



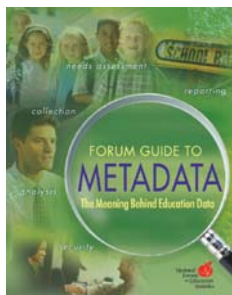
Appendix B

National Forum on Education Statistics

Best Practice Resources

The Forum is sponsored by the National Center for Education Statistics of the U.S. Department of Education and is committed to improving the quality, comparability, and usefulness of elementary and secondary education data, while remaining sensitive to data burden concerns. Forum members include representatives from state education agencies, local education agencies, the federal government, and other organizations with an interest in education data. Our purpose is to plan, recommend, and implement strategies for building an education data system that will support local, state, and national efforts to improve public and private education throughout the United States. Find out more about the Forum at:

<http://nces.ed.gov/forum/index.asp>



Forum Guide to Metadata: The Meaning Behind Education Data



http://nces.ed.gov/forum/pub_2009508.asp

In the complex world of education data, answers to even apparently straightforward questions often depend on highly complicated and technical data. Take, for example, the “simple” question, *How many eighth grade English teachers are in your schools?* On one end of the spectrum, there may not be any full-time certified English teachers teaching an English class to only eighth-grade students in the single middle school in the district this semester. At the same time, 50 or more full- or part-time teachers may be leading reading, writing, or language classes with at least one eighth-grade student at some point during the academic year. Clearly, the “right” answer depends on the context of the question and the data being used to answer it—and metadata provide that context.

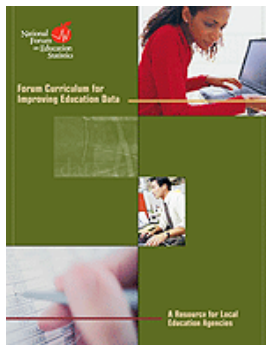
Metadata are defined as “data about data.” A well-managed metadata system ensures that the definitions, parameters, usage instructions, and history of each element are maintained in an accurate and up-to-date manner. Additionally, metadata are essential for bridging programs and databases because they provide the framework for data exchange and communication within and between organizations.

Metadata systems may not have been necessary when data sets were relatively small and simply organized. Under these circumstances, data were usually used by only a handful of people who were intimately familiar with each data element’s definition, source, uses, limitations, and technical characteristics. But the education enterprise has grown in complexity over the past decades, resulting in the seemingly exponential growth of information collected, stored, managed, used, and reported. In the field of education, as with other industries, metadata have become a necessary component of sound data systems.

The purpose of this guide is to empower people to more effectively use data as information. To accomplish this, the publication explains what metadata are; why metadata are critical to the development of sound education data systems; what components comprise a metadata system; what value metadata bring to data management and use; and how to implement and use a metadata system in an education organization. The primary audiences for this guide include technology, program, policymaking, administrative, and data staff in state and local education agencies. It may also be useful to other education stakeholders, including anyone engaged in operations or decisionmaking that depend on accurate, reliable, and timely information.

This publication is available electronically at http://nces.ed.gov/forum/pub_2009508.asp. Instructions for ordering print copies are also available on the National Forum on Education Statistics website.

The *Forum Guide to Metadata: The Meaning Behind Education Data* is a product of the National Forum on Education Statistics. The project was sponsored by the National Center for Education Statistics (NCES), U.S. Department of Education, under the auspices of the National Cooperative Education Statistics System. For more information about the National Forum on Education Statistics, visit <http://nces.ed.gov/forum>.



Forum Curriculum for Improving Education Data: A Resource for Local Education Agencies

http://nces.ed.gov/forum/pub_2007808.asp

This publication is a curriculum designed to support the training of K-12 school and district staff about the issues associated with the production of high-quality education data. It provides informational resources that can be used to prepare instructors to guide lessons and workshops and includes lesson plans, instructional handouts, and resource materials.

The goal of the curriculum is to present the concepts necessary to help schools develop a culture for improving the quality of their data and to provide opportunities for participants in training sessions to practice some of the skills required for such an effort. Many of the instructional activities and resource materials are designed to enable participants to take an informed lead in the discussions and planning needed to encourage such a culture in their districts and schools.

The *Forum Curriculum for Improving Education Data: A Resource for Local Education Agencies* is divided into two main sections:

- Part I, “Foundational Data Improvement Lessons,” introduces key concepts in the production of a culture of quality data. It is geared towards all Local Education Agency (LEA) staff members who affect the production of quality data, including board members, superintendents, principals, data coordinators/stewards, teachers, technology support staff, and office staff.
- Part II, “Data Steward/Coordinator Lessons,” is intended specifically for those staff members responsible for overseeing the quality of an LEA’s data. It provides detailed information about the responsibilities of a Data Steward or Coordinator as well as opportunities for LEA staff to plan quality data initiatives for their agencies and to produce materials and documents to support those initiatives.

This publication is available electronically at http://nces.ed.gov/forum/pub_2007808.asp. Instructions for ordering print copies are also available on the National Forum on Education Statistics website.

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Traveling Through Time: The Forum Guide to Longitudinal Data Systems

<http://nces.ed.gov/forum/longitudinal.asp>

By facilitating the collection and use of detailed, high quality student- and staff- level data linked over time, longitudinal data systems (LDSs) hold the promise of revolutionizing the way we educate our students and vastly improving the way we do business from the policy level, to the school office, and into the classroom. *Traveling Through Time: The Forum Guide to Longitudinal Data Systems* is intended to help state and local education agencies meet the many challenges involved in building robust LDSs, populating them with quality data, and using this new information to improve the educational system. With special emphasis on the business-level perspective, this document explores a broad range of issues involved in establishing an LDS that will have lasting and far-reaching impact.

The current draft of the guide (still under development) represents roughly half of the content anticipated in the finished product. The guide's Introduction discusses its purpose, format, and intended audience. Chapter 1 is a primer on LDSs, which defines and discusses overarching benefits, lays out key steps to planning and implementing an LDS, and presents the technical components that generally comprise such a system. Chapter 2 discusses in more detail the planning, implementation, and evaluation phases of an LDS project. It guides readers through the process of engaging a wide variety of stakeholders to create a vision for an LDS, building support for the undertaking, developing the system, and gauging how well it is meeting its intended goals.

Chapter 3 explores several fundamental challenges of data management, focusing largely on defining and reviewing the benefits of strong data governance, and providing a basic model for establishing a sound governance structure and process. Additional sections of the chapter address data quality, privacy, and security issues. Chapter 4 considers the effective use of LDS data, including ways in which various stakeholders can benefit from the system, the importance of training and professional development, the many potential uses of the data, and the various types of tools that can be used to turn student-level longitudinal data into actionable information at all levels of the educational system.

An early draft of this guide is available electronically at the Longitudinal Data System Task Force website at <http://nces.ed.gov/forum/longitudinal.asp>. Future drafts of the guide will also be posted at this address. The final product is expected in early 2010.

Traveling Through Time: The Forum Guide to Longitudinal Data Systems is a product of the National Forum on Education Statistics. The project is sponsored by the National Center for Education Statistics (NCES), U.S. Department of Education, under the auspices of the National Cooperative Education Statistics System. For more information about the National Forum on Education Statistics, visit <http://nces.ed.gov/forum>.