



SLDS Issue Brief

State Approaches to College and Career Transitions

Linking college and workforce data through a statewide longitudinal data system (SLDS) can help states develop effective policies and provide resources to achieve their college, workforce, and economic development goals.

This issue brief describes P-20W+ (early childhood through workforce) systems and the types of data to consider collecting for a P-20W+ system. It considers the national landscape behind the push to include college and workforce data in SLDSs. It also explores the value of communicating college and workforce data and offers state examples and recommendations for

- *sharing information;*
- *funding sources;*
- *working with vendors;*
- *communicating with stakeholders; and*
- *solving data matching problems.*

A National View of College and Career Connections: Benefits and Challenges

“College and career ready” refers to the knowledge and skills high school graduates must possess to succeed in their future endeavors. College and career readiness is often determined by metrics such as assessment results for reading, writing, and math.

Readiness has increasingly been a concern for both educators and policymakers. About 10 years ago, many national and state policymakers became concerned after data from the Organisation for Economic Co-operation and Development showed the U.S. as one of only two countries in which younger adults were less educated than the previous generation. These data reminded policymakers that educational attainment has a direct impact on our nation’s wellbeing and economic viability.

According to the Georgetown Center on Education and Research, notwithstanding the federal government’s budgetary challenges, the number of jobs in the U.S. economy will grow from 140 million in 2016 to 165 million by 2020. Also by 2020, 65 percent of all jobs will require postsecondary education and training beyond high school. In addition to the predicted 24 million new jobs opening before 2020, 31 million openings are expected due to retirements of baby boomers. Of these, 35 percent will require at least a bachelor’s degree, and another 30 percent will require some college or an associate’s degree. At the current rate, the U.S. will fall short by 5 million workers with postsecondary education.

The federal government’s efforts to close these gaps include providing grants for the collection and integration of state education and workforce data. College and Career was one of six priority areas for FY15 SLDS grants administered by the U.S. Department of Education. Additionally, Workforce Data Quality Initiative (WDQI) funding is available through competitive grants administered by the U.S. Department of Labor. Both programs encourage the development of longitudinal administrative databases for state education and workforce data.

WDQI grants support the development of, or enhancements to, longitudinal data systems that integrate workforce data and create linkages to education data, enabling

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them to improve the performance of workforce programs. Collecting these and other data longitudinally provide a comprehensive picture of workers' earnings throughout their careers. Analysis of these data can demonstrate the relationship between education and training programs, as well as the effects of other employment services on workers' outcomes.

Additionally, the Workforce Innovation and Opportunity Act (WIOA) encourages states to increase their focus on serving the most vulnerable workers; expand education and training options; help disadvantaged and unemployed adults and youth earn while they learn; and align planning and accountability policies across core programs.

What data can be incorporated in a P-20W+ system?

- ✓ Early childhood
- ✓ K12 (kindergarten through 12th grade)
- ✓ Adult Education
- ✓ Career and Technical Education (one- and two-year certificates)
- ✓ Community Colleges (two-year associate's degrees)
- ✓ Universities (four-year bachelor's, master's, and doctoral degrees)
- ✓ Workforce (employment, salary, and industry information)
- ✓ Health and Human Services
- ✓ Other influence and outcomes data

Collecting and Integrating Data on College and Career Transitions

One of the benefits of collecting and integrating data on college and career transitions is the ability to develop a comprehensive data system that can track student progress from preschool through the workforce, in all the various

paths. The system should inform all parts of the education-to-workforce pipeline. Student paths through the education system are not always linear, so a data system that tracks students from kindergarten through the workforce must accommodate the fact that individuals can change schools, change careers, and exit and re-enter education programs at different times.

Students who follow a simple path from early education to college are easy to track, but it is more challenging to track those who follow other paths. States may prioritize tracking students who struggle academically, drop out of school, or enter the workforce directly after receiving a high school diploma without enrolling in postsecondary programs. In general, these students are more likely to make lower wages, be on public assistance, or be incarcerated.

Data limitations exist at every level of a P-20W+ SLDS and can present some barriers. Challenges remain for finding resources, ensuring data quality, addressing privacy concerns, coordinating between state agencies, and overcoming a lack of common identifiers. Employment data can be challenging to collect because employers do not have a motive to expand data collection and sharing. They may not have funding for this additional work, and the current labor and workforce data systems were not designed for these broader purposes of improving services and supporting specific worker populations.

As data are brought together, each source will have its own set of data elements and definitions for common elements that must be reconciled. For example, "discipline" in postsecondary education refers to a student's major or field of study. In K12, it refers to behavioral corrections or consequences.

Matching data records from different agencies can also be a challenge because all of the agencies typically do not have common identifiers. A combination of demographic data and non-universal identifiers can help match records

K12 Education Data	Postsecondary Education Data	Employment Data
Demographics Assessment Enrollment Course grades/types Promotion/withdrawal status Graduation status Discipline Interactions with counselors Course patterns Teacher certification Discontinued students/mobility Teacher absenteeism	Demographics Enrollments Majors/programs Course completions Accumulated hours Degrees/certificates Applications versus enrollments Financial aid Retention Remediation	Occupation code (SOC) Quarter Wages Hours Additional Supporting Data Economic development Public assistance (e.g., Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP)) Corrections (e.g., probation, incarceration) Health

for the same individual where a common identifier does not exist. Such data could be the individual's name, date of birth, gender, race/ethnicity, student ID, or Social Security number. Only some of these data generally are found in state workforce systems. Social Security numbers are required for employment data but are not always found in education records. Postsecondary data—particularly from financial aid programs that collect student Social Security numbers—and data from sources such as the state's division of motor vehicles might be good options for gathering data elements to help match individual records.

The challenges of collecting data are outweighed by the benefits of a P-20W+ data system. A P-20W+ data system can offer valuable information, such as average wages by education attainment and potential indicators of success. It can inform an alignment of K12 and postsecondary education standards. States can use the data to determine whether they are producing enough candidates for in-demand careers and how many graduates get a job in the state.

Gaining Support for College and Career Data Work

States are taking a variety of approaches to promoting the analysis of college and career transitions among their P-20W+ data partners and producing useful information.

Rhode Island DataHUB

The Rhode Island DataHUB produces data stories and reports based on data from 20 cross-sector agencies. When the state first started building its SLDS, the task of convening 20 agencies was too large for a single state department. A nonprofit agency was created to act as a neutral third party and organizes the data sharing. This governance structure eases worries among partner agencies about the safety of their data and helps overcome barriers between state agencies that have not had the opportunity to build a working relationship. The external organization established trust with the community and the agencies that their data are safe.

Because of that trust, the state has been able to take action based on data reports produced by the DataHUB. The goal of the DataHUB is to inspire technology talent and companies to stay in Rhode Island.

The state first looked at postsecondary graduates with computer science degrees and found three common characteristics: the graduates had an average SAT math score of 530, had completed advanced math coursework in high school, and had taken technology courses in high school.

Next, the state looked at high school seniors and, based on the three common characteristics of graduates with computer science degrees, determined what percentage of

those high school seniors are prepared for computer science studies at the postsecondary level.

Then, the state next compared education and workforce information from 2005 to 2014 for students attending Rhode Island colleges who were from Rhode Island versus those who were originally from other states. As a result, the state learned that 45 percent of students from Rhode Island were still in the state 10 years after graduating versus about 10 percent of those from outside the state.

Based on the data, the state developed an initiative to have computer science taught in all Rhode Island public high schools by fall 2017.

Kentucky Center for Education and Workforce Statistics (KCEWS)

The Kentucky Center for Education and Workforce Statistics (KCEWS) is an independent state agency charged with maintaining Kentucky's P-20W+ SLDS and measuring and evaluating education and workforce at all levels.

The KCEWS is legislatively authorized to collect data from all state education and workforce programs. The centralized system contains 10 years of data.

As part of its college and career priority, Kentucky developed a dynamic reporting solution that allows stakeholders to customize current feedback reports to support specific strategic needs. The solution also expands the feedback report series to include new reports that address current unmet data needs as defined by stakeholders. Such reports include a career pathway report and sector supply-and-demand reports.

The state plans to develop a comprehensive training program to help all stakeholder groups use the new reports and to provide professional development about how best to use the data to aid the state's decisionmaking.

Stakeholders in Kentucky include industry partners and education advocacy groups. The state has found that input and perspective from the business community is important, but it cautions against making them the sole decisionmakers. State SLDS teams should recognize that such stakeholders can influence elected officials in both beneficial and challenging ways.

Minnesota Statewide Longitudinal Education Data System (SLEDS)

In order to answer policy questions and gauge the effectiveness of improvement strategies, the Minnesota Statewide Longitudinal Education Data System (SLEDS) bridges existing data with incoming data.

The state developed a framework to help stakeholders assess and evaluate data across systems to answer critical

and long-ranging questions. The goal is to build a comprehensive body of information to help with future decisionmaking. The framework consists of four “Ps”:

- **Pathways** are the movement of individual students between K12, higher education, and workforce.
- **Progress** refers to the benchmarks or transition points that students meet or fail to meet.
- **Predictors** are the characteristics, patterns, or commonalities that help explain which students succeed and which do not.
- **Performance** refers to how well education and workforce programs are aligned for individual success.

Minnesota’s framework is effective because the system is designed to reflect the state’s final goals. States should consider their final goals when designing their systems. For example, if a state has a research agenda aligned with state

goals, the data system should be designed with the agenda in mind.

Addressing College and Career in Your P-20W+ Plan

Developing an SLDS requires careful planning to ensure that the system meets the state’s goals, includes relevant data sources or tools, and considers the additional resources necessary to enhance communication efforts. While states can learn from each other, each state’s unique needs and concerns have to be addressed.

Consider what decisionmakers need to know about the nexus of education and the workforce. This will help ensure that the relevant data sources and tools are incorporated into the plan. Developing a P-20W+ plan for your SLDS requires careful coordination and, in many cases, additional work, but the benefits can be significant.

Additional Resources

Considerations for Collecting New Data Elements: SLDS Issue Brief
<https://slds.grads360.org/#communities/pdc/documents/11569>

Engaging Local Stakeholders from Postsecondary and/or Workforce: SLDS Webinar
<https://slds.grads360.org/#communities/pdc/documents/6377>

Forum Guide to College and Career Ready Data
http://nces.ed.gov/forum/pub_2015157.asp

Georgetown Center on Education and the Workforce Job Growth and Education Requirements Through 2020
<http://cew.georgetown.edu/recovery2020/>

Introduction to Data Governance
<https://www.youtube.com/watch?v=8SurYfQYeyI>

Kentucky Center for Education and Workforce Statistics
<https://kcews.ky.gov/>

Linking K12 Education Data to Workforce: SLDS Webinar
<https://slds.grads360.org/#communities/pdc/documents/5871>

Linking K12 Student Data with Postsecondary Data: SLDS Webinar
<https://slds.grads360.org/#communities/pdc/documents/5793>

The Match Rate Dilemma: SLDS Webinar
<https://slds.grads360.org/#communities/pdc/documents/8982>

Minnesota's Developmental Education Dashboard
http://sleds.mn.gov/#developmentalEducation/orgId--000103000__groupType--district__devEdCOHORTID--2013__p--1/orgId--000103000__groupType--district__devEdCOHORTID--2013__categories--specialPop_LEP__p--1

Minnesota's Graduate Employment Outcomes
<https://apps.deed.state.mn.us/lmi/etd/Results.aspx>

P-20W Data Governance Challenge: College and Career Readiness: SLDS Issue Brief
<https://slds.grads360.org/#communities/pdc/documents/2718>

Rhode Island DataHUB
<http://ridatahub.org/>

Sources and Linking Strategies for Employment Data: SLDS Issue Brief
<https://slds.grads360.org/#communities/pdc/documents/11943>

Utah Data Alignment Reports
<http://www.utahdataalliance.org/reports.shtml>

Utah System of Higher Education Data Reports
<http://higheredutah.org/data/>