2018–19 OCTAE Customized Technical Assistance to States

Final Summary Report for the West Virginia Community and Technical College System

Prepared under contract to
U.S. Department of Education

RTI International
1618 SW First Avenue, Suite 300
Portland, OR 97201

Contact
Jon Boyette
jboyette@rti.org
503-428-5679

Natassia Rodríguez Ott
nott@rti.org
919-541-7197

Sandra Staklis
sstaklis@rti.org
503-428-5676

July 2019

RTI International is a registered trademark and a trade name of Research Triangle Institute.
Contents

Introduction ..................................................................................................... 1

Technical Assistance Activities .................................................................. 2
New Reporting Requirements for Special Populations .............................. 2
Data Sharing ................................................................................................. 2
Industry-Recognized Credentials ................................................................. 3

Technical Assistance Findings ................................................................. 3
New Reporting Requirements for Special Populations .............................. 4
Data Sharing ................................................................................................. 6
Cross-State Employment Data Sharing ......................................................... 10
Connecting Credential Data to Student Data ............................................... 11

Summary and Next Steps ........................................................................ 14
Introduction

The U.S. Department of Education, Office of Career, Technical, and Adult Education (OCTAE) provides customized technical assistance (TA) to up to six states each year in developing strategies to resolve career and technical education (CTE) data collection and reporting challenges. The purpose of this TA is to help states comply with the accountability requirements under the Strengthening Career and Technical Education for the 21st Century Act (Perkins V) and to use the data collected on CTE programs to improve program delivery and student outcomes.

RTI International contracted with OCTAE to provide TA to six states in 2018–19, including West Virginia. The goals of the West Virginia Community and Technical College System (WVCTCS) in requesting TA were to

- gain clarity on new subgroup reporting requirements at the postsecondary education level under Perkins V;
- identify strategies to improve data sharing among agencies who serve students in the state; and
- learn promising practices for tracking industry-recognized credentials (IRC), including apprenticeships, licensures, and industry-recognized certifications, and linking IRC data to administrative secondary and postsecondary student data.

Researchers from RTI (“the TA team”) met to discuss the state’s needs, on October 31, 2018, with three representatives of WVCTCS: Project Director Rick Goff, Vice Chancellor Casey Sacks, and Statewide Longitudinal Education Database Project Manager Pam Woods. In this and subsequent meetings on January 7, 2019, and March 21, 2019, the TA team and WVCTCS focused on the following TA objectives:

- Examine strategies for addressing new Perkins V accountability requirements, including reporting on the new special populations at the postsecondary level: Of special interest to WVCTCS were postsecondary reporting requirements for homeless individuals, individuals who are in or have aged out of the foster care system, youth with a parent in active military, and out-of-workforce individuals.
- Investigate state practices for establishing agreements to securely link data between agencies: West Virginia wanted to know how states have addressed privacy concerns when linking
data between state agencies and how other states have brought new partners into existing data sharing arrangements.

- **Explore credential and workforce data collection practices**: WVCTCS expressed interest in learning how states collect and verify data on credentials, including IRCs and apprenticeships, as well as how schools and districts administer IRC exams at the secondary and postsecondary levels. WVCTCS also asked for information on how states share labor market outcome data, such as unemployment insurance data, with nearby states.

## Technical Assistance Activities

The TA team collected the information requested by WVCTCS using two methods: document review and interviews with state data analysts. The following summarizes data collection for each of the three topic areas the TA team investigated during the project.

### New Reporting Requirements for Special Populations

For clarification of new reporting requirements for special population groups under *Perkins V*, the TA team monitored the U.S. Department of Education’s communications to the field, attended TA sessions with state CTE administrators and OCTAE staff through the Next Steps Work Group and OCTAE Town Halls, and reviewed guidance materials produced by advocacy organizations for CTE and the new population groups included in *Perkins V*. The TA team also reviewed the reporting requirements of the *Every Student Succeeds Act (ESSA)* and information on state approaches to meeting these requirements. (*ESSA* was enacted in 2015 and included requirements for reporting on special population groups included in *Perkins V*. The TA team also interviewed postsecondary agency staff and CTE providers in Iowa and Michigan to learn their plans for reporting the new special population groups at the postsecondary level and how they planned to collect data on those groups, and spoke with a representative of the National Center for Homeless Education.

### Data Sharing

RTI began investigating promising practices in data sharing through an internet search on Statewide Longitudinal Data System (SLDS) development to prioritize states for follow-up research. The scan of information on SLDSs for all 50 states focused on the methods by which SLDS were established and how state agency data systems were linked. In parallel
with this initial scan of SLDS information, the TA team reviewed recent abstracts for NCES's Statewide Longitudinal Data Systems Grant Program applications\(^1\) to identify those that included efforts to link data systems, especially to include agencies beyond early childhood education, K–12 education, postsecondary education, and workforce development. In consultation with WVCTCS, the TA team selected three states—Arkansas, Tennessee, and Washington—for a detailed review. The TA team supplemented the document review by contacting data staff from two states (Tennessee and Hawaii) for information on their practices and policies in this area. The TA team also interviewed and corresponded with officials from the Kansas Board of Regents for information on their interstate workforce data sharing arrangement with Missouri and investigated emerging national efforts to link workforce data across states.

**Industry-Recognized Credentials**

As a first step to address WVCTCS’s interest in IRCs, the TA team began with a review of IRC data collection documentation in states similar to West Virginia and those recommended by WVCTCS staff. The documentation review included lists of state-approved IRCs as well as guidance related to credential approval processes and the collection of data on students' IRC attainment. This review was supplemented by interviews with state staff from two states (Ohio and Tennessee) on how third-party certification and apprenticeship data are collected and shared across certifying entities and public agencies. RTI shared preliminary findings with WVCTCS and, based on feedback, pursued additional interviews with states of interest to West Virginia, such as Kansas and Kentucky. RTI also collected examples of inter-agency data sharing agreements from states to share with WVCTCS staff.

**Technical Assistance Findings**

The following sections detail the TA team’s findings from research into new reporting requirements for special populations, interagency and cross-state employment data sharing, and connecting IRC data to student data.

---

\(^1\) Information on state grant applications is available at [https://nces.ed.gov/programs/slds/stateinfo.asp](https://nces.ed.gov/programs/slds/stateinfo.asp).
New Reporting Requirements for Special Populations

State Perkins-eligible agencies have long been required to report enrollment and performance data for students from special populations (Table 1). Perkins V revised the legislation’s special population reporting requirements by adding homeless individuals and youth with parents in active military and creating a separate category for youth who are in, or have aged out of, the foster care system (states were formerly asked to include youth in foster care in the population of individuals from economically disadvantaged families). Perkins V also included displaced homemakers in the newly created category “out-of-workforce individuals” and changed “individuals with limited English proficiency” to “English learners.”

Table 1. Special population reporting requirements in Perkins IV, Perkins V, and ESSA

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Legislation</th>
<th>Perkins IV</th>
<th>Perkins V</th>
<th>ESSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals with disabilities (IDEA)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Individuals with disabilities (ADA)</td>
<td>X</td>
<td>X</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Individuals preparing for nontraditional fields</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economically disadvantaged</td>
<td>X</td>
<td>X</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Single parents</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Displaced homemaker</td>
<td>X</td>
<td>***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out-of-workforce individuals</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English learners</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homeless individuals</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth in foster care</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth with a parent in active military</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Migrant students</td>
<td>****</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

* Postsecondary level only.
** ESSA provides states discretion to define this term.
*** Included in Perkins V category “out-of-workforce individuals.”
**** Not defined in Perkins IV, but included in past Consolidated Annual Report reporting.


Data Source: Perkins V Consolidated Annual Report Guide.

Although new to Perkins reporting, these populations are not new to secondary state educational agencies. ESSA requires the disaggregation of state assessments by homeless individuals, youth with parents in active military, and students who are or have been in the foster care system. Postsecondary agencies, however, have not been required to report on these population groups and may not have data collection or reporting processes in place. Not surprisingly, the new reporting requirements for special populations have been a

---

frequent topic in OCTAE-sponsored TA sessions, first through the Next Steps Work Group and later through OCTAE’s Town Hall Calls, which replaced the Next Steps Work Group in April 2019. In lieu of official guidance, OCTAE has emphasized states’ discretion in meeting the new requirements and has focused its support on collecting state feedback and providing forums for states to share their strategies. OCTAE has encouraged states to make their own determinations concerning the new special population reporting requirements. When asked whether postsecondary agencies were required to report on homelessness, for example, an OCTAE representative noted that the Perkins V definition of homeless individuals aligns with the definition of “homeless children and youth” in the McKinney-Vento Homeless Assistance Act, which does not otherwise specify an age range. Therefore, the representative concluded, it is left to the state to determine whether to report it at the postsecondary level.

The National Association for Partnerships in Equity provided general suggestions on how states might collect data for the new indicators (table 2).

Table 2. Suggested sources for special population data from the Strengthening Career and Technical Education for the 21st Century Act and National Association for Partnerships in Equity

<table>
<thead>
<tr>
<th>Special population</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/ethnicity</td>
<td>Local administrative data (student-reported)</td>
</tr>
<tr>
<td>Gender</td>
<td>Local administrative data (student-reported)</td>
</tr>
<tr>
<td>Economically disadvantaged</td>
<td>Secondary – Free and reduced-price lunch eligibility&lt;br&gt;Postsecondary – Pell Grant eligibility</td>
</tr>
<tr>
<td>Youth who are in or have aged out of the foster care system</td>
<td>U.S. Department of Health and Human Services Child Welfare</td>
</tr>
<tr>
<td>Students with disabilities</td>
<td>Secondary – Students with individualized educational plans&lt;br&gt;Postsecondary – Local registration data</td>
</tr>
<tr>
<td>English learners</td>
<td>Local administrative data – Home language survey; enrollment in bilingual or English Language Learner program</td>
</tr>
<tr>
<td>Migrant students</td>
<td>Local administrative data – Enrollment in migrant education programs</td>
</tr>
<tr>
<td>Homeless students</td>
<td>Local administrative data (student- or staff-reported)</td>
</tr>
<tr>
<td>Students with a parent in the active military</td>
<td>U.S. Armed Services</td>
</tr>
<tr>
<td>Single parents, single pregnant women</td>
<td>Local administrative data (student-reported)</td>
</tr>
<tr>
<td>Out-of-work individuals</td>
<td>Local administrative data (student-reported) or Department of Labor Unemployment Insurance Wage Record data</td>
</tr>
<tr>
<td>Students pursuing nontraditional careers</td>
<td>Local administrative data for gender (student-reported)</td>
</tr>
</tbody>
</table>
In anticipation of the first Consolidated Annual Report under *Perkins V,* which will cover the 2019–2020 school year, state postsecondary agencies and institutions of higher education have begun to implement their plans for collecting data on the new special populations at the postsecondary level. State CTE accountability staff in Iowa plan to instruct postsecondary CTE providers to collect the data through student self-reporting during the enrollment process, as do postsecondary CTE providers in Michigan. Iowa also provided a tentative list of groups that it would and would not include in Perkins reporting at the secondary and postsecondary levels (*table 3*).

**Table 3. Tentative reporting schedule for special populations in *Strengthening Career and Technical Education for the 21st Century Act* in Iowa, secondary and postsecondary levels**

<table>
<thead>
<tr>
<th>Special population</th>
<th>Collecting at secondary level?</th>
<th>Collecting at postsecondary level?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individuals with disabilities</strong></td>
<td>Yes, in accordance with the <em>Individuals with Disabilities Education Act</em></td>
<td>Yes, in accordance with the <em>Americans with Disabilities Act</em></td>
</tr>
<tr>
<td><strong>Economically disadvantaged families</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Individuals preparing for nontraditional fields</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Single parents (including single pregnant women); low-income youth and adults</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Out-of-workforce individuals</strong></td>
<td>Not collecting</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>English learners</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Homeless individuals</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Youth who are in, or have aged out of, the foster care system</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Youth with a parent who is a member of the armed forces and is on active duty</strong></td>
<td>Yes</td>
<td>Not collecting</td>
</tr>
<tr>
<td><strong>Migrant students</strong></td>
<td>Yes</td>
<td>Not collecting</td>
</tr>
</tbody>
</table>

**Data Sharing**

The National Center for Education Statistics has led a national effort supporting states’ work to develop SLDSs since 2005: the Statewide Longitudinal Data Systems Grant Program. SLDSs typically link early childhood education, K–12 education, postsecondary education, and workforce data to track student performance and outcomes over time. All but 11 states

---

had an SLDS in place by October 2016, and all but 3 states have received SLDS grants. The TA team’s review of SLDS grant program application abstracts indicated that 22 states have proposed linking data systems as part of their recent grant work. Based on WVCTCS’s interests, the TA team conducted further research on promising practices in data sharing and privacy protection from 7 of the 22 states: Arkansas, Hawai‘i, Kentucky, Massachusetts, Tennessee, Utah, and Washington.

Data privacy has been a foremost concern among state SLDS program staff integrating agencies into data sharing agreements, and states use a combination of legal and technical safeguards.

- **Legal safeguards**: These safeguards are defined in memoranda of understanding (MOUs) and data governance plans in conformity with state and federal privacy laws, notably the *Federal Educational Rights and Privacy Act (FERPA)*.

- **Technical safeguards**: These safeguards include data brokering services; randomized, unique identifiers; secure file transfer protocol sites; and—in the case of Hawai‘i—a hybrid data system structure that combines a data warehouse and federated data system.

Of course, legal and technical safeguards overlap. For example, Utah and Washington’s data access procedures involve both legal (e.g., definitions of the roles of those with access to data in data governance documents) and technical strictures. Utah’s SLDS has a four-tier data access process: Level 1 data are the most sensitive, and access is limited to a few staff members for the purpose of data matching and matching validation. Access to data for research purposes is limited to Levels 2 through 4, at increasing levels of aggregation and anonymization. Washington similarly classifies its data in four levels of increasing confidentiality, from Category 1 (publicly available) to Category 4 (confidential data that require special handling). To ensure the reliable application of rules governing data access in each category, Washington uses tools developed through the Common Educational Data Standards project to align data elements with privacy classifications to determine who may access individual elements or data extracts with elements across different privacy classifications.

---


Legal Safeguards

Sharing individual-level data between state agencies involves legal arrangements that govern what data may and may not be shared and who may access the data. Such arrangements may take the form of MOUs, which establish data sharing partnerships between agencies, or data governance policies, which formalize data sharing partner roles and responsibilities.

Memoranda of Understanding

MOUs from Kentucky, Massachusetts, and Washington used to establish data sharing relationships between state agencies share similar features (copies of these MOUs were provided to WVCTCS with this report):

- **Agreement purpose**: Each MOU specifies the general purpose of the data sharing relationship, which is to facilitate, enable, or support agency activities or goals. Massachusetts’ data sharing agreement identifies a specific state executive order (Executive Order 510, signed in 2009) as the basis for activities enabled and governed by the MOU.

- **Types of data included**: MOUs identify the types of data that may be exchanged pursuant to the data sharing agreement. For example, Section IV of Massachusetts’ data sharing agreement includes the names of datasets from which data are to be pulled and disclosed to the Executive Office of Education.

- **Statutory authority**: MOUs may specify the statutory authority by which the parties to the agreement are permitted to enter into data sharing arrangement with data providers. For example, Kentucky’s MOA template cites Kentucky Revised Statutes (151B.133) as the statute permitting the Kentucky Center for Statistics to enter data sharing agreements.

- **Privacy provisions**: MOUs include privacy provisions and note their compliance with FERPA and other applicable state and federal laws. Washington’s MOU also describes which levels of data in its tiered data access system are subject to FERPA requirements.

Data Governance

Once a group of agencies establishes a data sharing agreement, the data governance policy specifies and formalizes the roles and responsibilities of the agencies that are partner to the
agreement—in short, they establish who governs which data, and how. These policies also describe data security procedures within the context of partner agency roles. For example, Utah’s data governance agreement identifies which partner agency staff have access to each of four data access tiers, for what purposes they may access those data, and which tiers are subject to FERPA requirements. Hawai‘i’s data governance policy describes a hybrid centralized-federated SLDS structure and identifies the types of agencies and organizations that may contribute to the data warehouse (i.e., who are party to the centralized SLDS) or share and access data on a federated basis.

**Technical Safeguards**

The structure of the data system—centralized or federated—shapes the types of technical safeguards a state uses to protect individual privacy. Typically, a state will adopt either a data warehouse or federated data system for its SLDS. However, Hawai‘i has developed a hybrid system that combines a data warehouse and federated data system to facilitate data exchange with organizations and agencies that are not party to the SLDS (e.g., Head Start). State agencies that are members of the Hawai‘i Data eXchange Partnership contribute to a data warehouse. Nonstate agencies may provide or access data on a federated basis as Data Exchange Partnership affiliates. This arrangement was designed in part to address the concerns of nonpartner agencies who may not wish to permanently store their data in a data warehouse.

An automated data broker may offer an additional layer of data security by preventing the exchange of personally identifiable information (PII) across agencies that are party to the SLDS. Arkansas’ dual database architecture includes a knowledge-based identity management (KIM) system. KIM matches student identifiers from one database to known variations of that identifier, assigns a new KIM ID to the record, and exports the record

---


10 In a data warehouse, agency data are combined and stored in a single database, with interagency student records linked by unique student identifiers. In a federated system, data are not transferred to and stored permanently in a central system but remain in the data systems of individual agencies. Analysts from other agencies may request access to those data or access them directly through queries to the agency’s database.

11 Hawai‘i Data eXchange Partnership, *Data Governance Policy.*

12 See https://arc.arkansas.gov/arcweb/?page_id=2.
without PII. In some variations (e.g., Open-System Entity Resolution) a database is created specifically for the matching process and destroyed once the match is complete and the record exported with the KIM ID.

Cross-State Employment Data Sharing

Some states, including Kansas, Kentucky, and Tennessee, have national, regional, and/or local agreements to share employment data across state lines. At the national level, the State Wage Interchange System (SWIS) supports the exchange of unemployment insurance data for reporting, research, and evaluation related to the Workforce Innovation and Opportunity Act (WIOA) across states and state agencies. SWIS replaces the U.S. Departments of Labor and Education’s Wage Record Interchange Systems (WRIS, WRIS2). Under SWIS data sharing agreements, states may share data related to all six core WIOA programs for WIOA reporting. However, because the goal of data sharing under SWIS is to satisfy WIOA reporting requirements, it is unclear whether the agreement can extend to data sharing for Perkins reporting or broader state-level goals of tracking students through the transition into the workforce.

An alternative that is not tied to federal reporting requirements is available through the Western Interstate Commission on Higher Education (WICHE). WICHE facilitates a regional data exchange between more than 10 western and midwestern states as well as the Multistate Longitudinal Data Exchange project, which has been successful in linking state data systems across state lines to connect student information with labor market outcomes. States submit their data to WICHE, a third party, then WICHE staff conduct the matching process. Washington, for example, identified labor market data for 9 percent of individuals who were not working in-state and had previously been counted as missing data. WICHE provided funding to states upon joining the exchange to cover start-up costs and technical aspects of the exchange, though states are expected to cover the costs necessary to sustain the data sharing structure. WICHE has also facilitated additional data partnerships beyond western states; Indiana, for example, recently formed an agreement with Kentucky to share data through an online portal.

Other states form agreements outside of regional or national processes, such as a long-standing exchange of data between Kansas and Missouri. The states spent several years building the foundation that led up to the data sharing agreement. The agreement covers

14 See [https://www.wiche.edu/longitudinalDataExchange/faq](https://www.wiche.edu/longitudinalDataExchange/faq).
15 See [https://static.newamerica.org/attachments/ 13023-stitching-the-states/Stitching-the-States.16a8b2d989bfbe46.pdf](https://static.newamerica.org/attachments/13023-stitching-the-states/Stitching-the-States.16a8b2d989bfbe46.pdf).
16 Interested parties may request information on Kansas’ data sharing arrangement with Missouri through an open records request. See [https://www.kansasregents.org/about/board_office](https://www.kansasregents.org/about/board_office) for more detail.
postsecondary and unemployment insurance data sharing on a regular schedule for federal reporting purposes. Per the agreement, all staff members must complete data privacy trainings created by both states in order to use the data. While this relationship has been very successful, Kansas is not considering agreements with other states at this time and is instead evaluating SWIS as an alternative for interstate wage data sharing.

Connecting Credential Data to Student Data

Credentials offered by third-party organizations to secondary and postsecondary students may include IRCs, licenses, or apprenticeships. This report focuses on IRCs and apprenticeships because many licenses require paid work experience, making them less accessible to current or recent students.

Industry-Recognized Credentials

At the state level, state education agencies track student IRC attempts and attainment using two approaches:

- **Contracts or agreements between vendors and state education agencies.** In this approach, vendors report data on credential attempts and completions directly to the state education agency. For example, in Tennessee, vendors sign an MOA with the state education agency to provide credential data on an on-going basis (a copy of this MOA has been provided to WVCTCS with permission from the Tennessee Department of Education).

- **Self-reports from schools and districts through existing reporting systems.** Most states rely on self-reports from local education agencies (LEAs) for IRC data. Schools may collect this information directly from vendors in cases where the school proctors the IRC exam, through student and alumni surveys, or through student self-reports as part of curricular or graduation requirements.

Each method has tradeoffs related to start-up costs, ease of verification, and feasibility of matching credential and student data. Table 4 summarizes these tradeoffs for each method of data collection.

Developing a data repository at the national level using vendor agreements

The National Student Clearinghouse is working with colleges, credential vendors, and Bureau of Labor Statistics staff to develop a database that connects postsecondary student data to credential completion and workforce data. Initially, the Clearinghouse linked postsecondary student data with IRC completion data at the state level. This project is now being piloted with a few states willing to provide systemwide data on students in non-credit-bearing programs aligned with IRCs because many industry training–focused programs are offered as nondegree programs. This project is anticipated to yield a repository of matched student data in the next three years.
Among the states reviewed, LEAs prioritize offering IRC exams through vendors that are approved or recognized by the state to receive reimbursement of exam costs. LEAs take the lead with arranging and hosting most IRC exams, except in cases where the state has a statewide contract with a vendor. For example, schools in South Dakota arrange their own IRC exams for all tests except for the ACT National Career Readiness Certificate because the state funds and organizes the administration of this exam.

While some IRC exams may only have one vendor option, other IRC exams may have multiple possible vendors (e.g., IT computer skill certifications, certified nursing assistant certifications). When the state does not specify a vendor for an approved IRC, LEAs choose vendors that administer exams recognized by local, regional, or national industry members. LEAs also choose vendors that require exam conditions the school or district can accommodate. For example, the National Institute for Metalworking Skills specifies which staff are permitted to proctor the exam. Exams may be administered by a CTE coordinator or counselor in cases where the teacher is not allowed to proctor the exam, though sometimes involvement from an employer or nonschool staff member is also required. In cases where the school or district does not have the appropriate facilities, staff, or equipment to administer an IRC exam, it partners with a regional technical or community college to host and proctor the exam.

Table 4. Summary of industry-recognized credential (IRC) data collection methods

<table>
<thead>
<tr>
<th>Components needed to set up the data collection method</th>
<th>Contracts or agreements with vendors</th>
<th>Self-reports from schools and districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>The state must select which IRCs (and, where relevant, approve a vendor) for data collection. The result could range from collecting data from one vendor offering a single, common approved IRC (South Dakota) to all approved vendors offering any state-approved IRCs (Tennessee). The state must develop contracts with vendors that allow for regular data sharing and identify the minimum information necessary to conduct a match with student records.</td>
<td>Vendors report participation and completion records directly to the state education agency, leaving little room for error in reporting. The state may also create an appeal process for schools or districts if it would like to prove a student received an IRC in case the vendor record cannot be matched to the student.</td>
<td>To ease the process of linking school data to IRCs on the state IRC list, states may create IRC identification numbers or, in states using templates or online reporting (Virginia), use drop-down menus with preloaded IRC names. This reporting process may operate through state transcript (South Dakota) or accountability (Missouri) reporting systems, or a separate system created for incentive-related reporting (Kansas).</td>
</tr>
</tbody>
</table>

Data verification and quality assurance

Vendor-reported data cannot always be matched to student records because certifying bodies may not collect enough As an exam proctor, the local education agency can identify students that sign up for the exam. In other cases, the school
Contracts or agreements with vendors | Self-reports from schools and districts
---|---
data on students (e.g., first and last name, address, date of birth) to allow for an accurate match. For example, Tennessee reports matching about half of the credential data received from vendors to student records. | may collect and document IRC completion data as part of individual student records.

Additional considerations

State education agencies may only have the capacity to approve a limited number of IRCs since each vendor partnership requires maintenance. | Self-reporting places the burden of data collection on schools and districts.

---

Pre-Apprenticeships and Apprenticeships

Most states regulate and track pre-apprenticeships and apprenticeships separately from IRCs. Almost all states reviewed for this report, with the exceptions of Kentucky and Ohio, do not consider pre-apprenticeships to be a type of IRC or include apprenticeships in their IRC data collection processes because of the following:

- *Apprenticeship records are tracked by noneducation agencies, making them difficult to link with student records:* Schools or districts may work with an employer to register a pre-apprenticeship at the federal level through Registered Apprenticeship Partners Information Data System (RAPIDS 2.0) or at the state level through an authorized state agency. These records do not usually contain enough identifying information for the apprentice to match the pre-apprenticeship with secondary student records.

- *Varying quality and structure of pre-apprenticeships:* Schools or districts may choose not to register a pre-apprenticeship, leading to variations in the quality and content of pre-apprenticeships. In contrast, all students must take the same exam for an IRC and learn the same competencies to receive a certification. Without detailed regulations, an experience one school considers a pre-apprenticeship may be classified as an internship at a different school. In Ohio, for example, only pre-apprenticeships registered with the state apprenticeship council count in the state accountability system.

- *Apprenticeship data may be less accurate than IRC data:* One state (Kentucky) has found the accuracy of self-reported apprenticeship data to be lower than that for self-reported IRC data; state staff report that the reasons for this difference in accuracy are unknown.

Some states, such as Kentucky and Washington, link apprenticeship data with student records for purposes other than state or federal accountability reporting. In these cases, the data sharing process depends on which state agency administers or manages registered apprenticeships, program type, and state laws around data sharing. Washington’s SLDS, for example, integrates data from the state’s Apprenticeship Registration Tracking System. The
Education Research Data Center, which oversees the SLDS, has an MOU with the state labor agency to share personal identification numbers, contact information, demographic information, information about the apprenticeship program, and the status of the apprenticeship for apprentices. Similarly, Kentucky’s SLDS integrates apprenticeship data through cross-agency agreements managed by Kentucky Center for Statistics, the state data center that houses the Kentucky Longitudinal Data System and ensures compliance with federal and state privacy laws.

### Summary and Next Steps

- **Special populations reporting**: States have some discretion in how they collect and report new special populations data required under *Perkins V*. The state and local postsecondary CTE providers interviewed for this report planned to collect new special populations data through voluntary student self-reporting during the enrollment process.

- **Interagency data sharing**: States employ a combination of legal and technical safeguards to protect student privacy while enabling information sharing across agencies. MOUs and data governance policies specify the conditions under which data may be shared across agencies. Some states (e.g., Utah and Washington) have created a tiered data access system, in which access to PII is limited to certain types of data, available to specified analysts only, and can be used for carefully specified purposes. One state (Hawai‘i) provides a hybrid centralized-federated data system to address privacy concerns of potential data providers who are not partner to its Data eXchange Partnership.

- **Varying methods of IRC data collection**: Most of the states reviewed collect third-party industry certification data through self-reports from students and districts. While some states receive completion reports directly from third-party providers, states noted two challenges with this approach. First, many certifiers do not collect enough information to link the reports to administrative education data, leading to low match rates. Second, managing data sharing agreements with a variety of providers can be labor intensive.

- **Verifying IRC reporting using virtual records**: States verify self-reported IRC data by requiring districts to maintain records of or submit copies of IRC completion certificates. States report finding low levels of inaccuracy in data reporting when conducting audits of this verification approach.
• **National and regional cross-state sharing of labor market data:** States utilize cross-state data sharing agreements facilitated at the national, regional, or state levels to improve data documentation and reporting on student labor market outcomes. For example, Kansas and Missouri have a state-to-state agreement to share unemployment insurance data, while other states are part of regional collaborations (e.g., WICHE) for postsecondary and unemployment insurance data sharing.

The TA team suggests the following next steps for West Virginia to leverage findings from the 2018–19 TA process:

• **Establish data collection methodology for new special populations at the postsecondary level:** In collaboration with postsecondary CTE providers, institute processes to capture new special populations data through student self-reporting during the enrollment process for population groups that are not currently included in postsecondary accountability or reporting routines. Note to CTE providers that the methodology may need to be updated following OCTAE’s initial review of the first CAR report submitted under Perkins V in December 2020.

• **Identify potential practices for secure data linking:** Consider if any practices described in the report may allay privacy concerns of existing or prospective partners. For example, Arkansas’ knowledgebase data linking system may provide a means to limit who has access to PII without limiting analysts’ ability to access other educational variables. Additionally, a SLDS structure similar to Hawai’i Data eXchange Partnership’s hybrid data warehouse-federated data system may reassure prospective partners who would like to share and access education data but do not want their data permanently stored outside of their organization or agency.

• **Focus data collection on IRCs:** Most states limit IRC reporting to data on third-party industry certifications. While some states collect data on unregistered apprenticeships, states have found that these data are less reliable due to inconsistency in quality programming and may be more difficult to match onto student data. Based on these experiences, West Virginia might consider focusing data collection on quality IRCs aligned with local labor market needs, concurrently with a review of apprenticeship data quality, before accessing apprenticeship data.

• **Explore cross-state data sharing through WICHE:** The WICHE data sharing initiative could provide an efficient way to share data with states in the region, such as Kentucky, that are already participating in the initiative. As a first step, West Virginia might consider exploring the requirements for sharing workforce data across state lines through WICHE.

• **Define approved IRC vendors at the state level:** The same or similar IRCs (e.g., C++ certifications) may be offered by more than one local, regional, or national vendor.
LEAs follow the guidance of the state, when available, to select a vendor for IRC exams. When this guidance is not available, LEAs select vendors recognized by local industry professionals. To encourage LEAs to offer high-quality, industry-aligned IRCs, West Virginia could specify which exam vendors are approved for accountability reporting.