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January 2016

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The recent passage of the Workforce Innovation and Opportunity Act will expand state efforts to build career pathways that connect education and workforce opportunities for youth and adults facing challenges to career success.

Introduction

The Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) supports states and local service providers in strengthening career and technical education (CTE) offered at the secondary and postsecondary education levels. Although the categorical funding Perkins IV provides accounts for only a fraction of spending for CTE nationwide, the legislation exerts a profound effect on how CTE programs are organized and delivered.1 Provisions within the legislation have spurred the integration of academic and technical content, development of statewide systems of accountability, and the creation of CTE programs of study (POS) that align secondary and postsecondary programs to promote student transitions across education levels.

Reauthorization offers Congress the opportunity to strengthen federal CTE policy, while reinforcing other federal initiatives. The recent passage of the Workforce Innovation and Opportunity Act will expand state efforts to build career pathways that connect education and workforce opportunities for youth and adults facing challenges to career success. Ongoing efforts to promote career pathways development on the part of the U.S. Department of Education (ED), Department of Labor (DOL), and Department of Health and Human Services are directed toward strengthening programmatic connections and supporting individuals in entering and progressing through education and training programs.

As lawmakers contemplate the issues that future CTE legislation might address, they may wish to consider several cross-cutting themes that have affected the implementation of Perkins to date.

Mission Creep
Congress has used successive reauthorizations of Perkins—in 1990, 1998, and 2006—to promote state and local innovation, advance programmatic initiatives to improve services and equity, and hold grantees accountable for the resources they receive. Each revision has introduced additional statutory requirements and expanded the responsibilities of state and local administrators. Current legislation stipulates a varying set of required and permissible uses of funding, not all of which promote a uniform set of policy priorities.

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**Flexibility**
Congress and ED have offered states considerable latitude in how they interpret Perkins statutory provisions. This has enabled administrators to design and implement CTE services that are tailored to their state contexts and unique programmatic needs. There is a trade-off for this flexibility: statutory requirements have been implemented differently across and, at times, within states, diminishing the comparability of state CTE systems. This has complicated policymakers’ efforts to assess the effectiveness of state and local CTE programs and hold states accountable for the outcomes achieved by the students they serve.

**Programmatic Alignment**
Congress has historically used reauthorization to introduce new initiatives to strengthen the delivery of CTE services and promote innovation. The introduction of Tech Prep in 1998 and the requirement that all local grantees offer at least one program of study in 2006 have laid the groundwork for the creation of career pathways, which are gaining traction in the federal education and workforce development arenas. Federal policymakers once again have the opportunity to use reauthorization to position CTE educators at the forefront of educational change and, in so doing, use CTE programming to reinforce the attainment of other federal initiatives.

**Policy Options for Strengthening Legislative Features**
State and local administrators implement Perkins IV legislative mandates within their unique policy environments. Consequently, a variety of factors, some beyond their control, affect whether and how statutory provisions are implemented. These range from state legal restrictions or interpretations of federal laws that preclude the collection of students’ Social Security numbers (SSNs) to technological constraints that prevent educators from assessing the employment outcomes of program completers. As Congress begins its deliberations, lawmakers must be mindful of the constraints that state educators face in seeking to enact its statutory guidelines.

There is a set of fundamental issues associated with financing, accountability, and POS that will require some attention during the Perkins IV reauthorization process. These entail addressing issues within the legislation itself, as well as how it links to and reinforces other federal initiatives. Addressing this set of policy priorities will help to clarify the responsibilities of state and local agencies that receive Perkins funds; improve the targeting and braiding of resources; and offer federal policymakers, educators, and the public more accurate information on the implementation of statutory provisions.
Finance

Resource distribution formulas contained within Perkins IV replicate virtually all of the key provisions contained in the 1998 reauthorization. Consequently, state allocations to secondary and postsecondary local grantees have remained essentially stable (in nominal dollars) over the past decade, exhibiting little variation in the number and average size of grants awarded and relative distribution of funds based on local education agencies’ (LEAs’) size, location, and level of poverty.

Replicating current formulas in new legislation would maintain existing allocation patterns. Maintaining the status quo will mean that resources will continue to be disbursed across a large number of secondary and postsecondary grantees, with nearly all who apply approved for funding. Retaining existing formulas also will mean that resources will continue to be directed to local grantees based primarily on indicators of student poverty or receipt of federal financial aid. Consequently, little connection will exist between grantee resource eligibility and the extent of student participation in CTE or scope of program offerings at the secondary education level.

Alternatively, Congress could link Perkins allocation strategies more explicitly with legislative priorities. This could be accomplished through a number of approaches.

Link secondary local provider funding to student participation.

At the secondary education level, 30% of Title I (basic grant) funds distributed to local providers are based on the number of individuals aged 5–17 residing within the service delivery area of an eligible grantee, and 70% are based on the number of people aged 5–17 who lived in poverty during the preceding fiscal year. While Perkins funds must be used in support of statutorily identified purposes, the amount of funding grantees receive is unrelated to the number of students who actually participate in programs. Consequently, a school district making a limited commitment to CTE programming may concentrate funding on a small number of students, as compared with a larger district with high levels of student participation.

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3While grant sizes have remained relatively stable in nominal dollars, funds have declined in real dollars over time. These estimates also precede recent changes in federal CTE appropriations following the April 2011 budget rescissions. For a detailed discussion of these issues, see Klein, S., Richards, A., White, R., Staklis, S., Charner, I., & Alfeld, C. (October 2014). Evaluation of the implementation of the Carl D. Perkins Career and Technical Education Act of 2006: Finance, accountability, and programs of study. Research Triangle Park, NC: RTI International.
Congress could choose to more directly link federal funding to the number of high school students or middle- and high school-aged students participating in CTE programming. Amounts could be conditioned on a rolling average of students to ensure that fund allocations reflect current rates of student participation. While doing so could redirect funding from some providers, modifying the formula would help ensure that funds reflect levels of student engagement in CTE programming. This could motivate providers to expand integrated academic and technical learning approaches to offer more students access to applied learning opportunities that promote career readiness.

**Direct local grants to promote secondary and postsecondary collaboration.**
Although eligible recipients must submit a local plan documenting how federal resources will be used within their site, there is no requirement that secondary and postsecondary grantees cooperate to deliver services. To encourage collaboration, statutory allocation formulas could be modified to concentrate basic grant funds on secondary and postsecondary grantees that demonstrate a commitment to working together to sequence and align their CTE program offerings.

One approach to further such connections would be to award grant resources to local or regional partnerships—composed of a consortia of secondary and postsecondary grantees—that agree to coordinate program design and service delivery. This could be accomplished by having partnering grantees develop a joint local plan detailing how resources will be expended. Where appropriate, employer involvement in these partnerships might also be considered. Directing resources in this manner would represent a significant new direction for federal CTE fiscal policy, one that has the potential to support continued development and implementation of career pathways.

**Provide options for competitive funding.**
Roughly three-quarters of state Perkins IV resources are distributed to local grantees based on statutory formulas that emphasize the legislation’s origins as an antipoverty program. These formulas offer states little flexibility in allocating

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4To ensure targeting, criteria would need to be developed to identify and differentially weight students enrolling in qualifying career-themed schools.

5Eligible recipients that participate in consortia must submit a local plan documenting how resources are to be used to deliver services for participating members; however, in most instances, consortia are composed wholly of providers within a given education level. See Staklis et al. 2015 Consortia Formation Under the Carl D. Perkins Career and Technical Education Act of 2006, for more information.

6This approach is already permitted under current statutory requirements. For example, Minnesota awards its Perkins IV grants to local consortia composed of partnering LEAs and institutions of higher education that submit an annual joint local consortium plan. Each consortium must consist of at least one 2-year college and at least one partnering LEA. They have flexibility in how they use funds, as long as they comply with federal and state requirements.
resources. States have more discretion in their use of resources through the state reserve, which allows states to allocate up to 10% of their grant resources outside the statutory formula. These funds are earmarked, however, for distribution to eligible recipients located in rural areas or areas with high percentages or numbers of CTE students.

To support states in introducing innovative programs that fall outside statutory formulas, lawmakers might consider increasing the size of the state reserve and relaxing the requirements surrounding its use. Options for distributing funds could include competitive grants to providers seeking to pilot new instructional approaches or school-wide reform initiatives that employ CTE programming to improve the career readiness of all students. Formula changes to incentivize local behavior also may be warranted, for example allowing for state adoption of performance-based funding, which allocates resources to local grantees based on their success in achieving their negotiated targets on the Perkins accountability indicators.

Accountability

*Perkins IV* expanded accountability reporting expectations by identifying separate sets of core indicators for secondary and postsecondary education. It also required local grant recipients to adopt state performance targets or negotiate their own levels with the state. Now state and local grantees that fail to achieve 90% of their negotiated target on any indicator must develop a program improvement plan and face sanctions for failing to improve their performance.

To support states in developing valid and reliable indicators of CTE performance, ED issued nonregulatory guidance that details preferred population and measurement definitions for the secondary and postsecondary core indicators. Although most states consulted the guidance when designing their accountability systems, few adopted ED’s recommendations verbatim. As a result, states report on different CTE student populations, often using unique measurement approaches and data collection methods.

If lawmakers seek to maximize local control over performance reporting, then current statutory language and ED guidance will achieve this objective. Allowing for continued flexibility will mean, however, that the implementation of existing *Perkins IV* provisions—along with any initiatives introduced in future legislation—will be
manifested in different ways that will permit neither comparisons of relative performance among states nor the aggregation of state data at the national level to assess program effectiveness.

Channeling states’ efforts toward a more uniform application of accountability provisions will require changes in statutory language and the implementation process.

**Establish expectations for consistent reporting.**
Generating valid, reliable, and comparable state data will require issuing regulatory language that describes acceptable measurement approaches and standards of data quality. Guidance must identify common CTE populations to ensure that state and local grantees are reporting on similar students. It must establish criteria for developing more uniform measures of student and program performance. This will be critical if metrics are to parallel those contained in other federal legislation, such as the *Workforce Innovation and Opportunity Act*. Direction on how data are to be collected also will be required.

**Establish a limited set of high-quality indicators.**
Not all of the performance indicators identified in *Perkins IV* can be used to obtain accurate data on student and program outcomes (Exhibit 1). Some provide imprecise information about the contribution that CTE makes to student learning; others ask local recipients to collect and report data that are not readily obtainable or penalize them for results that are beyond their control.

*Perkins IV* accountability systems can be strengthened by focusing state measurement on a discrete set of high-quality indicators that align with statutory priorities. Given the legislation’s focus on creating career pathways that align secondary and postsecondary CTE programs, one option would be to adapt the Tech Prep indicators introduced in *Perkins IV* for more general accountability use.

Indicators of students’ transition to postsecondary education and employment, receipt of postsecondary credit while in high school, and need for developmental coursework at the postsecondary level may be particularly relevant if educators are to assess their success in preparing individuals to succeed at the next level. Steps also could be taken to eliminate existing indicators for which it is difficult to collect valid and reliable data.
## Exhibit 1. Perkins IV Indicators with Significant Implementation Challenges

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<tr>
<th>Indicator</th>
<th>Challenge</th>
<th>Options</th>
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| **Academic Attainment**<br>States must measure secondary CTE student attainment using the same academic assessment system used in the *Elementary and Secondary Education Act.* | Assessments are usually administered before students begin taking advanced CTE coursework; consequently, there is no way to increase CTE students’ academic performance or to measure the contribution CTE makes to academic achievement. | • Consider eliminating performance sanctions for the indicator.  
• Develop a new indicator to assess increases in academic achievement over time. |
| **Technical Skill Attainment**<br>Secondary and postsecondary students must be assessed to determine if they achieve industry-recognized standards. | • States lack statewide technical skill assessment systems.  
• Costs to develop or purchase assessments are prohibitive.  
• Assessments do not exist in all program areas.  
• Assessments may not be administered until after students have graduated, or testing agencies will not share data. | • Consider restricting measurement to students taking and passing industry-recognized assessments.  
• Provide resources to support development of national or state assessment systems that align with industry-recognized standards.  
• Eliminate the indicator at the secondary level. |
| **Nontraditional Participation and Completion**<br>States must report on secondary and postsecondary students participating in or completing programs that prepare them for employment in occupations that are nontraditional for their gender, based on the composition of the workforce. | • Few students participate in programs nontraditional for their gender, meaning that small changes in student outcomes can lead to large performance results.  
• There is questionable merit to increasing participation and completion rates in programs associated with limited labor market demand or low wages. | • Consider eliminating indicators and retaining nontraditional students as a special population disaggregate in other indicators.  
• Restrict indicators to programs that lead to high-skill, high-wage, and high-demand occupations. |
| **Special Populations**<br>States must report disaggregated performance data for at-risk groups within each core indicator. | • States face legal, ethical, and technical challenges in identifying some population groups.  
• Few students are identified in some categories.  
• State directors have little confidence in these numbers. | Consider eliminating population breakouts for displaced homemakers and single parents, including single pregnant women, at both levels. |
Support improvements in the collection and reporting of CTE data.

Relatively little is known about the effect that Perkins IV exerts on state and local CTE programs. Delays in state reporting of accountability data to ED, combined with a lengthy departmental review and publication process, often means that years may pass before Perkins performance data are released. While national statistical databases compiled by the National Center for Education Statistics can provide important information on student participation in CTE and the outcomes of program completers, these databases are not designed to provide information at the level of detail needed to assess the Perkins IV legislation. Moreover, due to the timing of national data collections, significant time may elapse between students’ participation in CTE and their attainment of measureable outcomes.

ED has offered several competitive funding opportunities to help states design and implement statewide longitudinal data systems that track student progress within and across secondary and postsecondary education and into the workforce. While these systems have the potential to improve the accuracy and efficiency of state performance reporting, these systems must incorporate CTE data if accurate data are to be collected. Future legislation could support this goal by establishing the expectation that states access longitudinal, student-level data for CTE accountability reporting.

Obtaining comprehensive placement data also will require that states be capable of performing administrative record matching with state employment agencies, the National Student Clearinghouse, and federal employment databases—including the Wage Record Interchange System and data maintained by the military, Postal Service, and Office of Personnel Management. This will likely require that ED clarify the acceptable uses of SSNs for educational purposes, in general, and in federal CTE legislation, in particular.
Programs of Study

Perkins IV requires all local grantees to offer one or more POS that incorporate four statutory elements. In the absence of federal regulatory guidance, some states took the lead in establishing statewide POS that were mandatory for local adoption, while others opted to provide nonbinding guidance, allowing local grantees a measure of flexibility in their design. A few states allowed secondary and postsecondary grantees to develop POS with little or no guidance.

As currently configured, POS have neither programmatic nor reporting requirements. States have been allowed to experiment with different designs without being held accountable for their emerging systems, and the resulting programs have been highly variable. In an effort to improve comparability, in January 2010, ED released its POS Design Framework (Framework) that details 10 essential components of effective POS. Since release of the Framework, ED has established a series of national initiatives to help states implement rigorous POS, created a crosswalk to map Framework components with those contained in the Career Pathways Toolkit developed by DOL, and has made the expansion of high-quality POS a strategic goal for technical assistance efforts.

Establish expectations that all federally funded CTE programs meet the POS criteria contained within the Framework. Aligning CTE programming across educational levels can help ensure that students are prepared for the next step in their career pathway. Consequently, lawmakers should require that Perkins funds be limited to instructional programming that prepares students to make effective transitions. Such action will promote the creation of cohesive career pathways that connect services offered in public secondary and postsecondary education, and will motivate states to transform their existing CTE programs to offer higher quality instruction. Local providers may still offer CTE programs that do not meet the criteria of a POS; however, such coursework will need to be supported with local resources.

Clarify the expectations for POS design. Building comparability in POS across states will entail moving beyond voluntary use of ED’s Framework. Lawmakers could choose to incorporate the desired features of a POS when stipulating the required or permissible uses of federal CTE funds; alternatively, ED could be tasked with issuing regulatory language that stipulates the minimum expectations for POS design. Clarification of other essential design issues, such as whether statewide articulation is an intended goal and whether programs should target high-wage, in-demand fields, would also be helpful.
Build reporting expectations for POS. *Perkins IV* offers no guidance on how POS students are to be identified, nor does it stipulate the core indicators to assess student and program performance. As a result, there is currently no national data on the number of students participating in POS within states or the outcomes associated with their involvement. Reauthorization offers an opportunity to establish clear parameters for state reporting on POS. This will include setting expectations for the identification of POS populations and key terminology used in measurement.

Care should be taken that accountability indicators do not end up penalizing educators unfairly or create perverse incentives. For example, students participating in a POS will likely encounter a broader menu of program options as they move from the secondary to postsecondary level. Students’ decisions to change their education or career goals, therefore, should not be counted as negative outcomes for reporting purposes. Similar logic may apply for postsecondary students who complete a POS and go on to secure employment in an unrelated field or who transfer to an unrelated field of advanced postsecondary studies.

Given the goal of aligning education programming across levels, Congress could choose to identify a set of metrics that assess the longitudinal experiences of students. This could include assessing the number of students who earn a dual credit or who apply such a credit at the postsecondary level. Metrics also could be developed to assess the extent to which CTE program completers were enrolled in developmental education upon matriculating at the postsecondary level. These metrics could also support state efforts to develop longitudinal data systems that connect secondary and postsecondary education.

**Promoting College and Career Readiness**

The low-skill, job-specific instruction that characterized 20th-century vocational education is giving way to a new vision of CTE studies, one that assumes most individuals will require some form of postsecondary education or advanced training—immediately following high school or at some later point in life—if they are to succeed in the workforce.

To date, federal CTE legislation has been directed toward improving the academic and technical skills of secondary education students who participate in CTE programs. While schools are not precluded from using their *Perkin IV* resources to offer services benefiting all students,
emphasis has been on strengthening educational outcomes for students specializing in CTE coursework. Given national data that suggest fewer students are concentrating their coursework in CTE programming, maintaining this focus in upcoming legislation may result in resources being directed to a smaller population of students.7

Lawmakers could use new legislation to promote broader educational reforms that would benefit more students. Whereas Perkins legislation has to date emphasized increasing the academic rigor of CTE coursework, lawmakers could, going forward, seek to harness CTE as an instructional design strategy for the delivery of academic content within a larger number of classrooms.8 A number of school-wide reform initiatives that use applied learning offer some promising examples of the form such an effort might take (Exhibit 2).

New legislation could lay out policies to support educators in creating comprehensive, school-wide instructional strategies that would blend the delivery of academic and technical coursework within secondary schools. Support for such efforts could come in the form of a targeted program, as was used to introduce Tech Prep in the Carl D. Perkins Vocational and Applied Technology Education Act of 1990, or by providing for increased state flexibility in the use of state funds, for example through changes to the size and uses of the state reserve. Such action would require that Congress clearly delineate the allowable uses of federal funds to ensure that resources are not redirected from career preparation for use in stand-alone academic classrooms and do not supplant state and local expenditures for academic programs. Changes in other federal education legislation to promote such connections also would be beneficial.


8 The 2011 Harvard Pathways to Prosperity Project report Pathways to Prosperity offers a vision for this broader school reform effort that entails laying out at the beginning of high school the pathways to major occupations to help youth understand the coursework and experiences they will need to eventually gain access to the fields they have chosen.
### Exhibit 2. Innovative CTE Delivery Strategies

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<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Project Lead the Way (PLTW)</strong></td>
<td>PLTW is a nonprofit organization that partners with schools to engage students in hands-on learning focused on science, technology, engineering, and mathematics (STEM) fields. Offered as a comprehensive, standardized set of curricular materials, PLTW provides educators with standards, learning goals, projects, assessments, and course sequencing that connect students’ engineering career interests with academic studies. For more information, see <a href="http://www.pltw.org/">http://www.pltw.org/</a>.</td>
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<tr>
<td><strong>Career Academies</strong></td>
<td>Functioning as schools-within-schools, career academies offer college-prep studies organized around an industry theme, such as health or computer technologies. All students enroll in similar coursework, which includes both academic and career-oriented instruction. Teachers from different subject areas work in teams and often share common planning time. Students remain with the teachers over time and participate in workplace internships, career shadowing, and other career-related experiences. For more information, see <a href="http://www.ncacinc.com/">http://www.ncacinc.com/</a>.</td>
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<tr>
<td><strong>High Schools That Work</strong></td>
<td>Developed by the Southern Regional Education Board, this strategy emphasizes providing students with rigorous academic instruction within a real-world context. Key principles include requiring each student to complete a program of study that includes an academic core and area of technical concentration, providing hands-on learning through project work, offering challenging work-based learning, and making available extended school services to assist students in remediating skills and developing close student–teacher relationships. For more information, see <a href="http://www.sreb.org/">http://www.sreb.org/</a>.</td>
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<tr>
<td><strong>ConnectEd for California Education</strong></td>
<td>The Linked Learning initiative connects rigorous academics with real-world experiences in a wide range of fields. Core components include challenging academics to prepare students for college entry without the need for remediation; demanding technical instruction offered through a cluster of three or more courses; work-based learning; and support services that include counseling and additional instruction in reading, writing, and mathematics. For more information, see <a href="http://www.connectedcalifornia.org/">http://www.connectedcalifornia.org/</a>.</td>
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In Summary

For nearly three decades, federal Perkins legislation has prompted the CTE field to undertake or sustain educational reform. Federal policies have reinforced the integration of academic and technical instruction, contributed to the creation of statewide CTE accountability systems, and advocated for the alignment of secondary and postsecondary programs through Tech Prep and, more recently, POS. The federal government has been able to leverage these changes with a relatively modest investment, given that federal funding is estimated to account for only a fraction of total CTE spending by states and local providers nationwide. Therefore, Congress must direct its limited resources in a purposeful manner to ensure that legislative initiatives have a significant effect on how and in what direction the field evolves.

As reauthorization deliberations begin, careful consideration should be directed to the scope and specificity of the current legislation. While policymakers have historically used reauthorization to expand and improve the legislation, the many and varied requirements complicate state and local administration and program management. Statutory flexibility also has, to date, allowed states to respond differently to grant requirements, complicating efforts to assess program effectiveness or the return on federal investment.

Reauthorization offers Congress an opportunity to streamline current legislative provisions to achieve a more targeted, cohesive approach to aligning CTE programming across education levels to improve students’ career readiness and progression.