While education institutions across the P-20 (early learning through postsecondary) environment use many different conventions for capturing data and meeting information needs, there are certain data that must be easily understood, compared, and shared by all. For these, we need a shared vocabulary for education data—that is, we need common education data standards. The Common Education Data Standards (CEDS) project is a national, collaborative effort to develop voluntary data standards for a key set of education data elements to streamline the exchange, comparison, and understanding of data within and across P-20 institutions and sectors.

What is an Education Data Standard?
An education data standard is a set of commonly agreed upon names, definitions, option sets, and technical specifications for a given selection of data elements. For example, in CEDS, the element “Address Type” for Organization is defined as “The type of address listed for an organization” and can be described as one of a finite set of options, including Mailing, Physical, and Shipping. When this data element is used as part of a transcript, both the provider and recipient(s) of the document can understand the intended meaning, so long as both parties adhere to the standard. (See Anatomy of CEDS for more detailed information).

CEDS is the largest P-20 education data standard effort.

CEDS is

✓ A collaborative effort: CEDS is a national collaborative effort to develop voluntary, common standards for a key set of education data elements.
✓ A common vocabulary: CEDS provides common definitions, option sets, and technical specifications to streamline data sharing and comparing.
✓ A set of powerful tools: CEDS provides a data model and supplemental tools to help stakeholders utilize the standards.

Benefits of a Common Vocabulary
The highly mobile nature of our student populations requires that we be able to share high quality data in an efficient manner. When a student transfers from one program, institution, district, or state to another, or advances from one sector of the education system to the next, information must accompany him or her to ensure continuity and appropriateness of services provided (e.g., class placement, program participation). Without common standards for communicating this information, transfer of data may be slow, laborious, and fraught with errors, and can increase staff burden (e.g., time spent deciphering data) and potentially compromise student outcomes.

Having a common vocabulary for the full continuum of education is also important because, depending on the context, the same word can have different meanings. For example, in K12 education, “retention” refers to a student being held back a grade level (and viewed negatively). In postsecondary, however, “retention” is a positive occurrence indicating that a student has returned to advance his or her education. The collaboration of representatives from across all levels and sectors of the education system to develop a single, agreed upon standard ensures that adopters of that standard can be confident that their data will be accurately interpreted by recipients, and that they, in turn, will understand data received from others.

Meeting a Critical Need
Educators and policymakers need accurate, timely, and consistent information about students and schools to inform decisionmaking—from planning effective learning experiences, to improving schools, reducing costs, and allocating resources—and states need to streamline federal data reporting. When common education data standards are in place, education stakeholders, from early childhood educators through postsecondary administrators, legislators, and researchers, can more efficiently work together toward ensuring student success, using consistent and comparable data throughout all education levels and sectors.

Visit http://ceds.ed.gov to learn more about CEDS, view the standards, explore the data model, and use the tools.
While numerous data standards have been used in the field for decades, there has not emerged a universal language that can serve basic information needs across all sites, levels, and sectors throughout the P-20 environment. By identifying, compiling, and building consensus around the basic, commonly used elements across P-20, CEDS meets this critical need.

CEDS Origins, Present, and Future
The American Recovery and Reinvestment Act of 2009 (ARRA) included funding to help state education agencies develop longitudinal data systems containing data from early learning through postsecondary education and the workforce. ARRA also instructed the National Center for Education Statistics (NCES) to assist states in developing voluntary data standards and guidelines to assist states in the process. The Statewide Longitudinal Data Systems (SLDS) Grant Program, which serves as NCES’s main funding vehicle to support states’ data system work, also encourages and supports the alignment of these systems with common data standards. Stemming from these longitudinal data system development efforts, CEDS is being developed by NCES with the assistance of a CEDS Stakeholder Group that includes representatives from across the P-20 field. Concurrently, a group of non-government interested parties with the same goals, including the Chief State School Officers, the State Higher Education Executive Officers association, the Data Quality Campaign, SIF, and PESC, has come together with foundation support and has been working to encourage the development effort and assist with communications and adoption of the standards.

Work began in the fall of 2009 on CEDS Version 1 (v1), which focused primarily on the K12 sector and the transition to postsecondary education. CEDS v1 was released in September 2010. That fall, the CEDS Stakeholder Group began work on v2. Released in January 2012, v2 includes 628 elements², and greatly expands the scope of CEDS, providing standards for early learning, K12, and postsecondary education. Beyond the standards, v2 also includes a CEDS Data Model (logical) and the CEDS Alignment Tool. The model specifies the relationships that exist among the elements and associated entities, while the tool allows users to compare their own data dictionaries to CEDS and to standards used by other organizations to facilitate more efficient exchange and comparison of data. (See the Using CEDS paper for more information.)

On the way in 2012 is the CEDS Use Case Generator—an innovative new tool that will map data elements to their real-world applications (e.g., the policy questions they can help answer or the data reporting requirements they can fulfill). Then, in early 2013, the release of CEDS v3 will expand the number elements for early learning, K12, and postsecondary education; and will for the first time include elements for workforce data.

Explore and Engage with CEDS
To engage with CEDS, explore the standards at http://ceds.ed.gov through a searchable database and the CEDS Data Model. Use the CEDS Alignment Tool to see how closely your organization’s data dictionary matches up to CEDS and the data standards used by other organizations with which you currently share or would like to share data. This process of identifying gaps and discrepancies will facilitate more accurate data sharing and prepare your organization for use of the forthcoming Use Case Generator.

¹CEDS is comprised almost entirely of standards pulled from existing sources.
²CEDS includes many data elements commonly used across the P-20 environment; the exact number depends on how you count. CEDS includes 628 individual, unduplicated elements (e.g., FIRST NAME) that make up 1,005 instances in which elements are associated with one or more entities (intersections of entities and the elements that describe them —e.g., Student FIRST NAME, Staff FIRST NAME, Parent FIRST NAME).