

**A GUIDE TO THE USE OF ADMINISTRATIVE RECORDS  
TO ACHIEVE DATA QUALITY STANDARDS  
IN FEDERAL REPORTING OF CTE PERFORMANCE**

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## **CHAPTER 1**

### **INTRODUCTION**

#### **Target audience challenges**

State career and technical education (CTE) management teams will soon decide whether and how to use administrative records for Federal reporting of three Perkins IV core indicators of performance:

- Title I, Part A, section 113(b)(2)(A)(v) [Secondary] State Core Indicator of Performance—"Student placement in postsecondary education or advanced training, in military service, or in employment";
- Title I, Part A, section 113(b)(2)(B)(iv) [Postsecondary] State Core Indicator of Performance—"Student placement in military service or apprenticeship programs or placement or retention in employment, including placement in high skill, high wage, or high demand occupations or professions"; and,
- Title II, section 203(e)(C)(i) [Postsecondary Tech Prep] Indicator of Performance—"The number and percent of postsecondary education tech prep students who are placed in a related field of employment not later than 12 months after graduation from the tech prep program."

This guide covers topics that will help the State CTE management teams make informed decisions about administrative record use. Another target audience is U.S. Department of Education Office of Vocational and Adult Education (OVAE) headquarters and field staffs that will define the section 113 and section 203 reporting requirements and then manage the reporting process.

A shared Federal and State challenge is to quickly agree on a practical approach to fulfill their respective accountability responsibilities under the new Act:

- A State Eligible Agency Responsibility—Title I section 113(b)(2)(E) stipulates that "indicators of performance described in this paragraph shall be established solely by each eligible agency with input from eligible recipients."

Title I section 113(b)(2)(D) provides that “if a State has developed, prior to the date of enactment, State career and technical education performance measures that meet the requirements of this section (as amended by such Act), the State may use such performance measures to measure the progress of career and technical education students.”

- An OVAE Responsibility—A State eligible agency is solely responsible for reporting core indicators of performance that meet the requirements of section 113(b)(2)(A), section 113(b)(2)(B), and section 203(e)(C)(i). OVAE has not defined these requirements. Until OVAE does so, State eligible agencies cannot determine whether their current performance measures meet the requirements; and, if not, what steps must be taken to meet the requirements of the new Act.

The guide will be available for Federal and State reference during and after OVAE deliberations to define the requirements for Federal performance indicator reporting.

## **Organization of the guide**

The guide is organized in five chapters:

- Chapter 1 continues with brief coverage of some basic topics that should be considered in State decisions about how to define, collect and report performance information:
  - Creating a Federal-State culture of quality data.<sup>1</sup>
  - Distinguishing administrative records from other types of data source.
  - Recognizing that administrative records may, but not must, be used with other types of data source.
  - Understanding why core indicator denominator definitions are not covered in this guide.
- Chapter 2 defines five quality criteria and associated standards to be met by State and local CTE administrators in reporting of Perkins IV Federal core indicator information.
- Chapter 3 describes actions that States can take to move or stay above a minimum acceptable level of data quality.

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<sup>1</sup> National Center for Education Statistics (2005), *Forum Guide to Building a Culture of Quality Data: A School and District Resource* (<http://NCES.ed.gov/pubs2005/2005801.pdf>).

- Chapter 4 presents a check list for State use in self-assessment of their own compliance with the defined data quality standards and in anticipated performance standards negotiation with local CTE entities.
- Chapter 5 looks beyond the core indicators to describe additional steps States can take to improve public understanding of CTE performance.

## **Defining a culture of quality data**

The National Forum on Education Statistics defines quality data as a process:

A Culture of Quality Data is the belief that good data are an integral part of teaching, learning, and managing the school enterprise. Everyone who has a role in student outcomes—teachers, administrators, counselors, office support staff, school board members, and others—shares this belief. Because good data are as much a resource as staff, books, and computers, a wise education system is willing to invest time and money in achieving useful information and respects the effort taken to produce it.<sup>2</sup>

State decisions and actions that reflect a shared belief in the importance of quality data will be a prerequisite to successful Federal reporting of Perkins IV performance indicator information.

## **A definition of administrative records**

A data source is defined here as an *administrative record* if the content serves an original administrative purpose other than CTE performance indicator reporting.

- A State unemployment insurance (UI) wage record<sup>3</sup> is an administrative data source because the information is originally collected to manage the State's unemployment compensation program.
- The Federal Employment Data Exchange System (FEDES)<sup>4</sup> is an administrative data source because the information is originally collected and maintained for human resource management purposes.
- Follow-up survey information about former CTE students is not administrative record information because the data collection instrument is designed specifically to satisfy a CTE performance reporting mandate.

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<sup>2</sup> *Ibid*, p. 3.

<sup>3</sup> Readers who are unfamiliar with the State UI wage record terminology are referred to chapter 3 of this guide for a description of this data source.

<sup>4</sup> Readers who are unfamiliar with the FEDES data source are referred to chapter 3 for a description of this data source.

### **Administrative record use is not necessarily an either-or decision**

Administrative records and follow-up survey data may be used together for Federal performance indicator reporting. Considerations for deciding whether to combine the two types of data source are described in Chapter 3.

### **Core indicator denominator definitions are not covered here**

The core indicator numerator topics covered in this guide do not depend on the Perkins IV section 113 and section 203 core indicator denominator definitions. The starting point for guide coverage of each core indicator is acceptance of an unstated phrase 'given the defined denominator definition', whatever that definition is.

## **CHAPTER 2**

### **CORE INDICATOR QUALITY CRITERIA**

#### **The Perkins IV accountability mandate**

The Perkins IV section 113 accountability statement of purpose is

To establish and support State and local performance accountability systems, comprised of the activities described in this section, to assess the effectiveness of the State and the eligible recipients of the State in achieving statewide progress in career and technical education, and to optimize the return of investment of Federal funds in career and technical education activities.

State recognition of and consistent actions based on the dual State and Federal accountability goals of the Act are essential to motivate creation and sustainability of a culture of quality data. The CTE performance reporting system has three tiers—from local eligible recipients (tier 1) through the State eligible agency (tier 2) to OVAE (tier 3). These tiers focus attention on the critical importance of satisfying data aggregation criteria.

As the National Forum on Education Statistics put it—“good data are an integral part of teaching, learning, and managing the school enterprise.” And repeating the Perkins IV section 113 statement of purpose—the goal is “... to assess the effectiveness of the State [tier 2] and the eligible recipients of the State [tier 1] in achieving statewide progress in career and technical education, and to optimize the return of investment of Federal funds [tier 3] in career and technical education activities.”

Perkins IV performance information will flow among the three tiers and from each to multiple constituents. The section 113 and section 203 performance assessment goals can only be met if the required indicators of performance satisfy common quality criteria.



## **Five Perkins IV core indicator data quality criteria**

Five data quality criteria are defined in this section:

1. Clarity of indicator definition
2. A common measurement reference period
3. Attempted coverage of indicator denominator subpopulations
4. Successful coverage of required denominator subpopulation categories
5. Statistical reliability of reported information.

### **Clarity of indicator definition**

The State eligible agency and OVAE require clarity of State indicator definitions to determine whether:

- Performance indicator information collected by a State eligible agency from a CTE eligible recipient can be combined with performance indicator information collected from other CTE eligible recipients within the State.
- OVAE can aggregate State performance indicator information.

### **A common measurement reference period**

The section 113 secondary and postsecondary core indicators of performance require collection of defined numerator components that can be summed without duplication. The measurement reference period quality criterion reinforces the clarity of definition criterion.

Voluntary adoption of a common measurement reference period by States will enable OVAE and conforming States to assure others that reported core indicator information is consistent among CTE eligible recipients within a State and across conforming State eligible agencies.<sup>5</sup>

The Act does not define a secondary or postsecondary core indicator measurement reference period. A common measurement reference period is defined in the standards section of this chapter.

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<sup>5</sup> Some States have expressed concern about the need for and consequences of a measurement reference period data quality criterion. These concerns are addressed in Chapter 3.

Section 203(e)(C)(i) of the Act defines the postsecondary tech prep performance indicator reference period—“the number and percent of postsecondary education tech prep students who are placed in a related field of employment not later than 12 months after graduation from the tech prep program.”

### **Coverage of indicator denominator subpopulations**

The coverage data quality criterion assesses the attempt to collect step in the overall performance measurement sequence. This criterion reinforces the statistical reliability criterion—careful attention to coverage issues increases the likelihood of a statistically reliable result.

### **Successful collection profile**

Clarity of indicator definition (criterion 1), a common measurement reference period (criterion 2) and an appropriate investment in attempted collection (criterion 3) are necessary but not sufficient to produce statistically reliable information (criterion 5). Confirming evidence of a successful collection profile (criterion 4) is also a necessary source of statistical reliability assurance.

### **Statistical reliability of reported information**

This is the ultimate test of CTE performance data quality. Unchanged numerator values, within acceptable measurement variation boundaries, will result from repeated collection from a defined indicator denominator population if statistical reliability requirements have been satisfied.

Performance data can be reliable but not valid if repeated measurement produces the same result within acceptable measurement variation tolerances, but all results fail to satisfy the basic measurement goal. Data validity is not addressed in this guide because the Act defines the required indicators of performance. It is too late to question the appropriateness of these required indicators as the ‘right’ minimal measures of CTE performance.<sup>6</sup>

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<sup>6</sup> It is not too late to define additional measures of CTE performance and to collect reliable data based on these definitions. This topic is covered in Chapter 5.

Early OVAE beta-testing of State reports applying the successful data collection profile quality criterion will be needed to understand whether tiered reporting from local eligible recipients through State eligible agencies to OVAE will satisfy Federal performance reporting requirements of the Act.<sup>7</sup> A high incidence of empty cells in State reports is expected.

## **Transforming the data quality criteria into State actions**

Chapter 1 of this guide introduces two State eligible agency responsibilities:

1. Definition of the section 113(b)(2) indicators of performance.
2. A decision whether to ask OVAE to approve continued use of current CTE performance measures that the State eligible agency concludes meet the requirements of section 113(b)(2).

Chapter 1 also points out that OVAE has not decided what ‘meets the requirements of section 113(b)(2)’ criteria will apply when a State request for approval is received. Clear indicator quality criteria standards are needed.

This section gives OVAE and the State eligible agencies a data quality standard for each of the five data quality criteria covered in the previous section. OVAE and the States can use these standards to assess current and proposed performance measure definitions, data collection practices and indicator calculation steps.

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<sup>7</sup> See Perkins IV section 113(b)(4)(C)(ii), which requires that each eligible recipient of Act funds “shall disaggregate data for each of the indicators of performance under paragraph (2) for the categories of students described in section 1111(h)(1)(C)(i) of the [NCLB Act]” and “identify and quantify any disparities or gaps in performance between any such category of students and the performance of all students served by the eligible recipient under this Act.” Section 1111(h)(1)(C)(i) of the NCLB Act requires that a State “shall include in its annual State report card—information, in the aggregate, on student achievement at each proficiency level on the State academic assessments described in subsection (b)(3) (disaggregated by race, ethnicity, gender, disability status, migrant status, English proficiency, and status as economically disadvantaged, except that such disaggregation shall not be required in a case in which the number of students in a category is insufficient to yield statistically reliable information or the results would reveal personally identifiable information about an individual student).”

Section 113(b)(4)(C)(iii) provides that the State eligible agency “shall ensure, in a manner that is consistent with the actions of the Secretary under subsection (c)(3), that each eligible recipient does not report duplicative information under this section.”

Section 113(b)(4)(C)(iv) defines a rule that “the disaggregation of data under clause (ii) shall not be required when the number of students in a category is insufficient to yield statistically reliable information or when the results would reveal personally identifiable information about an individual student.”

Again, the five data quality criteria are:

1. Clarity of indicator definition
2. A common measurement reference period
3. Attempted coverage of indicator denominator subpopulations
4. Successful coverage of required denominator subpopulation categories
5. Statistical reliability of reported information.

### **Clarity of indicator definition**

The data quality standard for clarity of indicator definition is:

*Each component of a CTE core indicator of performance numerator must be defined by the State eligible agency in a manner that allows OVAE to determine whether the definition supports the Federal responsibility to aggregate statistically reliable CTE performance data received from the States.*

The secondary core indicator numerator components are:

- Placement in postsecondary education
- Placement in advanced training<sup>8</sup>
- Placement in military service
- Placement in employment.

The postsecondary core indicator numerator components<sup>9</sup> are:

- Placement in military service
- Placement in an apprenticeship
- Placement in employment
- Retention in employment
- Placement in high skill employment
- Placement in high wage employment
- Placement in employment in a high demand occupation
- Placement in employment in a high demand profession.

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<sup>8</sup> I am not aware of any Federal or State definition and use of the 'advanced training' component in Perkins III performance measurement and reporting.

<sup>9</sup> All eight of these postsecondary core indicator numerator components have potential overlaps. Some military service assignments will be in high skill and/or high wage and/or a high demand occupation and/or a high demand profession. Apprenticeships overlap with each of the placement in employment components. High skill employment is usually but not always high wage employment, and many high skill positions are in high demand. Some high demand occupations are also defined as professions. Many States have already defined some of these terms. Some of the State definitions are statutory. There is an urgent need for joint Federal and State action on this topic.

The Act states no preference among the core indicator numerator components—each is assumed to be of equal importance in Federal reporting by States, unless OVAE defines a preference ordering.<sup>10</sup>

OVAE application of the clarity of definition standard will be a two-phase process:

- First, each State must define its own performance indicator numerator components so OVAE can compare these definitions across the States.
- Then OVAE must design and carry out a process of negotiation with States seeking to eliminate definitional differences that prohibit interstate aggregation of reported performance information.

A decision to change a performance indicator definition triggers a series of time consuming and often costly State and local actions, so the case for doing so must be compelling—the importance of Federal accountability achieved through aggregation of State performance information must itself be transparent.

Beginning the two-step process described here should be accompanied by a solid commitment to complete both steps. Completion of the State definition phase will achieve transparency of current definitional differences among the States. Then, if appropriate actions to satisfy Federal aggregation requirements are not forthcoming, blame will be shared by OVAE and the States.

### **A common measurement reference period**

The data quality standard for a common measurement reference period is:

*The common reference period for all Federal core indicator numerator components of secondary and postsecondary CTE student placement status is October 1 through December 31 of the end-year defined by a July-June annual cycle used to populate the indicator denominator.<sup>11</sup>*

The common measurement reference period standard supports the reliability, attempt to measure, and success of measurement quality criteria and standards.

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<sup>10</sup> The section 113(b)(2)(B(iv) postsecondary core indicator phrase “including placement in high skill, high wage, or high demand occupations or professions” appears to indicate an expectation of sub-indicator reporting, but this is not explicit in the Act.

<sup>11</sup> Currently, some State laws define a different reference period for a non-Federal CTE reporting purpose. OVAE will be expected to issue a clear statement of intention regarding whether and how OVAE intends to recognize and respond to these limited State-specific circumstances.

A common accountability goal for the secondary and postsecondary core indicators of performance is to report the transition status of former CTE students. This should be pursued in a way that offers minimal assurance to constituents that the former students have taken a defined next step to realize a social and personal return on the investment already made.

The more distant in time the next step transition status is recorded the less comfortable many constituents will be about how to interpret the new information. Waiting too long raises legitimate concerns about the impact of intervening events on the reported status and increases the likelihood that critics will say the data are too old to be relevant for future oriented decision-making.

The postsecondary tech prep reference period standard is defined in section 203(e)(C)(i) of the Act:

*The number and percent of postsecondary education tech prep students who are placed in a related field of employment not later than 12 months after graduation from the tech prep program.*

### **Attempted coverage of indicator denominator subpopulations**

The data quality standard for attempted coverage is:

*The State eligible agency documents steps taken to collect statistically reliable core indicator and sub-indicator information from all former students included in the denominator population, including appropriate documentation of the attempt made to collect information about the subpopulations defined in section 113(b)(4)(C)(ii) of the Act.*

The State eligible agency must make a basic decision—when to rely on former student identifier information needed to access administrative records, and whether to invest in complementary surveying of former students. Actions States can take to reach a high coverage rate are covered in Chapter 3.

The attempted coverage goal is to support State reporting of statistically reliable CTE performance information about all required indicator denominator subpopulations. When former student identifier information does not permit administrative record access, or when administrative record access is not feasible for another reason, surveying is the traditional alternative approach.

## **Successful coverage of required indicator denominator subpopulations**

The data quality standard for successful coverage is:

*The State eligible agency achieves sufficient coverage of all required indicator denominator subpopulations needed for statistically reliable Federal reporting of CTE performance information.*

There is an urgent need for OVAE to issue an official interpretation of section 113(b)(4)(C)(ii) of the Act that requires Federal reporting on indicator denominator subpopulations consistent with section 1111(h)(1)(C)(i) of the NCLB Act. The NCLB paragraph includes a critical exception:

Disaggregation shall not be required in a case in which the number of students in a category is insufficient to yield statistically reliable information or the results would reveal personally identifiable information about an individual student.

This exception refers to the number of former students in a defined denominator subpopulation, not the number of these former students included in the numerator count. But the numerator subpopulation is the starting point for deciding whether personally identifiable information has to be suppressed.

## **Statistical reliability of reported information**

The data quality standard for statistical reliability of reported information is:

*Reported State core indicator and sub-indicator values can be reproduced by an independent audit conducted using the definitions and data collection and processing steps used by the State eligible agency and applying standard statistical reliability tests to the results.*

State use of administrative records for core indicator and sub-indicator reporting of CTE performance gives a State eligible agency an advantage in satisfying the statistical reliability quality standard, when compared with States that use information collected through surveys of former students—the administrative records remain available for potential authorized third-party audit use to verify the reported information. There is no need to absorb the cost of resurveying former students and then interpreting measurement variation estimates.

## **Toward a practical way for States to apply the five data quality standards**

This chapter has defined five CTE performance indicator quality criteria and an associated quality standard for each of these five criteria. Next, chapter 3 covers specific actions that a State eligible agency can take to satisfy each of these quality standards. Chapter 4 follows with a self-assessment checklist for State eligible agency use in determining how the current CTE data collection and performance reporting system aligns with the data quality standards. Chapter 5 concludes with coverage of additional voluntary CTE performance measurement opportunities.

Summing up, the basic goal of Federal CTE performance reporting is to deliver statistically reliable indicators of performance that an independent audit authority could reproduce. Dedicated pursuit and near-term achievement of this goal will establish a new higher level of performance reporting trust among the Federal and State partners responsible for the delivery of CTE services, and between these partners and those who determine the level and mix of resources that will be available for future delivery of these services.



## CHAPTER 3

### STATE OPPORTUNITIES TO MEET DATA QUALITY STANDARDS FOR FEDERAL REPORTING OF CTE PERFORMANCE INFORMATION USING ADMINISTRATIVE RECORDS

#### Overview

This chapter concentrates on support of the shared responsibility of State eligible agencies and OVAE to satisfy Perkins IV section 113 and section 203 Federal reporting requirements. Administrative record actions are covered that a State eligible agency can take to achieve the CTE performance data quality standards defined in chapter 2 and repeated in a one-page summary on the next page.

Most State eligible agencies have already taken some of the steps described here, but few have done everything practically possible<sup>12</sup> to achieve the Federal CTE performance reporting quality standards. All State eligible agencies and OVAE headquarters and field staffs should find something new and actionable here, and through use of the self-assessment checklist introduced in chapter 4.

The topics covered in this chapter are:

- The minimum first-step requirement to use administrative records for Federal CTE performance reporting—an accurate common unit-record identifier.
- How to detect invalid unit-record identification codes.
- Own State UI wage record access and coverage issues.
- Access to other State UI wage records.
- Federal Employment Data Exchange System (FEDES) access, coverage, content and data use topics.

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<sup>12</sup> Doing everything that is possible and practical is less demanding, and less easily defined and agreed upon, than doing everything possible. Title 1 section 113 of the Act that defines State eligible agency and local eligible recipient CTE performance reporting responsibilities includes no reference to a reporting benefit-cost tradeoff. However, section 114(b)(1), National Activities, Collection of Information at Reasonable Cost, does include the following language: “The Secretary shall take such action as may be necessary to secure at reasonable cost the information required by this title.” Section 114(b)(2), Cooperation of States, adds that “all eligible agencies receiving assistance under this Act shall cooperate with the Secretary in implementing the information systems developed pursuant to this Act.”

### **Clarity of indicator definition**

The data quality standard for clarity of indicator definition is:

*Each component of a CTE core indicator of performance numerator must be defined by the State eligible agency in a manner that allows OVAE to determine whether the definition supports the Federal responsibility to aggregate statistically reliable CTE performance data received from the States.*

### **A common measurement reference period**

The data quality standard for a common measurement reference period is:

*The common reference period for all Federal core indicator numerator components of secondary and postsecondary CTE student placement status is October 1 through December 31 of the end-year defined by a July-June annual cycle used to populate the indicator denominator.*

The postsecondary tech prep reference period standard is defined in section 203(e)(C)(i) of the Act:

*The number and percent of postsecondary education tech prep students who are placed in a related field of employment not later than 12 months after graduation from the tech prep program.*

### **Attempted coverage of indicator denominator subpopulations**

The data quality standard for attempted coverage is:

*The State eligible agency documents steps taken to collect statistically reliable core indicator and sub-indicator information from all former students included in the denominator population, including appropriate documentation of the attempt made to collect information about the subpopulations defined in section 113(b)(4)(C)(ii) of the Act.*

### **Successful coverage of required indicator denominator subpopulations**

The data quality standard for successful coverage is:

*The State eligible agency achieves sufficient coverage of all required indicator denominator subpopulations needed for statistically reliable Federal reporting of CTE performance information.*

### **Statistical reliability of reported information**

The data quality standard for statistical reliability of reported information is:

*Reported State core indicator and sub-indicator values can be reproduced by an independent audit conducted using the definitions and data collection and processing steps used by the State eligible agency and applying standard statistical reliability tests to the results.*

- Other placement in employment measurement topics—apprenticeships, high skill employment, high wage employment, high demand occupations, high demand professions, and related field of employment.
- Other section 113 performance indicator measurement topics—placement in postsecondary education or advanced training, and placement or retention in employment.
- Considerations for deciding whether to use both administrative records and survey data sources.

### **The necessary first step for administrative record use**

An administrative record is defined in chapter 1 of this guide as a data source that serves an original administrative purpose other than CTE performance indicator reporting. There is no guarantee that an administrative record under consideration for possible CTE performance indicator numerator use can be linked to available CTE performance indicator denominator (former student) information.

Most of the administrative unit-record categories covered in this chapter include a common identifier—Social Security Number (SSN). This is true for all State UI wage records, and for the Federal Office of Personnel Management (OPM), Department of Defense (DOD) and U.S. Postal Service (USPS) records available through the Federal Employment Data Exchange System (FEDES).

Other possibly relevant categories of administrative record, including some apprenticeship records, some advanced training records, some postsecondary education records, and most high skill, high wage, and high demand occupation or profession data sources do not include this essential common identifier.

Some State eligible agencies have abandoned use of an SSN student identifier and other States are considering doing so. This action need not destroy a capacity to use administrative records for CTE performance measurement and Federal reporting.

A student record does not have to include an SSN data field to be successfully linked with an administrative record having only an SSN data field as an identifier. Ultimate successful linkage with an administrative record containing only an SSN identifier does require collection and retention of a student's SSN, but this SSN can be kept off-line in a secure firewall protected record.

The U.S. Census Bureau and a growing number of State and local government entities use a Protected Identity Key (PIK) instead of an SSN as a practical way to reduce one source of identity disclosure risk. The desired CTE student record and administrative record linkage is easily achieved if an off-line secure record includes both the student SSN and the PIK used in the comprehensive student record. In fact, a series of intermediate databases can be established. The requirement would be that each intermediate record in the series includes the PIK from the previous step in the series paired with a second new PIK. The final administrative record would then have an SSN identifier and the last intermediate record PIK.

The process separation of a student record PIK (other than an SSN) from an administrative record SSN can be achieved by:

- A three-record approach—(1) a comprehensive student record with a PIK identifier only; (2) an intermediate off-line secure record containing the PIK and SSN; and (3) the administrative record of interest including only an SSN.
- Or through a more than three-record approach featuring multiple off-line databases, each having one PIK in common with the previous step in the sequence and one new PIK with a firewall between each of the intermediate steps.

The reality of SSN protection capability is straightforward and inexpensive. Two hurdles remain:

- Public perception of SSN disclosure risk; and
- A current imbalance of State administrative agency incentives favoring short-term relief from public pressure and legal counsel caution over intermediate- and long-term understanding of performance dynamics that is needed to sustain and then increase the level of CTE funding.

Availability of a common identifier achieved directly or indirectly as described above has been described as a first necessary step for State eligible agency use of administrative records for Federal reporting of CTE performance indicator information. The next step is also critical for success—verification of SSN accuracy.

## Verification of SSN accuracy

There are practical inexpensive ways to determine whether a nine-digit number sequence can be a valid SSN. It is more difficult to guarantee that successful linkage of two or more records, each using a single common nine-digit number sequence as the record identifier, actually brings together previously separate data fields pertaining to the same person.

The next section describes steps that a State eligible agency can take<sup>13</sup> to determine whether a nine-digit student identifier is a valid SSN. This is followed by an introduction to the content of State UI wage records.

## Types of federal identification

OVAE and State eligible agencies should be alert to the existence of three official Federal nine-digit number identifiers<sup>14</sup>, only one of which is an SSN:

1. Social Security number (<http://www.ssa.gov/ssnumber>)

The Social Security Administration posts monthly updates of a comprehensive Web-accessible list of valid nine-digit SSN sequences that have been issued (<http://www.ssa.gov/employer/stateweb.htm>). Any nine-digit number sequence that does not align with these valid codes is not a valid SSN.<sup>15</sup>

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<sup>13</sup> OVAE can take some of these steps on behalf of the State eligible agencies, thereby relieving each State of duplicative staff burden and cost.

<sup>14</sup> Selection of a random nine-digit number series can match a valid SSN, a valid international student identifier, or an Individual Taxpayer Identification Number, resulting in identity theft, which is why a growing number of organizations are adopting requirements for confirming documentation of identity before issuing a new identification number.

<sup>15</sup> Successful linkage of two or more records, each containing a common nine-digit number sequence that is not a valid SSN, is possible if no one conducts a diagnostic to detect invalid codes. However, most State unemployment insurance agencies use front-end edit checks to detect invalid codes when quarterly reports of covered employee earnings are received from employers or their agents.

2. International student identification (<http://www.ssa.gov/pubs/10181.html>)

Social Security Administration Publication No. 05-10181, December 2005, *International Students and Social Security Numbers*, 4 pp. begins with the following two paragraphs:

Are you temporarily in the United States to attend a college, language, vocational or nonacademic school with a nonimmigrant F-1, M-1 or J-1 student classification? Your school may ask you for your Social Security number. Some colleges and schools use Social Security numbers as student identification numbers. If you do not have a Social Security number, the college or school should be able to give you another identification number.

Social Security numbers are generally assigned to people who are authorized to work in the United States. Social Security numbers are used to report your wages to the government and to determine eligibility for Social Security benefits. **Social Security will not assign you a number just to enroll in a college or school** (emphasis in the original SSA document).

This means that a nine-digit number sequence that is not a valid SSN may be an intentional substitute that cannot be linked with employment records identified by SSN.<sup>16</sup>

3. Individual Taxpayer Identification Number (ITIN)  
(<http://www.irs.gov/individuals/article/0,,id=96287,00.html>)

The Internal Revenue Service “issues ITINs to individuals who are required to have a U.S. taxpayer identification number but who do not have, and are not eligible to obtain a Social Security Number (SSN) from the Social Security Administration (SSA). ITINs are issued regardless of immigration status because both resident and nonresident aliens may have U.S. tax return and payment responsibilities under the Internal Revenue Code.”

The ITIN is a nine-digit number “that always begins with the number 9 and has a 7 or 8 in the fourth digit.”

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<sup>16</sup> OVAE should decide whether to issue an official waiver to State eligible agencies advising them to remove such international students from the denominator of CTE core indicators of performance for Federal reporting purposes.

## **The local staff role in advancing the culture of quality data process**

Staffing of the three tiers of the Federal CTE performance indicator reporting process begins at the local level. Therefore, it is critically important to assure that those involved in initial data entry—prospective students, students and institutional staff members—understand why collection of an accurate SSN is important. Absence of this essential link to other education activities and employment information destroys an efficient and reliable way to deliver statistically reliable measures of CTE performance.

On-line data entry is common and growing toward universal usage. An edit-check feature can easily be included in the adopted software to offer a statement of encouragement, short of a requirement, when no SSN is entered. Most people are unaware that, while disclosure of a person's SSN cannot be required, delivery of services can be denied if disclosure is refused (<http://www.ssa.gov/history/ssa/ssnchron.html>). It is highly unlikely, of course, that anyone would deny a student access to educational services because s/he refuses to disclose an SSN.

## **Making the case for collection of an SSN from CTE students**

Public concern about identity disclosure is serious and growing. All parties involved in the CTE accountability process can help to distinguish statistical use of a SSN from commercial uses. A logical place to begin the public education process is with Federal, State and local elected officials and their staffs.

A practical first step toward better public understand of CTE performance accountability requirements is to show elected officials the Perkins IV section 113 and section 203 Federal performance indicator definitions, following with a brief statement about the widespread, but not universal, availability of state UI wage record information and Federal civilian and active duty military employment if an accurate student SSN can be used for secure matching. The comfort level achieved can be raised by reference to the practical opportunity to use a student PIK and encryption steps.

Equally important after briefing elected officials and their staffs is motivation of those within the education community. Much of the reticence to collect an accurate SSN can be traced to directives from higher-level education authorities.

## **The mandate to use substantially similar information**

Perkins IV gives the Federal and State CTE partners a new opportunity to engage others within the education community to draft a strategy for achieving Federal CTE accountability without heightened risk of SSN disclosure. Section 113(b)(2)(F) of the Act includes an explicit statutory mandate that adds force to this opportunity:

In the course of developing core indicators of performance and additional indicators of performance, an eligible agency shall, to the greatest extent possible, align the indicators so that substantially similar information gathered for other State and Federal programs, or for any other purpose, is used to meet the requirements of this section.

Reference to U.S. Department of Labor, Employment and Training Administration guidance about official policy on common performance measures for Federal job training and employment programs is recommended as a first practical step toward achievement of the required alignment ‘to the greatest extent possible’ ([http://wdr.doleta.gov/directives/corr\\_doc.cfm?DOCN=1711](http://wdr.doleta.gov/directives/corr_doc.cfm?DOCN=1711)).

DOL/ETA *Training and Employment Guidance Letter No. 28-04, Common Measures Policy*, issued April 15, 2005, states in section 6:

To ensure comparability of the common measures on a national level, wage records are the primary data source for the employment-related measures (except as noted in this Section). ...

In order to convey full and accurate information on the employment impact of ETA programs, grantees may use supplemental sources of data to document a participant’s entry and retention in employment. ...

Allowable sources of supplemental information for tracking employment-related outcomes in the performance measurement periods include case management notes, automated labor exchange system administrative records, surveys of participants, and contacts with employers. All supplemental data and methods must be documented and are subject to audit.

This official policy statement by another Federal agency is available for OVAE and State eligible agency use in justifying administrative record use to comply with the section 113(b)(2)(F) mandate to align CTE indicators of performance, to the greatest extent possible, so that substantially similar information is used to meet the requirements of section 113.



## Summarizing up to this point

A State eligible agency that has successfully met the challenge to collect an accurate student SSN has completed the first necessary step to gain access to State UI wage records for Federal reporting of CTE placement and retention information. The next section covers basic information about State UI wage records that should be understood by State eligible agency staff members that are responsible for deciding whether to pursue access to this administrative record source of employment information.

## A primer on State UI wage records<sup>17</sup>

A State eligible agency should make two independent decisions about possible State UI wage record use:

1. Do we want to seek access to our own State UI wage record data?
2. Do we want to seek access to other States' UI wage record data?<sup>18</sup>

## Own State UI wage record access—getting started

The first step for a State eligible agency that is not currently using State UI wage records for Federal reporting of CTE performance indicator information is to find out whether there are any State-specific legal barriers to such use of the confidential administrative records. State laws<sup>19</sup> covering UI wage record use change from time to time, so anecdotal information from the past—"yes, we tried that before, but could not do it"—should not be relied upon today.

A recommended second step for newcomers is to seek the counsel of successful predecessors in other States. This has proven valuable many times over in helping to avoid costly mistakes in the timing or content of a request for UI wage record access.

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<sup>17</sup> More extensive coverage of these topics is available in David W. Stevens (2004), *Responsible Use of Administrative Records for Performance Accountability: Features of Successful Partnerships* (<http://www.ubalt.edu/jfi/adare/repts/ADAREcookbook504.pdf>).

<sup>18</sup> Currently, two organizations manage independent programs with coverage of State UI wage records from all States. The National Association of State Workforce Agencies (NASWA) manages the Wage Record Interchange System (WRIS). ([http://www.naswa.org/subject.cfm?results\\_sub\\_id=42](http://www.naswa.org/subject.cfm?results_sub_id=42)) provides frequently updated Web access to information about the WRIS. The U.S. Department of Health and Human Services, Administration for Children and Families, Office of Child Support Enforcement, manages the National Directory of New Hires (NDNH). ([http://www.acf.hhs.gov/programs/cse/newhire/library/ndnh/background\\_guide.htm](http://www.acf.hhs.gov/programs/cse/newhire/library/ndnh/background_guide.htm)) is a guide to this program, posted on the Web in January 2006. Neither of these national capabilities to access State UI wage records is available for Federal reporting of CTE performance indicator information at this time.

<sup>19</sup> There is no Federal law or administrative directive prohibiting use of State UI wage records for Federal reporting of CTE performance indicator information.

If a favorable initial response to a request for UI wage record access is received, the next step is drafting of a data sharing agreement, or memorandum of understanding (MOU), that is fully acceptable to both parties.<sup>20</sup> Data sharing agreement templates are available from States that are already matching CTE student records with State UI wage records.

### **Own State UI wage record coverage of employment**<sup>21</sup>

State UI wage record coverage of employment is State-specific, but very similar among the States. Each State's unemployment insurance law defines covered categories of employment. Changes of these definitions occur from time to time.<sup>22</sup>

An accurate introductory description of State UI wage record coverage is that almost all wage and salary employment occurring within the State is covered. There are some exceptions that can have uneven CTE performance indicator impacts among the States, among eligible recipients within a State, and even reporting institutions within a local eligible recipient. These include:

- Federal civilian employees and active duty military personnel are not included in State UI wage record files.<sup>23</sup>
- Self-employed individuals and workers<sup>24</sup> defined by their employer as independent contractors are not included in State UI wage record files.
- Some other types of employment, typically less numerous, but perhaps important for some local CTE programs, are not included in state UI wage record files. Examples include real estate agents that do not receive a base salary, relying on commission compensation only.

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<sup>20</sup> In some States, including Maryland, a third party is involved in actually carrying out the linkage of CTE student records and UI wage records. However, this third party is typically defined as an agent of one or both of the principals, so there are still only two parties to the MOU itself.

<sup>21</sup> See: David W. Stevens (2002), *Employment that is not covered by state unemployment insurance laws*, Technical Paper No. TP-2002-16, 30 pp, U.S. Census Bureau, LEHD Program (<http://lehd.dsd.census.gov/led/library/techpapers/tp-2002-16.pdf>). An update of this paper will be available at <http://lehd.dsd.census.gov/led/library/techpapers/tp-2006-???.pdf> later this year.

<sup>22</sup> The *Monthly Labor Review*, published by the Bureau of Labor Statistics, contains an annual update of these changes prepared by the Division of Legislation, Office of Workforce Security, Employment and Training Administration, U.S. Department of Labor. The most recent update is: Loryn Lancaster, "Changes in State unemployment insurance legislation in 2005," *Monthly Labor Review*, January 2006, pp. 30-37 (<http://www.bls.gov/opub/mlr/2006/01/art2full.pdf>).

<sup>23</sup> However, most Federal government civilian employment and active duty military personnel employment is covered for States that participate in the Federal Employment Data Exchange System (FEDES), which is described later in this chapter.

<sup>24</sup> The word 'worker', instead of 'employee', is used here because 'employee' is a defined legal term in State unemployment insurance laws.

## **The data fields included in a State UI wage record**

All States include five common core data fields in a UI wage record:

1. A reference year
2. A reference quarter
3. The reporting employer's State UI Tax Account Number
4. The reference employee's SSN
5. A dollar amount<sup>25</sup>

So, a State UI wage record shows the amount of money one employer<sup>26</sup> reports as having been paid to an employee during the defined reference year/quarter. An employee can have more than one State UI wage record in a reference year/quarter if more than one employer submits a UI wage record for them.<sup>27</sup>

## **Timing issues in State UI wage record availability**

Most State eligible agencies that currently use UI wage records for Federal reporting of CTE performance indicator information request a single annual match of student records against State UI wage records for this purpose. This makes timing of the request an essential part of the multi-step reporting process.

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<sup>25</sup> Care should be exercised when working with the *dollar amount* data field. States differ in whether cents are reported, and a State may change past practice without notice to third-party users of the data. Top-coding of reported quarterly earnings amounts exceeding \$99,999 does occur in some States (a practice that would be nice to have to worry about in reporting CTE performance information!). Earnings calculations may be required for Federal reporting of postsecondary CTE student placement or retention in *high wage* employment (a sub-indicator component of the section 113(b)(2)(B)(iv) core indicator.)

<sup>26</sup> OVAE should define *placement* in employment for Federal reporting of CTE performance indicator information. Section 113(b)(2)(B)(iv) postsecondary core indicator reference to "placement or retention", and section 203(e)(C)(i) postsecondary tech prep indicator reference to "placed in a related field", can be interpreted to add a time-dated placement in employment event—after the event-specific timing that defines the indicator denominator population. Acceptance of this interpretation will require detection of a time-dated new employer affiliation to satisfy the definition of *placement*. See: David W. Stevens (2006), *New Information to Promote Successful Job Search by Temporary Cash Assistance Recipients*, page 5, footnote 7, for the relevance of 'employment placement agencies', 'temporary help services agencies' and 'professional employer organizations' to this decision (<http://www.ubalt.edu/jfi/jfi/reports/DHRreport6-28-06.pdf>).

<sup>27</sup> Employers may deliver their employment and earnings report for this person to different States. Each employer report is submitted to the State where an employee worked, with no consideration of where the employee lives or lived at the time. Severance pay can be reported during a quarter after an employee terminated an active employment affiliation. Some employers submit a UI wage record showing no earnings amount in a particular quarter, usually for their own record keeping convenience for seasonal employees that are expected to return to work. This should be a warning to CTE accountability personnel—be sure to filter out UI wage records showing zero earnings in a defined quarter because the person was unlikely to have worked for this employer during the quarter.

All States are required to have a reference quarter's UI wage record information available for use in administration of the unemployment compensation program by the end of the following quarter. For example<sup>28</sup>, October-December 2006 is the defined reference quarter that satisfies the common measurement reference period data quality standard for CTE performance reporting covering the defined secondary and postsecondary July 2005-June 2006 CTE denominator populations.<sup>29</sup>

The October-December 2006 State UI wage records will be available within the State agency managing the unemployment compensation program no later than March 31, 2007.<sup>30</sup> States will then differ in how much time is needed to access the UI wage record database for CTE performance indicator extract purposes.<sup>31</sup> All States should be able to accommodate a June 30, 2007 deadline; some will be able to meet an April 15, 2007 deadline. All State eligible agencies should know by July 1 which former CTE students included in a CTE core indicator denominator population were not found in the previous October-December State UI wage record file.<sup>32</sup>

### **Other States' UI wage record availability**

A number of multi-state alliances have negotiated reciprocal data sharing agreements. Examples of these multi-state data sharing agreement templates are available from participating States. Negotiations to create new alliances or expand existing alliances are usually underway somewhere at any defined time.

Like the Wage Record Interchange System (WRIS) and National Directory of New Hires (NDNH), both referenced in footnote 18 on page 22 of this guide, the multi-state reciprocal data sharing agreements define restrictions on use of shared information. Most, but probably not all, can be amended to authorize use of shared information for Federal reporting of CTE performance indicator information.

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<sup>28</sup> This example should not be interpreted by State eligible agencies to mean that the section 113 Federal reporting requirements cover the CTE students and time references described here.

<sup>29</sup> This definition applies to both the section 113 secondary and postsecondary core indicators, but not to the section 203 postsecondary tech prep indicator "not later than 12 months after graduation from the tech prep program."

<sup>30</sup> Failure to report events, late reporting and corrected reporting are not covered here. Direct contact with the State unemployment insurance agency is recommended to find out how these events should be considered in deciding whether and how to use UI wage records for Federal reporting of CTE performance indicator information.

<sup>31</sup> If a third-party agent is used to conduct the match additional time is required. For example, The Jacob France Institute at the University of Baltimore is the third-party agent acting on behalf of the Maryland Department of Labor, Licensing and Regulation, the Maryland State Department of Education and the Maryland Higher Education Commission. The Jacob France Institute received a first delivery of the October-December 2005 reference quarter Maryland UI wage record data in May 2006.

<sup>32</sup> This statement applies to use of the FEDES as well, and to current examples of interstate access to UI wage record extract information. Both are covered later in this guide.

The desired content, process and timing of a State eligible agency request for UI wage record information from another State will depend on:

- The section 113 and section 203 performance indicator definitions that are agreed to by the State eligible agency and OVAE.
- The restrictions on use defined in the interstate data sharing agreements, which may differ among States participating in an existing alliance of States.
- The latitude that is afforded the State eligible agency in submitting and gaining approval of an amendment to an existing data sharing agreement.
- The actual step-by-step procedure that is followed in a cycle of data exchange among States that participate in a data sharing alliance.
- The frequency and timing of data exchange cycles.

The section 113 and section 203 CTE performance indicator denominator counts should be small enough to permit inclusion of all SSNs<sup>33</sup> pertaining to former CTE students included in the denominator in a request for interstate matching. Not waiting, for example, until own State UI wage record matching has been completed, and then submitting SSNs on an exception basis only—just those that were not found in the own State match.

### **The cost of own State UI wage record access and interstate exchange**

I am not aware of a reliable source of information about how record matching cost is handled in own State data sharing agreements or interstate exchanges. Anecdotal information indicates that some States do not require the education entity to compensate the State agency that maintains state UI wage records. Similarly, some interstate exchanges are known to charge no fee for State participation; in fact, these are non-financial agreements.

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<sup>33</sup> Review an important point made in chapter 2, page 8, paragraph 1 and the associated footnote 7 on the same page of this guide—Federal reporting is not required when the number of students in a category is insufficient to yield statistically reliable information or when the results would reveal personally identifiable information about an individual student.

## The Federal Employment Data Exchange System (FEDES)<sup>34</sup>

The FEDES was established by the U.S. Department of Labor to offer equal free access to employment information in three personnel systems—

1. The Federal Office of Personnel Management (OPM), covering Federal civilian employees (with defined exceptions).
2. The U.S. Postal Service.
3. Department of Defense active duty military personnel (restricted to uses defined in Federal law or by Executive Order).

Each participating State has a designated single point-of-contact<sup>35</sup>. This person is responsible for negotiating procedural details within the State regarding individual agency participation, timing, cost, security requirements and authorized uses. DLLR has not negotiated a two-party FEDES data sharing agreement with a State eligible agency, but such an agreement is not prohibited.<sup>36</sup>

Currently, the FEDES operates on a quarterly processing schedule. Each participating State knows in advance a deadline for its secure upload of SSNs that have been bundled from participating agencies within the State. Bundling of SSNs is a State responsibility. The authorized person signing the DLLR-State FEDES data sharing agreement agrees to comply with all applicable State and Federal privacy and confidentiality laws and regulations.

State-specific data fields are defined to identify each participating agency within the State, so matched information that is returned later can be unbundled and delivered to the appropriate originating agencies. A State can use an encryption algorithm prior to uploading to add an additional layer of protection from unauthorized access.<sup>37</sup>

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<sup>34</sup> The Federal Employment Data Exchange System (FEDES) receives funds from the U.S. Department of Labor, Employment and Training Administration. The recipient of these Federal funds is the Maryland Department of Labor, Licensing and Regulation (DLLR). DLLR negotiates all two-party legal agreements with participating States. The Jacob France Institute at the University of Baltimore manages the actual secure exchange of data under a subcontract from DLLR. Information about the FEDES is available at <http://www.ubalt.edu/jfi/jfi/fedes.htm>.

<sup>35</sup> Updated information about participating States and the current single point-of-contact is available from [jstaveley@ubalt.edu](mailto:jstaveley@ubalt.edu).

<sup>36</sup> Negotiation of a precedent setting two-party DLLR-State eligible agency FEDES agreement is underway with the Florida Department of Education.

<sup>37</sup> The encryption algorithm is then delivered to the data portal operator.

A State participating in the FEDES receives back matched records (only) currently covering eight reference quarters of predefined information. The data field definitions align with Workforce Investment Act Standardized Record Data (WIASRD) reporting requirements.<sup>38</sup> Beginning with the November 2006 cycle, the data fields will include calculated quarterly earnings amounts, so individual States do not have to engage in costly duplicative programming.<sup>39</sup>

### **Other placement in employment measurement topics<sup>40</sup>**

Six sub-indicator numerator components of the section 113 secondary and postsecondary core indicators cannot be populated using State UI wage records and FEDES access alone. These six sub-indicator components are:

- Placement in advanced training (section 113(b)(2)(A)(v)).
- Placement in apprenticeship programs (section 113(b)(2)(B)(iv)).
- Placement in high skill, high wage, or high demand occupations or professions (section 113(b)(2)(B)(iv)).

Section 203(e)(C)(i), defined for postsecondary tech prep performance reporting, adds a seventh numerator component that cannot be populated using only UI wage records and FEDES access—placed in a related field of employment.

### **Administrative records and/or a follow-up survey approach?**

Returning to the performance indicator data quality standards, summarized on page 15 of this chapter, a State eligible agency can decide whether Federal reporting of CTE performance indicator information will be based on:

- Administrative record information only; or
- Administrative record information combined with survey information; or
- Survey information only.

The administrative record only choice is moot if CTE student SSNs satisfying the ‘successful coverage of required indicator denominator subpopulations’ data quality criterion are unavailable. This does not mean that the survey only approach is necessary or sufficient to satisfy the data quality standard.

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<sup>38</sup> WIASRD reporting details are available at <http://www.doleta.gov/performance/Reporting/wiasrd.cfm>.

<sup>39</sup> This new feature has the added advantage of assuring all participating States and the Federal government that a single approved algorithm has been used in this calculation.

<sup>40</sup> Chapter 2, page 9, footnote 9 of this guide expresses “an urgent need for joint Federal and State action on this topic.”

The combined approach is moot if there is no way to link the administrative records with survey information.<sup>41</sup> The State eligible agency must then choose between the administrative record only approach, if available, and the survey approach that is in principle always available but not necessarily optimal.

A State eligible agency should conduct a side-by-side comparison of the practically available approaches—one, two or three depending on the considerations covered in the previous two paragraphs.

All five of the data quality criteria and standards have to be considered in carrying out this side-by-side comparison. None can be taken for granted and considered irrelevant to the decision to be made.

Consider the ‘clarity of indicator definition’ criterion and standard:

Each component of a CTE core indicator of performance numerator must be defined by the State eligible agency in a manner that allows OVAE to determine whether the definition supports the Federal responsibility to aggregate statistically reliable CTE performance data received from the States.

State UI wage records and FEDES data fields satisfy the ‘clarity of indicator definition’ data quality criterion and standard, and the ‘common measurement reference period’ criterion and standard (October-December of the end-year defined by a July-June annual cycle used to populate the indicator denominator). The capacity of State eligible agencies to meet the ‘clarity of indicator definition’ and ‘common measurement reference period’ data quality criteria and standards using a follow-up survey approach will remain unknown until survey instruments, processes and results have been assessed.

The cost of survey collection of CTE performance information that satisfies the ‘successful coverage...’ and ‘statistical reliability of reported information’ data quality criteria and standards will be high in absolute dollar amount and possibly relative to reliance on administrative record data. A critical decision criterion for State eligible agencies that have a capacity to use State UI wage records and FEDES information is whether these, by themselves, satisfy the ‘statistical reliability of reported information’ data quality standard.

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<sup>41</sup> Review of pages 16-17 of this chapter reminds us that successful linkage does not require the presence of a student SSN on a follow-up survey instrument. All that is required is an intermediate record common identifier, or series of paired identifiers, that permit ultimate linkage of the survey instrument identifier with the administrative record containing an SSN identifier.



A fundamental statistical reliability issue is whether section 113 and section 203 CTE performance information submitted by a State eligible agency to OVAE is representative of the required performance indicator denominator subpopulations. Currently, we do not know.

OVAE and the State eligible agencies should agree to test an innovative approach to measurement of section 113 and section 203 indicators of CTE performance, combining annual collection of administrative record information with triennial or quadrennial collection of survey information. The combined information would be used to answer the question: Does the administrative record information alone deliver statistically reliable information?

The test of statistical reliability would compare:

- CTE performance indicator values calculated using only administrative records.
- CTE performance indicator values calculated from the unduplicated sum of administrative record and survey information; each data source having to satisfy all five of the defined data quality criteria and standards.

Candidate States wanting to participate in the proposed test would have to satisfy two eligibility criteria that are not present in all States. Each test State would have to be able to link:

1. Administrative record information with comprehensive CTE student records; and
2. Both administrative record information and comprehensive CTE student records with CTE student follow-up information collected using a survey instrument.

States that are able to document the statistical reliability of CTE performance indicator values derived from administrative records only would be certified by OVAE for a predefined number of years before costly repeated collection of survey information and retesting would be required.

## **Summing up**

This chapter has covered topics that State eligible agencies and OVAE need to understand about administrative record availability, content, restrictions on use and possible cost. This understanding is needed to decide how the State agencies and OVAE will approach their shared responsibility to collect statistically reliable CTE performance indicator information that satisfies section 113 and section 203 Federal reporting requirements.

## **CHAPTER 4**

### **A STATE ELIGIBLE AGENCY CHECKLIST OF WAYS TO ACHIEVE DATA QUALITY STANDARDS**

#### **Overview**

Introduction of a State eligible agency checklist of ways to achieve data quality standards begins with a reminder from chapter 1. The necessary starting point for assessment of performance measurement quality is acceptance of an unstated phrase—‘given the defined denominator definition’, whatever that definition is for each indicator

A State eligible agency will begin a data quality assessment process with some constraints on its decisions:

- The Act defines minimum section 113 secondary and postsecondary CTE core indicators of performance and a section 203 postsecondary tech prep CTE indicator of performance.
- OVAE will define and enforce data quality criteria and standards that State eligible agencies will be expected to meet in Federal reporting of CTE performance information. This guide is a step toward timely announcement of official OVAE policy.
- Some State eligible agencies will immediately face conflicts between current State laws and administrative regulations on the one hand and the new Federal statutory and administrative requirements.
- Regardless of or in addition to State law and regulation barriers to conforming action, State eligible agencies start at different points along a continuum of practical administrative record access potential.

Some, but not all State eligible agencies will begin a data quality assessment process with a heightened sense of urgency because:

- A current postsecondary CTE performance indicator definition fails to align with the new section 113 requirement.
- The current approach to a CTE performance indicator numerator calculation fails to satisfy the five data quality standards defined on page 15 in chapter 3 of this guide.

## **Basic State eligible agency compliance assessment steps**

A State eligible agency actually enters the compliance assessment process at step four. OVAE is responsible for taking the first three actions:

1. What CTE performance indicator definitions and quality standards must a State eligible agency satisfy for Federal reporting?
2. When must these data quality standards be met?
3. What State-specific circumstances will be considered in a State request for waiver or delay in meeting a data quality standard?

With official answers to these three questions in hand, a State eligible agency can review its current CTE performance indicator definitions and data quality strengths and weaknesses. The data quality assessment for each indicator numerator component should include three quality determinations:

1. Meets the new Federal requirements; no need to further review approach.
2. Meets the new Federal requirements, but a different approach may be preferred for cost and staff burden reasons.
3. Does not meet the new Federal requirements, so a decision must be made about how to proceed.

## **Advancing from where we are to where we want to be**

The Federal challenge is severe—OVAE cannot deliver accurate information about secondary, postsecondary and postsecondary tech prep CTE performance to interested constituents, some of whom make the Federal funding decision. The State challenge is severe—the State-specific CTE reporting system is one component in a larger management information system that is usually difficult and costly to change.

Administrative records can serve as a solid foundation on which to build a new tradition of statistical reliability and trust in CTE performance information. Substantial amounts of money and staff time can be saved if administrative records alone can be shown to satisfy established statistical reliability standards.

Potential reliance on administrative records when possible and practical for Federal reporting of section 113 CTE performance information does not mean that other sources of CTE performance information can and should be ignored. This topic is covered in chapter 5.

## CHAPTER 5

### BEYOND PERKINS IV SECTION 113 CORE INDICATORS OF PERFORMANCE

#### Overview

Minimal satisfaction of section 113 and section 203 CTE performance indicator requirements through Federal reporting of statistically reliable information stops well short of realizing the full potential of administrative records to measure other facets of CTE performance. Stated another way, minimal compliance requires State absorption of most, and perhaps all, of the cost of administrative record acquisition without attempting to achieve a higher return on this sunk cost.

Chapter 3 has described how State UI wage records and FEDES data can be used to fulfill 'placement in employment' reporting requirements. Brief mention is made there about the earnings data field in these administrative records. Proper use of the earnings data field and some other high-value uses of these administrative records are covered in this concluding chapter.

#### Understanding State UI wage record limitations to get started

Some features of State UI wage record content are not covered in chapter 3:

- With very few exceptions, a State UI wage record does not include an hours of work or weeks of work data field. This means that no distinction between full-time and part-time employment can be made.
- A State UI wage record does not include start or end dates, so less than full-quarter employment during a three-month reference period cannot be detected.
- With one known exception (Alaska), a State UI wage record does not contain a defined occupation<sup>42</sup> data field.
- A State UI wage record rarely includes a defined industry<sup>43</sup> data field.

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<sup>42</sup> The quality of available occupational information continues to deteriorate as employers redefine individual employee responsibilities on-the-fly in an attempt to remain or become competitive.

<sup>43</sup> The quality of available industry classification information is also under stress as individual businesses morph into new enterprises through acquisitions and mergers, and by adding or dropping product or service lines. See: Clair Brown, John Haltiwanger and Julia Lane (2006), *Economic Turbulence: Is a Volatile Economy Good for America?*, Chicago, IL: University of Chicago Press. Go to <http://www.industry.sloan.org> for an introduction to the Sloan Foundation Industry Studies program that features more than 20 university-based industry study initiatives.

Frank acknowledgment of what cannot be done with State UI wage records should not deter State eligible agencies from becoming informed about what can be done with this data source, particularly when combined with other data sources.

### **The Quarterly Census of Employment and Wages (QCEW)**

The QCEW is a partnership of the Bureau of Labor Statistics and State employment security agencies. The access rules for QCEW information are completely separate from the access rules for State UI wage record information. The basic criterion for QCEW information access is nondisclosure of the identity of any employing enterprise, directly or indirectly.

The most interesting QCEW data field for extended CTE performance diagnostics is the North American Industry Classification System (NAICS) industry code assigned to the reporting unit. Many CTE constituents want to know what industries have hired, retained and promoted former CTE students.

### **Maintaining and analyzing CTE student employment histories**

A growing number of State eligible agencies are supporting collection and analysis of longitudinal UI wage record information, covering more than 15 years in a few cases. Often, but not always, the employment histories are limited to own State UI wage records—the State of the defined CTE program.

### **The Census Bureau Local Employment Dynamics (LED) program**

State eligible agencies are encouraged to become familiar with the data available from the LED program (<http://lehd.dsd.census.gov>) and the State partners in this relatively new initiative. New capabilities of particular interest to State eligible agencies are in design and beta-testing phases at this time. Some existing capabilities are limited to States that have purchased a particular software module.

One feature of the Web-based Quarterly Workforce Indicator (QWI) series, which is routinely updated by the Census Bureau LED program, is hiring counts by local jurisdiction, industry, age and gender. No occupational information is provided at this time.

