

A Common Postsecondary Data Dictionary for Perkins Accountability

April 2010



Pradeep Kotamraju • NRCCTE

Amanda Richards, Jolene Wun, and Steven G. Klein • MPR Associates, Inc.

NRCCTE
National Research
Center for Career and
Technical Education

A Common Postsecondary Data Dictionary for Perkins Accountability

Pradeep Kotamraju
NRCCTE

Amanda Richards
Jolene Wun
Steven G. Klein
MPR Associates, Inc.

April 2010

National Research Center for Career and Technical Education
University of Louisville
Louisville, KY

Funding Information

Project Title: National Research Center for Career and Technical Education
Grant Number: VO51A070003

Act under Which Funds Administered: Carl D. Perkins Career and Technical Education Act of 2006
Source of Grant: Office of Vocational and Adult Education
U.S. Department of Education
Washington, D.C. 20202

Grantees: University of Louisville
National Research Center for Career and Technical Education
354 Education Building
Louisville, KY 40292

Project Director: James R. Stone, III

Percent of Total Grant Financed by Federal Money: 100%

Dollar Amount of Federal Funds for Grant: \$4,500,000

Disclaimer: The work reported herein was supported under the National Research Center for Career and Technical Education, PR/Award (No. VO51A070003) as administered by the Office of Vocational and Adult Education, U.S. Department of Education.

However, the contents do not necessarily represent the positions or policies of the Office of Vocational and Adult Education or the U.S. Department of Education and you should not assume endorsement by the Federal Government.

Discrimination: Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." Title IX of the Education Amendment of 1972 states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance." Therefore, the National Research Center for Career and Technical Education project, like every program or activity receiving financial assistance from the U.S. Department of Education, must be operated in compliance with these laws.

Contents

Foreword	ii
Abstract	1
Introduction and Rationale	2
Study Design and Methodology	5
Phase 1 Study Activities.....	5
Creating the Data Dictionary	6
Results	8
Missing Student Program Information	9
Variations in Student Characteristics Data	9
Challenges in Collecting and Reporting Special Populations	10
Introducing Enrollment Data	14
Variability in Reporting Credits Earned and Grade Point Averages	14
Availability of Award Date Information.....	15
Consistency in Completion and Retention/ Transfer Data	16
Accessing Placement Information	18
Conclusions	20
Appendix A: State Profiles of Perkins Postsecondary Data Systems	22
California	22
Florida.....	22
Minnesota	23
Montana.....	23
New York.....	23
Oregon.....	23
Texas	24
Virginia	24
Appendix B: Recommended Postsecondary Common Data Dictionary	
Template	25
Appendix C: Preliminary Quality Check of the Postsecondary Common Data	
Dictionary	32

Foreword

A growing effort at the National Research Center for Career and Technical Education (NRCCTE) addresses various aspects and issues surrounding career and technical education (CTE) accountability and evaluation, particularly looking forward to a future reauthorization of the Carl D. Perkins Act. Among the different topics addressed include building a technical skills assessment inventory, validating crosswalks that link education programs to labor market information, and identifying common data standards for Perkins accountability. More information regarding the Center's focus can be obtained at www.nrccte.org.

The data dictionary project focuses on developing a common postsecondary CTE data dictionary for use by practitioners, researchers, and policymakers. It is the result of a collaborative partnership between NRCCTE, MPR Associates, Inc., and Perkins accountability specialists in 12 states. The states provided information about the data standards they were currently using for Perkins accountability, MPR researchers analyzed those standards to construct the common postsecondary data dictionary, and the NRCCTE performed the quality check of the data dictionary. The entire project was led by me, Pradeep Kotamraju, Deputy Director of the NRCCTE. I conducted the quality check on data supplied by several of the participating states.

The 12 states participating in the project were: California, Florida, Minnesota, Montana, New York, North Carolina, Oklahoma, Oregon, Texas, Virginia, Washington, and Wisconsin. The NRCCTE and MPR Associates wish to profusely thank the accountability specialists and staff from these states who generously shared their time and expertise. This work would not have been possible without the dedicated involvement of the states; we are indebted to the individuals who provided information about their data systems and accountability processes and participated in the project working group.

Special thanks must be offered to Steve Klein, the Director of Preparation for College and Career with MPR Associates. His foresight about the importance of this research to the CTE field and his insights into project methodology guided the process from beginning to end. Amanda Richards, Senior Research Associate, and Jolene Wun, Research Assistant, from MPR Associates lead the efforts to bring states together and develop the data dictionary. Their persistence in gathering complex and intricate details about individual state postsecondary Perkins accountability data and systems led to the creation of a first-of-its-kind data dictionary that outlines the different required elements needed for establishing common data standards for Perkins accountability. The CTE community will be well served because of their efforts.

Finally, we thank Barbara Kridl, Publishing Manager, Andrea Livingston, Senior Editor, and Natesh Daniel, Senior Publishing Associate, MPR Associates, as well as Kirsten Sundell, Communications Director, NRCCTE, for their diligent efforts to turn many iterations of the report into its final form in both the print and online versions.

Pradeep Kotamraju, Ph. D.
Deputy Director, NRCCTE

Abstract

This project assesses the feasibility of creating a voluntary, nationwide data dictionary that can be used to standardize the reporting of postsecondary accountability reporting requirements for the Carl D. Perkins Career and Technical Education Act of 2006 (otherwise known as Perkins IV). Variables, field codes, and programming instructions, defined in collaboration with state postsecondary data analysts, offer a framework that states can use to crosswalk data from their existing information systems into a common database format.

In this project, researchers from the NRCCTE and MPR Associates, Inc., worked together to meet two objectives: develop a common data dictionary, and perform a quality check on the data dictionary by asking states to populate it with actual data.

A critical finding of the project is that participating states were able to uniformly define many data elements that can be used to construct and report on postsecondary accountability measures required by the Perkins Act. States and the project team selected data elements with a view toward what information might be needed if and when the Perkins Act is reauthorized. The study acknowledges that there may be differences in how states collect data; however, a common data dictionary provides a standard goal to which all states can crosswalk their own data. Using a common data dictionary, and with sufficient support, many states should be able to generate relatively similar information for Perkins accountability purposes.

Introduction and Rationale

The Carl D. Perkins Career and Technical Education Act of 2006 requires states to assess secondary and postsecondary learner outcomes on a set of core indicators, building upon and strengthening accountability and reporting requirements in prior Perkins legislation. Data are reported to Congress to help gauge the return on federal investment in CTE, hold states and local providers accountable for meeting federally negotiated levels of performance, and identify areas where program improvement efforts are warranted.

To date, federal policymakers have had difficulty assessing CTE benefits using state-reported data. Although the 2006 Perkins Act mandated the creation of statewide accountability systems, states continue to use different approaches to define key terminology, identify CTE participant and concentrator populations, construct measures, and collect accountability data. This variability has undercut data comparability, making it impossible to aggregate Perkins data across states to demonstrate conclusively the benefit CTE provides to students and society.

This inability to demonstrate positive outcomes associated with CTE participation has led some federal officials to call for eliminating Perkins. Indeed, in its 2002 review of the Perkins legislation, the Office of Management and Budget rated the Act as “ineffective” due to excessive flexibility in the program’s statute.¹ According to the review, states were using “varying performance measures that do not share a common standard for validity and reliability and do not allow for aggregation.”² The U.S. Department of Education, Office of Vocational and Adult Education (OVAE) also acknowledged data deficiencies in its 2004-2005 annual report to Congress, noting that, “[i]f more commonality is achieved, it will enhance the Department’s ability to analyze data across the states with improved validity and reliability.”³

¹ The Office of Management and Budget and federal agencies assess every federal program using the Program Assessment Rating Tool (PART). The PART assesses all programs using a standard set of 25 questions relating to a programs performance and management. More information about the PART may be found on <http://www.ExpectMore.gov>.

² A detailed description of this discussion can be found at <http://www.whitehouse.gov/omb/expectmore/summary/10000212.2002.html>.

³ U.S. Department of Education, Office of Vocational and Adult Education. (2005). *Carl D. Perkins Vocational and Technical Education Act of 1998, Report to Congress on State Performance, Program Year 2004–2005*. Washington, DC: Author.

This study explores the feasibility of creating a common data dictionary, built around CTE data that already reside within state Perkins postsecondary information systems, in order to promote efforts to improve the consistency and quality of federal Perkins data. Although the working group discussed many of the elements found within the Integrated Postsecondary Education Data System (IPEDS)⁴ as part of the overview of data collected and provided by each state, IPEDS is not a viable substitute for a common postsecondary CTE data dictionary, nor is it an appropriate source of much of the data needed for Perkins accountability reporting. There are several reasons for this, including:

- The IPEDS data do not explicitly distinguish CTE data from the data collected for all programs. Although this information could be imputed from the program data submitted by colleges, it would be at an aggregate level and could not then be linked to the unit record data needed to calculate the results of Perkins performance measures. At present, only awards (completion) data are directly obtainable through IPEDS. Enrollment and performance data are not directly available, nor can they be imputed from what is currently available within the IPEDS Data center <http://nces.ed.gov/ipeds/datacenter>.
- IPEDS focuses much of its data collection and reporting efforts on first-time, full-time students, a population that does not fully represent the postsecondary CTE populations that most states serve. CTE students represent a wide range of ages; they attend part-time and full-time. They may be continuing their education immediately after college, returning to improve their skills after years away from postsecondary education, or entering postsecondary education for the first time as an older adult.

The premise of the project was to examine what states have in their current Perkins data systems and build common variables from there. If a state submits to IPEDS—and they all do—and uses IPEDS to extract data for Perkins reporting, then those data became part of the analysis for this project. More broadly, however, by identifying common data definitions and establishing an associated dictionary, this project creates an opportune moment to revisit the goals of IPEDS and Perkins accountability and align the two systems more closely.

Although the Perkins legislation compels states to collect data on a common set of accountability indicators, the Perkins Act and OVAE non-regulatory guidance afford states considerable flexibility in defining their concentrator populations and measurement constructions. Without mandatory measures or uniform guidance, states continue to report

⁴ According to the National Center for Education Statistics, IPEDS is a system of interrelated surveys conducted annually by the NCES. IPEDS gathers information from every college, university, and technical and vocational institution that participates in the federal student financial aid programs, and gathers data on enrollments, program completions, graduation rates, faculty and staff, finances, institutional prices, and student financial aid. <http://nces.ed.gov/ipeds/about/>, extracted January 24, 2010

postsecondary outcome data that are unique to each state, meaning that statewide aggregation of student and program performance measures is impossible.

The common data dictionary developed through this study will enable states to crosswalk data contained within their postsecondary longitudinal information systems into a standard Perkins data framework. Because states have already defined measure constructions and established data collection and reporting procedures to meet Perkins IV accountability requirements, we focused on defining variables, variable codes, and programming instructions for data elements that will support the collection and reporting of potential accountability measures in reauthorizations of the Perkins Act.

Ultimately, improving the consistency of CTE data will strengthen the CTE community. By coordinating state reporting strategies, administrators will be better able to share information on promising practices, track trends in student participation and concentration in CTE programs, assess student outcomes on several dimensions, and identify gaps in services. Equally important, states will be able to provide the federal government with comparable, valid, and reliable data, allowing the federal government an opportunity to fully evaluate the benefits of CTE programs.

Study Design and Methodology

The overall study design builds upon previous methodologies that have been successfully field tested by researchers at MPR Associates as part of an effort to create a voluntary, national data dictionary to assess the status of state correctional education programs. The correctional education study was led by a working group made up of 12 state correctional education administrators, who helped define key policy questions and the information needed to answer them. As a culminating product, MPR developed a Correctional Education Data Guidebook, which, in addition to summarizing pressing policy issues, provides a list of variable codes and suggested coding instructions that states can use to crosswalk their data into a standardized record format.⁵

Using the correctional education model, this study was designed as a multi-year project proceeding in two phases: the creation and testing of a common data dictionary and the design of potential future common Perkins measures.

Phase 1 Study Activities

During the first year of the study, we undertook several steps. First, we recruited state agencies to participate as partners in the common data dictionary effort. In recent years, postsecondary CTE administrators from a number of states have expressed interest in analyzing state data to measure CTE outcomes. MPR Associates, in collaboration with the NRCCTE, consulted with state postsecondary CTE staff to identify states that were willing and able to participate in defining and testing a common data dictionary. Twelve states—California, Florida, Minnesota, Montana, New York, North Carolina, Oklahoma, Oregon, Texas, Virginia, Washington, and Wisconsin—participated in at least a portion of the study. All of these states participated as resources for the dictionary’s development, and six of those states were also able to populate the final data dictionary and submit data for analysis.⁶

Second, we partnered with participating states to develop a data dictionary that most states could populate with their existing data or with relatively minor changes to their data collection procedures. States’ Perkins definitions, measure designs, and collection procedures vary on a number of dimensions, including how a CTE participant and concentrator are

⁵ A copy of the Correctional Education Data Guidebook and a summary of project activities are available for download at <http://www.cedatanetwork.org>.

⁶ Six states were not able to submit data, citing a shortage of staff and available resources to pull and analyze data as the most common reason. State restrictions on data sharing also prevented some states from submitting even the unidentifiable student data needed for this project.

identified, the population of CTE students included in the measure, the manner in which measures are structured, the methodology used to collect data, and the timing of collection. To standardize reporting, we consulted with state data analysts to develop a common data dictionary that can be used to identify comparable information across states. Each data element in the common data dictionary is associated with a description, variable name, variable type, and response coding. Where necessary, we provided additional coding instructions and notes. It is anticipated that this voluntary dictionary will provide a benchmark for state CTE data analysts, who may choose to consult proposed variable codes and suggested collection methodologies when reporting on future federally mandated Perkins performance measures.

Third, six states populated the common data dictionary with existing state data and submitted their unidentified records so that we could assess the quality of the data dictionary. After securing statewide agreement on a common set of measure definitions, state CTE analysts in participating states extracted data from their information systems and populated a database that follows the design of the common data dictionary. To do so, state data analysts extracted files, which were stripped of identifiable student-level information, and forwarded them to the NRCCTE for aggregation and analysis.

The NRCCTE worked with state data analysts on an individual basis to identify and resolve data issues that compromised comparability for the data dictionary. In some instances, this meant that certain states were unable to report data for all variables or to disaggregate information at the same level of detail as other states. Although states attempted to provide as much data as they could during the project period, some data were not accessible or available during the project's data submission and analysis timeline. For example, Florida and Virginia were unable to provide employment placement information during the project's submission time period, but could do so at other times of the year. Oregon maintains information on awards and retention, but required more time to reformat it to meet the data dictionary's requirements. .

Creating the Data Dictionary

Many states maintain sophisticated longitudinal data systems that contain detailed student-level data on postsecondary CTE participants. Designed for administrative use and institutional research, these systems contain comprehensive data on student course-taking, achievement, and programmatic outcomes. States store and use these data in different formats and have different approaches for coding student characteristics, courses, and programs.

The primary objective of this study was to create a common data dictionary to which all states could crosswalk their individualized data systems. We began by exploring the data already collected and maintained by each college. To obtain access to this information, we identified an initial set of data elements, such as race/ethnicity, gender, limited English proficiency status, and other variables that would likely be required for Perkins accountability.

After identifying an initial set of variables, we requested that each state submit its postsecondary or CTE data dictionary for review. We then catalogued the various approaches that states used to collect data, focusing on the source, use, and structure of Perkins reporting elements for each state and compiled the information for states to review. States commented on the accuracy of this information, and the project's technical panel held multiple conference calls to discuss individual data elements. Through discussion with the technical panel, we refined the initial list of data elements by removing some variables and adding others.

Once we finished documenting the various approaches used by states to collect relevant Perkins postsecondary data elements, we began analyzing each element to identify a common variable definition, preferably one already in use by multiple states. The process produced several rounds of draft data elements, and each draft was reviewed and discussed by the technical panel. The technical panel met in June 2009 to finalize the data dictionary and determine which common elements would be recommended through this study. A final recommended data dictionary is included in Appendix B of this report.

Results

After we finalized the common data dictionary template in collaboration with the states, the states populated it with state data and submitted it to the NRCCTE so that it could be assessed for quality and functionality. Participating states:

- Populated the dictionary with 2006–2007 participants, as defined by the state for Perkins reporting.
- Ran frequencies on each variable in the data dictionary.
- Submitted the data dictionary and frequencies in an Excel format.

Six of the twelve states were able to provide data using the final data dictionary. Other states were restricted from doing so due to time, resource, or data sharing constraints. Three states submitted a data file containing student records in the data dictionary format, and three states provided unit record data from which information was summarized. We received de-identified information for 619,631 students. Because participating states varied widely in size of population and number of CTE students served, they represent different proportions of the total student records collected and analyzed as part of this project: Florida adult, 8%; Florida postsecondary, 13%; Montana, 1%; Oregon, 9%; Texas, 35%, Wisconsin, 15%; and Virginia, 19%.

The purpose of having states populate the data dictionary was to allow us to assess its quality and usability. States provided feedback on their experiences in trying to map their existing data elements to the dictionary, and we analyzed the submissions to identify common problems and patterns. The tables below show that data are missing for several variables in the data dictionary. In many cases, the issue is not that the data were unavailable, but that a state did not have the available time, staff, or resources to pull all requested data for this study. The primary challenge for states was accessing data that exist outside the state Perkins or postsecondary data systems, such as information about whether students transfer to another postsecondary institution or obtain employment.

The remainder of this section discusses the issues and patterns that emerged during our analysis. The tables associated with each issue present data from the six states that submitted 2006-2007 Perkins participant data as part of this project. Most of the categories in the tables correspond to the categories outlined in the common data dictionary in Appendix B. During the analysis, we added two categories to some of the variables: “state did not report” indicates the state submitted no data for the variable, and “missing data” indicates the state submitted some data for a given variable, but not for all records.

Missing Student Program Information

Postsecondary institutions rely on the Classification of Instructional Programs (CIP) system⁷ to classify and identify the degree and certificate programs they offer. In states that were able to provide unit record data, we found that CIP codes were missing for some student records. This does not mean that these codes are unavailable, however. In one state, CIP codes have to be drawn from a separate data system. Given the timeline and circumstances, it was not possible for that state to access the CIP code data and link them to the data required for this study. This is just one example of the challenges some states face in connecting Perkins and CTE data to other postsecondary data systems, even within their own state.

States report that, in many cases, students do not always enroll in a specific postsecondary program and are therefore not assigned a CIP code. Although the student's CTE course-taking may qualify them to be a Perkins participant according to the state's definition, the state may have no information about the student's specific program of study. In Wisconsin, rather than using student intent, the state imputes all students' programs based on course-taking patterns, and the corresponding CIP codes are not stored as part of the state's central database. However, the state reports that it has the ability to integrate the information and could do so in the future.

Variations in Student Characteristics Data

State submissions suggest that gender is well reported by most states, and that all six participating states were able to map their current gender data elements to the gender element defined in the common data dictionary. For “unknown gender,” states are probably going to take the unknowns in their database and do something like reassign them to male and female based on the proportion of known male and female gender for their Perkins population that year. Some may have a more sophisticated approach, but few are going to make changes to their data collection processes to capture gender unless they simply have not been capturing it before—mainly because less than 1% of submitted records were coded as “unknown gender.”

However, in the case of data on race/ethnicity, states differ in the extent of progress made in transitioning to the 1997 classifications. All states must shift to using the 1997 race/ethnicity classification system by 2012. The project team and the expert panelists agreed that the

⁷ According to the NCES, the “Classification of Instructional Programs (CIP) provides a taxonomic scheme that supports the accurate tracking and reporting of fields of study and program completions activity” Postsecondary institutions use this national coding system to track degree and certificate programs and student programs of study to their courses and completions. See <http://nces.ed.gov/ipeds/glossary/index.asp?id=111>.

common data dictionary should include the 1997 race/ethnicity codes, and that all states would eventually be able to report using that framework. However, not all states are able to map their current data to these codes at this time.

Challenges in Collecting and Reporting Special Populations

Perkins requires states to report on several postsecondary special populations, including individuals with disabilities, economically disadvantaged students, single parents, displaced homemakers, students with limited English proficiency (LEP), and students with other educational barriers.

Even before receiving state data, we anticipated wide variability in the data for special populations. States describe several reasons for this variability, including a lack of clarity in the definitions, the desire of postsecondary institutions to protect students' privacy, and an inability or unwillingness to acquire certain types of information through current data collection avenues. We discovered a large amount of missing and unreported data for the special population variables. It is unclear how much of that is due to the reasons noted.

Students with disabilities

Three states—Florida (adult and postsecondary), Wisconsin, and Montana—submitted records where one or more students were identified as having disabilities (see Table 1). Students with disabilities represented between 3% and 6% of all records in each state. Oregon reports that it has difficulty obtaining data about disabled students from its community colleges because the institutions are interested in maintaining students' privacy. Other states feel there is a lack of clarity in the definition of “individuals with disabilities,” questioning how students should be identified: through self-reports, documented evidence, or some other means.

Table 1
Students with Disabilities

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Disability Status							
1 = Yes	2,012	2,802	517	0	0	0	7,183
0 = No	49,243	83,965	6,020	0	0	0	115,415
Missing data	0	0	0	0	0	0	0
State did not report data	0	0	0	60,034	228,458	98,111	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598

Most states probably do not go back to the secondary school individual education plan (IEP) or state-level Vocational Rehabilitation (VR) records, although a few states like Florida or Texas probably could (this could happen at the state level, not locally—at least not at the present time). Some states assume that the student has to have a documented disability, not just a self-reported one, in order to receive services. That is not the belief of all states, but it is the belief of some. Other states go to their disability services office for this information. In short, the collection of information on students with disabilities is fraught with self-reporting and self-identification problems, which in turn leads to a high degree of variability in the data collected. States described a need for further guidance and clarity from policymakers regarding how to accurately define and identify students with disabilities.

Economically disadvantaged students/Pell Grant recipients

All states are able to report data for either or both of the economically disadvantaged and Pell Grant data elements. Currently, among states involved in this study, many rely on a student's receipt of a Pell Grant to determine if the student is economically disadvantaged. Some states, however, seek additional types of data to identify economically disadvantaged students, including data from the Bureau of Indian Affairs (BIA), use of public assistance programs, and foster child status. In the common data dictionary, we propose that the following circumstances be considered to determine if students are economically disadvantaged:

- Recipient of a Pell Grant, BIA Grant, or comparable State program of need-based financial assistance,
- Annual income of the individual or family is at or below the national poverty level,
- Participant or participant's family is a recipient of public assistance, or
- Participant is eligible for participation in programs assisted under the Workforce Investment Act.

Florida (adult and postsecondary) and Virginia were able to report data for economically disadvantaged students and for students receiving Pell Grants. Wisconsin reported data only for economically disadvantaged students, and Montana, Oregon, and Texas reported data ONLY for Pell Grant recipients.

Table 2
Economically Disadvantaged Students

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Economically Disadvantaged Status							
0 = Does not meet one or more of the definitions for economically disadvantaged	40,278	55,452	0	0	0	66,747	55,376
1 = Meets one or more of the definitions for economically disadvantaged	10,977	31,315	0	0	0	31,364	34,118
Missing data	0	0	0	0	0	0	33,104
State did not report data	0	0	6,537	60,034	228,458	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598
Pell Grant							
0 = No	45,469	64,395	3,685	45,965	149,353	95,773	0
1 = Yes	5,786	22,372	2,852	14,069	79,105	2,338	0
Missing data	0	0	0	0	0	0	0
State did not report data	0	0	0	0	0	0	122,598
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598

Students with limited English proficiency

Every state that participated in this study was able to identify some students with LEP (see Table 3). The proportion of students reported as LEP ranged from 1% in Wisconsin to 9% in Montana. However, states differed on their methods for identifying these students: Oregon considers a student LEP if he or she has ever taken an English as a Second Language (ESL) course, whereas Florida bases LEP status on whether the student in his or her personal environment speaks a language other than English. Texas identifies LEP students by determining if they took an ESL course during the reporting year or if their result on the placement exams indicates LEP. All the states agreed that if policymakers provided greater clarity on this definition, they would likely be able to adapt their individual data collection and reporting to be more comparable across states.

Table 3
Students with Limited English Proficiency

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Limited English Proficiency							
0 = Does not meet standard for limited English proficiency	44,249	83,415	6,492	58,227	222,576	95,703	121,079
1 = Meets standard for limited English proficiency	7,006	3,352	45	1,807	5,882	2,408	1,519
Missing data	0	0	0	0	0	0	0
State did not report data	0	0	0	0	0	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598

Displaced homemakers and single parents

Four of the six participating states were able to identify displaced homemakers in the data they submitted. For Oregon, Texas, Wisconsin, and Montana, the proportion of total records coded as “displaced homemakers” was around 2% (see Table 4).

All states except Oregon reported data for single parents. The proportions of students who were identified as single parents range from a low of 2% in Virginia to a high of 34% in Texas. Many states reported that they do not ask students to provide this information and do not have any other way to identify these students, such as tracking individuals from programs targeted to single parents. States report they are prepared to collect and report data if policymakers identify a feasible and comparable method for doing so.

Table 4
Displaced Homemakers and Single Parents

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Displaced Homemaker							
0 = No	0	0	6,352	59,738	223,777	0	61,853
1 = Yes	0	0	185	296	4,681	0	2,200
Missing data	0	0	0	0	0	0	58,543
State did not report data	51,255	86,767	0	0	0	98,111	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,596
Single Parent Status							
0 = No	45,469	64,395	3,685	0	149,353	95,773	65,648
1 = Yes	5,786	22,372	752	0	79,105	2,338	10,527
Missing data	0	0	0	0	0	0	46,421
State did not report data	0	0	0	60,034	0	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,596

Introducing Enrollment Data

The enrollment patterns of CTE students tend to be nonlinear: students enroll in one term but not in the next, stop out for a few terms, and attend part- or full-time. According to a 2008 study for the NCES, postsecondary students with “career majors” were also more likely to be older, married, and financially independent than students pursuing “academic majors,” and these personal commitments may play a part in students’ nonlinear enrollment patterns.⁸ Current accountability requirements do not indicate a need to track enrollment patterns closely, but we and the expert panelists who participated in this study included an enrollment variable in the data dictionary to acknowledge that these patterns may be of more interest in future accountability and research endeavors. Four of the six states—Oregon, Florida (adult and postsecondary), Wisconsin, and Montana—were able to report this information for nearly all students (see Table 5).

Table 5
Terms of Enrollment

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Terms of Enrollment							
1 = One term attended	32,069	41,127	692	20	0	0	0
2 = Two terms attended	15,077	35,480	2,723	17,932	0	0	58,928
3 = Three terms attended	4,109	10,160	3,122	12,056	0	0	47,759
4 = Four terms attended	0	0	0	20,625	0	0	10,212
5 = Five terms attended	0	0	0	9,401	0	0	0
Missing data	0	0	0	0	0	0	5,699
State did not report data	0	0	0	0	228,458	98,111	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598

Variability in Reporting Credits Earned and Grade Point Averages

All states can provide information on credits earned and grade point averages (GPAs), even though the table below shows that data were missing for Florida technical centers. States were originally asked to supply information about cumulative credits earned and GPAs. They were not asked to indicate the number of students for whom such information was available; this was determined later from the data supplied. The missing data for the Florida technical centers is due to our inability to discern the number of students for whom such

⁸ Levesque, K., Laird, J., Hensley, E., Choy, S. P., Cataldi, E. F., & Hudson, L. (2008). *Career and Technical Education in the United States: 1990 to 2005* (NCES 2008-035). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.

information was available from the data submitted. In general, a lack of information on both the number of credits earned and GPAs—as well as variability among states—is a cause of concern because the way in which a CTE student is defined is generally determined by the number of credits she or he completes in CTE coursework within a CTE program.

Table 6
Cumulative Credits and GPA

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Cumulative Credits Earned							
Number of students for whom information is available	0	0	2,666	59,934	228,458	64,312	122,598
Number of students for whom information is not available	0	0	3,871	100	0	33,799	0
State did not report data	51,255	86,767	0	0	0	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598
Cumulative Grade Point Average							
Number of students for whom information is available	0	0	3,945	59,934	228,458	64,312	122,598
Number of students for whom information is not available	0	0	2,592	100	0	33,799	0
State did not report data	51,255	86,767	0	0	0	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598

Availability of Award Date Information

Currently, states do not report information about the term in which students earn an award, including degrees, certificates, or licensures. Instead, they report the number of students earning an award in the reporting year. As interest in student retention, transfer, and employment placement grows, information about awards and when they are earned will become increasingly important. Many states are beginning to collect such information, if they have not begun already. In some states, however, these data may be collected by and stored in another data system and may not be readily accessible. All of the states that submitted data as part of the study indicated that information on award dates for their students is available and can be obtained with adequate notice and guidance.

Consistency in Completion, Retention, and Transfer Data

The data dictionary includes a variable for “award/graduation status” that distinguishes among students who do not earn an award during the reporting year and those who earn a degree, one-year certificate, less-than-one-year certificate, or external licensure or certification.

As credentials beyond the one-year certificate and associate degree levels (e.g., short-term certificate programs that require fewer than 12 credits) are gaining importance, states are adjusting their data systems to include these awards. Five of the six states that participated in this study were able to report information for this data element, and only three of those states reported any missing data, representing less than 1% of their total submitted student records (see Table 7). Other participating states reported that they do not currently have the ability to track completions, but were this to be required for accountability purposes, they could begin collecting completion data.

Table 7
Award Status in the Reporting Year

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Award/Graduation Status							
1 = Degree	0	8,525	4,561	3,428	14,507	6,670	8,833
2 = One-year certificate	5,454	0	0	1,349	12,072	3,347	3,960
3 = Less-than-one- year certificate	6,575	5,404	0	0	800	0	0
4 = External credential/licensure/certification	0	0	0	0	0	0	999
0 = No award	39,226	72,838	1,976	55,257	201,079	88,094	108,806
State did not report data	0	0	0	0	0	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598

The common data dictionary also includes an element that allows states to report each student’s enrollment status in the next academic year. Distinctions are made among students who do not enroll and those who enroll in the same two-year institution, a different two-year institution, a four-year institution, or another type of postsecondary institution.

States requested this level of detail because of the lack of clarity in the definitions of “retention” and “transfer” in the current accountability measures. Some states report a student as retained if he or she remained within the two-year system, even if the student went to another college within that system. Other states consider a student retained only if

she or he returned to the same institution. Four states were able to report data for this element (see Table 8), although it is possible that the data still contain inconsistencies due to differences in state data collection practices or interpretation. Participating states agreed that comparability is possible if policymakers provide a more concrete definition of retention and transfer. At this time, states do not see a benefit in altering their collection and reporting systems before receiving clarification and guidance from OVAE. We propose the following reporting categories for an enrollment status variable and suggest a method for reporting a single category if a student falls into more than one category:

0 = Did not enroll in postsecondary education in the next reporting year

1 = Enrolled in the same institution in the next reporting year

2 = Enrolled in a different two-year institution the next year

3 = Enrolled in a four-year institution the next year

4 = Enrolled in another type of postsecondary institution the next year (private for-profit career school, non-community college apprenticeship, etc.)

Table 8
Enrollment Status in the Next Academic Year

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Enrollment Status in the Next Academic Year							
0 = Did not enroll in postsecondary education in the next reporting year	36,587	85,663	0	17,483	81,116	0	66,802
1 = Enrolled in the same institution in the next reporting year	14,480	948	0	42,551	108,500	0	46,375
2 = Enrolled in a different two-year institution in the next reporting year	188	94	0	0	16,514	0	2,618
3 = Enrolled in a four-year institution in the next reporting year	0	62	0	0	21,639	0	5,615
4 = Enrolled in another type of postsecondary institution in the next reporting year (private for-profit career school, non-community college, apprenticeship, etc.)	0	0	305	0	689	0	1,188
Information Not Available	0	0	6,232	0	0	0	6,232
State did not report data	0	0	0	0	0	98,111	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598

Calculations of completion and retention rates vary significantly across states because of differences in methodological and measurement approaches. Some states use entry cohorts to follow students for a specific period of time after they enroll for the first time. Other states track student outcomes as the students exit. Some include all students, whereas others may use first-time, first-year students. Therefore the relationship between participants, students retained, and completers is not as straightforward as it appears. There are many steps that need to be undertaken in order to arrive at a final determination of completion, retention, and transfer rates. A beneficial focus of a next phase of this study would be to assess the benefits of a common data dictionary in providing consistent, accurate, reliable, and valid rates of completion, transfer, and retention.

Accessing Placement Information

Policymakers are interested in understanding whether students go to work after leaving postsecondary education. States like Oregon and Texas match student records with Unemployment Insurance (UI) records and the Federal Employment Data Exchange System (FEDES) to track students' employment outcomes. UI data capture state "covered employment," meaning all employment covered by the state unemployment compensation law, whereas FEDES provides information about military enlistments, Department of Defense civilian workers, employees in all federal agencies, and employees of the U.S. Postal Service.

Restrictions on the collection and use of Social Security Numbers (SSN) limit some states' ability to match student records with administrative databases such as UI and FEDES. In those cases, states may follow up with students through surveys that ask them to report their employment activities after leaving postsecondary education.

Differences in the methods used to track students' employment outcomes mean that states cannot report comparable data. The current Perkins accountability guidelines ask states to report whether a student is employed two quarters after the end of the year in which she or he left postsecondary education. States that use administrative records can wait for a designated period of time before determining whether the student has left, then match the student's record to UI records for the appropriate quarter. States that survey students will have a more difficult time getting information about a specific point in time, given that they have to wait to determine whether a student has left, then survey the student to find out if she or he was employed during a certain period of time. Regardless of the method used, administrative record-matching or surveys, all states report some form of employment outcome. For this study, four states were able to access employment data; however, the other states were not able to do so under the project's timelines (see Table 9).

Table 9
Employment Status

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Employment Status After Program Completion							
1 = Employed	0	0	206	50,626	65,086	0	8,048
2 = Military	0	0	0	9,223	160,884	0	0
0 = Not employed	0	0	0	185	2,488	0	114,550
Information Not Available	0	0	6,331	0	0	0	6,331
State did not report data	51,255	86,767	0	0	0	98,111	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598

Conclusions

Although there are fundamental differences in how state postsecondary CTE data systems are organized and administered, state database administrators and Perkins accountability specialists have some latitude in recoding variables to match common definitions. The results of this study indicate the feasibility of a voluntary, comparable set of data elements and coding instructions that would enable states to compile and, where necessary, redefine and recode data that already reside in state databases.

Although it would be very difficult to ensure that all data are comparable across all states, most states have some flexibility in how they collect and report data. With sufficient support and clear guidelines, many states could crosswalk their data to a common data dictionary.

We reached several conclusions based on the study's progress and results:

- In response to future reauthorizations of Perkins, states will require clear guidance and direction to ensure they collect data that are comparable across states. The draft data dictionary developed by this study may offer a starting point for crafting a common language to describe postsecondary CTE data elements. States that are building new data systems or revising their existing ones also could use the data dictionary as a resource for defining new system elements.
- States point to a need for clear, required definitions of student populations and how measures should be constructed. Although this study shows that there is promise for greater comparability, if policymakers continue to allow states too much flexibility in defining and reporting measures, there will be no incentive or benefit for states to use a tool like the common data dictionary.
- More exploration of and guidance regarding the timelines on which measures are reported are needed. Currently, the flexibility allowed in constructing measures and the availability of external resources both contribute to a significant lack of comparability in reporting timelines across states. An example is the variation in how states define a student who “leaves” postsecondary education, using anything from a single term to a whole year of non-enrollment to define those who have left. The length of time a state waits for students to be considered as having left postsecondary education directly influences when that state reports data: Those that only wait one term may be able to report outcomes a year sooner than states that wait longer. Another example is the availability of external data resources, such as information from the National Student Clearinghouse (NSC) and UI wage records. These data are not necessarily available on a timeline that aligns with Perkins reporting requirements, which means that states may have to delay

reporting on measures that contain data on students who transfer or who are placed in employment. States would benefit from a consistent approach to defining postsecondary measures that acknowledge the timeline constraints inherent in collecting data.

Having a common data dictionary that all states can use may enable states to provide more timely, reliable, and uniform information on student participation and outcomes. Improved data can support CTE educators in demonstrating the return on federal and state investment in instructional services and identifying promising practices that can be used to support program improvement efforts. This multi-state study on standardizing Perkins and CTE accountability data holds promise for accessing existing data contained within states' extensive datasets to assess the outcomes associated with CTE on a nationwide scale.

Appendix A: State Profiles of Perkins Postsecondary Data Systems

Eight states provided the following information about their approaches to collecting and reporting postsecondary Perkins accountability data.

California

The California Community Colleges (CCC) Chancellor's Office Management Information System currently collects data on community colleges. The CCC obtains enrollment and demographic data from the community college district unitary records and transfer data from the NSC. The state also collects General Equivalency Diploma (GED) data from the community college district unit records and employment/placement data from the California Employment Development Department. Because the state collects student-level data that are then aggregated and reported in the Consolidated Annual Reports (CAR), the state data system can calculate Perkins measure results.

Florida

Florida uses two statewide data systems for collecting postsecondary data for the Perkins Measures.

The Workforce Development Information System includes 44 school district technical centers. The districts submit their data to a regional data center in five submissions during the reporting year in standard record formats. The state collects enrollment, demographic, course, and completion data from the Vocational Student Records five times a year. In addition, they annually obtain GED data from the state's GED database and employment/placement data from the Florida Education and Training Placement Information Program, which has access to UI and FEDES data. The state aggregates the student-level data and calculates measure results.

The Florida College Student System includes 28 community colleges with multiple campus sites. The public colleges submit their data to a regional data center in five submissions during the reporting year in standard record formats. The state collects program, demographic, course, testing, financial aid, and completion records for the students five times a year. The state's GED database is used to extract GED information. The Florida Education and Training Placement Information Program receives data from the Agency for Workforce Innovation; this database includes displaced homemakers, single parents, and UI

data. It also has access to FEDES data. The CTE data are extracted from the college system records and aggregated to the state level for the CAR submission.

Minnesota

Minnesota's Integrated Student Record System (ISRS) is a combined data management system for all 30 public two-year colleges in the state (including community colleges, technical colleges, and consolidated colleges). The state accesses enrollment and demographic data through the ISRS on an ongoing basis and transfers data two to three times a year. Once a year, the state receives additional transfer data from the NSC and placement data from UI wage records.

Montana

The Perkins IV Database is Montana's statewide system for collecting postsecondary Perkins accountability data. The system includes data from colleges of technology (5), community colleges (3), tribal colleges (3), and one four-year university that has two-year programs. Within 45 days from the end of each term, the Montana University System obtains enrollment and demographic data from term files submitted by the colleges. Transfer data are gathered annually in February from the NSC and Montana's data warehouse. The state accesses employment and placement data in the summer for the previous year from UI wage records, FEDES, and student surveys. The state does not collect GED data. The new system allows for validation against IPEDS and the university system data, which results in better data quality.

New York

New York's Higher Education Data System (HEDS), the statewide system that collects postsecondary Perkins data, currently includes 15 technical colleges (10 public and 5 private) and 36 community colleges, as well as two-year and four-year private colleges. Institutions send enrollment and demographic data to the state twice a year and transfer data once a year. The state also collects employment/placement data from surveys each year. The state aggregates all data and calculates results for Perkins measures.

Oregon

The Oregon Community College Unified Reporting System (OCCURS) reports the data obtained from the 17 community colleges. The Oregon Department of Community Colleges and Workforce Development (CCWD) collect data quarterly on enrollment, course, and student data. The state collects transfer data through matches with the National Student Clearinghouse and the Oregon University System, and GED data from the state's

GED database. Student completions from the previous year are collected in November of the current year, in conjunction with IPEDS reporting. Employment and placement data are obtained from UI wage record matches through the Oregon Employment Department and FEDES at least once a year and on an as-needed basis.

Texas

The statewide system for postsecondary Perkins accountability is the Texas Higher Education Coordinating Board (THECB) Management System. The system currently includes data for students from community colleges (50 districts with multiple campuses), technical and state colleges (7), universities (35), and health-related institutions (9). THECB receives enrollment data and demographic data every semester. The state accesses employment data through UI wage records and GED data from the Texas Education Agency. Institutions submit their data to THECB in text files, which are then loaded into the system. The state aggregates the student-level data and reports it in the CAR.

Virginia

Virginia's postsecondary Perkins data system includes data for 23 community colleges. Enrollment and demographic data are collected every semester, and the state receives transfer data from the Virginia Community College System (VCCS) and the National Student Clearinghouse. The state collects placement data quarterly from UI wage records and FEDES.

Appendix B: Recommended Postsecondary Common Data Dictionary Template

Recommended Postsecondary Common Data Dictionary Template

Variables	Descriptions
Record and Student Number	
Variable Name	STUDENT NUMBER
Description	Consecutive numbering that allows students to be identified using numbering system that is not associated with any student identifiable data like SSN or state/college student ID.
Format/Categories	
Notes	This variable is only needed for use in the current research project to distinguish among states and records. There is no intent for these data to be submitted at a national level in the future, and therefore, this variable would not be needed in the future. States should use whatever identifiers are appropriate for differentiation in their own datasets.
State Code	
Variable Name	STATE IDENTIFIER
Description	Two-digit state abbreviation
Format/Categories	
Notes	This variable is only needed for use in the current research project to distinguish among states and records. There is no intent for these data to be submitted at a national level in the future, and therefore, this variable would not be needed by states. States should use whatever identifiers are appropriate for differentiation in their own datasets, as appropriate.
Terms of Enrollment	
Variable Name	TERM_COUNT
Description	Count of terms student attended during the academic year
Format/Categories	1 = One term attended 2 = Two terms attended 3 = Three terms attended 4 = Four terms attended 5 = Five terms attended
Notes	This variable was added as a placeholder in recognition that future accountability requirements may indicate a need for information about terms.

Recommended Postsecondary Common Data Dictionary Template—Continued

Variables	Descriptions
Enrollment Year	
Variable Name	YEAR
Description	The year in which the academic year of enrollment ended (e.g., 2009 for the 2008–09 academic year).
Format/Categories	YYYY
Notes	
Gender	
Variable Name	GENDER
Description	Student's gender.
Format/Categories	1 = Male 2 = Female 9 = Unknown
Notes	Unknown is included in the data dictionary, although for 2006 Perkins Act accountability reporting, unknown is not an allowable category.
Race/Ethnicity: Hispanic/Latino	
Variable Name	RACE_LATINO
Description	A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The term "Spanish origin" can be used in addition to "Hispanic or Latino."
Format/Categories	1 = Hispanic/Latino 0 = Not Hispanic/Latino
Notes	
Race/Ethnicity: American Indian/Alaskan Native	
Variable Name	RACE_AMER_IND
Description	American Indian or Alaska Native: A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.
Format/Categories	1 = American Indian/Alaska Native 0 = Not American Indian/Alaska Native
Notes	
Race/Ethnicity: Asian	
Variable Name	RACE_ASIAN
Description	Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
Format/Categories	1 = Asian 0 = Not Asian

Notes

 Recommended Postsecondary Common Data Dictionary Template—Continued

Variables	Descriptions
Race/Ethnicity: Black or African American	
Variable Name	RACE_AFR_AMER
Description	Black or African American: A person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American."
Format/Categories	1 = Black or African American 0 = Not Black or African American

Notes

Race/Ethnicity: Native Hawaiian/Pacific Islander

Variable Name	RACE_PAC_ISL
Description	Native Hawaiian or Other Pacific Islander: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
Format/Categories	1 = Native Hawaiian/Pacific Islander 0 = Not Native Hawaiian/Pacific Islander

Notes

Race/Ethnicity: White

Variable Name	RACE_WHITE
Description	White: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.
Format/Categories	1 = White 0 = Not White

Notes

Race/Ethnicity: Non-Resident Alien or International

Variable Name	RACE_NONRES
Description	Student who is an international student or a nonresident alien.
Format/Categories	1 = Nonresident alien/international student 0 = Not Nonresident alien/international student
Notes	If a student is identified as a non-resident alien AND another racial/ethnic category, college or state should code the student only as a non-resident alien/international student.

Race/Ethnicity: Unknown

Variable Name	RACE_UNKNOWN
Description	Student's race/ethnicity is unknown or not reported.
Format/Categories	1 = Student's race/ethnicity is unknown or not reported 0 = Student's race/ethnicity was reported in one of the prior six categories
Notes	If a RACE_UNKNOWN is flagged = 1, but student has a flag = 1 in any of the prior six

racial/ethnic categories, college and/or state should recode RACE_UNKNOWN to 0.

Recommended Postsecondary Common Data Dictionary Template—Continued

Variables	Descriptions
Disability Status	
Variable Name	DISABLED
Description	<p>The term "individual with a disability" means an individual with any disability as defined in Section 3 of the Americans with Disabilities Act of 1990.</p> <p>"Disability" with respect to an individual refers to an individual with any of the following:</p> <p>a physical or mental impairment that substantially limits one or more of the major life activities of such an individual, a record of such an impairment, or being regarded as having such an impairment. The term "impairment" does not include characteristics of or predisposition to illness or disease.</p>
Format/Categories	<p>1 = Yes 0 = No</p>
Notes	
Economically Disadvantaged Status	
Variable Name	DISADVANTAGED
Description	<p>An individual from an economically disadvantaged family is one who is determined to be low income according to the latest available data from the Department of Commerce.</p> <p>Postsecondary level identification may be made by the following:</p> <ul style="list-style-type: none"> * Recipient of a Pell Grant, BIA Grant, or comparable State program of need-based financial assistance * Annual income of the individual or family is at or below the national poverty level * Participant or participant's family is a recipient of public assistance * Participant is eligible for participation in programs assisted under the Workforce Investment Act
Format/Categories	<p>1 = Meets one or more of the definitions for economically disadvantaged 0 = Does not meet one or more of the definitions for economically disadvantaged</p>
Notes	
Pell Grant	
Variable Name	PELL
Description	Indicates if a student received a Pell Grant
Format/Categories	<p>1 = Yes 0 = No</p>
Notes	

Recommended Postsecondary Common Data Dictionary Template—Continued

Variables	Descriptions
Displaced Homemaker Status	
Variable Name	DISPHOME
Description	An individual who: 1) has worked primarily without remuneration to care for a home and family and for that reason has diminished marketable skills; 2) has been dependent on the income of another family member but is no longer supported by that income; or 3) is a parent whose youngest dependent child will become ineligible to receive assistance under part A of title IV of the Social Security Act (42 U.S.C. 601 et seq.) not later than two years after the date on which the parent applies for assistance under such title; AND is unemployed or underemployed and is experiencing difficulty in obtaining or upgrading employment.
Format/Categories	1 = Yes 0 = No
Notes	
Single Parent Status	
Variable Name	SINGPAR
Description	Individual who is unmarried or legally separated and has custody or joint custody of one or more minor children, or who is pregnant.
Format/Categories	1 = Yes, single parent or pregnant woman 0 = No, not single parent or pregnant woman
Notes	
Identifying students	
Limited English Proficiency	
Variable Name	LIMENGL
Description	The term “individual with limited English proficiency” means a secondary school student, an adult, or an out-of-school youth, who has limited ability in speaking, reading, writing, or understanding the English language AND *whose native language is a language other than English; OR *who lives in a family or community environment in which a language other than English is the dominant language.
Format/Categories	1 = Meets standard for limited English proficiency 0 = Does not meet standard for limited English proficiency
Notes	Some states derive this information through course-taking data whereas others use self-reported student information or initial placement exam results. Requires clarification from policymakers on what is allowable in this field.

Recommended Postsecondary Common Data Dictionary Template—Continued

Variables	Descriptions
CIP Code of Program	
Variable Name	CIPCODE
Description	A six-digit code identifying the student's major. CIP codes (Classification of Instructional Programs) are created by the US Department of Education to describe the subject area of courses and major areas of study.
Format/Categories	Six-digit number
Notes	When coding CIP for use in Perkins reporting: 1 = If the student has completed an award, use the CIP code associated with student's award/program. 2 = If student left without an award or is still enrolled, use most current or best CIP code as identified by the state.
Cumulative Credits Earned	
Variable Name	CUM_CREDITS
Description	Number of credits this student has earned in coursework that is part of a CTE program.
Format/Categories	0.1– 200.0 0 = Indicates student is taking noncredit workforce training course(s)
Notes	States will have different approaches to cumulative credits. Some will be able to look at cumulative credits (academic and technical) within a particular program. Others use a student's declared major. Further analysis is needed to determine how far back most states could and should go to determine cumulative credits. For now, states should go back a maximum of ten years, if available.
Cumulative Grade Point Average	
Variable Name	CUM_GPA
Description	The student's cumulative grade point average in the program.
Format/Categories	Scale from 0.0 to 4.0
Notes	States will differ in their approach to this variable. Some will be able to identify the student's cumulative GPA for a specific program; others will rely on student's major indicator. Still others will not be able to split out particular courses and will have to rely on overall GPA for all coursework. Policymaker guidance is needed to clarify expectations for this variable.

Recommended Postsecondary Common Data Dictionary Template—Continued

Variables	Descriptions
Award/Graduation Status	
Variable Name	AWARD_STATUS
Description	Indicates if student earned a degree, certificate, or credential in the program.
Format/Categories	1 = Degree 2 = One-year certificate 3 = Less-than-one-year certificate 4 = External credential/licensure/certification 0 = No award
Notes	If a student earns more than one award in a reporting year, only one award should be reported. Prioritize reporting in the following order: degree, one-year certificate, less-than-one-year certificate, external credential/licensure/certification (1, 2, 3, 4).

Award/Graduation Date	
Variable Name	AWARD_DATE
Description	Term and year student earned degree, certificate, or credential.
Format/Categories	TTYYYY, where TT = 01 = Summer quarter 02 = Fall quarter 03 = Winter quarter 04 = Spring quarter 11 = Summer semester/trimester 12 = Fall semester/trimester 13 = Spring semester/trimester 98 = Semester-based annual records 99 = Quarter-based annual records
Notes	

Enrollment Status in the Next Academic Year	
Variable Name	ENROLL_NXTYR
Description	Indicates whether a student enrolled in a postsecondary institution the next year, and if so, differentiates among types of postsecondary institutions
Format/Categories	0 = Did not enroll in postsecondary education in the next reporting year 1 = Enrolled in the same institution in the next reporting year 2 = Enrolled in a different two-year institution the next year 3 = Enrolled in a four-year institution the next year 4 = Enrolled in another type of postsecondary institution the next year (private for-profit career school, non-community college apprenticeship, etc.)
Notes	If a student has multiple enrollments, prioritize: 3, 2, 1, 4

Employment Status After Program Completion (Employment Status)	
Variable Name	EMPLOY_STATUS
Description	Individual's employment status in the 2nd quarter following program year end.
Format/Categories	1 = Employed 2 = Military 0 = Not employed
Notes	

Appendix C: Preliminary Quality Check of the Postsecondary Common Data Dictionary

Populating the Recommended Postsecondary Common Data Dictionary

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Enrollment Year	2007	2007	2007	2007	2007	2007	2007
Terms of Enrollment							
1 = One term attended	32,069	41,127	692	20	0	0	0
2 = Two terms attended	15,077	35,480	2,723	17,932	0	0	58,928
3 = Three terms attended	4,109	10,160	3,122	12,056	0	0	47,759
4 = Four terms attended	0	0	0	20,625	0	0	10,212
5 = Five terms attended	0	0	0	9,401	0	0	0
Missing data	0	0	0	0	0	0	5,699
State did not report data	0	0	0	0	228,458	98,111	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598
Gender							
1 = Male	23,871	33,305	2,159	27,027	93,515	40,977	56,575
2 = Female	27,384	53,170	4,358	31,159	134,943	57,134	65,710
9 = Unknown	0	292	20	1,848	0	0	313
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598
Race/Ethnicity							
Hispanic/Latino	12,185	13,448	93	3,580	74,753	5,528	4,363
American Indian/Alaska Native	167	357	627	1,054	1,154	622	1,557
Asian	1,062	2,436	40	2,569	8,279	6,571	2,613
Black or African American	14,175	15,675	28	1,268	35,168	24,654	8,162
Native Hawaiian/Pacific Islander	0	0	0	0	0	0	91
White	22,930	50,036	5,232	41,123	103,576	57,872	100,757
Nonresident alien/international student	0	2,056	45	323	2,449	0	0
Race unknown	736	2,759	472	10,117	3,079	2,864	5,055
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598

Populating the Recommended Postsecondary Common Data Dictionary—Continued

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Disability Status							
1 = Yes	2,012	2,802	517	0	0	0	7,183
0 = No	49,243	83,965	6,020	0	0	0	115,415
Missing data	0	0	0	0	0	0	0
State did not report data	0	0	0	60,034	228,458	98,111	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598
Economically Disadvantaged Status							
0 = Does not meet one or more of the definitions for economically disadvantaged	40,278	55,452	0	0	0	66,747	55,376
1 = Meets one or more of the definitions for economically disadvantaged	10,977	31,315	0	0	0	31,364	34,118
Missing data	0	0	0	0	0	0	33,104
State did not report data	0	0	6,537	60,034	228,458	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598
Pell Grant							
0 = No	45,469	64,395	3,685	45,965	149,353	95,773	0
1 = Yes	5,786	22,372	2,852	14,069	79,105	2,338	0
Missing data	0	0	0	0	0	0	0
State did not report data	0	0	0	0	0	0	122,598
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598
Limited English Proficiency							
0 = Does not meet standard for limited English proficiency	44,249	83,415	6,492	58,227	222,576	95,703	121,079
1 = Meets standard for limited English proficiency	7,006	3,352	45	1,807	5,882	2,408	1,519
Missing data	0	0	0	0	0	0	0
State did not report data	0	0	0	0	0	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598
Displaced Homemaker							
0 = No	0	0	6,352	59,738	223,777	0	61,853
1 = Yes	0	0	185	296	4,681	0	2,200
Missing data	0	0	0	0	0	0	58,543
State did not report data	51,255	86,767	0	0	0	98,111	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,596

Populating the Recommended Postsecondary Common Data Dictionary—Continued

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Single Parent Status							
0 = No	45,469	64,395	3,685	0	149,353	95,773	65,648
1 = Yes	5,786	22,372	752	0	79,105	2,338	10,527
Missing data	0	0	0	0	0	0	46,421
State did not report data	0	0	0	60,034	0	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,596
Cumulative Credits Earned							
Number of students for whom information is available	0	0	2,666	59,934	228,458	64,312	122,598
Number of students for whom information is not available	0	0	3,871	100	0	33,799	0
State did not report data	51,255	86,767	0	0	0	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598
Cumulative Grade Point Average							
Number of students for whom information is available	0	0	3,945	59,934	228,458	64,312	122,598
Number of students for whom information is not available	0	0	2,592	100	0	33,799	0
State did not report data	51,255	86,767	0	0	0	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598
Award/Graduation Status							
1 = Degree	0	8,525	4,561	3,428	14,507	6,670	8,833
2 = One-year certificate	5,454	0	0	1,349	12,072	3,347	3,960
3 = Less-than-one- year certificate	6,575	5,404	0	0	800	0	0
4 = External credential/licensure/certificatio n	0	0	0	0	0	0	999
0 = No award	39,226	72,838	1,976	55,257	201,079	88,094	108,806
State did not report data	0	0	0	0	0	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598

Populating the Recommended Postsecondary Common Data Dictionary—Continued

Variables	States						
	Florida (Technical Centers)	Florida (Postsec)	Montana	Oregon	Texas	Virginia	Wisconsin
Enrollment Status in the Next Academic Year							
0 = Did not enroll in postsecondary education in the next reporting year	36,587	85,663	0	17,483	81,116	0	66,802
1 = Enrolled in the same institution in the next reporting year	14,480	948	0	42,551	108,500	0	46,375
2 = Enrolled in a different two-year institution in the next reporting year	188	94	0	0	16,514	0	2,618
3 = Enrolled in a four-year institution in the next reporting year	0	62	0	0	21,639	0	5,615
4 = Enrolled in another type of postsecondary institution in the next reporting year (private for-profit career school, non-community college, apprenticeship, etc.)	0	0	305	0	689	0	1,188
State did not report data	0	0	6,232	0	0	98,111	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598

Award/Graduation Date

TTYYYY, where TT =

01 = Summer quarter	0	0	0	0	0	0	0
02 = Fall quarter	0	0	0	0	0	0	0
03 = Winter quarter	0	0	0	0	0	0	0
04 = Spring quarter	0	0	0	0	0	0	0
11 = Summer semester/trimester	0	0	0	0	0	0	0
12 = Fall semester/trimester	0	0	0	0	0	0	0
13 = Spring semester/trimester	0	0	0	0	0	0	0
98 = Semester-based annual records	0	0	6,537	0	0	98,111	122,598
99 = Quarter-based annual records	0	0	0	0	0	0	0
State did not report data	51,255	86,767	0	60,034	228,458	0	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598

Employment Status After Program Completion

1 = Employed	0	0	206	50,626	65,086	0	8,048
2 = Military	0	0	0	9,223	160,884	0	0
0 = Not employed	0	0	6331	185	2,488	0	114,550
State did not report data	51,255	86,767	0	0	0	98,111	0
Total Records	51,255	86,767	6,537	60,034	228,458	98,111	122,598



National Research Center for Career and Technical Education
University of Louisville, College of Education and Human Development, Louisville, KY 40292
Phone: 502-852-4727 • Toll-Free: 877-372-2283 • Fax: 502-852-3308
Email: nrccte@louisville.edu • www.nrccte.org