



SLDS Issue Brief

P-20W+ Best Practices

For some states, the challenge of linking data across the P-20W+ spectrum—which encompasses early learning, K12, and postsecondary education, along with outcomes data such as public assistance, employment, and corrections—may be met best by creating a separate entity responsible for building and maintaining the P-20W+ data system. This document details some best practices in the development, governance, and sustainability of such systems, stemming from discussions with states that have successfully implemented P-20W+ entities.

The P-20W+ Entity

The P-20W+ entity is the agency, office, or organization responsible for the oversight and maintenance of a state's P-20W+ data system. The P-20W+ entity is ideally established in state statute for the purposes of integrating education data and other related data and analyzing that data to inform education policy and practice in the state. It can be separate and independent from the state education agency (SEA) or higher education agency. It has been given authority via a memo from the state's Auditor General or legislation to align with requirements of the Family Educational Rights and Privacy Act (FERPA) and granted the ability to collect, integrate, and report data. The P-20W+ entity has explicit authority to collect and use the data, but there should be an intentional decision to determine ownership of the data. Either the data are a possession of the state as a whole, or individual contributing agencies maintain ownership of their original data.

As development of the P-20W+ statewide longitudinal data system (SLDS) begins, it is best to start small and expand as stakeholder buy-in increases. Build upon existing datasets when possible, even if the datasets are related to a small constituency. Starting small will help build support and momentum; expanding too quickly can create unrealistic expectations and a fiscally unsustainable system. Do not let perfect be the enemy of good enough, and manage expectations throughout the system's development. To maintain stakeholder buy-in while garnering effective feedback to help build a sustainable system, ensure that stakeholders understand that there are costs for integrating, cleaning, and maintaining new sources of data over time, in addition to the costs of analyzing the data.

Data Governance

Once data ownership is determined—either as a possession of the state or of the individual agencies—a data governance structure and process should be established accordingly. In order to support and encourage participation of the agencies contributing data, leaders from each contributing agency need to be engaged in the data governance process. It is also the responsibility of individual agency leadership to provide policy and visionary direction to define the scope of the P-20W+ system and ensure that adequate human and fiscal resources are allocated to sustain it. In addition, program staff members need to be involved at the implementation level.

To fully leverage the different levels of involvement throughout the state, it is best to create and document a committee structure with several different committee types,

Data governance refers to the overall management of the availability, usability, integrity, quality, and security of data.



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including separate committees for data stewards (business and content), data custodians (IT staff), and a research and reporting coordination committee (data sharing group). All committee specifics should be documented in a manual including the purpose, meeting frequency, and members.

The central P-20W+ entity does not assume the role of subject matter expert; that is the role of the data contributor. Data contributors do not approve data requests, but they have the role of content reviewer. This means that they can advise the P-20W+ entity on how to respond to requests and inform how data requests are built (e.g., the possible inclusion of certain data elements).

SLDS Design

Understanding how the P-20W+ SLDS will be used—and the resources available to support and maintain it—is important and can affect the database design. SLDS database organization decisions need to be made early, but not before the mission, goals, objectives, and users of the SLDS are clearly identified and articulated so that the data system can be designed to serve them. The same key policy questions that helped define the purpose of the SLDS can also help inform its design and organization.

An SLDS may be organized by data type (e.g., enrollment, assessment, course) or by source data systems. As data are brought into the P-20W+ SLDS and transformed into common P-20W+ representations, accurate documentation of transformation rules is a must: business rules for this process should be well documented and agreed upon by the contributor. As challenges arise in establishing data linkages or reporting, consider other state resources that might assist, such as using driver's license data to get Social Security numbers to help link K12 data with employment data.

It is important that all contributing sources of data have up-to-date data dictionaries. Data contributors may not know very much about their data, so a data analysis—with heavy involvement from the contributor—may be necessary in order to understand the data and the condition of the data. Having each contributor map the data systems that will be sources for the P20W+ SLDS using the Common Education Data Standards (CEDS) Align tool can assist with understanding the data. As these data are collected by the P-20W+ entity, the data dictionaries may need to be expanded to include validation rules to help with analyzing and cleaning the data.

Data Sharing

Legal documentation between the P-20W+ entity and partner agencies should include overarching memoranda of understanding (MOUs) and data sharing agreements in a simple and consistent format. The P-20W+ entity should be able to produce analysis in the form of datasets and reports

on behalf of the partner agencies without needing to go through an extensive approval process each time. Moreover, the MOUs and data sharing agreements should support the larger state-level vision for effective data use by fully leveraging the power of the P-20W+ system.

When drafting contracts, consult with legal staff to ensure compliance with all applicable federal, state, and local privacy laws. Keep in mind that laws governing data disclosure vary widely by data type and the agencies involved. For example, specific data output types—including anonymized aggregate information, properly de-identified individual-level data, or personally identifiable records—will impact the agreements needed.

Staffing and Interaction with Data Contributors and Users

Appropriate and sufficient staffing is critical. IT expertise is needed, but the P-20W+ system should not be viewed solely as an IT product; data analysts and end-user/customer relations staff are equally important. Research analysts can play a large part in the data import process, offering expertise for validating data coming into the system. To ensure the accurate integration of data into the P-20W+ SLDS, a feedback mechanism should be established to assist the contributing agencies in taking responsibility for cleaning and preparing their data before they are submitted to the P-20W+. Such a mechanism will save tremendous amounts of staff time for the P-20W+ entity and will assist the data contributor in having cleaner, more accurate data.

There are recognized challenges to providing access to data, delivering training and assistance, and building tools and applications to empower end users to use the data. Overly complicated reporting tools can frustrate end users and overwhelm trainers and help desks. The tools also must be built in a manner that protects data privacy and ensures that end users see only what they are authorized to see. Even if these tools and applications do not immediately work as planned, they will still make it easier for P-20W+ staff to produce reports and respond to data and report requests.

Ensuring proper levels of support, resources, and guidance throughout the development process is critical to the success of the P-20W+ data system. State leaders need to be actively engaged in providing the vision and direction for P-20W+ policy. Comprehensive data descriptions, ample program staff time, clear data ownership standards, and sufficient authority for the management, governance, and use of the data are also essential. With all these components in place, the P-20W+ system is poised to become an indispensable tool for advancing education policy and outcomes in the state.

Additional Resources

Building a Centralized P-20W Data Warehouse

http://nces.ed.gov/programs/slids/pdf/centralized_warehouse.pdf

Common Education Data Standards (CEDs)

<https://ceds.ed.gov/>

Data Use & Sustainability: Helping Stakeholders Get the Most from an SLDS

http://nces.ed.gov/programs/slids/pdf/Sustainability_DataUse.pdf

Developing a Data Use Strategy

http://nces.ed.gov/programs/slids/pdf/data_use_strategy.pdf

P-20W Data Governance: Tips from the States

http://nces.ed.gov/programs/slids/pdf/brief4_P_20W_DG.pdf

Early Wins

http://nces.ed.gov/programs/slids/pdf/early_wins.pdf

Stakeholder Communication: Tips from the States

http://nces.ed.gov/programs/slids/pdf/best_practices.pdf

Stakeholder Engagement & Data Use: Helping Stakeholders Get the Most from an SLDS

http://nces.ed.gov/programs/slids/pdf/StakeholderEngagement_and_DataUse.pdf

Stakeholder Engagement & Sustainability: Helping Stakeholders Get the Most from an SLDS

http://nces.ed.gov/programs/slids/pdf/Stakeholderengagement_Sustainability.pdf