

Perkins Reauthorization Briefing

Assessing the Education and Employment Outcomes of Career and Technical Education Students

Steve Klein, Jay Pfeiffer, Kimberly Green



Recipients of funding through the *Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV)* must report on the outcomes of students participating in career and technical education (CTE). This requirement includes the expectation that local grantees report on the subsequent employment or enrollment in postsecondary education or advanced training of CTE participants. Many states have difficulty collecting longitudinal data, compromising the accuracy and completeness of these accountability data. This paper reviews data collection options and offers recommendations for expanding state reporting capacity.

Introduction

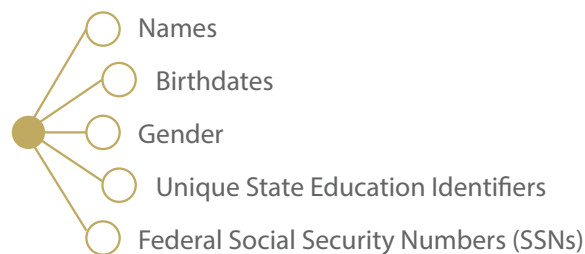
The *Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV)* mandates that states report on the outcomes achieved by students who participate in career and technical education (CTE).¹ Included within the statutory indicators is the expectation that states collect data on the number of secondary students who pursue advanced education or training and postsecondary students who are retained within a 2-year institution, transfer to a baccalaureate degree program, or enter an apprenticeship. States additionally must assess the number of students at both education levels who secure employment or enlist in the military.

States assess CTE student transitions using surveys or administrative records, with some applying a hybrid approach. Survey collection strategies are varied. In some instances, states rely on school districts or colleges to document placement outcomes, which may entail having local staff follow up with students, assess student intent while enrolled, conduct exit interviews, or glean information from students' families or friends.



States are MANDATED to report on STUDENT ACHIEVEMENT on outcomes for participants of CTE

Administrative Record Matching Keys



States conducting administrative record matching avoid many of the cost, logistic, and validity burdens associated with traditional survey approaches. Record matching entails electronically linking students across state education and workforce databases or finding them within national data repositories. States use a combination of data elements to conduct matches, including students' names, birthdates, gender, unique state education identifiers, and, in states that collect them, federal Social Security numbers (SSNs).² While administrative record matching is not without its own set of challenges,

¹ The U.S. Department of Education has released nonregulatory guidance that calls for states to report on a subset of students who concentrate in CTE programs. These are identified as secondary students who have earned three or more credits in a single CTE program area or two credits in a 2-credit sequence recognized by the state. Postsecondary concentrators are those who complete at least 12 academic or CTE credits within a single program area or who complete a CTE program sequence of less than 12 credit units that terminates in the award of an industry-recognized credential, certificate, or degree. See: <http://cte.ed.gov/perkinsimplementation/nrg.dfm>.

² Roughly half of states collect SSNs at the secondary level and all postsecondary entities use them.

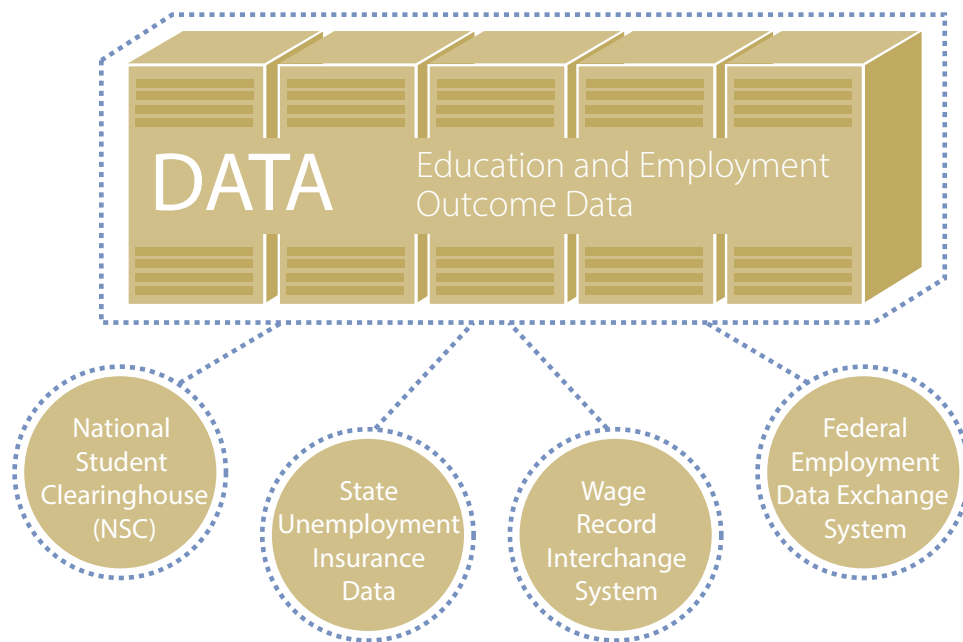


including controlling the efficacy of matching processes and managing interagency agreements and memoranda of understanding (MOUs) among state and federal agencies with disparate processes, response rates and data quality are often higher than that obtained with traditional survey approaches.

Federal efforts to promote the development of state longitudinal data systems (SLDS) are expanding state options for assessing placement outcomes. Funds available through the Statewide Longitudinal Data Systems Grant Program, administered by the National Center for Education Statistics, are supporting states in designing and implementing P–20W data systems.³ When fully operational, these SLDS will allow educators to follow students as they progress through the public education system and into postsecondary education and work. While it will take time for SLDS to mature, these infrastructure investments form the backbone of what will eventually become a decentralized, yet seamless system that can be used to improve the sharing of information within and across education levels and between the education and workforce sectors.

³ These systems encompass preschool through grade 20 or higher education, as well as workforce systems.

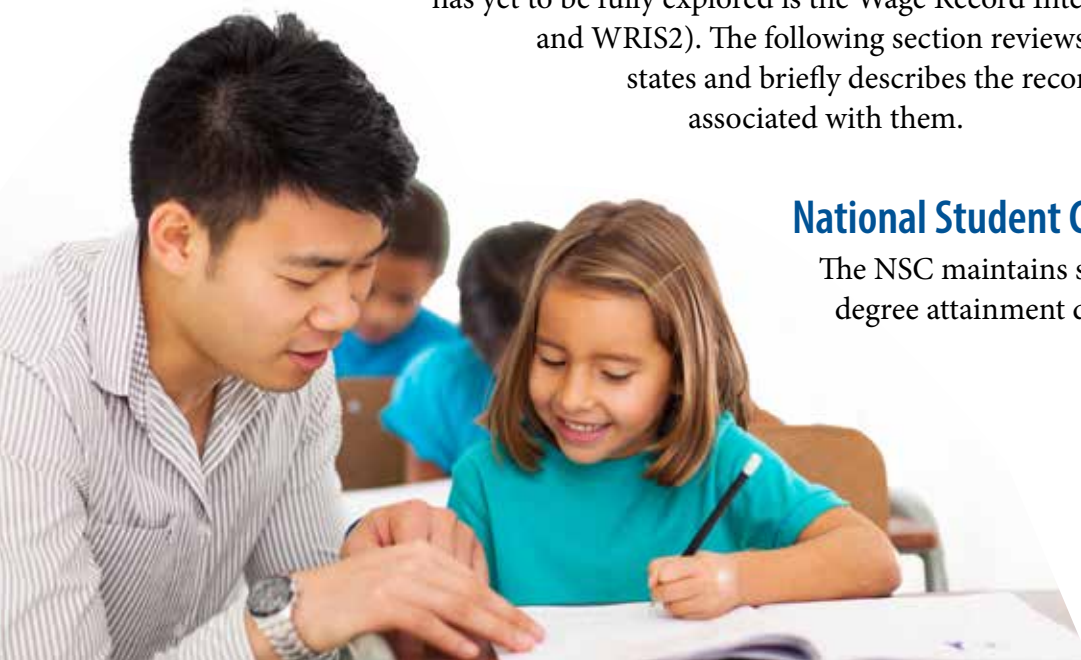
Options for Collecting Education and Employment Outcome Data



State education agencies have options in assessing the education and workforce outcomes of CTE students. These include accessing postsecondary education or advanced training data maintained by the National Student Clearinghouse (NSC), Unemployment Insurance (UI) wage record data administered by states, and federal employment and military enlistment data managed by the Federal Employment Data Exchange System (FEDES). Another option that has yet to be fully explored is the Wage Record Interchange System (WRIS and WRIS2). The following section reviews alternatives available to states and briefly describes the records and access requirements associated with them.

National Student Clearinghouse

The NSC maintains student enrollment and degree attainment data for more than 3,600



public and private colleges and universities located throughout the United States.⁴ With longitudinal data covering 98 percent of postsecondary students enrolled in degree-granting institutions recognized under Title IV of the *Higher Education Opportunity Act*, NSC functions as a national repository for student-level data. Formed to help the higher education community verify student enrollment for loan administration purposes, the NSC is a nonprofit organization that has evolved to also provide a variety of fee-for-service research programs that allow high schools, state agencies, institutions, and researchers to find students who enroll anywhere in the country and who transfer among institutions.

Clearinghouse searches are performed, in compliance with the *Family Educational Rights and Privacy Act (FERPA)*, by matching students using publicly available information, which includes a student's name, birthdate, high school attended, and/or graduation date. Record queries occur through a batch file exchange, with inquiring agencies forwarding secure electronic files to the NSC containing identifiers for individual students. Once the match process is completed, the NSC returns a file containing student-level data for identified records. This includes information on the institutions an individual attended; institutional location, affiliation, and type (i.e., less-than-2-year, 2-year, or 4-year-or-higher institution); enrollment status (e.g., full time, half time, less-than-half time); and attendance dates and graduation status. Information on graduation date, degree title, and major is also available in most cases. NSC data also can be used to assess individuals' postsecondary persistence, transfer, and time to degree, which allows educators to gauge whether CTE students are able to complete their studies.

State Unemployment Insurance Data

The national system of unemployment compensation is authorized by federal and state law. A mainstay data resource in all states is the quarterly UI wage report, which is used by employers to calculate their tax obligations and by state agencies to verify individuals' eligibility for, and amount of, benefits should they become unemployed. Quarterly wage reports document wages and salaries paid to employees during a particular quarter. Record elements include an abbreviated name for each employee, their SSN, and the total wages or salary paid during the quarter. Employer information includes the full name

NSC
How much
data is
maintained?

3,600

US public and private
colleges and universities



of postsecondary
students

⁴ www.studentclearinghouse.org/

⁵ Since unique student identifiers are not, and likely never will be incorporated into state UI wage records, SSN remains the primary key for conducting administrative matches. States are moving toward incorporating individuals' full names into the UI wage record, which will provide alternatives to the use of SSN for conducting administrative matching.

and address of the business, UI account number, and industry classification.⁵ Because state UI laws are comprehensive in defining covered employers, the wage report is a near census of all wage and salary workers within a state.⁶

States can access an individual's UI wage record data for *Perkins IV* reporting purposes without their prior consent, so long as appropriate steps are taken to safeguard personally identifiable information. Doing so entails executing a Memorandum of Agreement between the state UI agency and state or local education agencies that spells out the acceptable uses and constraints of data.⁷

The matching process is flexible. One option allows the state UI wage record agency to transfer individuals' data directly to the state education agency, where it can be matched against CTE student data files. A second permits the state education agency to transfer a list of SSNs to the UI agency for matching, with results returned in aggregate form (i.e., individual student level data are not provided). In either case, security measures and disclosure regulations detailed within *FERPA* and governing the use of UI records must be carefully observed (U.S. Department of Education 2003).

QUARTERLY WAGE REPORTS document wages and salaries paid to employees during a particular quarter. These comprehensive reports are a near census of all wage and salary workers within a state.

Wage Record Interchange System (WRIS and WRIS2)

The WRIS was established by the U.S. Department of Labor (USDOL) to support states in responding to performance reporting requirements contained in the *Workforce Investment Act (WIA)* of 1998 and programs authorized under the *Wagner-Peyser Act*. The WRIS functions as a nationwide clearinghouse for access to state UI wage record data, allowing states to track the employment outcomes of individuals who participated in a *WIA* program and who subsequently left the state. States joining WRIS agree to share UI wage record data with other states and, in return, gain access to data held by participating members. All states, Puerto Rico, and the District of Columbia are members.

⁶ Excluded from UI records are those in agricultural employment, in the military and federal civilian workforce, railroad workers, and the self-employed.

⁷ Specific requirements associated with conducting matching are detailed in the U.S. Department of Education's memo of January 30, 2003, which clarifies the application of *FERPA* legislation to reporting under *Perkins IV*.

To participate in the WRIS, each state submits data for all individuals with employer-reported wages within a specified time period. State data are entered into a WRIS repository that contains wage record data for up to eight quarters. Only three elements are maintained: an individual's SSN, the quarter for which wages are reported, and the name of the state holding the wage record information. When wage record data are needed, a state transmits a request file to the clearinghouse containing the SSNs of individuals. WRIS staff members match these identifiers against the centralized database to determine whether wage data exist and, where records are found, forward the request to the appropriate state. A response file containing requested wage record data is returned to the WRIS clearinghouse, where staff members extract and aggregate data before transmitting them to the sending state agency.

Although the WRIS can serve as an excellent tool to track students' placement outcomes with a high degree of validity and coverage, states are prohibited from accessing the WRIS for *Perkins IV* reporting purposes.⁸ Adding *Perkins IV* to the list of acceptable programs requires proposing an amendment to the data sharing agreement, which must be approved by a majority of states. Past efforts to add the legislation have met with resistance and, as such, states may not legally access the WRIS for *Perkins IV* accountability purposes.

To expand data sharing for legislative and other research and evaluation purposes, including *Perkins IV*, the U.S. Department of Labor established WRIS2. This system provides for the sharing of aggregate statistical records, which means that personally identifiable information is not exchanged. The process for accessing UI data is similar to that for WRIS, with the exception that state wage data matches are aggregated across states and returned to the requesting agency as a single result. This precludes disaggregating data to report on outcomes by student characteristics and special population status. As of June 2014, 33 states and Puerto Rico were participating in the system.



⁸ WRIS records may only be used for the following federal programs: Job Corps, Senior Community Service Employment, Migrant and Seasonal Farm Worker, Native American, Veterans Workforce Investment, Youth Build, Registered Apprenticeship, Prisoner Reentry Initiative Grant, H-1B Technical Skills Training Grant, and the Community-Based and High-Growth Job Training Initiative Grant.

FEDES

Access to federal employment and military enlistment records for

Office of Personnel Management

Defense Manpower Data Center

Department of Defense

Federal Employment Data Exchange System (FEDES)

Funded through a grant by USDOL, FEDES assists states in identifying individuals employed by federal agencies for performance reporting purposes. The system allows states to access federal employment and military enlistment records maintained by the Office of Personnel Management (OPM) and the Defense Manpower Data Center (DMDC) of the Department of Defense. Because employment records in these databases are not included in state UI wage record systems, states must either use FEDES or establish relationships with each agency to find individuals in federal employment.

The FEDES system operates as a secure pass-through service, with states funneling data requests to a centralized portal through which information is exchanged with federal agencies. Administrative management of FEDES is handled by Maryland's Department of Labor, Licensing, and Regulation, which provides guidance and legal support to participating states and serves as the liaison between state and federal agencies. The Jacob France Institute at the University of Baltimore oversees technical operations and manages the data exchange process.⁹

There is no cost to states seeking to participate in FEDES. To join, states simply execute a data sharing agreement to clarify the terms of the exchange. Matches are conducted on a quarterly basis, with states submitting records electronically to a secure, password-protected server. To conduct matches, states must supply each student's SSN, state ID, optional program code, and an indication of whether the record is permissible for matching with DMDC records.¹⁰

The matching process occurs over a 5-week period, with states submitting data during the first week of each quarter. Quarterly matches cover the eight most recent quarters, subject to a 3-month reporting lag. State data files are downloaded by Institute staff and bundled into a single file, which is zipped, password-protected, encrypted, and transferred to participating federal agencies. Federal staff match the file with personnel data and return the data to the Institute within 3 weeks of receipt. During the fourth week, Institute staff members unbundle and load the data into each state's mailbox on the secure server. States have 1 week to download matched files before they are permanently deleted. Fields include information on the individual's geographical location, wages, occupation, and period of employment.

⁹ <http://www.jacob-france-institute.org/>

¹⁰ The OPM allows states to conduct matches for federal and state performance measurement, consumer reporting, and evaluations required by federal or state law or regulation or by the United States Office of Management and Budget (OMB). The DMDC restricts the use of military data to federal performance measurement, consumer reporting, and evaluations required by federal law or regulation or by the OMB. However, in either instance, states may use FEDES data for *Perkins IV* reporting purposes.



Recommendations for Improving Outcomes Reporting

Improving the validity and use of CTE data begins with giving states guidance about how to design statewide data systems that will produce accurate and consistent information. It also requires that Congress consider states' reporting capacities and limitations during *Perkins IV* reauthorization hearings to ensure that future legislative directives are fiscally practical, technically feasible, capable of producing useful data for evaluating and improving CTE programs, and aligned with other federal workforce legislation.



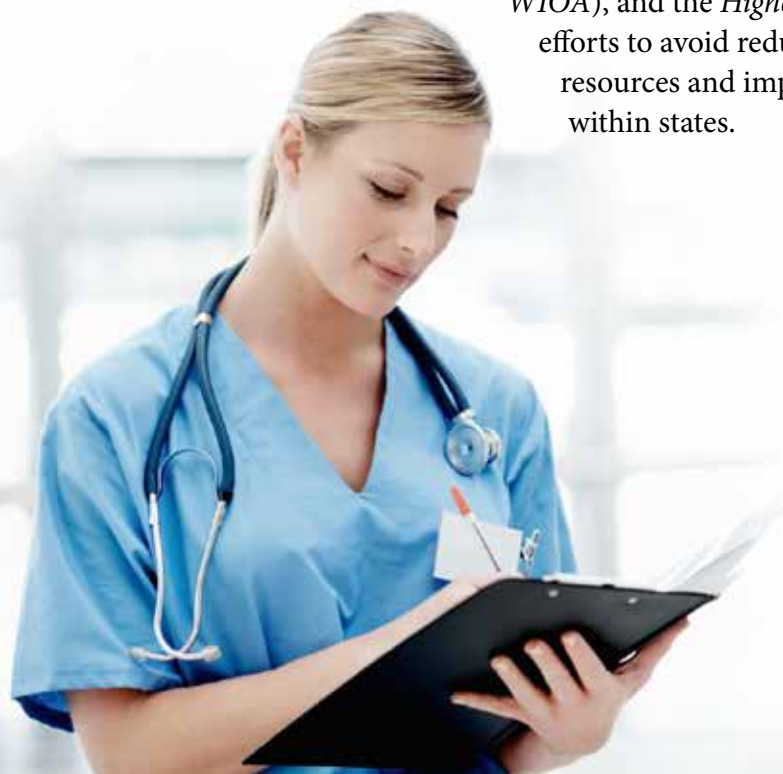
Recommendations for Improvement

Recommendation 1: Integrate CTE into State Longitudinal Data Systems

Federal grants awarded through the Statewide Longitudinal Data Systems Grant Program promise to revolutionize how student data are collected, administered, and shared within and across educational levels. As states continue development of these systems, it is critical that definitions of CTE student populations and measures of program performance be considered in planning discussions. Ensuring that measures are accurate and reliable, which historically has presented challenges in CTE, will entail engaging state CTE administrators in SLDS planning discussions. Future legislation can help support this goal by establishing the expectation that states will submit longitudinal, student-level data to comply with federal reporting requirements.

FUTURE LEGISLATION can support accurate and reliable performance measures by establishing the expectation that states will submit longitudinal, student-level data to comply with CTE reporting.

Given that it can take time and be expensive to add elements retroactively to an SLDS, congressional lawmakers may wish to align CTE indicators of performance with those in other federal legislation. This includes consideration of reporting requirements contained within the reauthorized *Workforce Innovation and Opportunity Act (WIOA)*, adult education (via *WIOA*), and the *Higher Education Opportunity Act*. Where possible, efforts to avoid redundancy by defining comparable metrics may save resources and improve data accuracy and comparability across and within states.



Recommendation 2: Promote State Use of National Data Repositories

Secure data repositories offer states access to nationwide data on postsecondary matriculation, civilian and federal employment, and military enlistments. Federal lawmakers should consult with representatives of these national data clearinghouses to identify the types of information that can be accessed, and the costs of doing so, to ensure that *Perkins IV* accountability requirements are realistic and attainable. If tracking student transitions is a priority, consideration should be given to earmarking funding to support states in accessing this information.

Federal policymakers might also consider leveraging funding across education legislation to support states in accessing repository data for different purposes. For example, states and local institutions might benefit from assessing the secondary to postsecondary transitions for all high school students or for community college students transitioning to upper division programs offered in 4-year colleges and universities. Rather than parsing data usage for specific legislative purposes, lawmakers might promote a more comprehensive use of national data repositories to support states in assessing the operation of statewide career pathways serving multiple populations. Representatives from the U.S. Department of Education (ED) might also initiate discussions with the USDOL to assess the potential for expanding state access to the WRIS for *Perkins IV* accountability purposes. This will entail drafting an amendment to the current agreement governing state access to the clearinghouse.

Recommendation 3: Identify Indicators of Transition That Promote Federal Policies

Many states are working to develop career pathways that connect their education and workforce training systems. Career pathways are intended to assist individuals in obtaining industry-relevant credentials and degrees that will help them to secure employment and advance to higher levels of education and in their careers.

Perkins IV helped lay the foundation for these pathways in CTE by requiring that all grant recipients offer at least one program of study that includes a coherent sequence of courses, technical as well as academic, that prepares students for postsecondary success. Curriculum and instruction are rigorous and standards-based, aligned across the secondary and postsecondary levels, and lead to the award of an industry-recognized credential or certificate or an associate's or bachelor's degree.

While the placement indicators contained within *Perkins IV* provide a means of tracking students as they transition across education levels, key metrics are lacking. Given the law's emphasis on connecting secondary and postsecondary CTE programs, one option would be to introduce interim measures of student attainment, such as the award of dual credit while in high school, the application of these credits within college, and/or the need for remedial coursework at the postsecondary level. Performance metrics to assess the outcomes of career pathways, currently under development by the Alliance for Quality Career Pathways,¹¹ can help inform reauthorization discussions.

Care should be taken that accountability indicators do not end up penalizing educators unfairly or creating perverse incentives. For example, students participating in a CTE program of study 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 students who complete the postsecondary component of a program of study and go on to secure employment in an unrelated field or who transfer to an unrelated field of advanced postsecondary studies.

ACCOUNTABILITY INDICATORS should not end up penalizing educators unfairly or creating perverse incentives.

Not all of the information needed to track student transitions resides in or will be captured with SLDS. Accordingly, there is a need for new data collection instruments to collect information on students' experiences while in school and the preparation they received for further education and work. Federal legislation could provide resources to support states and local administrators in collecting CTE accountability data where administrative records are not sufficient to provide valid and reliable information. Alternatively, lawmakers might opt to commission a nationally representative sample survey to estimate such outcomes rather than requiring all states to survey students to report this type of information.

¹¹ <http://www.clasp.org/issues/postsecondary/pages/alliance-for-quality-career-pathways>

Recommendation 4: Establish Regulations Governing Placement

Regulations Should Address



POPULATIONS
Who is assessed



**MEASURE
CONSTRUCTION**
How outcomes
are calculated



**DATA COLLECTION
METHODOLOGY**
How information
is obtained



TIMELINE
When outcomes
are collected

Collecting valid and reliable nationwide data on students' educational progress and outcomes will require that the ED issue regulations governing how state CTE accountability indicators are constructed and administered. This binding guidance should clearly define key terms and measurement criteria to ensure that states produce comparable data at a high level of accuracy and precision. While specific direction will be required for all indicators, for placement purposes, regulations should address:

- *Populations*—who is eligible for inclusion in the measure.
- *Measure construction*—how numerators and denominators are specified.
- *Data collection methodology*—how a combination of state and local administrative data, as well as newly conceived feedback resources, can be leveraged to inform operations, evaluate outcomes, and guide decisions.
- *Timeline*—when data are to be collected and reported.





Metrics also should align, where feasible and appropriate, with those contained with the *WIOA*. *WIOA* advances a common set of performance measures for all programs authorized within the act. As in *Perkins IV*, educators are required to assess youth transition into postsecondary education along with the employment outcomes of *WIOA* program exiters. Additionally, *WIOA* calls for tracking the median earnings of program completers, skill gains, credential attainment, and employer engagement.

Recommendation 5: Provide States with Reporting Alternatives

To date, some state education agencies have been unwilling and, in a few instances at the secondary level, legally prohibited from incorporating students' SSNs as a supplemental element within state education records. Without these numbers, it is much more challenging for states to use administrative record matching to examine student transitions into employment (in-state or out-of-state) or identify individuals securing federal employment or enlisting in the military.

While information on the employment outcomes of CTE participants can help assess the contribution that CTE makes to labor market readiness, many

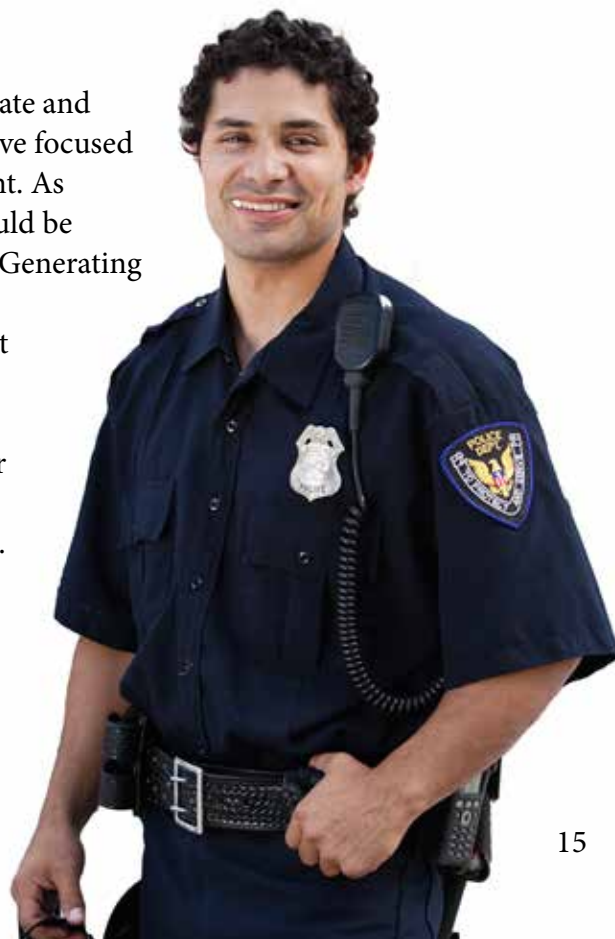
CONGRESS may consider amending secondary performance measures to either exclude secondary student placement into employment or provide states with practical alternatives for tracking employment placements.

Perkins IV grant recipients are powerless to collect these data. Congress may wish to consider amending its *Perkins IV* secondary performance measures to either exclude secondary student placement into employment—limiting follow-up to CTE students placed in postsecondary education or advanced training—or provide states with practical alternatives for tracking employment placements. This could include modifying UI wage records to allow for administrative matching using identifiers other than an individual's SSN, such as an individual's first and last name, gender, and birthdate. Another option would be to permit states to survey samples of their pool of eligible CTE students if expanding SSN collection should prove infeasible.

Improving states' use of administrative record matching will require clarifying the acceptable uses of SSNs for educational purposes. For this to occur, ED will need to issue updated regulations and guidance for linking education and noneducation data. Once an overarching framework is established, federal attorneys will need to reevaluate *FERPA* requirements vis-à-vis the reauthorized Act and reissue guidance to legally protect state staff using SSNs for authorized accountability requirements. The ED will also need to work with USDOL administrators to ensure that their state counterparts cooperate with education administrators and provide written guidance as to how this process should occur.

In Summary

Perkins IV accountability requirements are designed to hold state and local grantees responsible for achieving positive results and have focused grantees' attention on the importance of program improvement. As reauthorization deliberations begin, careful consideration should be directed to the scope and specificity of the current legislation. Generating valid, reliable, and comparable state data will likely require regulatory language by ED describing acceptable measurement approaches and standards of data quality. Guidance will need to identify common CTE populations to ensure that state and local grantees are reporting on similar students and criteria for developing measures of student and program performance. Direction on how data are to be collected will also be required.





The government has offered several competitive funding opportunities to help states design and implement statewide P–20 longitudinal data systems that track student progress within and across secondary and postsecondary education. These systems must incorporate CTE data if accurate data on student transitions into postsecondary education and the workforce are to be collected. Future legislation could support this goal by establishing the expectation that states report longitudinal, student-level data for accountability reporting.

Obtaining comprehensive placement data will also require that states be capable of performing administrative record matching with employment agencies, national data clearinghouses, and federal employment databases—including the military, and Office of Personnel Management. This will likely require that the ED clarify the acceptable uses of SSNs for educational purposes and promote reporting alternatives for states that are unable to obtain them.

Contact

Steve Klein
Phone: 503.428.5671
sklein@rti.org

RTI International
PO Box 12194
3040 E. Cornwallis Road
Research Triangle Park, NC
27709-2194

Jay Pfeiffer
SLDS Consultant
pfeifferpfarm@gmail.com

Kimberly Green
National Association of State
Directors of Career Technical
Education Consortium
kgreen@careertech.org

© 2014 Research Triangle Institute. The contents of this document may not be used or quoted without the permission of the authors.

RTI International is one of the world's leading research institutes, dedicated to improving the human condition by turning knowledge into practice. Our staff of more than 3,700 provides research and technical services to governments and businesses in more than 75 countries in the areas of health and pharmaceuticals, education and training, surveys and statistics, advanced technology, international development, economic and social policy, energy and the environment, and laboratory testing and chemical analysis. For more information, visit www.rti.org.

RTI International is a trade name of Research Triangle Institute.