

RECOMMENDATIONS TO IMPROVE THE COLLECTION OF PERKINS PLACEMENT DATA IN PENNSYLVANIA

Submitted by:

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BACKGROUND

In December 2006, the Office of Vocational and Adult Education (OVAE), U.S. Department of Education, invited state directors of career and technical education (CTE) to submit requests for individualized technical assistance to improve the quality of their CTE accountability systems. In response, the Pennsylvania Department of Education (PDE) submitted an application requesting support in adapting its data collection procedures to comply with new Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) legislative provisions.

Following conversations with Frank DiNatale, Contract Administration Division Manager for the state's Bureau of Career and Technical Education, it was determined that an on-site meeting with PDE administrators would be helpful in coordinating efforts between divisions within the department and in evaluating the strengths and needs of the state's existing accountability system. Accordingly, a two-day technical assistance meeting was held August 29–30, 2007, so that state staff could consult on accountability system design with Dr. Steven Klein, Director of Preparation for College and Careers at MPR Associates, Inc.

To provide context for state discussions, Dr. Klein met individually with state staff responsible for overseeing data collection and reporting, and facilitated a meeting with state Perkins administrators and data analysts. The site visit agenda, included in appendix A, focused on issues related to:

- *Information System Design—*which data elements should be collected to support measurement?
- *Population Definitions—*who should be included in state measures?
- *Indicator Construction and Data Collection—*how should secondary and postsecondary measures be configured and information obtained from local agencies?
- *Tech Prep—*should Tech Prep funding be integrated into the basic grant, and if not, how should data be collected?

This paper summarizes the status of current data collection efforts in Pennsylvania and offers recommendations for structuring population definitions and measures to enhance state Perkins IV reporting capability.

INFORMATION SYSTEM DESIGN

The PDE is in the process of developing the Pennsylvania Information Management System (PIMS), a longitudinal, student-level database that will contain demographic and programmatic information on all K–12 students enrolled in public schools. A unique student identifier, known as the PA Secure ID, will be assigned to students and used to track them as they progress through schools and into postsecondary institutions within the state.

As system development proceeds, it is anticipated that data elements included in the state’s existing CTE database—the Secondary Career and Technical Education Information System (CATS)—will be incorporated into PIMS. At the postsecondary level, data will continue to be collected using the Pennsylvania Adult and Postsecondary Student Attainment (PAAPSA) system.

Recommendation 1: Incorporate Academic and Technical Test Scores into PIMS and PAAPSA

According to PDE administrators, state law prohibits the state agency from maintaining files that associate test scores with an individual student. This prevents data analysts within PDE from calculating Perkins performance results for the academic attainment (1S1/1S2), technical skill attainment (2S1 and 1P1), and nontraditional completion (6S1) measures. Instead, staff must rely on testing subcontractors to report outcomes for concentrators taking state academic and technical exams.

Prohibiting PDE administrators from analyzing educational data to assess programmatic effects severely undercuts the utility of state data. MPR recommends that PDE administrators consult legal counsel on the implementation of this policy, and, if the policy stands, initiate legislative efforts to amend state law. Ideally, student test score data should be incorporated into the state’s PIMS and PAAPSA databases to permit educators to evaluate student performance, controlling for programmatic and other factors, which can help inform program improvement efforts.

Recommendation 2: Incorporate Critical CTE Data Elements into PIMS

A review of the PIMS data dictionary suggests that, to date, CATS data elements have yet to be merged into the new data system. Since CTE data administrators have been meeting with PIMS data administrators, it is anticipated that the final PIMS data dictionary will include most, if not all, data fields currently contained in CATS.

Reauthorization of Perkins provides PDE staff with a unique opportunity to update CTE data fields, both to improve the quality of information collected for state Perkins reporting purposes, as well as to align system operation with state CTE policies. For example, administrators have reported that the state is committed to adopting Programs of Study (POS) as a means of organizing CTE instructional delivery. Consequently, PDE staff may wish to consider proposing data elements relating to POS for possible inclusion in PIMS, particularly if the state is to incorporate Tech Prep funding into its Basic Grant allocation.

POPULATION DEFINITIONS

To assist states in developing their Perkins IV accountability systems, in March 2007 OVAE issued nonregulatory guidance on defining CTE participant and concentrator populations. Subsequent information, provided at OVAE's June 2007 Data Quality Institute in Savannah, Georgia, offered strategies for converting student attainment of state approved CTE standards or completion of CTE program area coursework into Perkins credits to identify CTE populations.¹

Although Pennsylvania administrators adopted the recommended population definitions provided by OVAE to create the state's 1-year transition plan, during technical assistance meetings, staff reported that the state does not have approved secondary CTE standards nor information on CTE program scope and sequences at the local level.² The state is, however, working to standardize CTE provision, and, as part of its Chapter 339 Vocational Education Standards, has stipulated the minimum time requirements for a CTE program sequence. For example, a local agency choosing to offer a three-year program must provide students with a minimum of 1,080 hours of course instruction, although the manner in which coursework is delivered is left to local discretion.³

Recommendation: Base CTE Population Definitions on Length of Program Participation

According to PDE staff, students' hours of program participation is directly proportional to their skill competency, meaning that a student completing a given percentage of a program sequence would be expected to have mastered an equivalent percentage of the CTE skills associated with the program. Federal nonregulatory guidance suggests that states base their concentrator definitions on student completion of a minimum of 50 percent of state approved standards, plus enrollment in more credits, courses, hours, or units to meet additional program standards.

In practice, this would mean that a student who completed 50 percent of the hours of instruction associated with a program sequence and who enrolled in a subsequent class would be classified as a CTE concentrator. State staff report, however, that it is not possible to generate fall course enrollment data that could be used to identify concentrators in time for inclusion on the Consolidated Annual Report (CAR), which is submitted in December of the following academic year.

To align state reporting with federal nonregulatory guidance, MPR recommends that PDE staff adapt their definition of a secondary CTE participant and concentrator to account for the hours a student spends in a course that is part of a state-approved CTE program sequence. This means that PDE staff will need to quantify the number of hours of technical skill instruction associated with a program sequence in each local agency, along with the hours of participation for each student who successfully completes the course. Using federal guidelines provided in the *Student*

¹ The March 13, 2007 memo, *Student Definitions and Measurement Approaches for the Core Indicators of Performance Under Perkins IV*, may be accessed at: <http://www.ed.gov/policy/sectech/guid/cte/perkinsiv/studentdef.pdf>. The memo circulated at the Savannah conference may be downloaded at <http://www.edcountability.net/DQImaterials.cfm>

² Due to local control, CTE credits offered at secondary schools may range from a single 40-minute class to a three-hour laboratory section, with each counted as a single course unit. In practice, this means it is not possible to use student course completion to assess the intensity of student participation in a program area.

³ See Chapter 339 Vocational Education Standards <http://www.pacode.com/secure/data/022/chapter339/chap339toc.html>, section §339.22.

Definitions: Conversion Tables memo, the revised state definition of a secondary CTE student population would be:

Secondary CTE Participant: A student who, by the end of the reporting school year, has successfully completed at least 10 percent of the technical instructional hours offered in a state approved program area.

Secondary CTE Concentrator: A student who, by the end of the reporting school year, has successfully completed at least 50 percent of the technical instructional hours offered in a state approved program area.

This new definition will mean that Pennsylvania will likely report on a relatively smaller number of students for Perkins IV than were included in its Perkins III measures, since the threshold for reporting will be higher than that used previously. The state definition for postsecondary participant and concentrator need not change from that proposed in the state's 1-year transition plan, since, according to PDE administrators, the 12 credit threshold offered in OVAE nonregulatory guidance aligns with current state practice.

INDICATOR CONSTRUCTION AND DATA COLLECTION

State technical assistance meetings were used to review state reporting approaches and identify potential obstacles to collecting valid and reliable data. The following section describes PDE's proposed approach for reporting Perkins IV data, as submitted to OVAE in its 1-year transition plan, and offers recommendations to improve measure quality for development of its 5-year plan.

1S1/1S2—Secondary Academic Skill Attainment

State reporting of secondary academic skill attainment is based on the number of CTE concentrators who have met the proficient or advanced level on the Pennsylvania System of School Assessment (PSSA) and who have left secondary education in the reporting year. The Data Recognition Corporation (DRC), a Minnesota based subcontractor, is responsible for scoring the PSSA exam and reporting test results to the state. The reporting process begins when students take the PSSA in the 11th grade: school district administrators code identifying information directly onto students' test booklets, including their PA Secure ID, which serves as the state's unique student identifier, and demographic descriptors, which include students' race/ethnicity, sex, and special population status.

Recommendation: Rely on the PSSA Subcontractor to Assess Academic Outcomes

If PDE administrators are unable to maintain files that associate PSSA test scores with an individual student, DRC will continue to supply outcome data for this measure. Each year, PDE staff will need to compile PA Secure ID numbers for all CTE concentrators who left secondary education in the reporting year (as identified in data element 92 of the current CATS system). An electronic file containing these identifiers will then be forwarded to DRC, which will match student identifiers retrospectively against PSSA test result files. DRC will then supply PDE with the number of CTE concentrators for whom a PSSA test score exists, along with the number who have met or exceeded the state threshold. To complete the CAR form, data will need to be reported in the aggregate, as well as disaggregated by special population status.

2S1—Secondary Technical Skill Attainment

Pennsylvania uses end-of-program Job Ready Assessments, developed by the National Occupational Competency Testing Institute (NOCTI), along with other PDE approved exams, to assess the occupational competency of CTE concentrators completing a state-approved program.

Recommendation—Improve Marketing of NOCTI (and Other) Assessment Results

Pennsylvania is one of the few states that uses a statewide, third party assessment system that meets the so-called Gold Standard established by OVAE, the highest rating for measuring student skill attainment. Should the state seek to move away from NOCTI, due to cost or other considerations, the state would either need to identify other third party assessments suitable for use at the secondary level, develop its own statewide assessment, or shift to a system of state-approved, locally developed exams. This latter approach, which is rated as meeting the Silver

Standard by OVAE, would require that PDE put in place a series of controls (documented below) to ensure assessment quality.

Should the state continue to rely on NOCTI to assess technical skill attainment, PED administrators may wish to consider publicizing test results to help state legislators, educators, parents, and students understand the benefits that testing can confer. In particular, administrators should consider sharing information on the number of students achieving advanced skill mastery and receiving industry recognized certification of skill attainment. It is likely that NOCTI staff could play a significant role in developing publicity materials and reviewing state data to support such an effort.

2P1—Postsecondary Technical Skill Attainment

Postsecondary skill attainment is based on the number of CTE concentrators who attain at least a 2.5 grade point average (GPA) in technical coursework associated with a CTE program. Each year, postsecondary institutions identify students who are enrolled by program area, as well as how many have achieved or exceeded the state-established GPA in academic and occupational courses.

Recommendation—Adopt a State Approval Process for Locally Developed Assessments

Using GPA to measure students' technical skill attainment meets the Bronze Standard established by OVAE on its assessment rating system. Pending nonregulatory guidance from OVAE suggests that starting in 2010–2011, states limit their use of such measures to less than 30 percent of assessments administered statewide (secondary and postsecondary considered together), and to less than 30 percent of assessments in any specific cluster/pathway.

To comply with OVAE guidance, PDE could choose to adopt state or third party certification, licensing, or credential exams used to assess student attainment of industry-recognized standards. Where such exams do not exist, the state could transition to a state-approved, locally developed system of skill assessment. This approach could be justified because postsecondary faculty often seek to prepare students for workforce entry, using industry recognized standards to structure CTE coursework. Postsecondary institutions also typically undergo a rigorous accreditation process, assuring that a minimum level of program quality is achieved.

To ensure that locally developed assessments are valid and reliable, Pennsylvania would need to establish procedures to judge locally developed assessments for their technical rigor, as well as their alignment to state or locally identified content standards. While it is beyond the scope of this technical assistance project to identify all of the steps that Pennsylvania would need to follow to create a state test approval process, administrators would need to address the following issues:

1. *Assessment committee membership*—How many individuals should be on the committee and from which sectors should membership draw (i.e., employers, unions, secondary and postsecondary CTE educators, state administrators)? Also, what type and level of expertise should members hold? Other issues include when and how the group will meet, and how viewpoints from multiple fields will be solicited.

2. *Identification of CTE content standards*—Do statewide content standards exist and, if not, to what level of skill specificity should learners be held at the secondary and postsecondary levels? How should national standards be integrated into local program design? How will local agencies justify their adoption of program standards and what criteria will be used to judge proposed standards? Is there a role for industry experts or consultants in the local standards review process?
3. *Assessment types*—What forms of local assessments are acceptable? For example, should proposed assessments include a performance component or are paper-and-pencil exams sufficient? If written exams are administered, what types of questions are acceptable (i.e., multiple choice versus open response)? How will the validity and reliability of testing instruments be documented?
4. *Alignment of standards and assessments*—What procedures should local agencies follow to demonstrate that their assessments align with state or locally identified standards? Will agencies be required to submit an example of each assessment, or complete forms and assurances that their assessments meet state-established criteria?
5. *Assessment administration and scoring*—What are acceptable approaches for administering exams? How is test security ensured? Are students given a time limit for tests or project-oriented work? Who will score assessments and what criteria and passing thresholds will be used to rate project work?

Establishing a standardized, auditable assessment review process can help ensure that local agencies are employing consistent testing methodologies that comply with federal intent, while maintaining local control over curriculum and assessment. Creation of an oversight committee that develops and polices assessment guidelines and establishes testing and scoring controls would also assure that all students are held to industry recognized standards. This would presumably present less of an issue at the postsecondary level, where programs are subject to accreditation reviews to assess curricular relevance and delivery.

Although subjecting local programs to an approval process would help establish statewide controls, it is likely that local exams would still lack some level of uniformity. Documenting local assessment practices would also impose an additional cost and reporting burden at the state and institutional levels, although much of this expense would be frontloaded during system development. Even so, it is likely that these costs would be a fraction of those associated with assessment design and test administration, were PDE to create its own, or subcontract for, a statewide assessment system.

3S1—Secondary School Diploma

Pennsylvania bases reporting on the number of CTE concentrators who earned a regular high school diploma during the reporting year, as a percentage of all CTE concentrators who left secondary education during the reporting year.

Recommendation—Include GED and Other State Recognized Approaches

Federal nonregulatory guidance suggests that states report on the number of CTE concentrators who earned a

- regular secondary school diploma;
- General Education Development (GED) credential as a state-recognized equivalent to a regular high school diploma (if offered by the state); or
- other state-recognized equivalent (including recognized alternative standards for individuals with disabilities).

To ensure that state measures parallel those used in other states, MPR recommends that PDE administrators modify their definition to include all concentrators who complete a high school education as stipulated in OVAE guidance.

3S2—Credential in Conjunction with a Secondary School Diploma

Federal nonregulatory guidance suggests that states that allow students to earn a proficiency credential, certificate, or degree in conjunction with a secondary school diploma, include this information in their Perkins accountability system. To report on this measure, the state has proposed identifying the number of CTE concentrators who successfully achieved the advanced competency level on the NOCTI Job Ready Assessments or achieved a similar level of competency on another PDE approved test.

Recommendation—Seek Federal Guidance to Determine if State Reporting is Mandatory

Although Pennsylvania offers high school students an opportunity to obtain a technical skill credential in conjunction with a regular high school diploma, state law prohibits PDE administrators from maintaining files that associate NOCTI test results with individual student data. However, since student completion data reside only within state databases, PDE staff cannot link NOCTI test results to student outcomes for this measure.

To report on this measure, state analysts must supply NOCTI data programmers with a file containing PA Secure IDs for all CTE concentrators who left secondary education during the reporting year. NOCTI staff must then run this file against NOCTI test data, using information from prior year assessments, to identify students who passed a NOCTI exam at the advanced skill level.

While this approach is technically feasible, state staff is unable to determine the accuracy of NOCTI reported data. Since the state advisory committee has indicated an interest in obtaining this information, PDE administrators will likely need to report on this measure. However, due to data quality concerns, staff may wish to consider requesting that the state not be held accountable by OVAE for negotiating performance benchmarks and targets on this measure.

4S1—Student Graduation Rates

States are required to report on the number of CTE concentrators in the reporting year who were included as graduated in the state’s computation of its graduation rate, as described in Section 1111(b)(2)(C)(vi) of the ESEA.

Recommendation—Incorporate 4-year Graduation Rate Data into PIMS

To date, PDE administrators have been unable to disaggregate the 4-year graduation rate for CTE concentrators from other secondary students. State staff is aware of the need to collect data on this indicator and, with the adoption of PIMS, should be able to obtain the necessary data to report on this measure.

2P1/2P2—Credential, Certificate, or Diploma

Pennsylvania bases annual reporting for indicator 2P1 on the number of CTE concentrators who receive an industry recognized credential, certificate, or degree, and who left postsecondary education in the reporting year. Data are collected using the PAAPSA system. The state has also proposed a supplementary indicator (2P2), which provides information on the number of CTE concentrators who complete a program in addition to receiving a credential, certificate, or degree.

Recommendation—Use Measure 2P2 for Internal State Purposes

The proposed measurement approach for a postsecondary credential, certificate, or degree appears to comply with OVAE nonregulatory guidance. State administrators report that the postsecondary completion measure (2P2) was added to the Perkins accountability system at the request of its advisory committee members. While program completion data may provide useful information for state program improvement purposes, and should be collected if warranted, state administrators may wish to reconsider reporting this measure to OVAE for federal accountability purposes.

5S1/3P1/4P1—Secondary and Postsecondary Placement/Postsecondary Retention or Transfer

Placement data are collected using a state-developed, online follow-up survey that identifies CTE completers who were employed, pursuing additional education or training, or in the military within two months of completing their secondary or postsecondary education. According to PDE analysts, the state collects placement data for roughly 35 percent of eligible CTE concentrators who completed a program in the prior academic year, suggesting that PDE is achieving a relatively modest response rate.

Recommendation 1—Improve State Online Survey Response Rates

If the state is to continue relying on its online survey to collect follow-up information, then PDE administrators should consider adopting strategies to improve student responses. One option would be to educate high school teachers and college faculty on the importance of the survey and ask that they communicate this information to students. Another option would be to incentivize

student responses, for example by providing respondents with gift certificates to local restaurants, or prizes, such as a college scholarship awarded to one or more individuals selected at random from all respondents.⁴

Recommendation 2—Perform Administrative Record Matching Using Unemployment Insurance, Federal Employment Data Exchange System, and National Student Clearinghouse Data

Many states have opted to use administrative record matching to follow-up on students placed in employment, who have transferred to a 2-year college or 4-year college or university, or who have entered the military. To assess the relative cost of shifting to administrative record matching, PED administrators should begin by undertaking a cost/benefit analysis to quantify the amount the state spends on conducting its online survey effort, and the anticipated cost of conducting computerized record matching in its place.

Performing administrative record matching for secondary and postsecondary CTE concentrators in Pennsylvania hinges on having students or their parents voluntarily disclose their Social Security Number (SSN) to school or institution officials. Pennsylvania currently includes SSN as a data field in its PIMS and PAAPSA data collection systems. While SSN disclosure is voluntary, analysis of CATS data suggests that roughly 70 percent of student files contain a SSN, although the validity of these numbers is unknown. Missing data may be due, in large part, to the absence of SSNs for the Pittsburgh School District, which chooses not to record SSNs for students.

Improving the Collection of SSNs

The federal government has provided legal guidance on states' use of SSNs for educational reporting purposes. For example, on January 30, 2003, the U.S. Department of Education updated its guidance on the interaction between the Family Educational Rights and Privacy Act (FERPA) and accountability requirements contained in the Carl D. Perkins Vocational and Technical Education Act of 1998. Specifically, the 2003 guidance clarified the manner in which state or local education authorities may disclose protected information contained within a student's educational record without prior written consent.⁵

In its 2003 guidance, the Department advised state education agencies that personally identifiable information within a student's secondary or postsecondary educational record must be protected from outside review. Under limited circumstances, for example in connection with an audit or evaluation of a federally-supported education program, protected student information, such as a student's SSN, may be disclosed without the prior written consent of the student or his or her parent. To ensure student privacy, protected information must, however, remain under the direct control of an authorized representative of the state agency during the audit or evaluation process.

⁴ To assist states in improving their Perkins follow-up surveys, OVAE has developed a *Guide for Conducting Perkins Placement Follow-up Surveys*, which offers strategies for performing surveys and for improving low response rates. A copy of the guide may be downloaded at: <http://www.edcountability.net/home.cfm>

⁵ To date, the Department has not issued new guidance to cover the Perkins 2006 reauthorization, suggesting that the existing 2003 guidance continues to apply to the new legislation.

Perhaps the most efficient approach to obtaining students' SSNs would be to ask for the number upon initial student enrollment in school or college. Given that there are no FERPA provisions that prevent asking individuals to disclose their SSN, state administrators may consider issuing guidance to school district and postsecondary administrators clarifying state collection procedures.

As an example of the type of guidance that may be provided, appendix B includes a copy of an informational memo originally sent to Virginia school districts in 1988, and subsequently updated in 2003 to account for changes in state law. Clarifying federal law and acceptable approaches for collecting SSNs, as done in Virginia, can help remove any confusion at the local level as to what is, and is not permitted, when collecting protected student information.

Since Perkins reporting requirements are unlikely to provide sufficient justification for changing state policy on SSN collection, Pennsylvania administrators might consider working with secondary and postsecondary CTE staff and faculty to improve SSN collection for CTE concentrators. This could be accomplished by providing information at statewide technical assistance workshops, providing models for SSN disclosure forms, or by developing an informational booklet that can be distributed to educators and parents, summarizing the reasons for collecting a SSN and rules governing its use. If desired, the state could also develop a form that eligible students or their parents could sign to authorize prior written consent for the release of their SSN; however, since education agencies or institutions can disclose SSNs for Perkins reporting purposes without prior consent, this additional step may be unwarranted.

Conducting Unemployment Insurance (UI) Wage Record Matching

To ensure student privacy is protected, the PDE will need to delegate an employee or contractor to oversee the transfer and use of SSNs in students' files. This authorized state representative will be required to either conduct the computerized match at the state education agency or travel with CTE concentrators' SSNs to another facility to conduct or supervise the computer matching process.

To initiate UI wage record matching, PDE administrators will need to establish a memorandum of understanding with the Pennsylvania Department of Labor and Industry to stipulate the procedures for conducting UI wage record matching.⁶ Once an agreement is in place, PDE analysts would identify CTE concentrators eligible for inclusion in the measure and create a file containing SSNs for these individuals. Once a sufficient period of time has passed (i.e., at least 2 quarters following completion), analysts would share this file with the state UI agency, which would conduct administrative matching against state UI wage record files to identify individuals placed in state employment.

Accessing the Federal Employment Data Exchange System

The Federal Employment Data Exchange System (FEDES) is a pilot initiative, funded through a grant to the state of Maryland by the U.S. Department of Labor, to conduct administrative record

⁶ An example of a memo used by the Florida Department of Education can be downloaded at: http://www.edcountability.net/downloads/AWI_Agreement.pdf

matches using state and federal data. The system is intended to assist states in identifying individuals employed by federal agencies so that they can respond to performance-reporting requirements contained in federal programs. Since FEDES is funded using federal resources, there is no cost to states seeking to participate in the system.

The system functions as a secure information pass-through that allows states to access federal civilian and military employment records maintained by the Office of Personnel Management, the United States Postal Service, and the Department of Defense. Since records in these databases are not included in the nation's UI wage record system, states must either use FEDES or establish relationships with each federal agency to identify individuals in federal employment.

To access FEDES, Pennsylvania will need to establish a signed data sharing agreement with the Maryland Department of Labor Licensing and Regulation, which would conduct administrative matching on its behalf.⁷ Once an agreement has been executed, the state representative would be placed on the FEDES mailing list, so that he or she would receive information and notices relating to FEDES participation.

To conduct matches, Pennsylvania would submit student records for administrative matching once per quarter following the FEDES data-exchange cycle. Data transmission would occur using secure file transfer protocol (SFTP), with data sent to a secure, password protected web portal so that no other state would have access to state files.⁸ Records are matched using individuals' SSNs as the unique identifier. Each record also must include a state identifier and, if applicable, a discretionary program identifier, since a SSN may be identified within multiple states during a defined time period.

About a week following the file submission deadline, the Institute creates a combined state file for delivery to the federal Office of Personnel Management, the United States Postal Service, and the Department of Defense. Approximately two weeks later, these agencies return files containing matched records to the Institute. Institute staff creates a sub-file with each state's matched records, and announces a window of opportunity for states to perform a secure download.

This data transmission window opens one to two weeks after federal agencies provide matched records. Since the Institute is not a data warehouse, files are stored on the secure server only during the data-transfer window, after which they are destroyed. The total turnaround time from state submission of records to the return of matched records to each state is about one month. Matched data returned by federal agencies cover the eight most recent quarters, lagged three months.

Although states may submit a large number of CTE concentrator identifiers to the Institute, only data on matched records are returned. A great deal of detailed information is contained within

⁷ To obtain a copy of the data sharing agreement or to inquire further about FEDES, state administrators should contact Janet Staveley at (410) 837-6552 (jstaveley@ubalt.edu).

⁸ SFTP is similar to FTP, but it encrypts both commands and data, preventing passwords and sensitive information from being transmitted in the clear over the Internet. Pennsylvania would be provided a copy of the SFTP software by the Institute, along with instructions and technical assistance in its use. Alternatively the state could save data onto a password-protected CD, which could be sent via FedEx to the Institute.

matched records, with data elements varying among federal agencies. Appendix C lists the types of information provided for each record for which a match is generated.

Accessing National Student Clearinghouse Data

The National Student Clearinghouse (NSC) maintains student enrollment and degree attainment data for 2,900 higher education institutions that account for over 91 percent of college students in the U.S. Data exist for public and private 2-year and 4-year colleges and universities, and most large trade, vocational, and proprietary schools.

In exchange for voluntarily submitting data on enrollment and degree completion, the Clearinghouse offers postsecondary agencies access to a variety of services. For example, to free staff from responding to information requests, higher education institutions may refer enrollment and degree verification requests from employers, credit grantors, and other commercial vendors to the Clearinghouse for fee-based processing. Students and alumni may also be referred for transcript copies, as well as banks and other agencies seeking to assess the enrollment status of financial aid students.

The Clearinghouse also offers StudentTracker, a fee-based service that provides up-to-date information on students' enrollment status and degree attainment in any institution included in its database. StudentTracker data can be used to address Perkins core indicators for secondary placement and postsecondary student completion, along with placement and retention in higher education or advanced training. And because longitudinal data exist for most institutions, state and institutional administrators can track students who enroll anywhere in the country or who transfer among institutions, including those who make lateral transitions that might otherwise be classified as stopouts. A more detailed description of these services can be found on the Clearinghouse website at: <http://www.studentclearinghouse.org>

Although Clearinghouse data can play an important role in responding to Perkins accountability measures, longitudinal information contained within the repository can also provide useful information that extends beyond Perkins. For example, in addition to tracking CTE concentrators' college placement two quarters following high school graduation, Clearinghouse data can also be used to assess all students' postsecondary persistence and time to graduation. This can help secondary educators gauge whether students who succeed in entering college have the skills needed to persist and complete their studies.

Matching Against Clearinghouse Records

Clearinghouse matches are performed using directory information, such as a student's name, high school, birth date, and/or graduation date, to generate a probabilistic match with Clearinghouse records. According to Clearinghouse staff, probabilistic matching usually returns a hit rate of between 60 and 70 percent. The Clearinghouse also complies with FERPA regulations to ensure that student rights governing education records are protected, and as such, the agency provides only for the release of unblocked directory information unless FERPA authorizes release without consent.

Clearinghouse queries are initiated either through batch file exchange, in which agencies submit an electronic file containing information on multiple students, or via a secure password protected website for individual student queries. To initiate batch file exchange, PDE would exchanges files with the Clearinghouse via a secure file transfer protocol site, encoding data in either an Excel or flat file format.

Once the matching process is completed, the Clearinghouse sends a report that contains an overview of match results and a detailed report containing individual student data. This batch file—returned in a comma-delineated file (.CSV format)—contains the following types of data:

- Institution name
- Institution location by state
- Institution type (i.e., less than 2-year, 2-year, or 4-year or higher institution)
- Institution affiliation (i.e., public or private)
- Attendance dates
- Attendance sequence (if multiple colleges attended, order in which attended)
- Enrollment status (i.e., full-time, half-time, less than half-time, leave of absence, withdrawn, deceased)
- Graduation status
- Graduation date
- Degree title
- Degree major

Matching Strategies

Participation in the Clearinghouse is voluntary, meaning that not all colleges or universities currently submit student enrollment or graduation data. A large number of postsecondary institutions in Pennsylvania presently contribute core data to the Clearinghouse (a list of these schools can be found at: <http://www.studentclearinghouse.org/colleges/coreserv/default.htm>). Colleges that opt not to participate for cost or other reasons negatively affect state capacity to track students, because students who enroll in a noncontributing institution cannot be identified.

To assess CTE concentrator outcomes, state administrators would compile information on CTE concentrators sent to them by either high school or college administrators. The state would then send a single batch file to the Clearinghouse, which would attempt to match listed students against its national database. A file containing positive matches would be returned to state administrators, who would report this information for Perkins accountability purposes.

This approach would be particularly efficient at the secondary level, since it would be more cost effective to have the state agency conduct administrative matches than to have each high school contract with the Clearinghouse at the \$425 per school rate. Assuming the Clearinghouse were to charge its posted rate of \$0.54 per match, in 2003–04 Pennsylvania would have incurred a cost of \$10,780 to follow-up on the 19,995 secondary and \$6,286 to follow-up on the 11,642 CTE concentrators identified in the denominator of its placement measures in the 2003–04 program year. Costs to track students retained in their originating institution or measure 3P1 would depend upon the number of CTE concentrators identified as enrolled in the preceding academic year who did not earn a credential, certificate, or degree.

6S1/6S2/5P1/5P2—Secondary and Postsecondary Nontraditional Participation and Completion

To assist states in identifying nontraditional occupations, the National Alliance for Partnerships in Equity has identified a list of occupations that were out of gender balance nationwide, based on 2006 Current Population Survey data. This list, which has been crosswalked to the 2000 Classification of Instructional Programs (CIP) codes at the 6-digit level, can be downloaded from OVAE’s Peer Collaborative Resource Network website (<http://www.edcountability.net/>).⁹

In keeping with prior guidance, OVAE has recommended that states identify secondary and postsecondary CTE programs and/or courses associated with nontraditional occupations once, at the outset of the new legislation. Once identified, states are to report on selected programs and/or coursework over the lifetime of the Act, irrespective of whether gender balances equalize over time. Holding the base of programs constant over time is intended to ensure that states can monitor trends to assess state progress in closing enrollment gaps.

Recommendation—Use NOCTI Test Data to Identify Secondary Nontraditional CTE Completers

Conversations with state administrators suggest that the construction of the secondary and postsecondary measures of nontraditional participation (5S1/6S1) and postsecondary measure of nontraditional completion (5P2) align with federal nonregulatory guidance. As such, state analysts can continue to report on these measures using either the state PIMS or PAAPSA databases.

Since test scores for secondary students completing CTE programs is maintained by NOCTI, PDE analysts are unable to determine whether a student has successfully completed a CTE program associated with nontraditional employment. Therefore, the state will need to rely on NOCTI administrators to collect data for the secondary nontraditional completion measure (6S2).

To collect outcome data, PDE administrators will need to supply NOCTI programmers with a list of occupational areas that have been identified as out of gender balance for either males or females. Using demographic data coded onto students’ tests, NOCTI programmers will identify assessments that are out of gender balance and the number of students—traditional and nontraditional—taking and passing these exams.

⁹ The CIP was developed by the U.S. Department of Education, National Center for Education Statistics to catalog educational program descriptions and titles at the secondary, postsecondary, and adult education levels. A CIP entry may include a 2-digit series that incorporates a summary of groups of instructional programs (e.g., #48 *Precision Production Trades*); a 4-digit series that includes an intermediate aggregation of instructional programs (e.g., #48.07 *Woodworkers*); and a 6-digit code corresponding to a single instructional program (e.g., #48.0702 *Furniture Designer and Maker*).

TECH PREP

Perkins IV provides states with flexibility in reporting performance outcomes for Tech Prep students. Specifically, states have the option of either reporting separately on Tech Prep students, as they have under the prior Act, or consolidating Title II Tech Prep funds into the Title I basic grant. States choosing to consolidate funding no longer need to form Tech Prep consortia nor to report separately on the Perkins indicators of performance for Tech Prep students.

Pennsylvania currently uses a variety of strategies to collect data on Tech Prep students. At the secondary level, Tech Prep data are coded onto students PSSA and NOCTI exams to assess academic and technical skill attainment (1S1/2S1), and incorporated in the CATS (and anticipated in the PIMS) data system. Postsecondary data are incorporated into the PAAPSA data collection system.

Like many states, PDE administrators have difficulty distinguishing Tech Prep students from non-Tech Prep students who are participating in postsecondary CTE courses articulated with secondary vocational programs. Moreover, since secondary students do not always know that they are classified as a Tech Prep student, matriculates are generally not able to self-identify themselves upon entering a community college.

Recommendation 1—Consolidate Tech Prep Funding into the Basic Grant

A number of states are planning to consolidate their Tech Prep and Basic Grant funding. According to OVAE staff, states planning to do so need not increase their level of state matching funding used for state leadership purposes. Instead, states may simply reduce the percentage of basic grant funding used for state leadership purposes; so long as a state level funds its maintenance of effort, no additional state funding need be committed to the Perkins match.

Recommendation 2—Create a Centralized Database of Tech Prep Students

Perhaps the simplest approach to collecting Tech Prep data would be for the state to work with secondary and postsecondary institutions to share information on students participating in Tech Prep coursework. The process would begin with secondary institutions forwarding to the PDE a list of PA Secure IDs for all students identified as participating in a secondary Tech Prep program.

Likewise, each postsecondary institution in the state would forward a file to the state containing PA Secure IDs of all students participating in a postsecondary Tech Prep program, irrespective of whether the individual was identified as a Tech Prep student. This would support tracking students who transition from a secondary to a postsecondary Tech Prep program for which a specific pathway exists, as well as for students who enroll in Tech Prep coursework at a non-affiliated community college.

To identify students PDE analysts would run a match file comparing PA Secure IDs of students enrolled in postsecondary Tech Prep programs in the most recent academic year against those reported participating in secondary Tech Prep programs the prior academic year. IDs found in

both files would indicate a student who had successfully transferred from a secondary to postsecondary program. Since this approach requires that secondary and postsecondary educators correctly identify students as participating in Tech Prep, state administrators may wish to provide technical assistance support to assist educators in classifying students.

APPENDIX A:
SITE VISIT AGENDA

August 29 & 30, 2007

**OVAE Technical Assistance Visit on PA's Perkins IV Accountability System
Steve Klein, MPR Associates, Inc.**

BCTE/Data Services Two Day Meeting Schedule

Wednesday, 08/29/2007

- 9:00-10:00 AM** **BCTE/Data Services Workgroup
(Purpose and Coordination of Visit)**
- 10:00-12 Noon** **Ron Hoerner/Steve Simchock/Paul Munyofu
(Secondary/Postsecondary Adult Accountability Requirements)**
- 1:00-2:00 PM** **Paul Munyofu/Frank DiNatale
(2007 CAR Reporting Requirements)**
- 2:00-3:00 PM** **Susan Will/ Paul Munyofu
(Tech-prep Required Data Elements)**

Thursday, 08/30/2007

- 9:00-10:00 AM** **Monique Williams/Paul Munyofu
(Perkins IV Local Negotiation Requirements)**
- 10:00-12 Noon** **Steve Klein's Choice of Topic and Staff**
- 1:30-3:00 PM** **BCTE/Data Services Workgroup
(Summary and Recommendations)**

APPENDIX B:
VIRGINIA GUIDANCE MEMOS

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF EDUCATION
P.O. BOX 2120
RICHMOND, VIRGINIA 23218-2120

SUPTS. MEMO NO. 92
May 30, 2003

INFORMATIONAL

TO: Division Superintendents

FROM: Jo Lynne DeMary
Superintendent of Public Instruction

SUBJECT: Use of Social Security Numbers for School
Enrollment

The purpose of this memorandum is to notify school divisions of a change in the requirement that parents provide school divisions with a social security number for each student at the time of enrollment in school. During the 2003 General Assembly, House Bill 1716 was passed amending § 22.1-260 of the Code of Virginia. This section of the Code, as amended, continues to require each student to present a federal social security number within 90 days of his or her enrollment and to require the Board of Education to promulgate guidelines for determining which students are eligible to obtain social security numbers. The following change was made, however, regarding students whose parents are unable or unwilling to provide a social security number for them:

In any case in which a student is ineligible, pursuant to these guidelines, to obtain a social security number or the parent is unwilling to present such number, the superintendent or his designee may assign another identifying number to the student or waive this requirement.

The Board of Education provided school divisions with the *Guidelines for Administering the Requirement for Public School Students to Obtain a Social Security Number* on June 15, 1988, via Supts. Memo No. 125 INFORMATIONAL (attached). These guidelines permit a division superintendent to waive the social security number requirement and assign a student an alternative number for identification under certain circumstances including the following:

- a student, along with his parents, by reason of bona fide religious training or belief, is conscientiously opposed to having a federal social security number;

- the student's application for a social security number would require disclosure of his illegal immigration status to a federal agency; and
- the student is a member of a non-immigrant family that is legally temporarily living in the United States, such as families whose members are employed in embassies or in other international organizations.

The 2003 amendment to § 22.1-260 of the Code now provides that the requirement may be waived or another identifying number be assigned in instances where the student is ineligible to receive a social security number or the parent is unwilling to present a social security number for the student.

There are additional requirements that govern the requests for social security numbers for students from parents. No child may be excluded from school for failure to provide a social security number. Section 7 of the Privacy Act (found at 5 U.S.C. § 522a note) requires that no person be denied a right, benefit or privilege provided by law because of his refusal to disclose his social security number. This law also requires agencies that request social security numbers to inform the individual whether disclosure is mandatory or voluntary, by what statutory authority the number is requested, and what uses will be made of the number. Finally, section 2.2-3808 of the Code of Virginia makes it unlawful for any agency to require an individual to disclose or furnish his or her social security number "not previously disclosed or furnished, for any purpose in connection with any activity, or to refuse any service privilege or right to an individual wholly or partly because the individual does not disclose or furnish such number, unless the disclosure or furnishing of such number is specifically required by state or federal law."

If you have questions, please contact Cynthia A. Cave, director of policy, at (804) 371-0558 or at ccave@pen.k12.va.us.

JLD/MJP/cb

Attachment

<http://www.pen.k12.va.us/VDOE/suptsmemos/2003/inf092a.pdf>

APPENDIX C:

**FEDERAL EMPLOYMENT DATA EXCHANGE
SYSTEM DATA ELEMENTS**

Data Elements included in the FEDES Record Match

I. Office of Personnel Management

- Social Security Number
- Agency of employment
- Occupation code/name
- Pay plan
- Grade
- Adjusted basic pay
- Basic pay
- Total pay
- State of employment
- Work schedule code
- Begin date
- End date

II. United States Postal Service

- Social Security Number
- Location of postal employment (city, state, zip code, zip-4)
- Occupation title
- Pay grade
- Base rate of pay (annual salary, salary rate code)
- Date entered on duty

III. United States Department of Defense

- Social Security Number
- Flag identifying whether record is Active Duty, Civilian file, or no match found

Active Duty:

- Last Name
- First Name
- Middle Name
- Suffix or Cadence
- Date of Birth
- Uniformed Service Pay Grade Code
- Taxable Wages
- Primary DOD Occupation Code
- Primary Service Occupation Code
- Duty DOD Occupation Code
- Duty Service Occupation Code
- Secondary DOD Occupation Code
- Secondary Service Occupation Code
- Accession Training Service Code
- Service Branch Classification Code
- Duty Unit Location Country Code
- Duty Unit Location (State Code)
- Duty Unit Location (US ZIP Code)
- Active Federal Military Service Years
- Uniformed Service Initial Entry Date
- Enlisted Active Service Agreement
Begin Calendar Date
- Active Military Service Base Calendar Date
- Transaction Effective Calendar Date
- Enlisted Active Service Projected End
Calendar Date (ETS of Minimum Service)

Civilian:

- Service (Agency)
- Bureau
- Pay Plan
- Rank or GS rating
- Occupational Series
- Duty Location - Country
- Duty Location – State
- Separation Date

