

DATA SYSTEMS

Key Discussant:

Nancy Smith, Director, National Longitudinal Data Systems, US Department of Education

Facilitator:

Karen Laba, Deputy Director, New England Comprehensive Center

Recorder:

Vicki Hornus, Northeast Regional Resource Center and REL NEI

Presenter Nancy Smith provided an overview of the 12 elements identified by the Data Quality Campaign that should be part of a robust and useful state level longitudinal data system. Over the past four years, federal grants have been awarded to state applicants to help build these robust systems; all New England states except Vermont have received such grants and are on their way to building tools to help educators, school and district leaders, and policy makers make informed decisions based on rich data. The next round of grant applications is due December 4, 2009.

Participants examined common data standards and discussed the importance of robust and useful longitudinal data systems in each state. Through the Data Quality Campaign, the Department has offered guidance and resources in building data systems and states are now focusing on how to use the data that have been collected.

Dr. Smith described the evolution of data systems in the US, explaining that most began as compliance tools, collecting information to judge whether public resources were being used appropriately and to good effect. The next phase of data use has been to measure accountability, a “rear view mirror” look at where students have been academically. More recently, the focus has been on seeing data systems as tools for continuous improvement, a “front window” view, to anticipate what instruction will best serve students’ needs.

In the view of the US Department of Education, longitudinal data systems can provide the information to evaluate programs, policies, and practices and to determine where, when, and with whom interventions are needed. Expanding data collection from the K-12 education system to include pre-school and post-secondary information increases a data system’s usefulness in informing realistic policies and practices and increases the likelihood of success. Program participation and attendance data are invaluable in determining whether interventions have helped students meet their expected targets. A review of demographic data and patterns of enrollment across several years can reveal unanticipated demands on system resources and allow more thoughtful planning.

In the discussion following Dr. Smith’s description of the design and benefits of longitudinal data systems, participants mentioned the value added from the emerging types of “early warning indicator” systems that can identify students at risk for dropout as early as the primary grades and allow educators to intervene before dropout decisions are made. Dr. Smith concurred that the “front window” look at students, using data that show change over time, empowers educators with the evidence they need to act swiftly to improve student outcomes.

Dr. Smith agreed with participants' concerns about the lack of a common set of definitions for many data elements; she is leading an effort at the Department along with other agencies to develop a data dictionary to resolve confusion and improve communication. A critical issue confirmed by many of the session participants was the balance of privacy and data. The emergence of unique student level identifiers has enabled data users to ask questions of the data that would otherwise have been useful only when looking at large groups of students. On graduation, however, the student identifier is often lost, being replaced by college id or social security numbers. Dr. Smith described strategies several states have used to include social security numbers as data elements while still satisfying concerns about privacy.

The current challenge is to make data now being collected useful to classroom teachers. In many cases, teachers (and school leaders and policy makers) need to learn how to ask useful questions of the data to inform instructional decisions as well as policy changes. Dr. Smith reminded participants that the USED reform priority includes both data systems and data use; data collection is a continuous effort, she said, and data systems must grow and expand over time as our questions become more intricate. She advised state leaders to think about data systems in terms of how LEAs and SEAs will both make good use of the data, and design systems with all users in mind. Ideally, information based on data will flow in many directions, from the classroom, school and district, to the state and federal agencies, then back to the district, school, and classroom.

Because state-level data are only as accurate as data in the local student information system, it is essential that all levels work together: LEAs and SEAs should coordinate efforts on data collection, definition, access and use, so data flow from school reports to LEAs, LEA reports to SEAs, and SEA reports to the USED—and the other way around. Effective two-way communication will create a feedback loop.

Dr. Smith emphasized that a data *warehouse* is not a longitudinal data *system*, however. The value of such longitudinal systems is in the capacity to follow students' academic performance and development from early childhood through higher education. The power resides in the interconnectedness of data systems and the ability to share data with reliable matching. Because students may move across states over the course of their schooling, interest is also rising among states in building shared and mutually accessible data structures for seamless transfers of student records across state lines.

State longitudinal data grants are cooperative agreements in which the federal government is more actively involved than in typical grants. The current administration strongly supports longitudinal data systems and acknowledges privacy concerns, cognizant that students and parents often feel insecure about having their data exposed. One solution may entail inviting students and parents into the conversation and sharing knowledge with them to see how data and data systems can serve their best interests.

Long-term goals of a longitudinal data systems program include (1) identifying successful instructional practices, (2) determining if high school graduates are college and career ready, (3) simplifying processes to make educational data transparent through local, state, and federal reporting, (4) supporting informed decision-making at all levels of the education system, and (5) permitting the collection and use of accurate and timely data. The goals are ambitious and the demand is great; the program seeks to help grantees to the fullest.

Opportunities to learn from one another are abundant in New England. Participants from Maine, New Hampshire, and Rhode Island shared their experiences with the representatives from Vermont who are preparing a new application for the December 4 deadline. While some data elements and structures of the system will be unique to each state, enough common components are present to inform Vermont's proposal. Combined grants, such as one undertaken by Minnesota, Michigan, and Wisconsin, are also possible. Although that effort did not ultimately work, other states retain flexible options, such as using technology in multiple ways or using time and personnel most effectively, important considerations when states are reducing budgets and limiting travel.

The submission deadline for the next round of Statewide Longitudinal Data Systems grants is December 4, 2009. Awards should be announced in April or May of 2010.