

Information is relevant, timely and disaggregated.



CASE STUDY: NORTH DAKOTA

Data Dashboards

Career Technical Education (CTE) stakeholders – including families, employers and local practitioners at the secondary and postsecondary levels – need access to relevant and timely data to make informed decisions when it matters. For all the data CTE leaders collect, processing, cleaning and sharing relevant information can take a year or more, making it far less useful for practitioners on the ground.

State leaders should ensure that information is relevant, timely and actionable so that stakeholders can understand and act on the data. This requires states to provide a comprehensive view of their career readiness system; differentiate reports by

user; make data available when it matters; and disaggregate data by population, program and institution.

One state that is working to improve the relevance and timeliness of CTE data is North Dakota. North Dakota has created a statewide longitudinal data system (SLDS) that feeds data into public and internal data dashboards daily. These data dashboards provide stakeholders with timely information that they can use to make important education, career and policy decisions.

North Dakota: SLDS and Data Dashboards

In 2007, the North Dakota Legislature authorized¹ the creation of an SLDS Committee for the purpose of creating and managing the state's SLDS, which

TABLE 3

connects a series of secured public education and workforce training data warehouses. The purpose of the SLDS is to provide stakeholders with data on the education and workforce outcomes of learners in the state.

The SLDS pulls data from each of North Dakota's K-12 institutions on a daily basis through PowerSchool, a data management system that all public school districts use to collect data on attendance, grades and other metrics. North Dakota's postsecondary institutions also upload their data to the state's SLDS, allowing for linkages between the K-12 and postsecondary sectors.

The SLDS currently includes data on K-12 student demographics, attendance and enrollment, assessment performance, CTE participation, graduation and dropout rates, historical grades and college and career readiness. The SLDS also includes postsecondary data on student enrollment, courses, performance, demographics and graduation rates.² Workforce data such as wage and employment information are fed into the SLDS by Job Service North Dakota, the state's workforce development agency. North Dakota's SLDS also collects data on CTE participation, concentration and completion rates along with credential attainment. Soon, the SLDS will include data on work-based learning completion.

Through a public dashboard tool called Insights,³ policymakers, agencies, researchers and the general public can access data on preparation and outcomes for education and workforce training programs and use that data to make informed decisions. The reports generated on Insights are user friendly and easily accessible to the general public. Examples of reports and data that users can explore on Insights include the demand for a particular occupation, the average salary of that occupation, the CTE program of study that could lead to a career in that occupation, and which institutions offer that program.

The SLDS also provides data to the North Dakota Education Portal, a set of dashboards available to public school teachers and administrators that

provide information on metrics such as predicted learner outcomes, high school and college readiness and historical learner data. The North Dakota Department of Education and its public postsecondary institutions have access to internal data on the North Dakota Education Portal, with levels of access differentiated by user. Additionally, the portal provides learners and families direct services such as access to transcripts and the ability to send transcripts to any postsecondary institution in the state or participating in the National Student Clearinghouse, thereby making applying to those institutions easier. High school students are also able to apply to North Dakota postsecondary institutions for dual credit enrollment and complete some first-year applications online through the student portal.

The Impact of North Dakota's Public Data Dashboards

Insights has become a widely used tool in the state. Families regularly use it to understand how their children's district is performing and to make K-12 and postsecondary education decisions. School districts also use Insights to fulfill mandatory accountability requirements in the Every Student Succeeds Act, regularly directing parents to the public-facing data dashboard.

The SLDS also provides data, disaggregated by Career Cluster,[®] to school districts to support their Comprehensive Local Needs Assessment, which is required by the Strengthening Career and Technical Education for the 21st Century Act (Perkins V). School districts use the data to look for opportunity gaps and strengths and to determine potential uses of Perkins V funds. One of the greatest impacts the SLDS data dashboards have had on the state's ability to make data actionable is the dashboards' ability to support real-time learner interventions. Teachers, administrators and district leaders can use the data portals to collect risk indicator data to inform their multi-tiered student support systems.

North Dakota designed the SLDS data dashboards so that they are impactful for every stakeholder (see the Table 1).

TABLE 1

Impact of SLDS Data Dashboards for Stakeholders	
Stakeholder	Impact
Superintendents/ College Presidents	Can identify trends that indicate success or concern to guide the district or college to continuously improve teaching and learning.
School/College Administrators	Can review performance data to determine if learners are at risk and respond with intervention programs.
School Board Members	Can compare their school's student performance data to peer school data to see their areas of strength and weakness.
Teachers/Faculty	Can strengthen curriculum and differentiate their instruction to meet learning needs based on performance and attendance data.
Families/Caregivers	Can access their child's e-transcript for review and submission to North Dakota public colleges and universities.
Learners	Can view their data to set goals and monitor their progress.
Researchers	Can analyze learner performance data to identify high-performing programs and best practices and share them with similar districts and colleges.
Legislators	Can learn if employers are finding a well-trained workforce for job opportunities.

Modified from North Dakota Statewide Longitudinal Data System⁴

Overcoming Challenges

One of the biggest challenges to implementing the SLDS and its public data dashboards was overcoming data quality issues and building data discipline in schools and districts. Initially, schools did not use the student information system, PowerSchool, consistently and correctly; did not input data in a timely manner; and struggled with validating the information they added to the system. The state leveraged the services it provides to schools, districts and colleges to incentivize better data discipline, conveying that they must use the system as designed to receive the support the SLDS provides. Schools, districts and colleges improved their data reporting as a result, becoming reliable partners in the SLDS.

Conclusion

To equip stakeholders, including local CTE practitioners, to make data-informed decisions when it matters, states must provide data in a way that is timely, relevant and actionable. In North Dakota, state leaders wanted a system that could provide data to stakeholders at all levels. The SLDS and its data dashboards do just that. Whether it is providing learners high school transcripts and assisting them to complete college applications, supporting practitioners by analyzing risk indicators to inform classroom-based intervention, or helping districts with their CLNA, this data system has been widely used by practitioners and other stakeholders and has helped foster a data- and information-rich culture throughout the state.

NOTES

¹ North Dakota Statewide Longitudinal Data System Committee - Membership, Nd. Stat. §§ 54-59-33 (2007). Retrieved from <https://www.legis.nd.gov/cencode/t54c59.pdf#nameddest=54-59-33>

² State Longitudinal Data System Research Project. (n.d.) *North Dakota*. Retrieved from <http://slds.rhaskell.org/state-profiles/north-dakota#stake-identifier>

³ North Dakota Information Technology Department. (n.d.) *North Dakota Insights*. Retrieved from <https://insights.nd.gov/>

⁴ North Dakota Information Technology Department. (n.d.). *How can the SLDS be used*. Retrieved from <https://www.slds.nd.gov/about-us/how-can-slds-be-used>