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Tracking Postsecondary-to-Workforce Outcomes:

An Overview of State Data Systems in the Midwest

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Report Overview

State policymakers, agencies, and families are increasingly interested in understanding what happens to students after they leave or graduate from college. Post-college outcomes – including whether students pursue further education, successfully enter the workforce, or move out of the state – are essential for evaluating the return on public and private investments in higher education and informing state higher education policy.

This report synthesizes findings from interviews with officials in 11 Midwest states to better understand how states currently track post-college outcomes and to identify potential opportunities for improving state data capabilities in monitoring postsecondary and workforce outcomes within and across states. It focuses on intrastate, cross-state, and national data sources used for student tracking (see below for definitions).

DEFINITIONS

INTRASTATE DATA SOURCES

- **State Longitudinal Data Systems (SLDS)**: SLDS integrate data across education sectors (e.g., K–12, postsecondary) and, in some cases, workforce data.t and, in some states, employment outcomes.
- **Unemployment Insurance (UI) Wage Data**: UI wage records contain quarterly earnings and industry sector information for individuals employed within a state.
- **Student-Level Administrative Data:** These are data collected by postsecondary institutions or state agencies about individual students, such as enrollment, course-taking, degree completion, and financial aid.

CROSS-STATE DATA SOURCES

- **State Wage Interchange System (SWIS)**: SWIS is a federally coordinated program that allows states to share UI wage data for specific federal reporting purposes (e.g., Workforce Innovation and Opportunity Act compliance).
- **Coleridge Initiative:** A nonprofit organization that facilitates secure, multi-state access to linked administrative data – including education, workforce, and social services - for approved research and policy analysis.
- **Cross-State Data Exchange**: Refers to bilateral or multistate agreements that allow neighboring states to share education and workforce data.

NATIONAL DATA SOURCES

- **National Student Clearinghouse (NSC)**: nonprofit organization that collects enrollment and degree completion data from over 3,600 colleges and universities across the country.
- **U.S. Census Bureau Post-Secondary Employment Outcomes (PSEO)**: A federal initiative that links college graduate data from participating institutions with national wage records to produce aggregated earnings and employment outcomes.

RESEARCH HIGHLIGHTS

- **While all states use intrastate data sources for tracking students' educational pathways and in-state employment, utilization of cross-state and national sources for workforce outcomes is inconsistent.** The most common data sources used across states were UI wage records, SLDS, and NSC. Eight states currently have institutional representation in PSEO, and seven of them indicated using PSEO for tracking employment outcomes. A few states reported using SWIS or participating in cross-state exchanges such as Coleridge or the Kansas-Missouri agreement.
- **Student tracking systems vary widely across states in population coverage, data integration, and institutional participation.** Most states track public institution graduates, but coverage of non-completers and private institutions varies. While some states include K–12 and workforce data in their SLDS, others operate parallel systems or face limitations in integrating data across sectors.
- **State data systems vary in their governance structure - centralized, federated, or hybrid – each with implications for data coordination and accessibility.** Three states use a centralized system, where data from multiple agencies are stored in a unified system. Five states follow a federated model, with agencies maintaining control of their own data and collaborating through agreements. The remaining three use a hybrid approach, combining centralized storage for some data with decentralized control for others.
- **Funding structures for student tracking systems vary widely across states.** Five Midwest states receive direct legislative appropriations for their tracking systems, while others rely on agency budgets, partnerships, or federal grants. This variation in funding sources may contribute to disparities in system stability, scope, and long-term planning capacity.
- **Despite relatively strong in-state tracking capabilities, states face systemic challenges in capturing complete post-college outcomes.** Key issues include limited access to out-of-state employment data, uneven institutional participation in national systems like PSEO, and the high cost of NSC and the Coleridge Initiative. States also noted limited occupational detail in UI records, legal constraints and uncertainty (e.g., SWIS usage, inter-agency data sharing), fragmented data governance, incomplete data from private institutions, and financial instability due to reliance on short-term grants.

POLICY OPTIONS

- **Sustainable Funding.** Sustainable state funding models can help ensure student tracking and data systems remain current and reliable.
- **Cross-Agency Data Integration and Governance.** Strengthening governance frameworks and promoting cross-agency collaboration can improve interoperability and reduce duplication.
- **PSEO Engagement.** PSEO provides a cost-effective tool for measuring workforce outcomes for college graduates across states. Increasing institutional and state participation, promoting data enhancements through the PSEO Coalition, and supporting analytic use can help realize its full potential as a foundational multi-state resource.
- **Procedural Clarity for Using SWIS.** SWIS enables states to share wage data for federal reporting, but its broader use is constrained by unclear legal and procedural guidance. Establishing a shared understanding of permissible uses could expand adoption for research and policy analysis.
- **Cross-State Data Exchange Pilots.** States could build on past data exchange models through pilots that identify shared priorities, technical requirements, and legal considerations for cross-state tracking.
- **Regional Coordination.** Regional higher education compacts could explore opportunities for collective procurement contracts, shared analytic service models, and data governance frameworks.

Introduction

Tracking what happens to students after they leave or graduate from college is essential for state agencies, policymakers, and students and their families. Postsecondary education requires significant public and private investment, supported not only through state appropriations but also through tuition paid by students and their families. Understanding the outcomes of those investments – whether students continue their education, successfully enter the workforce, or move out of the state - is essential for developing, evaluating, and improving state policies and practices that align higher education with workforce development. Reliable outcomes data can help states evaluate the return on the investment of higher education, design workforce-aligned programs, and make informed decisions about postsecondary funding and accountability. The data can also help students and families weigh the costs and benefits of attending college by comparing outcomes across institutions and programs of study and estimating potential future earnings.

While the importance of tracking postsecondary outcomes is widely recognized, the capacity of states to develop and oversee the data systems that track student outcomes varies considerably. Recent reports by the Education Commission of the States (ECS, 2024), the State Higher Education Executive Officers Association (SHEEO, n.d.), and the U.S. Department of Education (ED) (Bloom-Weltman et al., 2021) document the variation in the structure and governance of state data systems. However, less is known about how states use these systems to track outcomes beyond postsecondary education, especially for outcomes relating to employment.

This report addresses these gaps by synthesizing findings from interviews with officials in 11 Midwest states. It serves as a needs assessment, examining how states track post-college student outcomes, what data systems they rely on, and the challenges they face in doing so. The first section outlines the research objectives and methodology used in conducting the interviews. The second section highlights the main data sources Midwest states use to track students, while the third section examines key features of student tracking infrastructure. The fourth section identifies perceived strengths, challenges, and limitations that emerged across the states, including challenges in using unemployment insurance data, limited participation in national tracking initiatives, and broader structural issues in student tracking. The report concludes with some options for strengthening intrastate and cross-state data efforts to enhance tracking of students' postsecondary and workforce outcomes.

Research Objectives and Methodology

A qualitative study was designed to address three questions about postsecondary student tracking systems in the Midwest:

1. **Data Sources:** What data sources are used by states to track students' post-college outcomes?
2. **Key Features of Student Tracking Systems:** What are the defining features of each state's tracking system, including population tracked, funding sources, data system governance, and public reporting of data?
3. **Strengths, Challenges, and Limitations:** What are some of the perceived strengths, challenges, and limitations across data systems in the Midwest?

To address these questions, MHEC researchers developed a semi-structured interview protocol for representatives of 11 Midwest states.[1] Participants were selected based on their position, experience, and knowledge of their state's higher education and workforce data collection and use. Interviews were conducted between January 2025 and June 2026 with representatives from various agencies and organizations, including:

- Illinois Board of Higher Education
- Indiana Commission for Higher Education
- Iowa Board of Regents

[1] These states included Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, and Wisconsin.

- Kansas Board of Regents
- Michigan Association of State Universities
- Michigan Center for Education Performance and Information
- Michigan Center for Data and Analytics
- Minnesota Office of Higher Education
- Missouri Department of Higher Education & Workforce Development
- Nebraska State Workforce & Educational Reporting System
- North Dakota Information Technology
- North Dakota University System
- Ohio Department of Higher Education
- Universities of Wisconsin System
- Wisconsin Technical College System

The interview responses were summarized by state to allow for comparisons of which students are tracked, how data are used, and the perceived strengths and challenges of current systems. A thematic analysis was then used to identify patterns in the narratives, with a particular focus on issues, challenges, and opportunities. The results below reflect information shared during interviews and may not capture all ongoing or emerging efforts. However, supplementary document analysis was used for additional context when needed. (See the Appendix for the full interview protocol.)

For clarity, this report refers to "data systems" as the longitudinal or administrative infrastructures states maintain to track students across education and workforce sectors, whereas "data sources" are the specific datasets and elements (such as UI wage records, NSC files, or institutional administrative records) that are integrated into those systems. While the two terms are often used interchangeably in state discussions, we define them separately here to more precisely describe states' tracking capacity and practices.

Data Sources for Student Tracking

As seen in **Table 1**, states reported using a variety of data sources to track post-college outcomes, which can be generally distinguished by the type of coverage they provide: intrastate, cross-state, and national. Intrastate data can offer detailed insights but are limited to tracking individuals within state borders, including state longitudinal data systems (SLDS), unemployment insurance (UI) wage data, and student-level administrative data.[2] Cross-state data sources extend tracking across state borders but rely on voluntary agreements or regional collaborations. These sources include the State Wage Interchange System (SWIS), the Coleridge Initiative, and cross-state data exchanges. National data sources provide multi-state coverage across institutions and geographies. These systems include the National Student Clearinghouse (NSC) and U.S. Census Bureau Post-Secondary Employment Outcomes (PSEO).

Intra-State Data Sources

State Longitudinal Data Systems (SLDS). All states reported that they integrate K-12 and higher education data into an SLDS – sometimes referred to as a P-20 data system – and, in some cases, also incorporate workforce data. These systems track students from early education through postsecondary education, and in states where workforce data are included, into employment.

Unemployment Insurance (UI) Wage Data. All states reported using their state's UI wage records to measure employment outcomes. UI data contain information on quarterly earnings and industry sector.

Student-Level Administrative Data. A few states use administrative records from postsecondary institutions to track enrollment, persistence, and completion. In some cases, this data is maintained separately and not incorporated into the state's SLDS. Some states collect student-level data due to statutory requirements, while others collect only limited data for administration of state programs (e.g. financial aid), and some do not collect any administrative data from postsecondary institutions but are instead siloed within certain sector specific organizations. Two college systems reported using alumni surveys to assess graduates' wages and migration after college.

Cross-State Data Sources

State Wage Interchange System (SWIS). All states have at least one agency or organization with

[2] While this section examines data sources, some such as SLDS function more as systems that integrate multiple sources.

TABLE 1. Data Sources Used for Student Tracking

	IL	IN	IA	KS	MI	MN	MO	NE	ND	OH	WI	Total
Intrastate Data Sources												
State Longitudinal Data Systems (SLDS)		X	X	X	X	X	X	X	X	X	X	10
Unemployment Insurance (UI) Wage Data	X	X	X	X	X	X	X	X	X	X	X	11
Student-Level Administrative Data	X	X			X	X	X	X		X	X	8
Cross-State Data Sources												
State Wage Interchange System (SWIS)			X	X					X		X	4
Coleridge Initiative										X		1
Cross-State Data Exchange				X			X					2
National Data Sources												
National Student Clearinghouse (NSC)	X	X	X	X	X	X	X	X	X	X	X	11
U.S. Census Bureau Post-Secondary Employment Outcomes (PSEO)	X	X	X			X	X			X	X	7

Note. Although Michigan has institutional representation in PSEO through the University of Michigan, the state does not currently use the data for tracking postsecondary outcomes, citing limited coverage from a single institutional system.

access to SWIS data. SWIS is a federally coordinated program that allows states to share UI wage data for specific federal reporting purposes (e.g., Workforce Innovation and Opportunity Act compliance). It enables participating states to track employment outcomes of students who move out of state, but usage is restricted to designated federal reporting purposes.

Coleridge Initiative. The Coleridge Initiative is a nonprofit organization that helps states and public agencies securely share and analyze data across state lines. Through this work, states can link education, workforce, and social service data. Some Midwest states participate in Coleridge through their workforce or labor agencies for UI wage record exchange and workforce analytics, rather than for tracking postsecondary outcomes specifically (Illinois and Wisconsin). Currently, Ohio is the only Midwest state participating in Coleridge tracking postsecondary outcomes across state lines.

Cross-State Data Exchange. Kansas and Missouri reported having a cross-state data-sharing

agreement for employment outcomes due to Kansas City spanning the two states. The agreement allows each state to collaboratively match students to the other state's UI data to identify individuals working across state lines.

National Data Sources

National Student Clearinghouse (NSC). All states mentioned the use of data from NSC, which provides information on students' enrollment spells and degree completion in postsecondary institutions within and across state lines.

U.S. Census Bureau Post-Secondary Employment Outcomes (PSEO). Seven states reported using PSEO data for tracking workforce outcomes. PSEO is a federal initiative that links college graduate data from participating institutions with national wage records to produce aggregated earnings and employment outcomes by institution, field of study, and degree level. Participation is voluntary and limited to institutions that submit graduate-level data to the Census Bureau.

Key Features of Student Tracking Systems

Each state, and in many cases each agency within a state, has its own combination of data sources, governance structures, and reporting practices shaped by data availability, legal frameworks, institutional participation, and funding streams. **Table 2** presents a state-by-state overview of who is tracked, how systems are governed and financed, and how outcomes are publicly reported.

Population Tracked

States vary in the scope of their tracking, both in terms of the institutions included and the types of students covered. Most states track students at public postsecondary institutions, with varying coverage of private colleges. Some states (e.g., Indiana, Minnesota) include non-completers and private institutions through annual record-level submissions. Others, like Ohio and Missouri, focus primarily on degree completers, while Nebraska and Iowa extend tracking from high school into college.

Funding Source

States fund their tracking systems through a mix of direct appropriations, agency budgets, partnerships, and federal grants, with wide variation in financial stability and capacity. Five states receive legislative appropriations that directly support their tracking systems (Illinois, Minnesota, North Dakota, Michigan through CEPI, and Missouri). However, the funding amount varies. For example, Illinois indicated they receive a small amount of state appropriations, with the remainder covered by agency budgets. In contrast, four states do not receive direct state appropriations. Instead, funding is embedded within an agency's general budget, and student tracking is integrated into the agency's broader operations (Iowa, Kansas, Indiana, Ohio, and Wisconsin). In addition, four states rely on federal SLDS grants to support their tracking work. These grants, administered by the National Center for Education Statistics (NCES), help states develop and expand longitudinal data systems that track students' academic and workforce pathways.

Data System Governance

State data system governance can be characterized as centralized, federated, or hybrid. A *centralized* data system stores information from multiple participating states agencies (e.g., K-12, higher education, workforce) in one unified location where it is integrated and stored for authorized users to access (three states). A *federated* system allows each participating agency to retain control of its own data, while collaborating through data-sharing agreements or on-demand linkages for specific research cases or projects (four states). A *hybrid* system combines elements of both centralized and federated models (three states). Some data may be centrally housed, while other data remains in agency silos and is accessed through data-sharing agreements.

Public Reporting

All states indicated the need and demand from policymakers for transparent data on post-college outcomes, such as earnings and employment. Most states rely on their UI wage records for students' employment outcomes after college, while several also use PSEO data for participating institutions.

TABLE 2. Coverage, Funding, and Governance of Student Tracking Systems

STATE	DATA SOURCES	POPULATION TRACKED	FUNDING	GOVERNANCE	PUBLIC REPORTING
IL	UI wages, NSC, PSEO, and internal systems	All public 4-year students; Private and community colleges tracked separately	Receives a small amount of direct funding from appropriations; most funding comes through agency budgets.	Federated	https://ilcollege2career.com/#/
IN	Commission for Higher Education Data Submission System (CHEDS), UI wages, NSC, SLDS, and PSEO	All students at public and private institutions, including non-completers	No direct appropriation; tracking supported indirectly via performance-based funding and state aid requirements	Hybrid	Under development utilizing data from PSEO
IA	SLDS, UI wages, NSC, SWIS, and PSEO	High school graduates' higher education outcomes; Postsecondary students at public institutions, including non-completers	No direct state appropriation; relies on federal grants.	Federated	https://iowastudentoutcomes.com https://iowaregents.edu/reports/wages-and-outcomes
KS	SLDS, UI wages (KS & MO), SWIS, and NSC	High school students; All public postsecondary students and some students at independent colleges	No direct state appropriation: funding is embedded within agency budgets and federal grants	Federated	stats.kansasregents.gov degreestats.kansasregents.gov
MI	SLDS, UI wages, NSC, and student transcripts	High school students; All public postsecondary students and some students at independent colleges	SLDS within CEPI receives state appropriation; Labor data through MCDA relies on data partnerships; both use federal grants	Centralized	https://mischooldata.org/workforce-landing-page/
MN	SLEDS (SLDS), NSC, UI wages, administrative data from colleges, and PSEO	High school graduates; All public and private students, including non-completers	Legislature provides recurring funding for SLDS	Hybrid	https://sleds.mn.gov https://apps.deed.state.mn.us/lmi/etd/results.aspx
MO	Administrative data from colleges, UI wages (KS & MO), PSEO, SLDS, and NSC (ad-hoc)	All public postsecondary students; Graduates from independent colleges	Receives general revenue dollars for P-20W; also uses federal grants when available.	Centralized	https://scorecard.mo.gov/Search https://journeytocollege.mo.gov/srtk/
NE	NSWERS system (SLDS), administrative data from colleges, UI wages, and NSC	Public high school graduates; All public postsecondary students	NSWERS receives funding from partnering institutions	Centralized	https://insights.nswers.org
ND	SLDS, UI wages, NSC, and SWIS	High school students; All public postsecondary students; Some students at tribal/private colleges (voluntarily submit data)	Receives direct legislative funding	Hybrid	https://insights.nd.gov
OH	Ohio Longitudinal Data Archive (OLDA), UI wages, NSC, SLDS, PSEO, and Coleridge Initiative	High school graduates; All completers from public institutions	Supported through department budgets, but no specific earmark for SLDS	Federated	https://highered.ohio.gov/data-reports
WI	SLDS, PSEO, NSC, UI, SWIS, administrative and alumni data, and institutional surveys.	Postsecondary students at public institutions, including non-completers.	No direct state appropriation, supported through institutional budgets.	Federated	https://wisconsin.edu/education-reports-statistics https://wisconsin.edu/accountability/economic-development https://wtcsystem.edu/impact/outcomes https://www.wtcsystem.edu/impact/publications

Strengths, Challenges, and Limitations of Student Tracking Systems

As indicated in **Table 3**, several student tracking systems were viewed as possessing distinctive strengths or advantages for policy, research, and decision-making. For example, Illinois and Missouri highlighted their robust wage tracking for completers. Minnesota and North Dakota reported that the integration of data across education and workforce systems is a major advantage. Kansas, Missouri, and Ohio indicated their cross-state partnerships extend tracking beyond state borders. Moreover, interview participants generally indicated that they have reasonably strong capacity to track students within their borders.

TABLE 3. Perceived Strengths and Challenges of Student Tracking Systems in the Midwest

STATE	STRENGTHS	CHALLENGES/LIMITATIONS
IL	Robust wage tracking for completers; Strong university collaboration	Fragmented SLDS; Limited staff; No routine data linkage across sectors
IN	Comprehensive data for all sectors due to state's performance-based funding; Large number of public and private institutions participating in PSEO.	Less detailed data from private institutions; For-profit colleges are not tracked longitudinally.
IA	All public institutions participating in PSEO	Fragmented SLDS; UI data not fully integrated with SLDS and postsecondary data.
KS	Detailed outcomes dashboard; Robust data collection; Cross-state data linkages	Upcoming system migration risks losing data integration; Limited out-of-state data
MI	Early ID assignment that is integrated to education/workforce data	No out-of-state data; Legal SSN restrictions limit data matching
MN	Comprehensive and longitudinal data coverage; Integration across education and workforce systems; Large number of institutions participating in PSEO.	No out-of-state data; Not all private institutions participate in PSEO; Data for online colleges can be complex
MO	Robust wage tracking for completers; Robust data collection; Cross-state data linkages	Reliance on in-state wage data; Limited tracking of non-completers; Incomplete data from private colleges; K-12 and higher ed data not fully integrated
NE	Covers full education-to-workforce pipeline; Strong partner network; Outcomes-based evaluation model	No out-of-state employment data; Limited funding (not state-funded); SLDS data is maintained separately
ND	Highly integrated SLDS with K-12, higher ed, and workforce data; Daily data updates	Limited data for out-of-state and private sector students
OH	Multi-agency collaboration; Strong integration with workforce data; Access to PSEO & Coleridge for national view	Limited tracking of non-completers; Limited data from private colleges. Limited out-of-state/employer data; Have multiple parallel data systems
WI	Robust data collection and structure; high PSEO participation within university system; collaborative data exchange between public 4-yr and 2-yr colleges; longstanding graduate outcomes survey with high response rates for public 2-yr colleges.	Limited resources, funding, and IT capacity; Continual need for data agreements across agencies for ad-hoc reporting.

Despite these strengths, states face limitations and barriers that complicate comprehensive student tracking. Out-of-state employment data was the most consistently reported gap across states. Some systems are fragmented with parallel data systems (e.g., Illinois, Ohio) or lack full integration across K-12, higher education, and workforce sectors (e.g., Missouri, Iowa). Institutions in the private or for-profit sector often provide incomplete or no data, making it difficult to track outcomes across institutional sectors (e.g., Indiana, Missouri, Ohio). Technical or legal barriers – such as Social Security Number (SSN) restrictions in Michigan or technical risks associated with Kansas's migration to a new data system – threaten data continuity.

A thematic analysis of the interview data further underscored both technical barriers and broader system-level constraints that affect state abilities to track postsecondary and workforce outcomes comprehensively. Specifically, the analysis revealed the following seven themes:

- UI Data Gaps
- PSEO Limitations
- Cost Barriers to Coleridge and NSC Participation
- Legal Barriers and SWIS Usage
- Data Governance and Data Limitations
- Financial Sustainability of Data Infrastructure
- Limited Capacity to Meet Policy Research Demand

UI Data Gaps

As mentioned previously, all Midwest states rely on Unemployment Insurance (UI) wage records to track students' employment outcomes, which allows in-state tracking of earnings and industry placement. However, most states indicated that occupational data are often unavailable in their UI data, making it difficult to assess whether students are employed in their field of study. In the absence of occupation codes, states can rely on industry codes to infer occupations, but this approach can be imprecise. Several states reported their UI data having additional fields not found in others. Nebraska and Indiana were the only states to report their UI data having occupational codes and hours worked. However, for Indiana, the collection of occupational codes did not start until several years ago, and for Nebraska, the submission of these fields by employers is optional rather than mandatory. Minnesota noted that while their UI data lacks occupation codes, it does collect data on hours worked.

Another issue is that UI wage data only capture employment outcomes for individuals working within the state. Once students cross state lines, their employment outcomes are no longer visible through this system. In addition, UI records exclude individuals who are self-employed or working for the federal government. States may attempt to address these gaps using other systems, such as SWIS, PSEO, or the Coleridge Initiative. However, as discussed below, each of these sources has limitations, including inconsistent participation by states or institutions and legal or privacy concerns related to data sharing.

PSEO Limitations

Respondents frequently recognized PSEO as providing a low-cost option for tracking workforce outcomes within and across states. Several states also described using PSEO as an alternative or supplement to their state's UI data, as it reduces the need to continually develop data-sharing agreements and helps avoid administrative friction or agency-level politics associated with accessing UI records. However, some limitations were identified that currently constrain the scope of policy questions that can be addressed.

First, while institutional participation in PSEO continues to grow nationally and in the Midwest, the share of graduates represented by the data varies significantly **(see Table 4)**. Among the states included in this study, eight currently have institutional representation in PSEO, with the share of graduates represented varying from 10% in Michigan to over 90% in Minnesota. Consequently, while most participating states indicated using PSEO as a source for tracking employment outcomes, analyses of workforce outcomes may be limited to specific systems submitting data, which may not reflect the outcomes of graduates at non-participating institutions.

In some cases, low participation may be due to uncertainty about procedures, data security and

TABLE 4. PSEO Data Partners and Graduate Coverage in the Midwest

STATE	DATA PARTNERS	SHARE OF GRADUATES IN STATE
IL	Illinois Board of Higher Education Illinois Community College Board	69%
IN	Indiana Commission for Higher Education	77%
IA	Iowa Board of Regents Iowa Department of Education	66%
KS	N/A	N/A
MI	Institute for Research on Innovation and Science (University of Michigan – Ann Arbor)	10%
MN	Minnesota Office of Higher Education	95%*
MO	Missouri Department of Higher Education and Workforce Development	50%
NE	N/A	N/A
ND	N/A	N/A
OH	Ohio Department of Higher Education	61%
WI	Institute for Research on Innovation and Science (University of Wisconsin – Madison) University of Wisconsin System	45%

Source: U.S. Census Bureau. Post-secondary employment outcomes. [Database]. Available at https://lehd.ces.census.gov/data/pseo_experimental.html

Note. The percentage of graduates represented is based on the number of graduates in the 2015 PSEO data year relative to all public and private graduates from 2015 IPEDS Completions Data. Data are currently pending for independent colleges in Kansas. Although not included in this study, South Dakota also has PSEO data partners, including the South Dakota Board of Regents and the South Dakota Board of Technical Education. *Estimate provided by the Minnesota Office of Higher Education.

governance, and resource implications of joining PSEO. For example, some non-participating states expressed concerns about relinquishing direct control over the unit-record data transferred to PSEO. Variation in postsecondary governance and coordination structures in states may also be a participation barrier, particularly for the private sector. Since participation is generally organized at the system level, private four-year institutions are typically not represented in PSEO unless they submit their data through a data-sharing agreement with a participating state agency or system that submits data on their behalf, or by submitting their data through a coordinating board, such as a private college association, or, less commonly, a direct data agreement. For example, private institutions in Kansas are exploring participation in PSEO through the Kansas Independent College Association. Similarly, public institutions may struggle to participate in states that lack a central entity, such as a coordinating or governing board, to collect institutional data and submit it on their behalf.

Second, both non-participating and participating states noted limitations in the resulting data product, particularly in relation to the matched sample and the data elements available for analysis. PSEO data are limited to graduates with matched wage records in state UI systems and exclude students who leave college before earning a degree. Because the data are drawn from state UI systems, graduates who are self-employed, employed by the federal government, or currently students without employment are omitted.

There are also limitations to the resulting data file and variables. While states provide student-level data, only aggregate employment outcomes are returned. Some states view this as limiting their ability to conduct customized analyses for reporting purposes, particularly due to the omission of needed variables. For example, PSEO only reports outcomes by whether a graduate possesses a particular credential, regardless of their highest credential attained. Consequently, the earnings data for bachelor's degree graduates may be inflated by including graduates who later earned a master's or doctoral degree. Currently, the dataset also excludes variables for residency status at the time of enrollment (e.g., in-state and out-of-state students), state-to-state (rather than state-to-region) migration, and return migration (i.e., students who leave a state for college but later return to the state for employment). However, a future version of PSEO is under development that will allow states to examine migration flows by state rather than at the regional level, analyze outcomes by residency status, and in partnership with the IRS, expand coverage of graduates through W2 and 1099 records (G. Johnson, personal communication, December 3, 2025).

Cost Barriers to Coleridge and NSC Participation

States identified cost-related challenges that limit their ability to participate in multi-state data exchanges and access national data sources essential for tracking student outcomes. While cross-state data collaboration is possible through the Coleridge Initiative, several states noted that the perceived high cost of participation is a significant barrier. Some states also questioned the return on investment or preferred to maintain more direct control over their data through internal arrangements or existing data-sharing partnerships.

Every state cited the National Student Clearinghouse (NSC) as a critical resource for tracking students' postsecondary enrollment and completion across institutions and state lines. However, several states mentioned rising costs associated with using NSC data, as well as multiple NSC contracts for different agencies within a state as issues in utilizing the data. Since NSC remains the only viable national option for comprehensive student-level enrollment and completion tracking, interviewees noted the need for cost-sharing strategies and better coordination at the state level.

Legal Barriers and SWIS Usage

All states emphasized the importance of handling identifiable information with extreme care and ensuring systems are secure to prevent potential data leaks. However, several states noted that privacy laws and differing interpretations of allowable data use can limit tracking capabilities. Privacy laws and regulations related to personally identifiable information (e.g., FERPA) can create barriers to seamless tracking across agencies. For example, one state reported a state law prohibiting the use of Social Security Numbers (SSN) as identifiers, requiring reliance on alternative matching methods to link data across agencies. Some states do have state-issued unique IDs in their education data, but these do not always integrate with non-education data sources.

Legal and procedural uncertainty was also cited in relation to the State Wage Interchange System (SWIS). While all states in the region participate in SWIS, there is significant variation in how the system is used and understood. Several states use SWIS to track students who are not participating in federal programs. Others, however, report limited or no use of SWIS due to legal guidance or lack of procedural clarity. In some cases, legal counsel has advised restricting SWIS usage to federal reporting purposes only, citing concerns about permissible data use under existing agreements.

Data Governance and Data Limitations

Several barriers related to data governance structures and data issues were identified, including the duration of data-sharing agreements, agency silos, and limited data from private institutions. For states using a federated model where data remains in separate agencies or under a hybrid model where agencies have control over the use of their data, it can be difficult to integrate systems and merge data. Periodic renewal of data-sharing agreements is often required, which can slow down the data-sharing process and delay cross-sector analyses. These issues are further

compounded in instances where individuals who initiated the agreement leave state employment.

All states reported challenges with data silos, though the severity varied. For multiple states, interviewees described gaps in data coverage and pronounced barriers in data integration, such as not being able to receive data from a particular state agency (e.g., health and human services) or having access to a limited number of data elements from another state agency. In some instances, several states were unaware of another agency's available data resources. For example, some higher education agencies were unaware that another agency in their state had access to SWIS data or other workforce datasets.

Finally, while public institutions are well-integrated into state systems, data from private institutions are incomplete or entirely missing in many states. Multiple states do collect information from private institutions for the administration of state aid programs, but very few collect student-level records on enrollment, program of study, and degree completion, regardless of financial aid receipt, for the purposes of tracking student outcomes. For states who do receive detailed data from private institutions, the submission is typically voluntary and, therefore, limited.

Financial Sustainability of Data Infrastructure

The financial sustainability of data systems emerged as a concern for most states, especially when some rely on short-term, competitive SLDS federal grants. Uncertainty about future federal funding for SLDS, driven by the current federal environment and discussions about closing the U.S. Department of Education, makes long-term planning difficult. Several states expressed concern that without a stable source of investment, they will fall behind in maintaining or advancing their data infrastructure.

Limited Capacity to Meet Policy Research Demand

Across interviews, states expressed a growing demand for actionable data to inform policy and practice. However, intra- and interstate data limitations noted above can restrict the scope of research that can be conducted. Specific areas of interest for analysis included non-completer trajectories; out-of-state employment outcomes; return on investment of college programs; migration and retention patterns of college graduates; differences in education and workforce outcomes by race, region, or institution sector; impact of state financial aid programs on completion and in-state employment; impact of stackable credentials; and alignment of early college/dual enrollment with workforce outcomes.

Conclusion

Tracking post-college outcomes is essential to understanding the return on investment in higher education for students, families, and the public, and to ensuring that education and workforce policies are aligned to support economic opportunity and mobility. This needs assessment across 11 Midwest states found that while states have established significant capacity to track students' educational trajectories, their ability to monitor workforce outcomes, particularly across state lines, remains less developed.

Across the Midwest, states use a mix of intrastate, cross-state, and national data sources to track post-college outcomes, though systems differ significantly in coverage, governance, and financial support. All states rely on intrastate systems of some sort, including SLDS, UI wage data, and in some cases institutional administrative records. Use of cross-state sources is far more limited, with only a few states engaging in SWIS, the Coleridge Initiative, or bilateral exchanges. National data sources have been more widely adopted: all states use the National Student Clearinghouse for enrollment and completion tracking, and seven states use PSEO for workforce outcomes.

Interview participants characterized their intrastate tracking capacity as reasonably strong and sufficiently detailed to answer many policy-relevant questions about educational progress and in-state labor market participation. At the same time, states reported a common set of constraints that limit the data and analytical capabilities of these systems. While UI wage data are useful, for example, the data cannot identify individuals who are self-employed

or hold federal jobs, and, most importantly, who work out of state. Additionally, nearly all states lack occupational details, limiting their ability to examine whether students are employed in a position that aligns with their program of study.

The most pervasive limitation in tracking post-college outcomes concerns the lack of out-of-state employment data. While participants were aware of the alternatives for tracking out-of-state workforce outcomes, each approach has its shortcomings. SWIS is defined for narrow utilization related to federal reporting, and states have differing legal interpretations on what is permissible for data usage. Participation in PSEO varies substantially across states and sectors, particularly among private institutions, due to governance structures, data security concerns, and uncertainty about data procedures, which means that PSEO often reflects only a subset of graduates. In addition, the dataset includes only graduates with matched UI wage records and excludes non-completers, the self-employed, and federal workers. Rising costs and fragmented contracts for NSC data, as well as cost concerns about the Coleridge Initiative, present additional barriers.

Beyond difficulties tracking out-of-state workforce outcomes, state respondents identified systemic challenges regarding data governance, reporting coverage, privacy regulations, and funding. Data governance issues included fragmented or siloed data systems, the limited duration of data-sharing agreements, and incomplete reporting from private institutions. Some states reported legal constraints related to personally identifiable information (e.g., FERPA) that limited tracking abilities across agencies. States also expressed concerns about long-term financial sustainability, particularly for systems reliant on short-term federal grants.

The findings of this analysis suggest that targeted efforts in three areas could significantly improve student tracking systems: (1) improving intrastate data infrastructure, (2) expanding geographical coverage beyond state borders with a national data system, and (3) facilitating access to advanced interstate tracking solutions when needed. These priority areas align with three distinct types of student tracking systems. First, a stable and integrated intrastate data system that links SLDS and UI records is foundational to monitoring postsecondary and workforce outcomes. Second, national resources such as PSEO extend geographical coverage by tracking workforce outcomes that include students who migrate across state lines after completing college. Third, specialized or advanced data sources, including SWIS, Coleridge, and regional exchanges, offer flexibility for states to address unique policy questions that cannot be fully answered by foundational resources. While the specific approach to improving data systems will vary by state, the themes that emerged across interviews point to several options for policy and practice.

- **Adopting a Sustainable Funding Model.** Many states remain dependent on time-limited federal grants, such as SLDS grants, which create funding instability and limit long-term planning. Establishing annual state appropriations or shared cross-agency funding can help strengthen the sustainability of data systems and support on-going system improvements.
- **Promoting Cross-Agency Data Integration and Governance.** Fragmented governance structures and siloed systems can hinder the integration of education and workforce data. Developing a central data repository with a formal cross-agency governance council, standardized data-sharing agreements, shared data dictionaries, and established data standards and research plans can help support comprehensive analyses.
- **Expanding PSEO Engagement and Utility.** PSEO provides a cost-effective means of measuring workforce outcomes for college graduates who remain in state or migrate to another state. Increasing institutional and state participation, promoting data enhancements through the PSEO Coalition,[3] and supporting analytic use can help realize PSEO's full potential as a foundational cross-state resource. For example, targeted outreach could help identify any

[3] The Postsecondary Employment Outcomes (PSEO) Coalition is a national member network that supports the development and use of the U.S. Census Bureau's PSEO data. Census Bureau staff who work on PSEO regularly engage with the Coalition, including participating in monthly meetings and soliciting feedback from members on ways to improve data collection processes, analytic tools, and the PSEO dataset. More information about the PSEO Coalition is available at https://pseocoalition.org.

barriers experienced by eligible non-participating institutions and disseminate clear information on resources required, data security protocols, and both the limitations and advantages of participation.

- **Providing procedural and legal clarity for SWIS.** Among the advanced data solutions for interstate tracking, SWIS is one of the most amenable to expanded adoption, as its underutilization is primarily due to legal concerns and unclear usage guidelines. Accordingly, a working group of legal and technical experts could identify and share approaches for the permissible use of SWIS data in analytics and reporting.
- **Facilitating exploration of cross-state data exchanges.** Past efforts, such as WICHE's Multistate Longitudinal Data Exchange[4] as well as the Kansas-Missouri data exchange, demonstrate feasible models that can inform exploratory pilots. A workgroup among interested states could identify shared priorities, technical opportunities, resource requirements, and legal considerations for cross-state tracking.
- **Leveraging Regional Compacts for Cost-Savings and Coordination.** Regional higher education compacts could explore opportunities for collective procurement contracts, shared analytic service models, and governance frameworks. For example, a compact-level agreement with a data provider such as NSC could potentially reduce costs for member states and create consistent contract terms and access procedures that facilitate integration of the data into SLDS. In addition, a compact-level governance framework, if feasible, could enable secure cross-state sharing of education and workforce outcomes across states. Such a framework could establish common privacy standards, data-sharing agreements, and governance structures to support sustained interstate data exchange.

[4] WICHE's Multistate Longitudinal Data Exchange (MLDE) was a pilot project that facilitated the exchange of education and workforce records in six states - Hawai'i, Idaho, Minnesota, North Dakota, Oregon, and Washington – to support policy analysis and improve understanding of student outcomes.

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Appendix A: Interview Protocol

Section 1: General Tracking Practices

Questions:

1. In general, does your state track students after they leave a specific college or complete their postsecondary degree or certificate?
    a. Is the tracking only to determine whether students have transferred to another institution?
    b. Is the tracking only for students who stay in-state?
    c. Are you able to track students who move in-state and out-of-state?

2. Which education levels do your tracking efforts cover?
    a. Is tracking limited to a specific sector?
    b. Do you have tracking efforts for:
        i. Non-completers
        ii. Short- and long-term certificate completers
        iii. Associate degree holders
        iv. Bachelor's degree completers
    v. Graduate or professional degree completers
    vi. Other?

Section 2: Data Tracking Practices

Questions:

1. Can you describe the overall design of the student tracking system in your state?
    a. Does your state have an SLDS system?
    b. Is tracking students after they leave college part of the SLDS?
    c. Is student tracking limited to high school students, or does it include adult learners?
    d. Which agencies are involved in tracking?
    e. Is the system centralized or another structure?
    f. Do you track FAFSA completion? How?

2. How often does your state track students after they leave college?
    a. Is it on an ad-hoc basis?
    b. Is it conducted annually?

3. Does your state legislature provide funding to support student tracking?
    a. Does the state legislature fund the SLDS system?
    b. Is a portion of that funding used for postsecondary tracking?
    c. Do you receive federal funding for tracking?

4. What data sources do you use to track in-state students?
    a. State employment records (UI)
    b. Institutional administrative records
    c. National Student Clearinghouse data
    d. State tax records
    e. State agency surveys
    f. Other data sources
    g. Are there available data sources you cannot use?

5. For state record use, does another agency perform the data match?
    a. Is there a fee?
    b. Is the returned data individual-level or aggregate?

6. What types of outcomes are tracked for in-state students?
    a. Residency status
    b. Employment status
    c. Employer
    d. Wages and earnings
    e. Continued education/enrollment
    f. Other
7. For out-of-state tracking, what data sources do you use?
    a. Federal employment data
    b. Institutional administrative records

c. NSC data
d. SWIS
e. State agency surveys
f. Other data sources
g. Are there available data sources you cannot use?

8. What types of outcomes are tracked for out-of-state students?
   a. Residency
   b. Employment status
   c. Employer
   d. Wages and earnings
   e. Continued education/enrollment
   f. Other

9. What types of questions can be answered with the data?
   a. What cannot be answered?
   b. What is the tracking time period (e.g., 1 year, 5 years, 10 years)?

10. What challenges does your state face in tracking?
    a. Data sharing restrictions
    b. Federal privacy laws
    c. State privacy laws
    d. Lack of resources or staff
    e. Lack of funding
    f. Limited out-of-state access
    g. Data quality/accuracy
    h. Other

11. What additional resources or support would help your state improve tracking?

Section 3: Data Use and Reporting

Questions:

1. Does your state track students after they leave college for:
   a. State reporting
   b. Federal reporting
   c. Ad-hoc requests
   d. Program evaluation
   e. Is this for all students or certain sectors?

2. Does your state publicly report post-graduation outcomes?
   a. Is there a public website?
   b. Is there a report link?
   c. Which outcomes are reported?
      i. Employment rates
      ii. Wages and earnings
      iii. Continued education rates
      iv. Employment location
      v. Other

3. Do institutions participate in the U.S. Census Bureau's PSEO?
   a. Why do some not participate?

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Mission

MHEC brings together leaders from Midwestern states to develop and support best practices, collaborative efforts, and cost-sharing opportunities. Through these efforts, MHEC works to ensure strong postsecondary educational opportunities and outcomes for all.

Vision

To improve student success and regional economic vitality through collective problem-solving and partnerships that strengthen postsecondary education.

Values

Collaboration. We believe working together in an open, respectful environment creates a foundation for cooperation and innovation that allows us to research, share, pilot, and scale ideas to improve our individual institutions, states, and region.

Innovation. We believe that bringing creativity, research, and problem solving to the challenges and opportunities in higher education helps produce new ideas and excellent results for our states, institutions, and students.

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