

# About the Handbooks

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

- assist in the development of sound educational policies at all levels
- improve the quality of instruction and increase student achievement
- permit the comparison of educational processes across communities and states
- improve the accuracy and timeliness of nationwide summaries of information about education systems
- advance the quality and significance of education research locally, statewide, and nationwide
- facilitate 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 to improve the quality and comparability of data collected at the local, state, and national levels. 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.

NCES developed the Handbooks Online to improve the consistency of data definitions and data maintenance, so that education data can be more accurately aggregated and analyzed. The Handbooks Online is intended to serve as a reference document for public and private education agencies, schools, early childhood centers, and other educational institutions, as well as for researchers involved in the collection of education data. In addition, the Handbooks Online may be useful to elected officials and members of the public who have an interest in education information. ***The Handbooks Online is not, however, a data collection instrument, nor does it reflect any type of federal data maintenance requirement.***

# History of the Handbooks

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## **How Many Handbooks Are There?**

Up until the 1970s, the Handbooks were published as part of a series. In the early 1990s, the Student and Staff Handbooks underwent major revisions and were produced as printed reports. In 2000 and 2001, both Handbooks were updated, and development of the Education Systems Handbooks began. Today, all of the nonfiscal NCES Handbooks, as well as many of the National Forum on Education Statistics guidebooks, are together in one online database referred to as *NCES Handbooks Online*. The NCES Financial Accounting Handbook data elements (with definitions and components) are also located on the site.

## **A Paperless Handbook**

While updating the paper Handbooks in 2003, it became increasingly apparent that there was significant overlap across topic areas, and that users would probably utilize a combination of Handbooks when developing a comprehensive data system. Therefore, NCES created an online database to house the information in the Handbooks and to allow for timely publishing of changes once they have been approved. The ultimate advantage to the database approach is that users have access to information from all of the handbooks in one location. The database contains all data elements (with their components) and selected defined terms.

## **Updates to the Handbooks**

The selection of data terms included in the Handbooks reflects the best judgment of individuals from local, state, and federal agencies and national associations regarding which data are useful in making appropriate, cost-effective, and timely decisions about providing quality educational services in schools and other education agencies. Considerations included the potential utility of the data, the effort necessary to collect them, and reporting requirements. The identification of crucial information needed for decision-making is a dynamic process. The Handbooks are not intended 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 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 resource 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 Handbooks are updated annually. In order to identify needed changes or additions, NCES compiles suggestions and questions sent via e-mail over the course of a year. In addition, representatives from the U.S. Department of Education are contacted to determine whether there are changes in reporting requirements affecting relevant data elements. A group of local, state, federal, and national association representatives are invited each year to serve on a working group to consider the proposed changes and to decide what to include in the new revision. Once the changes have been identified, they are incorporated into the online database.

The definitions included for categories, data elements, options, and entities usually originated in existing sources; others were written with the assistance of experts in the content areas. In some cases, laws or Federal regulations specified what data elements should be used and how they should be defined. Others terms arose from a variety of published sources, such as textbooks, Federal publications, and other documents. For some terms, compromise definitions were

created from a range of local, state and federal sources. Most options were obtained from existing sources.

Suggestions for revisions can be submitted to [ghedam.bairu@ed.gov](mailto:ghedam.bairu@ed.gov).

# About the Data Elements

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The data elements in the Handbook can be used in a variety of ways. A teacher, school administrator, or local/state education agency may use the data elements 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. The data elements and definitions could also be used by a researcher in several ways. They could be used to design a data collection instrument (survey) on any of a wide range of topics related to the work of an education agency. The data elements and definitions could also be incorporated into the survey instructions to ensure that comparable data are collected.

**Domain:** Used to indicate the management level at which the data is maintained. Within the Handbooks, the data elements are organized based on a hierarchical grouping schematic. At the most general level, data elements are grouped in terms of their respective Domain. For example, an element in the Student Domain would be kept on the student record, in the LEA Domain would be kept in the district's database, etc.

**Sections:** 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.

**Category:** Within each section, data elements are further assigned into a Category. A Category identifies a group of data elements that are all related within a given section. Examples of categories include Activity Information, Honors Information, and Post-School Education/Training.

**Entities:** Persons, places, events, objects, or concepts about which data can be collected. For example, the data element "Last/Surname" could be collected to describe a student's emergency contact, a teacher, or a health care provider, thus putting the data element into a context. A listing of entities and their definitions is included with the Handbooks.

**Instance:** The use of a data element with a particular entity. For example, "Last/Surname" is a data element that can be paired with the entity "Student" to establish an instance that identifies a student's last/surname. Option sets are also associated with instances when appropriate.

**Other Defined Terms:** Terms used in the definition of elements, options, and entities that can be further defined.

**Data Element:** The name of a unit of data that can be defined and measured. Each data element has been assigned a unique "data element number" consisting of four digits. The numbers do not carry any additional meaning. The data elements have been assigned these numbers for identification purposes

**Name:** The name of the data element, option or entity as referred to in the NCES Handbooks Online.

**Definition:** A description of the meaning of a word or concept.

**Element or Option Number:** The four-digit number assigned to a data element or the five-digit number assigned to options for coding and organizational purposes in the NCES Handbooks Online.

**Element Type:** A description of the form or qualities (i.e., the "type") of the data that constitutes the element. Data element "types" include:

Alpha/Numeric (AN): A data element for which any letter or number (or combination of letters and numbers) is appropriate. Generally, this data element type is used when no standard code list of related options (see below) exists, or where descriptive information is desired.

Date (DT): A data element type that is specifically defined as a date. Generally, the format in the NCES Handbooks Online is MMDDYYYY (field length = 8), although this may vary.

Floating Decimal (R): A data element type in which a decimal must be included in the numeric value. If it does not appear, the number is assumed to be whole. Floating Decimal (R) values might, for example, appear as 4.1 (signifying four digits to the left of the decimal and one digit to the right of the decimal) or 3.2 (signifying three digits to the left of the decimal and two digits to the right of the decimal).

Identifier (ID): A data element defined by a code set of related options (see below). A code set is provided for most of the data elements identified as "ID" in the NCES Handbooks Online.

Numeric (N): A data element that must be a numeric value. Decimals themselves are not included in the value [see Floating Decimal (R) above], although a decimal is implied in the right-most place to signify a whole number.

**Field Length:** The recommended maximum number of places the value of a data element would require in an automated record system. For example, a descriptive Alpha/Numeric (AN) element might require 60 letters or numbers for a response, whereas a Date (DT) would require 8 digits (MMDDYYYY). Only a maximum suggested field length has been included here. In designing a data collection system, a minimum length is also generally specified. All field length recommendations are illustrative and not mandated.

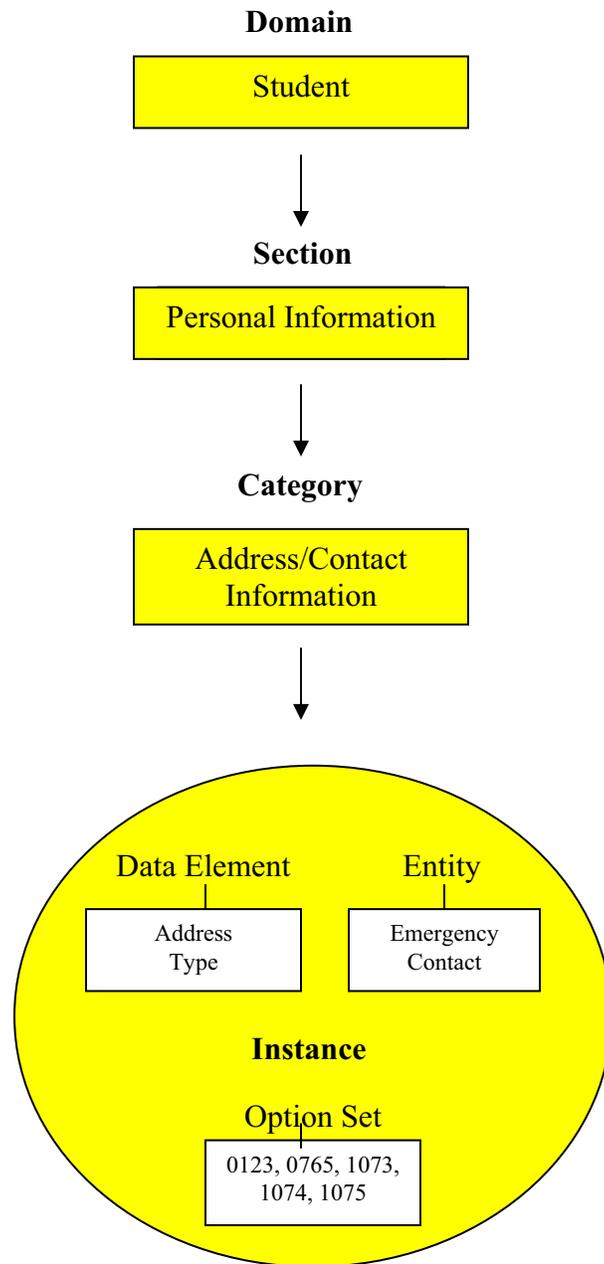
**Options:** Give recommended alternatives or responses for a data element. Options are listed in alphabetical order, and have assigned code numbers. For example, "Female" and "Male" are options under the data element "Sex". Options presented are generally illustrative, not mandatory. In some cases, a subset of options might be sufficient when designing a data system or data collection instrument. For some data elements, comprehensive lists of options would have been useful, but were not available or 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 options are presented. For other data elements, more extensive lists of options might be obtained from other sources.

**Related Options:** A recommended code list that serves as a response for a data element. For example, "Female" and "Male" are options under the data element "Sex." Options are listed in either alphabetical order or in a logical sequence, and have assigned code numbers.

**Related Elements:** The data element that the option serves as a response to.

**Related Instance Categories:** A listing of the instances of the data element in the Handbooks.

# Handbook Database Hierarchy



## About the Data Elements > Handbook Hierarchy Example

The following example of the instance "Address Type" provides an overview of how the data elements fit into the handbook hierarchy.

<b>Domain</b>	—————→	<b>Student Handbook</b>
<b>Section</b> <i>(Describes what type of information is contained in this part of the domain.)</i>	—————→	<b>Personal Information</b>
<b>Category</b> <i>(Describes a group of related data elements.)</i>	—————→	<b>Address/Contact Information</b> Information that can be used to direct communication to an individual, organization, or institution.
<b>Data Element</b> <i>(Includes name and definition of a unit of data that can be defined and measured.)</i>	—————→	<b>0025 Address Type</b> The type of address listed for an individual or organization.
<b>Option Set</b> <i>(Gives recommended alternatives or responses for a data element; these options facilitate automated data processing.)</i>	—————→	<b>0123 Mailing address</b> <b>0765 Physical location address</b> <b>1073 Other home address</b> <b>1074 Employer's address</b> <b>1075 Employment address</b>
<b>Entity</b>	—————→	<b>Emergency Contact</b>