

About the NCEs Nonfiscal Data Handbook for Early Childhood, Elementary, and Secondary Education

Education agencies and institutions collect and maintain information to help the education system function efficiently and effectively. Standardized data available to education agency officials can

- assist in the development of sound educational policies at all levels;
- improve the quality of instruction and boost student achievement;
- provide information for comparisons among communities and among states;
- improve the accuracy and timeliness of nationwide summaries of information about education systems;
- improve the quality and significance of education research—locally, statewide, and nationwide; and
- enhance reporting to the public about the condition and progress of education.

The U.S. Department of Education has been involved in a number of efforts focused on improving the quality and comparability of data collected at the local, state, and national levels. Within the Department of Education, the National Center for Education Statistics (NCES) has taken the lead in many of these efforts. NCES has a mandate to collect “uniform and comparable data” in order to report on the condition of education in the United States. To assist in this mandate, NCES works with federal, state, and local education agency representatives and researchers to develop guidelines for the collection of comparable and complete data.

How Many Handbooks Are There?

Beginning in the 1950s, the federal government published a series of terminology manuals for state educational records and reports. The manuals in the series were redesigned by NCES in the 1970s as handbooks. The nonfiscal handbooks included the Student and Staff Handbooks. In 2000, development of an Education Systems Handbook began. This handbook focused on data collected about schools and education agencies (local, intermediate, and state). Today, all of the data elements in the student, staff, and education systems handbooks are together in one online database referred to as the *Nonfiscal Data Handbook for Early Childhood, Elementary, and Secondary Education*.

The online handbook provides guidance on consistency in data definitions and maintenance of education data, so that such data could be accurately aggregated and analyzed. The handbook is intended to serve as a reference for public and private education agencies, schools, early childhood centers, and other educational institutions, as well as by researchers involved in the collection of education data. In addition, the handbook may be useful to elected officials and members of the public with an interest in education information. ***The handbook is not, however, a data collection instrument, nor does it reflect any type of federal data maintenance requirement.***

A Paperless Handbook

In updating the paper handbooks, it became increasingly apparent that there was significant overlap among the handbook topic areas, and that handbook users must utilize a combination of the handbooks in order to develop a comprehensive data system. Therefore, NCES created an online database to house the information in the handbooks and allow for timely publishing of changes once they have been approved. The ultimate advantage to the database approach is that users will have access to information from all of the handbooks in one location. The database contains handbook data elements along with their components.

How the Handbook Was Developed

The Student and Staff Handbook sections were updated from their early 2000 versions. The Education Systems Handbook section (school, local education agency, intermediate education agency, and state education agency) was developed over a period of 2 years using a variety of methods described below. A working group of local, state, federal, and association education staff convened several times over this period to assist NCES in the development of this portion of the unified handbook, just as had been done previously for the Student and Staff Handbook sections.

The selection of data terms included in the handbook reflects the combined best judgment of those individuals representing local, state, and federal agencies as to which data are useful in making appropriate, cost-effective, and timely decisions about providing quality educational services in schools and other education agencies. Considerations in selecting which data elements to incorporate in this handbook included the potential usefulness of the data, the effort necessary to collect them, and the need for required reporting. The identification of crucial bits of information needed for decision making is a dynamic process. An attempt has been made to provide a comprehensive listing of all data elements that might be needed for decision making essential for managing the education system, reporting to state and federal education officials, and computing indicators of school effectiveness. The handbook is not meant to prescribe what data a particular school or agency should collect. No governmental agency requires the use of all of the terms, definitions, and procedures included here; however, care has been taken to make sure that the definitions are consistent with many governmental reporting requirements existing at the time of publication. *Handbook users should be aware that due to compromises, as well as subsequent changes in Federal regulations, the definitions and terms used in this handbook may not correspond to terms and definitions required for reporting under all Federal programs. Agencies reporting data for Federal programs should follow the guidelines for those programs.*

The definitions included for categories, sections, data elements, options, and entities were taken primarily from existing sources; others were written with the assistance of participants in the development process of the handbooks. In some cases, laws or federal regulations specified what data elements should be used and how they should be defined. Some of the definitions were included in the previous Student and Staff Handbooks and are listed here because the terms are still in common usage. Others came from a variety of published sources, such as textbooks, federal publications, or other documents. For certain definitions, comparisons were made among various local, state, and federal sources, and a compromise definition was developed. Most of the options were obtained from existing sources. Some of the lists found in the appendices were

obtained through the American National Standards Institute (ANSI). Others were developed for the standard format for a student transcript (called SPEEDE/ExPRESS) or for the Schools Interoperability Framework (SIF).

Updates to the Handbook

The handbook is updated annually. In order to identify needed changes or additions, NCES compiles suggestions and questions sent by letter or e-mail over the course of a year. In addition, contacts with U.S. Department of Education staff are made to determine if there are changes in reporting requirements affecting handbook data elements. A group of local, state, federal, and association members are invited to serve on a working group to consider the proposed changes and decide what to include in the new revision. These recommended changes are then submitted for consideration to the National Education Statistics Agenda Committee of the National Forum on Education Statistics (the Forum). Once the changes are determined, they are incorporated into the online handbook database.

Safeguarding Confidentiality and Ensuring Appropriate Use of Individual Data

Individual data must be kept confidential. Education agencies must develop policies and procedures for collecting, maintaining, using, and disposing of individual data that are appropriate for local and state needs, and conform with applicable laws and regulations. In determining what data should be incorporated into student or staff records, schools or education agencies should identify data needs at each and every level: for the classroom teacher, the school, the school district or other administrative unit, the state, and federal reporting requirements. Once these data elements are identified, schools and agencies must decide how to collect the data; how these data may be reviewed, verified, corrected, and updated; how access to student and staff data files may be controlled; and under what conditions student data should be transmitted to others.

The importance of safeguarding confidentiality cannot be overstated. The Family Educational Rights and Privacy Act (FERPA), first passed by the U.S. Congress in 1974, as well as state privacy requirements, require that student data be closely guarded and released only according to specific guidelines. The Forum and NCES have released documents to assist education agencies with the confidential maintenance and appropriate use of individual data: *Protecting the Privacy of Student Records* and *Privacy Issues in Education Staff Records*. A related document that provides guidance on the use of the handbooks for designing information systems is *Building an Automated Student Record System*. In addition, NCES has produced a document on the security of technology systems that relates to the maintenance of administrative records systems, called *Safeguarding Your Technology*. These documents can be found on the Forum's web site at: <http://nces.ed.gov/forum/publications.asp>.

About the Data Elements

The data elements included in the handbook may be used in a variety of ways. A teacher, school administrator, or local/state education agency may use the data elements in the handbook to design an education management information system. The selection of data elements to be collected is the responsibility of the school, local administrative unit, or state education agency

that directs the development and maintenance of education records. A researcher may also find the data elements and definitions useful. They may be used to design a data collection survey to collect information on various aspects of education agencies, or they may be incorporated into the survey instructions to ensure that comparable data are collected.

Handbook Hierarchy

A *Data Element* is a unit of data that can be defined and measured. Each data element has been assigned a unique, sequential “data element number” consisting of only four digits. The data elements have been assigned these numbers for identification purposes and do not carry any additional meaning.

Within the handbook, the data elements are assembled based on a hierarchical grouping schematic. At the most general level, data elements are grouped in terms of their respective *domain*. Domain is a term used to indicate the handbook source from which the data element originated, such as the Student Handbook, Staff Handbook, School Handbook, and so forth.

Each domain is further divided into *sections*. A section is very much like a chapter of a book, in that sections divide or separate related information—or, in this case, data elements. Examples of sections include Personal Information, Institution Identification, and Program.

Within each section, the generic data elements are further classified into a single *category*. The category provides a more refined assemblage of the data elements based on the unique information to which the data elements pertain within a given section. Examples of categories include Activity Information, Honors Information, and Post-School Education/Training.

Options give recommended alternatives or responses for a data element. Options are listed in either alphabetical order or in a logical sequence, and have assigned code numbers. For example, "Female" and "Male" are options under the data element "Sex".

The options presented are generally illustrative, not mandatory. In some instances, a subset of options might be sufficient when designing a data system or data collection instrument. For some data elements, options lists would have been useful, but extensive lists could not be created. In these cases, examples of options are listed but comprehensive lists are not included. For some other data elements, options lists were created to meet a perceived need, even though an exhaustive list was not possible. For some data elements, free-form (open-ended) options are the appropriate responses. In these cases, no preconceived options are presented. For other data elements, more extensive lists of options might be needed and obtained from other sources; in these cases, links to the other sources are provided.

Entities are persons, places, events, objects, or concepts about which data can be collected. For example, the data element "Name of Individual" could be collected to describe a student's emergency contact, a teacher, a counselor, or a health care provider, thus putting the data element into a context.

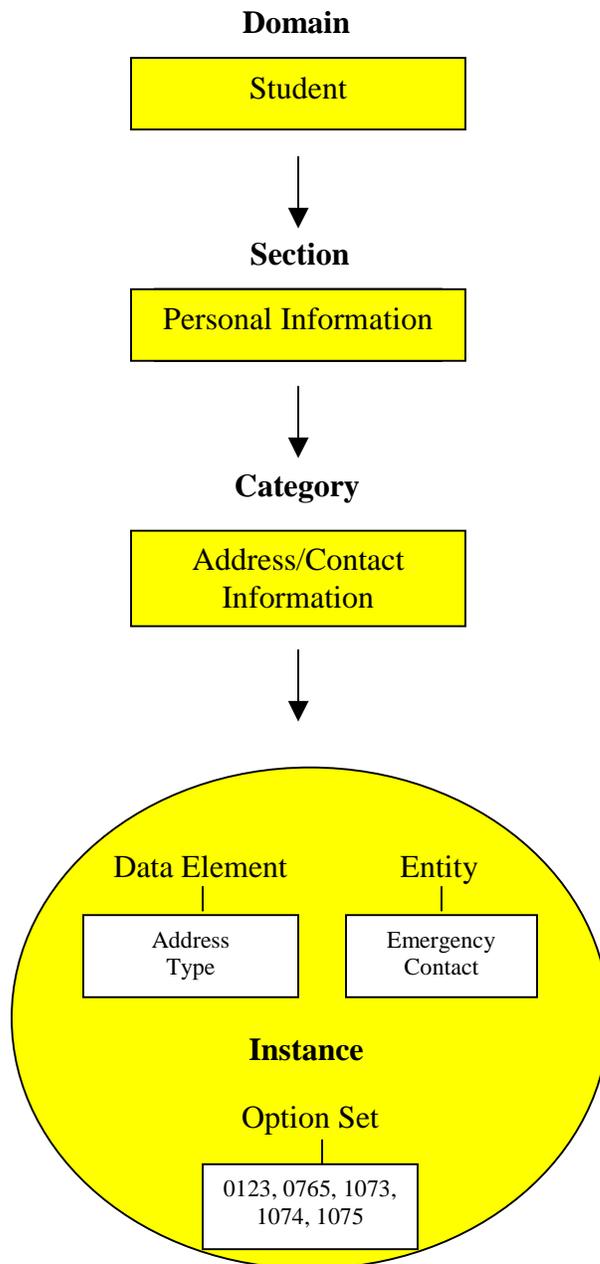
Because data elements are reusable generic things that are associated with an entity, the term *instance* is used to constitute a use of a data element within a particular context. For example,

first name is an element that when paired with a student entity constitutes a use of the first name element. Option sets are also associated with this pair when appropriate.

Entity uses are listed for each data element, indicating which entities could readily be described by the data element.

The following charts illustrate the hierarchy of how the data elements are organized, and provide an example of a data element.

Handbook Database Hierarchy



The following example of the instance “Address Type” provides a visual overview of how the data elements fit into the handbook hierarchy.

