Common Data Standards Initiative

Building a Voluntary, Common Vocabulary for Education Data

What is the Common Data Standards Initiative?

The Common Data Standards (CDS) Initiative is a national, collaborative effort to develop voluntary, common data standards for a key subset of K-12 (e.g., demographics, program participation, course information) and K12-to-postsecondary education transition variables. Participants in the Initiative include representatives from states, districts, higher education organizations, and key non-profit organizations. The CDS Initiative's goal is to identify a list of key K-12 and K12-to-postsecondary transition variables (expansion into PreK and the workforce will be considered in the future) and agree upon standard definitions, code sets, business rules, and technical specifications for those variables. This will increase data interoperability, portability, and comparability across states, districts, and higher education organizations.

The Education Science Reform Act of 2002 gave the National Center for Education Statistics (NCES) the authority to determine voluntary standards and guidelines to assist state educational agencies in developing statewide longitudinal data systems (SLDSs). To this end, NCES is working with key stakeholders to develop standards for a core set of data elements to ensure that states create P-20 data systems that meet the goals of the American Recovery and Reinvestment Act of 2009. Standard data definitions will help ensure that data shared across institutions are consistent and comparable. This, in turn, will make it easier to transfer student data from one school or level of education to another, and permit states to learn how students fare as they move across institutions, state lines, and school levels.

Why do we need common data standards?

Students are mobile throughout their education careers, and we must be able to keep pace with their mobility in our efforts to transfer student information. Much of the need to transport student records occurs at predictable times as students progress through the education pipeline: from elementary to middle school, middle to high school, or high school to a postsecondary institution. However, mobility isn't always foreseeable.

When families relocate and students show up to enroll in their new schools, K-12 and postsecondary organizations must be able to easily share student-level data and transcripts so that records are readily available in an understandable format (i.e., adherent to common data standards). The receiving schools need this information immediately in order to provide appropriate services (e.g., special education, free- or reduced-price lunch) and to place students in the correct grades and course levels.

When Hurricane Katrina made landfall in the summer of 2005, the need for comparable data and interoperable systems hit home with gale force as tens of thousands of students were displaced from their schools. These students' records needed to be shared with recipient states within a week's notice—a challenge that could have been more easily met with common data standards.

What will common data standards accomplish?

The current lack of alignment of standards for key data elements hampers our efforts to share information quickly and consistently. The uniform adoption of standards for key education data offers some significant benefits. It will:

- increase the *comparability* of data across state lines, allowing us to draw valid comparisons;
- increase the *interoperability* and *portability* of data within K-12, across state lines, and with the postsecondary sector, PreK, and the workforce; and
- reduce the collection burden on districts.

CDS is *NOT*

- ✗ **Required**: Adoption of any or all of the CDS elements by state K-12 and postsecondary institutions is entirely voluntary.
- ✗ **A data collection**: CDS does not collect data.
- ✗ **A Federal unit record system**: CDS is a model for data standardization to enable data sharing between state systems.
- ✗ **Solely a U.S. Department of Education undertaking**: CDS is a fully collaborative effort including local, state, and national organizations.

Who is participating in the CDS Initiative?

The Initiative's common data standards are being developed with the guidance, input, and participation of representatives from a broad range of stakeholder groups. CDS consists of a two-pronged approach, focusing both on developing technical standards and communicating with stakeholders to encourage the adoption of those standards. The two fronts of the CDS Initiative include 1) technical standards development and 2) communications and adoption.

Technical Standards Development

The Technical Working Group (TWG), facilitated by NCES, will compile and refine a set of common data standards, including definitions, permitted values, and technical specifications. The TWG will also solicit feedback on the standards from the NCES Forum, the broader postsecondary community and standards bodies as they are developed and before release of the final product. Partners include representatives from several state and local education agencies, higher education organizations, the Council of Chief State School Officers (CCSSO), the State Higher Education Executive Officers (SHEEO), the Data Quality Campaign (DQC), the Postsecondary Electronic Standards Council (PESC), and the Schools Interoperability Framework (SIF) Association.

Communications & Adoption

CCSSO and SHEEO (supported by the Bill & Melinda Gates Foundation) in partnership with the DQC (supported by the Michael & Susan Dell Foundation), will lead the Initiative's communications and adoption effort. These organizations will educate stakeholders—states, districts, K-12 schools, postsecondary organizations, and marketplace providers—about the standards developed by the TWG and encourage them to voluntarily adopt and implement the standards. Frequent feedback from the stakeholder groups will be solicited to refine the standards and create broad consensus and buy-in. (This arm of the Initiative has its own informational materials.)

CDS Technical Working Group Timeline

Year 1: Technical Working Group will:
- ➤ Establish Initiative's scope and identify initial list of K-12 and K12-to-postsecondary transition variables to be included.
- ➤ Agree on definitions, codes sets, and business rules for each element.
- ➤ Identify technical specifications for each element to facilitate the collection and transport of those elements across education institutions.*
- ➤ Solicit feedback and buy-in by sharing standards with broader partnership.
- ➤ Produce documents, which will include:
  - a list of elements with thoroughly documented definitions, code sets, and business rules;
  - detailed technical specifications for each element (e.g., XML schema, machine readable format, etc.); and
  - documentation of the governance process for maintenance and expansion of the common data standards, detailing:
    - » Who is engaged?
    - » What are the roles and responsibilities of each type of stakeholder?
    - » How are common data standards reviewed, expanded, and considered for sunset?

Year 2: Technical Working Group will:
- ➤ Review and consider the expansion of K-12 and K12-to-postsecondary transition variables; and
- ➤ Consider expansion into the full P-20 spectrum from early childhood education to the workforce.

Year 3: Technical Working Group will review existing standards for possible expansion, adjustments, or sunset.

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* The CDS elements and associated technical specifications will be drawn or adapted from existing documents (e.g., the NCES Handbooks, SIF Association specifications, PESC schema, and the National Education Data Model) or developed from scratch.