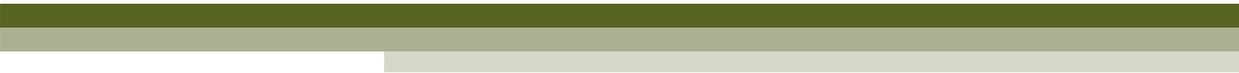


Appendix A:

Glossary





Glossary

Items in boldface are defined in this glossary.

ADA: average daily attendance

A data item upon which many state and federal reports are based. Refers to the average number of students in attendance each day within a school or district over a specific time period.

ADM: average daily membership

A data item upon which many state and federal reports are based. Refers to the average number of students enrolled within a school or district each day over a specific time period.

aggregating

Combining separately reported data into a larger group; e.g., combining individual student attendance records into an overall district rate of attendance.

business rule

A guideline for standardizing how data are entered, validated, corrected, or applied. A fundamental tool in ensuring quality data. See decision rule, edit, process rule.

compliance

Report or data element conforming to legal and regulatory requirements.

confidential information

Information that, if disclosed, would generally be considered harmful or an invasion of privacy. In FERPA, any information that is not directory information is considered confidential; furthermore, parents have the right to request that directory information be kept confidential.

data analysis

Activities that seek to discern meaningful patterns and trends within data for the purpose of supporting effective decisions.

data audit

A procedure for monitoring the quality of data by analyzing reports for anomalies, inaccuracies, and missing data.

data calendar

A timeline, Gantt chart, table, or calendar showing the dates related to all events pertinent to the creation, movement, reporting, correcting, analyzing, or application of data.

data dictionary

A document defining the data elements collected and tracked by a system, indicating the nature of the element, any format restrictions, any rules that apply to the values (see business rule), and how the data will be used.

data element

The name of the most basic unit of data that can be defined and measured, e.g., Student Last Name. In some contexts, a data element is divisible into data items. Often used interchangeably with data item.

data event

Any occurrence that generates new data or information. Examples of data events include a test, an absence, and the registration of a new student.

data item

In some contexts, the smallest component of a data element. Sometimes a value classified under a data element (e.g., the data element “free or reduced lunch status” contains the data items “free,” “reduced,” and “paid”). Often used interchangeably with data element.

data ownership

Acknowledgement by each person involved with creating and applying data that he or she is responsible for the quality of the data: its accuracy, timeliness, utility, and security.

data quality standards

Criteria for measuring the quality of data or a report; e.g., “The grade field may have no more than 5 percent null entries on the mid-year report.”

data silos

Separate repositories of data, the managers of which do not communicate with each other.

data steward/data coordinator

Staff member or staff members responsible for ensuring that the statistical information reviewed by senior staff presents data that have been entered accurately and collected systematically. Also responsible for enhancing the information reporting process through staff development and collaboration with the various offices and programs responsible for producing data and information.

data system

Usually refers to a computer-based application that holds information about a set of similar items (e.g., students, books, employees), with one record corresponding to each individual item in the set, and fields (e.g., first name, address, title) defined to hold specific data describing each item. In the larger sense, it is any combination of paper, electronics, and personnel that create, store, manage, and report on data.

data validation

A procedure for determining that all data values entered into a system are accurate.

data warehouse

A central repository of all, or a significant portion of, the data that an enterprise collects. A data warehouse generally provides access to data over a time span.

decision rule

A business rule that defines criteria for making a specific decision; e.g., “A student who scores below the proficient level on the state math assessment will be assigned to a remediation class until he or she achieves percent mastery of material.”

decision support system

A cohesive, integrated hardware and software system designed specifically to manipulate data and enable users to distill and compile useful information from disparate sources of raw data to support problem solving and decisionmaking.

directory information

In FERPA, information not generally considered harmful or an invasion of privacy if disclosed. This is the information that would normally be included in a publicly available LEA directory or yearbook and defined by a district on an annual basis. Parents can request that student information normally included in a directory be kept confidential. Also defined as non-confidential information.

disaggregating

Breaking one element of a report into subsidiary groups; e.g., disaggregating a district's student test scores into separate scores for each gender.

dropout rates

Two types:

- annual student—the percentage of students who drop out in a given year
- cohort—the percentage of students from a specific grade cohort (e.g., the class of 2009) who are dropouts at the time the cohort ends

Specific formulas for determining dropout rates vary from state to state, although an effort to define a nationwide standard is under way.

EDEN: Education Data Exchange Network

A set of K-12 statistical reports gathered from state agencies by the U.S. Department of Education. Formerly known as the Performance-Based Data Management Initiative, EDEN attempts to gather statistics from each state such as school populations within subgroups (race, gender, etc.), graduation rates, and school spending.

edit

A business rule programmed into the system into which data are entered, limiting the possibility of entering inaccurate or inappropriate data.

educational indicator

A measure of the status of, or change in, an educational system with regard to its goals; e.g., student graduation rates.

FERPA: Family Educational Records and Privacy Act

Federal law governing the confidentiality of student records. FERPA is administered at the federal level by the Family Policy Compliance Office of the U.S. Department of Education.

HIPAA: Health Insurance Portability and Accountability Act

Federal law governing the confidentiality of health records, both for students and staff.

LEA: Local Education Agency

A governmental administrative unit at the local level that exists primarily to operate schools or to contract for educational services.

personally identifiable information

Information contained in a record that would make the identity of a student easily traceable or discernable. It includes, but is not limited to, the student's name, the name of the student's parent or other family members, a personal identifier (such as a Social Security Number or student number), a list of personal characteristics that would make the student's identity easily traceable, or other information that would make the student's identity easily traceable.

predictors

Data elements and combinations of data elements that have been shown to accurately forecast other measures, e.g., the rate of student absenteeism is a predictor of dropout rates.

process rule

A business rule defining the steps for entering, verifying, or correcting data.

SEA: State Education Agency

The agency of the state charged with primary responsibility for coordinating and supervising public elementary and secondary instruction, including the setting of standards for instructional programs.

security

Component of quality data related to the confidentiality of student and staff records and to the technical issues associated with keeping data safe (firewalls, data backups, etc.).

SIF: School Interoperability Framework

A set of specifications that allows school-based data systems (SIS, cafeteria, library, etc.) to automatically keep data consistent across all applications.

SIS or SMS: Student Information System or Student Management System

Two of many acronyms and terms for a data system by which schools keep track of student demographic (address, birthdate, gender, ethnicity, etc.), enrollment, and schedule information. Typically the largest source of student data.

staff identifier

Unique code assigned to an individual employee of an LEA. Although historically often the same as the employee's Social Security number, it is now generally considered better to assign a different identifying code.

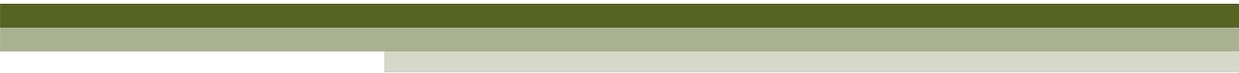
student identifier

Unique code assigned to an individual student. Can be assigned on an LEA or statewide basis (that is, identifier can be unique within the school or district or unique within the entire state). LEA identifiers are often generated by a SIS.

Appendix B:

Downloading Lesson Plan and Lesson Resource Files





Downloading Lesson Plan and Lesson Resource Files

Each lesson below can be downloaded as a compressed file containing modifiable versions of each lesson plan and the lesson resources associated with it. Most of these files are Microsoft Word documents. Files of diagrams and flow charts are Inspiration files and a few files are in Microsoft Excel.

To download these files, go to the National Forum for Education Statistics publications web page (<http://nces.ed.gov/forum/publications.asp>) and click on the link Current Projects, then the link for *Forum Curriculum for Improving Education Data: A Resource for Local Education Agencies*. You will see links for downloading these files.

Part I: Foundational Data Improvement Lessons

- What is a Culture of Quality Data?

- Assessing Your LEA's Data Quality

- Classifying Education Data

- Security and Confidentiality

Part II: Data Steward/Coordinator Training

- Data Steward/Coordinator Responsibilities

- Data Flow and Data Cycles

- Data Entry Issues

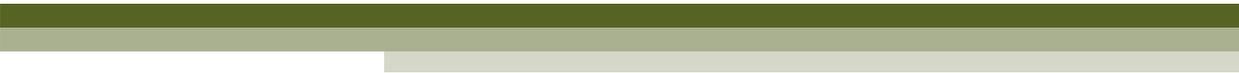
- Creating and Using a Data Dictionary

- Types of Data Errors

- Developing a Data Calendar

- Validating and Auditing Data

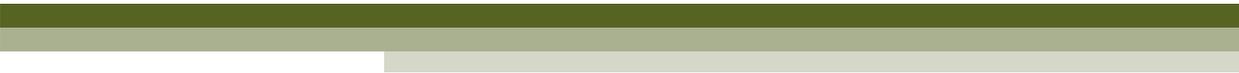
- Communication



Appendix C:

Downloading Supplementary Resources





Downloading Supplementary Resources

Resources are grouped according to the lesson to which they are most pertinent. Each entry consists of a resource title, a description of the resource, and, if the file is not on the Forum publications server, a link where it can be located. If any of the URL links has expired, work your way back to the root level of the URL by deleting the text after the last backslash (/) and hitting “enter.” Continue to delete the last level of text until you reveal a useful page. It is possible that some links will have expired.

To download those files for which a URL is not listed here, go to the National Forum for Education Statistics publications web page (<http://nces.ed.gov/forum/publications.asp>) and click on the link for *Forum Curriculum for Improving Education Data: A Resource for Local Education Agencies*. You will see links for downloading the supplementary resources.

Part I: Foundational Data Improvement Lessons

What is a Culture of Quality Data?

Building a Culture of Quality Data.ppt

A PowerPoint presentation outlining the *Forum Guide to Building A Culture of Quality Data*.

Forum Guide to Building a Culture of Quality Data

Complete PDF of the Forum handbook, parts of which are read in this lesson and **Assessing Your LEA’s Data Quality**. Includes tip sheets for each key player, listing each player’s roles and responsibilities regarding data quality.

<http://nces.ed.gov/pubs2005/2005801.pdf>

Quality Data Culture Concept Map (a).doc

Concept map of the *Forum Guide to Building A Culture of Quality Data*, in Microsoft Word format, with the hierarchy moving from left to right.

Quality Data Culture Concept Map (a).isf

Concept map of the *Forum Guide to Building A Culture of Quality Data*, with the hierarchy moving from left to right, in the original Inspiration file.

Quality Data Culture Concept Map (b).doc

Concept map of the *Forum Guide to Building A Culture of Quality Data*, in Microsoft Word format, with the hierarchy moving from top to bottom.

Quality Data Culture Concept Map (b).isf

Concept map of the *Forum Guide to Building A Culture of Quality Data*, with the hierarchy moving from top to bottom, in the original Inspiration file.

Quality Data Culture Concept Map.ppt

A single PowerPoint slide that builds a concept map of the *Forum Guide to Building A Culture of Quality Data*.

Classifying Education Data

Multiple Measures slide show.ppt

A PowerPoint presentation displaying Vicki Bernhardt’s Multiple Measures of School Data Venn diagram.

Security and Confidentiality

Family Educational Rights and Privacy Act Regulations

The regulations promulgated by the U.S. Department of Education to implement FERPA.

<http://www.ed.gov/policy/gen/guid/fpco/pdf/ferparegs.pdf>

FAQ on HIPAA and School Health

A web site of the Commonwealth of Massachusetts Department of Public Health. Check for a similar site in your own state.

http://www.mass.gov/dph/fch/schoolhealth/hipaa_faq.htm

Family Educational Rights and Privacy Act

The text of the Family Education Records and Privacy Act, broken down by issues.

http://www.gpo.gov/nara/cfr/waisidx_00/34cfr99_00.html

Forum Guide to Protecting the Privacy of Student Information: State and Local Education Agencies (2004)

A handbook covering FERPA and other federal laws affecting information privacy in schools. Contains sample forms and notifications.

<http://nces.ed.gov/pubs2004/2004330.pdf>

Forum Guide to the Privacy of Student Information: A Resource for Schools

A summary of FERPA rules and definitions for schools.

<http://nces.ed.gov/pubs2006/2006805.pdf>

U.S. Department of Health and Human Services, Office of Civil Rights—HIPAA

Links to a wide variety of information about HIPAA.

www.hhs.gov/ocr/hipaa

Part II: Data Steward/Coordinator Training

Data Steward/Coordinator Responsibilities

Job Description Form.doc

A blank and generic job description form.

Data Entry Issues

Improving Data Quality for Title 1 Standards, Assessments, and Accountability Reporting. Guidelines for States, LEAs, and Schools (Non-Regulatory Guidance, April 2006)

Addresses data quality issues associated with the annual Report Card required of all states, Local Education Agencies (LEAs), and schools receiving Title I, Part A funds under Sec. 1111(h) of *No Child Left Behind*.

<http://www.ed.gov/policy/elsec/guid/standardsassessment/nclbdataguidance.doc>

Creating and Using a Data Dictionary

EDEN Data Framework Handbook V4.0.doc

A description of the conceptual model that is used to define the data requirements for the Education Data Exchange Network (EDEN).

EDEN Data Set 06-07.pdf

A highly technical document that contains a detailed description of all data groups and data categories proposed for collection through EDEN for school year 2006–2007.

High-Priority Data Elements.doc

Lists of data elements, organized by category, required of LEAs by state and federal governments and commonly used in making educational decisions.

NCES Data Handbooks Online

Guidance on consistency in data definitions and maintenance for education data, so that such data can be accurately aggregated and analyzed. Includes data elements for students, staff, and education institutions in a searchable web tool.

<http://nces.ed.gov/programs/handbook/>

Sample Data Dictionaries

Various web sites illustrating the variety of ways a data dictionary can be designed.

<http://www.geocities.com/tablizer/ddsamp.htm>

<http://www.cob.niu.edu/faculty/m10nlr1/omis651/samdd.html>

<http://reach.ucf.edu/~arhs/backup/Steve/4193/theme6/sld003.htm>

<http://www.cs.ust.hk/faculty/fred/FYP/DB-development/Requirements/data-dictionary-example.html>

Writing Effective Data Definitions.doc

Instructional content developed by the California Department of Education regarding issues related to development of a data dictionary.

Developing a Data Calendar**Sample Data Calendar.doc**

Example of an LEA data calendar, with no indication of related activities.

Sample Data Calendar color.doc

Example of an LEA data calendar, with related activities indicated by colored text.

Sample Data Calendar ordered.doc

Example of an LEA data calendar, with related activities grouped consecutively.

Sample Data Calendar shaded.doc

Example of an LEA data calendar, with related activities indicated by shading of rows.

Sample Gantt.pdf

A generic Gantt chart.

Sample Gantts from calendar.pdf

Two Gantt charts describing two of the processes in the Sample Data Calendar.

Types of Data Errors**Bad Data**

An Excel file of 25 student records containing examples of typical data errors.

Bad Data Answer Key

An Excel file describing, for those records with errors, what the errors are.

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