) are applied simultaneously to the secondary component and postsecondary component of a program of study. The state provides [crosswalk templates](#) for high schools and community colleges to jointly complete to map the Skills Sets to the courses. [Link](#)

Minnesota has 26 geographically organized consortia of secondary and postsecondary institutions, which develop joint local plans to ensure alignment and collaboration. All Perkins funds are directed to these consortia. [Link \(page 4\)](#)

North Carolina created a competitive grant, with incentive funding to “catalyze pathway implementation and increase positive outcomes for individuals and employers through increased investment in promising pathway practices,” with an expectation that the grant funds would be focused on outcomes not process. [Link](#)

Articulation & Transfer of Credit

Programs of study are required to “offer the opportunity, where appropriate, for secondary students to acquire postsecondary credits.” States have the opportunity to take a broader view and consider how programs of study can offer transfer of credits not only across secondary to postsecondary, but within postsecondary through stackable credits, credentials and degrees.

Options & Opportunities

The inclusion of early postsecondary courses within the secondary portion of a program of study allows learners to access postsecondary level learning and credit attainment while progressing through their sequenced, aligned content.

Studies show that students who earn postsecondary credit/hours while in high school are more likely to enter (and be successful in) a technical college, community college, or four-year college.³

Though dual enrollment is one of the most promoted options, there are several other opportunities that can align to CTE content worth considering, such as:

³ https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_dual_enrollment_022817.pdf

- Concurrent enrollment
- Transcribed courses
- International Baccalaureate
- Cambridge International
- Course Level Examination Program (CLEP)
- Advanced Placement exams
- Industry Certifications (when articulation agreements are in place)

In the 2017 Perkins survey, a majority of states – 42 – say it is true or somewhat true that their early postsecondary opportunities are “fully transferable and articulated statement,” and 31 states say their early postsecondary opportunities are a required component of a state-approved program of study at the secondary level.

Equally important is ensuring articulation and transfer within and across postsecondary programs and institutions, particularly across postsecondary certificate programs (credit or non-credit), associate’s degrees and even bachelor’s and beyond.

Again, you can draw on a lot of previously discussed levers and funding streams to develop or incentivize early postsecondary courses and credit transfer agreements – such as reserve funds, state leadership funds to create agreements or even new dual credit course, state incentive grants to expand participation, etc. And, of course, you can require any approved program of study to include such course options.

Another option you may consider is turning the entire secondary component of a program of study into articulated credit as a way to encourage seamless and immediate continued enrollment for learners between high school and postsecondary. Similarly, states and institutions have developed agreements or policies that ensure the earning an industry-recognized credential carries credits towards a two-year degree program.

State Examples

Kansas’s Excel in Ed program led to the development of a statewide articulation agreement that allows high school students to earn postsecondary credits in a CTE program of study, while waiving tuition requirements for secondary students enrolled in Kansas community colleges. As of the 2015-16 school year, 85,150 credit hours had been earned.

[Link](#)

Nevada’s CTE College Credit is a statewide program that awards college credit to high school students who complete state-approved CTE programs. Nevada has established memoranda of understanding with postsecondary institutions based on state-approved CTE programs.

[Link](#)

Idaho has a process to develop statewide articulation agreements, which enable CTE students to continue their education at a college of their choosing once they

have completed their program of study and passed relevant end-of-course technical skills assessments, which are used to certify a student's mastery of the content.

[Link \(page 8\)](#)

Delaware's local program of study approval application requires local recipients to identify early career opportunities, including options for early college credit, as well as two- and four-year degree and certification program alignment.

[Link](#)

Florida uses common course numbering across its 12 state universities, 28 community/state colleges, and 46 career education centers, enabling transfer of credit across and between institutions.

[Link](#)

Key Questions: Secondary & Postsecondary Alignment

Answer the questions below in the space provided. While these questions are all optional, we encourage you to capture your thoughts here so that you can easily refer back to them.

	Key Questions	State Response
Secondary & Postsecondary Alignment	What role does secondary play in the design of the postsecondary portion of a program of study? Conversely, what role does postsecondary play in the design of the secondary portion of a program of study?	
	Does your state offer any fully aligned secondary-postsecondary programs of study? What does data tell you about these programs?	
	Are early postsecondary opportunities a requirement for program of study approval? <ul style="list-style-type: none"> If not, what is the rationale or barrier to this becoming a requirement? 	
	What type of (statewide) credit transfer agreements are in place between your state’s secondary and postsecondary systems and/or institutions? <ul style="list-style-type: none"> If none, what steps need to be taken to formalize agreements? 	
	What type of (statewide) credit transfer agreements are in place within and across your state’s postsecondary system and/or institutions? <ul style="list-style-type: none"> If none, what steps need to be taken to formalize agreements? 	

Section 3: Quality Programs of Study

Just as Perkins sets a minimum set of expectations for the number of programs of study in place, the federal law also stays fairly high level in how it defines the core components of a high-quality program of study. While the U.S. Department of Education has developed some [resources](#) to help you define the process by which states design and approve programs of study, this is one area ripe for states to build on that framework to ensure the programs of study truly work for both learners and industry.

CTE Standards & Course Sequencing

Any program of study must begin with rigorous standards that are organized into progressive, sequenced courses that span secondary and postsecondary systems. These are the essential building blocks of a strong program of study and differentiate a program of study from a CTE program. Through an intentional sequence of courses and experiences, programs of study can offer invaluable opportunities for learners to experience a subject that they are passionate about and explore interests that lead to postsecondary credentialing and future career paths.

Helpful Resource: *The State of Career Technical Education: An Analysis of State CTE Standards:*
<https://careertech.org/resources/state-cte-standards>

In 2013, Advance CTE analyzed state CTE standards against the Common Career Technical Core, a set of end of program of study standards. Contact Advance CTE's Deputy Executive Director Kate Kreamer at kkreamer@careertech.org to access your state-specific analysis.

Options & Opportunities

Any program of study must start with rigorous **standards** that encompass the core academic, technical and employability knowledge and skills learners will need to be prepared. Standards are a particularly powerful lever for states – particularly at the secondary level – given the high degree of state authority in standards development and adoption. The challenge is ensuring those standards are rigorous, relevant and learner-centered – and have the breadth and depth to support a full program of study.

The vast majority of states do have state-approved CTE standards. In fact, as of 2013, 46 states and three territories had state-approved secondary CTE standards and 13 states and two territories had state-approved postsecondary standards. Only two states and one territory have CTE standards that are fully aligned between secondary and postsecondary systems.⁴

However, having standards in place does not mean that they are truly supporting a full program of study or meeting learners' needs. To get you started, consider the following characteristics of more "basic" vs. more "rigorous" CTE standards:

Characteristics of Basic CTE Content Standards

- Provide general statements about knowledge or skills within the occupation
- Serve as a "checklists" of whether learners were exposed to content
- Provide basic skills competencies needed
- May require students to learn additional content in order to be successful in postsecondary coursework and/or industry certifications

⁴ <https://careertech.org/resources/state-cte-standards>

Characteristics of Rigorous, Relevant, and Learner-Focused Standards

- Provide specific statements about what a learner should know and be able to do related to the occupation
- Sequentially build upon prior knowledge and skills, both from prior course and within the course content
- Embed and integrate academic, technical, and employability skills
- Directly align to expectations of industry and postsecondary (for secondary level) to allow for learners to seamlessly transition (e.g., student is qualified to sit for nationally recognized and aligned industry certification).

CTE programs of study are not just a collection of CTE courses, but rather are an **intentional sequence** that builds on competencies gained in previous courses to ensure a progression of learning occurs. States support and ensure sequenced programs of study through standards adoption, program approval and even graduation/degree requirements.

States should adopt CTE courses or programs with an eye towards the sequence of experiences and skills learners should gain. They should also consider flexibility – or “permeability” that allows learners to explore introductory CTE coursework in early years and progress into more industry-specific courses towards the end of secondary and into postsecondary.

Advance CTE has created plans of study for all 16 Career Clusters and 79 Career Pathways, which many states have modified to map out their programs of study: www.careertech.org/career-clusters

State Example

Florida delivers CTE programs and courses through three different systems – secondary, postsecondary/adult vocational (PSAV), and postsecondary degree/certificate programs. The state maintains a separate set of industry-driven CTE standards (i.e., curriculum frameworks) for each of its delivery systems; however, the three sets of CTE standards are developed concurrently by the same committee of business/industry, secondary and postsecondary representatives. [Link](#)

Tennessee leveraged its standards revision process to completely redesign its secondary CTE offerings around programs of study. [Link](#)

Georgia has designed its programs of study around the 16 Career Clusters (plus a 17th Career Cluster in Energy) and 130 career pathways. Within each of the pathways, many of the programs of study begin with the same introductory-level course and then differentiate based on the program area and aligned industry expectations. This provides opportunities for learners to explore various pathways through one course and make more informed decisions about their programs along the way. [Link](#)

Key Questions: CTE Standards & Course Sequencing

Answer the questions below in the space provided. While these questions are all optional, we encourage you to capture your thoughts here so that you can easily refer back to them.

	Key Questions	State Response
CTE Standards & Course Sequencing	<p>Briefly review your state’s course secondary and postsecondary standards from various courses across programs of study in several Career Clusters. Now look back at the high-level criteria listed in this section.</p> <ul style="list-style-type: none"> • Which category do your courses’ standards fall in most? • What characteristics from the category seem to be most prevalent when examining your standards? 	
	<p>Do your CTE standards attend to the full range of CTE expectations (e.g., transferable career-ready or employability skills, broader Career Cluster-level skills, industry-specific skills, and academic skills)? If not, where are the gaps?</p>	
	<p>How does your state ensure local education agencies and postsecondary institutions are implementing state CTE standards with fidelity?</p>	
	<p>Looking at your sequenced courses within your programs of study, how confident are you that these are correctly sequenced to ensure mastery of the knowledge and skills necessary for the identified occupation tied to the program of study?</p> <ul style="list-style-type: none"> • How do you know? • What components may be missing or misaligned? 	
	<p>Does your state approve courses or programs within a clearly defined sequence?</p>	

Labor Market Alignment

Perkins makes many references to the terms “high-skill,” “high-wage” or “high-demand,” but leaves the actual definition for each of these up to states. These terms can be found throughout the law, including in the purposes of the act, state and local plan requirements, state and local uses of funds, and core indicators of performance. While this is a starting point for identifying areas of need, labor market data and industry validation must play a key role in the design, approval and re-approval of programs of study. We are doing learners no favors by enrolling them in programs with no career opportunities at the end.

Helpful Resource: *Putting Labor Market Information in the Right Hands: A Guide:*
<https://careertech.org/resource/putting-LMI-right-hands-guide>

Good Jobs Index from Georgetown University’s Center on Education & Workforce.
<https://goodjobsdata.org/>

Options & Opportunities

All CTE programs of study should be able to justify their existence by demonstrating that labor market information shows a consistent and sustainable demand in high-skill and high-demand occupations for employees in these pathways in the state and/or local region.

This requires having strong labor market data available and strong policies to ensure that the data is being used to support programs of study. In the absence of such justification, labor market data can serve as a signal that a program of study does not have relevance or provide pathways to careers.

Just as labor market data should be used to justify existing programs, it also need to be used to identify areas where programs of study are missing or inaccessible.

State Examples

Tennessee requires an annual justification for ongoing approval of secondary programs of study that includes labor market data.
[Link](#)

Each technical/community college in **Louisiana** must work with regional partners to identify three clusters – based on Louisiana Workforce Commission regional workforce data – in which they can offer Perkins-supported programs of study.
[Link](#)

Kentucky recently used labor market data to identify where the state had “access gaps” (i.e., not enough CTE programs of study in a region to meet demand) vs. where it had “opportunity gaps” (i.e., not enough learners enrolling in high-demand programs of study).
[Link](#)

In 2013, **Alabama**’s established a one-time, \$20 million competitive grant program to accelerate and transform high-quality programs study aligned with labor market demand. In total, more than 75 new CTE programs opened and 20 were closed or converted across the state during the 2013-14 school year.
[Link](#)

Key Questions: Labor Market Alignment

Answer the questions below in the space provided. While these questions are all optional, we encourage you to capture your thoughts here so that you can easily refer back to them.

	Key Questions	State Response
Labor Market Alignment	What processes are in place to match current program of study offerings with labor market demand? <ul style="list-style-type: none"> • Is the process the same at the secondary and postsecondary levels? • How effective are they? 	
	To what extent does state policy require the use of current labor market information to inform CTE program design and approval?	
	How is or can labor market data being used to identify the need for new programs to be developed? For non-demanded programs to be phased out or transformed?	

Credentials of Value

The federal definition of program of study specifies that it “leads to an industry-recognized credential or certificate at the postsecondary level or an associate or baccalaureate degree.” What is missing from this definition, but is implied, is that those credentials, certificates or degrees are of value to learners.

NOTE: A future, optional module will delve into issues related to identifying and incentivizing industry-recognized credentials more broadly. This section will focus, primarily, on the utility of a credential of value as it relates to a high-quality program of study.

Helpful Resource: *Credentials of Value: State Strategies for Identifying and Endorsing Industry-Recognized Credentials:* <https://careertech.org/resource/credentials-of-value>

Connecting Credentials: Making the Case for Reforming the U.S. Credentialing System: <http://connectingcredentials.org/wp-content/uploads/2015/06/MakingTheCase-6-8-15.pdf>

Options & Opportunities

Credentials promoted by states should be aligned with programs of study so that learners will be prepared to sit for the certification with little to no additional studying or coursework required. This requires credentials to be part of the program of study design and approval process – and should also be part of the evidence collected as part of a program of study’s review.

While the default type of “credential” many think of first are “industry-recognized credentials,” there are other forms such credentials can take on, particularly in Career Clusters and fields that do not have ready-made industry-recognized credentials. A few other options include:

- Early postsecondary credit (or even a full associate’s degree in early college high school models);
- Work-based learning capstones (for example, **Wisconsin** is developing a certification for learners who complete their Youth Apprenticeship experience);
- Portfolios or capstone projects; and
- Postsecondary certificate or degree.

What is most important is that you have a process for identifying and incentivizing those credentials that have value in the labor market – and then embedding them within key policies, such as program approval and accountability systems.

State Examples

At the secondary level, **Louisiana’s** Jumpstart Pathways are anchored in industry-based credentials, as identified by industry, and maintained by the Louisiana Workforce Investment Council.

[Link](#)

Florida has a robust list of industry-based credentials for learners at multiple levels.

[Link](#)

New Jersey recently published a statewide list of industry-recognized credentials, which identifies alignment to the 16 Career Clusters.
[Link](#)

Key Questions: Credentials of Value

Answer the questions below in the space provided. While these questions are all optional, we encourage you to capture your thoughts here so that you can easily refer back to them.

	Key Questions	State Response
Credentials of Value	Are credentials a component of your program of study approval process at the secondary and postsecondary levels?	
	Does your state provide a validated list of industry-recognized credentials to districts and postsecondary institutions? If yes, is it the same list?	
	Industry certifications can/should play a meaningful role in your state’s accountability systems. <ul style="list-style-type: none"> • Are industry certifications a part of demonstrating technical skill attainment in your state? • Are they used as a state accountability measure through ESSA? Through WIOA? • Are student participation and pass rates tracked in your state’s data system? 	

Section 4: Program of Study Review & Re-Approval

It is one thing to approve new programs of study that meet criteria around standards, courses, credentials, labor market demand, secondary-postsecondary alignment and other priorities. It's quite another to build a review and re-approval process that not only collects the right evidence but can also trigger supports and interventions when those programs and programs of study are not hitting the mark.

Helpful Resource: Advance CTE's *CTE Program Approval Evaluation Criteria* identifies criteria that may be used in an evaluation policy to ensure that approved CTE programs continue to provide high-quality instruction and opportunities for learners.

[Link](#)

NOTE: A future module will delve into the use of data in program monitoring and evaluation more broadly. This section will focus simply on program of study review and re-approval.

Options & Opportunities

A common theme throughout this module is the degree of flexibility states have in how they design, administer and support programs of study – and that flexibility certainly extends to program of study review and re-approval.

Perkins' accountability largely focuses on the individual student and the local recipient level, rather than the program or program of study level, which is the same as other federal accountability systems, namely ESSA and Higher Education Act. This is important as it ensures the investment is at the system level, but does require that states play a more hands-on role in reviewing and validating the quality of individual programs and programs of study.

The main issues that states should take under consideration when it comes to building meaningful program of study review/monitoring processes are:

- The review cycle and timeline;
- The mechanism by which they are reviewing or monitoring programs (assuming a mix of in-person and "virtual" audits);
- The information or evidence required from districts and institutions; and
- Interventions, supports (technical assistance) or consequences for programs of study not able to demonstrate evidence of rigor (student success and outcomes) or relevance (labor market demand).

Part of a review process is identifying where certain programs of study are not meeting the needs of learners and/or the economy and providing, as appropriate, technical assistance and resources to bring the program of study to where it needs to be.

NOTE: State examples will be provided in the module regarding data, which will include a section on program review and re-approval.

Key Questions: Program of Study Review

Answer the questions below in the space provided. While these questions are all optional, we encourage you to capture your thoughts here so that you can easily refer back to them.

	Key Questions	State Response
Program of Study Review	Do you have different review/re-approval processes for programs of study vs. programs at the secondary and/or postsecondary levels? If so, why?	
	What evidence – beyond Perkins core performance indicators – are you requiring for the review of programs of study? How does it compare to the list generated by Advance CTE?	
	How often are you reviewing programs of study jointly at the secondary and postsecondary level? How many programs of study are reviewed each year? Does this give you confidence in your overall program offerings?	
	How many programs of study did not get approved or re-approved last year? <ul style="list-style-type: none"> • What happened to those not approved or re-approved? 	

Final Reflections & Next Steps

Post-Module Survey

Please take this brief post-module assessment to let us know what you learned and how we can help:
<https://www.surveymonkey.com/r/NewSDpost-test>

Next Steps

It's important to keep the momentum of what you have unpacked through this module. We encourage you to commit to a timeline of what you plan to do in 30, 60 and 90 days. See the helpful chart provided to you in Appendix A.

Most importantly, it is our sincerest hope that you already have a list of concrete actions you will take action as a result of this module. Some may be small steps or changes you can make today while others may require you to build a cohesive plan for more dramatic shifts in the future. Just know that we at Advance CTE stand ready to help as critical friends, content experts, and providers of professional development and technical assistance.

Appendix A: Planning Chart

State CTE Programs of Study High-level Goals and Action Steps

Immediate (Next 0-3 Months)		
<u>Main Goals/Priorities</u>	<u>Action Steps</u> (Planned)	<u>Potential Concerns</u> (Related to goals and/or action steps)
1.	•	•
2.	•	•
3.	•	•
Intermediate (Next 4-9 Months)		
<u>Main Goals/Priorities</u>	<u>Action Steps</u> (Planned)	<u>Potential Concerns</u> (Related to goals and/or action steps)
1.	•	•
2.	•	•
3.	•	•
Long-term (Next 10-18 Months)		
<u>Main Goals/Priorities</u>	<u>Action Steps</u> (Planned)	<u>Potential Concerns</u> (Related to goals and/or action steps)
1.	•	•
2.	•	•
3.	•	•