



Using CEDS to Support Data Governance Metadata Efforts: Pre-Conference Workshop

FEBRUARY 27, 2019

Duane Brown, CEDS Expert

Corey Chatis, SLDS State Support Team

Kathy Gosa, SLDS State Support Team



Session Overview

- Introductions
- Metadata management as part of a data governance program
- Using CEDS to create or align a data dictionary
- Hands-on work session
- Establishing a metadata maintenance process
- Full-group debrief



Icebreaker

Share with the group:

- Your name
- Your state and organization
- **either**
 - one challenge you are facing regarding metadata development and maintenance, or
 - how you're currently using metadata to improve data quality and/or data use



Metadata Management as Part of a Data Governance Program



What Is Data Governance?

- Data governance is both an organizational process and a structure.
- It establishes responsibility for data, organizing program area staff to collaboratively and continuously improve data quality and use through the systematic creation and enforcement of policies, roles, responsibilities, and procedures.
- A quality data governance program ensures the availability, reliability, integrity, and security of data.



Intended Outcomes of Data Governance

- A common vision for and more effective data use in support of agency goals and strategic initiatives
- Improved data quality
- Improved understanding of data collected, reported, and used by each program and the agency as a whole
- Increased consistency and reduced redundancy of data collected across the agency
- Security and privacy of data are maintained and enforced
- More effective communication and coordination among programs; agency-wide responses to critical data issues
- Decreased staff burden (over time)



Users and Uses of Metadata to Improve Data Quality and Use

User	Metadata Use
Data Stewards	<ul style="list-style-type: none">• To understand the universe of data for which they are responsible• To identify and address redundancies and/or conflicts in collections and support data integration• To document business rules for metrics
Data Submitters (LEAs, Postsecondary Institutions, Local Social Service Agencies, etc.)	<ul style="list-style-type: none">• To understand the definitions, option sets, and parameters of data they submit
External Data Requesters	<ul style="list-style-type: none">• To understand what data are available, including the definitions, option sets, time dimension, and limitations• To request and use the appropriate elements to answer program, policy, and research questions
Agency staff who create data products (reports, dashboards, etc.)	<ul style="list-style-type: none">• To ensure consistent calculation of metrics across staff and over time• To provide caveats and context to data users



Leveraging CEDS for Your Metadata Efforts

How to use CEDS to create and align a data dictionary



Introduction to Common Education Data Standards



CEDS is an **education data management** initiative whose purpose is to streamline the **understanding** of **data** within and across **P-20W+** institutions and sectors.



Introduction to Common Education Data Standards



Example 1

WSU15

KELPA

ELP

SLEP1

ESL

ELL

LEP

LEPIND



Introduction to Common Education Data Standards



Example 1

WSU15

KELPA

ELP

SLEP1

ESL

ELL

LEP

LEPIND

Example 2

WSU05

SLSES1

frpl

Meal

National_Lunch_Program



Leveraging CEDS to Support Metadata Maintenance



How can CEDS help establish standards for naming and defining data elements and option sets?

- Establishing standards for naming and defining data makes it easier to locate data
- The quality of data increases with a clearer understanding of what a particular data element represents.
- CEDS has a vast [education vocabulary](#) containing elements and option sets from early childhood, K12, postsecondary, adult education, and workforce domains that can help you move toward standardization.
- Definitions and option sets used by your peers can be found by viewing their maps. Select elements that interest you and find others who also collect those data by running an [element-based report](#), or you can find the Align maps you are interested in by running a [map-based report](#).





Demo

Building a CEDS Align Map



Hands-on Work Session



Meeting Your Challenges

- How can data governance and CEDS help with the challenges we heard during the icebreaker?
- Additional challenges
 - We store the same data element 15 times in our system, and each time it's slightly different.
 - When we receive a records request, we do not have a list of elements/definitions for the requestor to select from—translation ensues.
 - Our data dictionary goes out of date the day after we complete it.
 - Coming up with definitions is difficult.
 - There is no standard development process for naming elements.
 - LEAs struggle to understand what we are asking for.



Establishing a Metadata Maintenance Process



Metadata Maintenance

Maintaining metadata in a timely, ongoing way is usually a bigger challenge for agencies than the initial development.

Effective strategies

- Make metadata maintenance a data steward responsibility.
- Provide data stewards with training to ensure that they know how and when to update metadata.
- Have the data governance coordinator incorporate regular reminders to make updates (e.g., standing item on data governance meeting agenda, monthly email, etc.).
- Ensure one master source of record for metadata to avoid duplicative work and conflicting versions.
- (Meta)data quality increases with use. Leverage metadata to accomplish tasks (e.g., records requests from researchers, legislators, and other stakeholders; integrating new datasets; providing transparency regarding the data collected).



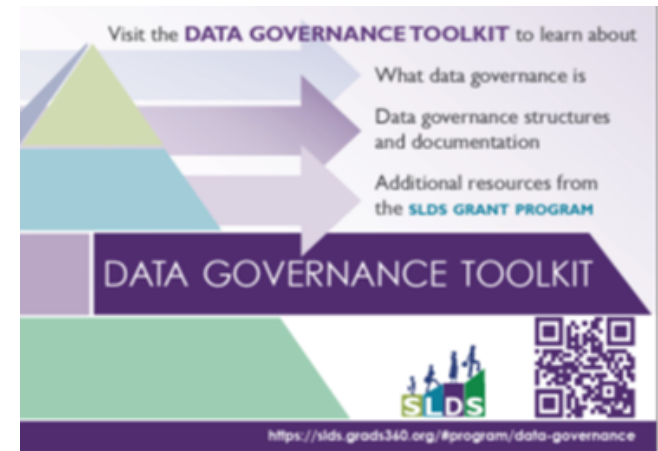
Full-Group Debrief

- How do you currently maintain your metadata?
 - Are there practices you've found to be effective?
 - What challenges do you face, and what would you like to improve?
- How will you use what you learned in this workshop?
- Are there additional resources or technical assistance you will need to implement what you learned?



Additional Resources

- **SLDS Data Governance Toolkit**, <https://slds.grads360.org/#program/data-governance>
- **CEDS Resources**
 - CEDS Standard, <https://ceds.ed.gov>
 - CEDS Community, <https://ceds.grads360.org>
- **Generate Data Integration resources**
 - Generate and CEDS Working together to Support SEAs, <https://ciidta.grads360.org/#communities/pdc/documents/14728>
 - CIID/Generate ETL Checklists, <https://ciidta.grads360.org/#communities/pdc/documents/17074>



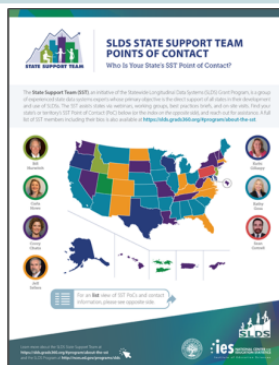
Contacts

Contact Information:

- Duane Brown, duane.brown@aemcorp.com
- Corey Chatis, corey.chatis@sst-slds.org
- Kathy Gosa, kathy.gosa@sst-slds.org

For more info about the SST and to request support:

- SLDS GRADS360° website: <http://slds.grads360.org>



**Find your Point
of Contact at**

[https://slds.grads360.org/#communities/
pdc/documents/14522](https://slds.grads360.org/#communities/pdc/documents/14522)



Learn More About the SLDS Program



Visit the SLDS website at <https://nces.ed.gov/programs/slds/>