

CEDS Data Warehouse Expansion Project

A State-Driven Collaboration to
Modernize Data System Architecture

Statewide Longitudinal
Data Systems
Grant Program

U.S. DEPARTMENT OF EDUCATION

A Program of the National Center for Education Statistics at IES

What Is the CEDS Data Warehouse Expansion Project?

The **Common Education Data Standards (CEDS) Data Warehouse** is an open-source model for storing longitudinal data. It is based on CEDS's standardized data element names and definitions, which encompass early learning, K12 education, postsecondary education, workforce, and other domains of data often included in statewide longitudinal data systems (SLDSs).

Through the **CEDS Data Warehouse Expansion Project**, state SLDS teams work together to plan and build the warehouse model. The result will be a collection of use cases, architecture, code, and data reports that SLDS programs nationwide can adapt to their own systems. These resources will be available through the CEDS Open Source Community (OSC).

The CEDS Data Warehouse Expansion Project has **five phases**:

Learn More

Common Education Data Standards, <https://ceds.ed.gov>

CEDS Open Source Community, <https://github.com/CEDStandards>

CEDS Data Warehouse Expansion Project, <https://ceds.grads360.org/#communities/ceds-osc/workgroups/ceds-dw-expansion>

1

Develop use cases

States describe specific situations where they might use data stored in a CEDS Data Warehouse. They identify the intended users, data elements needed, and other details of the use case. Use cases might apply to a single data domain, such as a K12 dropout prevention dashboard or special education reports, or span several domains, such as high school feedback reports or adult education outcomes reports with data from K12, postsecondary, and workforce programs.

2

Develop data elements

States work with CEDS to identify any data elements needed for the use cases that are not already part of CEDS. They collaborate with one another and CEDS experts to define those elements and add them to the standard.

3

Enhance CEDS architecture

States help draft requirements and code needed to store data in a CEDS Data Warehouse and employ them in the use cases.

4

Create data migration templates

States write standardized scripts to move data between data staging tables, a CEDS Integrated Data Store, a CEDS Data Warehouse, and report tables. These scripts can be used by any state implementing the CEDS infrastructure.

5

Create reports and outputs

States build data reports, business intelligence tools, dashboards, and other outputs that pull data from a CEDS Data Warehouse to meet the use cases. They share the metadata for building the reports and outputs with the CEDS OSC. States can then implement the reports in their own systems or modify them to fit their own use cases.

How Can I Get Involved?

There are several ways to take part in the CEDS Data Warehouse Expansion Project, depending on your team's interest and availability.



Level 1. Learn

Attend workshops and meetings about the project to learn more about the CEDS Data Warehouse and how it might help your state.



Level 2. Inform

Take an active role in project events to help influence how the CEDS Data Warehouse is built and the use cases it will address. Your team may be asked for input or to contribute to development work outside of project meetings.



Level 3. Develop

Help write use cases, model data warehouse architecture, and develop code and scripts that you and other states can use to build a CEDS Data Warehouse.

Expansion in Action: Michigan's CEDS Data Warehouse Implementation

Michigan's Center for Educational Performance and Information (CEPI) oversees a P-20W+ (early childhood through workforce) SLDS with data from numerous Michigan state agencies, many of which are publicly available through the MI School Data portal. CEPI decided to modernize its SLDS using the CEDS Data Warehouse to improve connections between the SLDS, MI School Data, and other state systems, taking advantage of CEDS's standardized data schema. Once completed, the modernized system will allow for new data displays and better integration with applications that use SLDS data.

CEPI worked with CEDS technical assistance experts to expand the new CEDS Data Warehouse architecture to include data from dual-enrollment and early middle college programs, as well as postsecondary enrollment and attainment data. In the process, CEPI established a workflow for implementing the CEDS Data Warehouse, including project plans for multiple phases of development. These resources have been adapted into guides and templates available to all states planning CEDS Data Warehouse projects.

Learn More

Michigan Center for Educational Performance and Information, <https://www.michigan.gov/cepi>

MI School Data, <https://www.mischooldata.org>

Related Resources

CEDS Data Warehouse Implementation Guide, <https://slds.ed.gov/#communities/pdc/documents/19002>

CEDS Data Warehouse Use Case Implementation Process, <https://slds.ed.gov/#communities/pdc/documents/19273>

CEDS Data Warehouse Project Plan Templates, <https://slds.ed.gov/#communities/pdc/documents/19733>

SLDS Guide: Considerations for the Development of Shared Business Intelligence Tools, <https://slds.ed.gov/#communities/pdc/documents/19947>



Ready to join the project, or need more information?

Visit the CEDS Data Warehouse Expansion Project Community webpage and request membership: <https://ceds.grads360.org/#communities/ceds-osc/workgroups/ceds-dw-expansion>