Data Quality Campaign

Using Data to Improve Student Achievement

The Power of Longitudinal Data: Measuring Academic Growth

A major benefit of a longitudinal student data system is the opportunity to measure students' year-to-year academic growth. If the goal is to develop indicators of the effectiveness of a school's seventh-grade teachers, for example, being able to measure the academic growth of their students from the end of sixth grade and the end of seventh grade is an important piece of the puzzle.

Measuring academic growth requires not only a student identifier to match student records across years, but also a system of giving compatible tests in consecutive grades so that students' test scores in grade 3, for example, can be linked to the same students' scores in grade 4. One of the major benefits of testing in grades 3-8 using the same family of tests is that in combination with a student identifier, it makes possible measuring academic growth in grades 4-8.

"Growth standards" can be developed to describe "How much growth is enough?" For example, if the state's proficiency standard is of roughly comparable difficulty across grades, students well below the state's proficiency standard will need to average more than a year's growth every year to catch up to that standard. Once student records have been matched between grades 3 and 5, it becomes possible to identify how much growth a below-proficient student in grade 3 must achieve in fourth grade to increase that student's odds of reaching proficiency by the end of grade 5. Growth standards may be created based on these probabilities.

Growth standards can also be used to encourage schools to pay attention to advanced students who have already met proficiency standards. These students should receive a challenging curriculum that results in their continued strong academic growth. Schools' effectiveness in producing growth in initially low- and high-achieving students must both be measured, to encourage schools to increase their effectiveness with both groups.

North Carolina, Tennessee, and Ohio are implementing efforts to measure student academic growth and numerous other states and districts are exploring this issue also. The U.S. Department of Education is also leading efforts in the area of academic growth and closing achievement gaps. (http://www.ed.gov/admins/lead/account/growthmodel/factsheet.html)

Get Involved in the Campaign

Interested in supporting the Data Quality Campaign? Interested in building on the synergies among your organization's efforts and those of the campaign? Do you want your colleagues and members to be aware of the campaign activities? There are many ways to leverage and share the messages of the campaign, such as:

- Be an Endorsing Partner (see the DQC website for more details)
- Link to the DQC website
- Forward these newsletters to your colleagues, staff, members
- Feature the DQC and its work in your newsletters, meetings or publications
- Post your pertinent articles, papers, projects on the DQC site to ensure that people interested in data are aware of your work and how it relates to using data to improve student achievement.

Contact us at the campaign about how to become endorsing partners. We will review possible roles for for-profit organizations later in the year.

Campaign activities

DQC Quarterly Meetings

The Campaign will begin hosting quarterly meetings in DC on "hot topics" related to building and using longitudinal data systems. The first of these meetings will be held March 9-10 and is sponsored by the Alliance for Excellent Education. This meeting will discuss the benefits of longitudinal data. Check the website and future newsletters for details, including information on webcasts of the meeting.

Other activities:

Florida Data Summit, Feb 2-3, in Lake Buena Vista, FL sponsored by U.S. Department of Education, FL Department of Education, and NGA Center for Best Practices (dwakelyn@nga.org)

National Winter Forum and MIS Conference, Feb 20-24, in Orlando FL sponsored by NCES and FL Department of Education (http://nces.ed.gov/WhatsNew/conferences)

Data Symposium, March 9-10, Washington, DC sponsored by the Alliance for Excellent Education (www.all4ed.org)

"Before true accountability can be achieved, we must do a better job as a nation of following individual students from grade to grade, school to school, and from kindergarten to postsecondary education and the workplace. The Data Quality Campaign offers state leaders an important set of tools and resources for accomplishing this goal."

Matt Gandal
Executive Vice President
Achieve, Inc.

Partner Highlights: Achieve, Inc.

In each newsletter, we will highlight the work of one of the founding partners.

Achieve, Inc., a founding partner in the Data Quality Campaign, was created at the 1996 National Education Summit by the nation's governors and business leaders to help states raise academic standards, improve assessments and strengthen accountability to prepare all young people for postsecondary education, work and citizenship.

In 2004, Achieve's American Diploma Project (ADP) released a landmark report that describes the specific math and English skills high school graduates must have to succeed in postsecondary education and high-performance jobs. Since the release, Achieve has worked with states to incorporate the expectations into their standards and assessments for high schools.

At the close of the 2005 National Education Summit on High Schools, co-convened by Achieve and the National Governors Association, Achieve launched the American Diploma Project Network. The Network now consists of 22 states dedicated to making their high school standards, assessments and curriculum more challenging; making them more relevant and engaging by better aligning them with the real-world demands of postsecondary education and work; and holding high schools and post-secondary institutions accountable for improved student performance.

The success of these initiatives hinges on having high-quality data systems that provide important feedback on student performance over time. Consistent with the goals of the Data Quality Campaign, Achieve is encouraging ADP states to put in place data systems that can track individual students' performance from kindergarten through college and the workplace. This will allow states, for example, to connect the courses that students take in high school to their performance on state assessments and their readiness for postsecondary education and work. It also will allow colleges to report back to high schools on the number of students that need remediation, giving them the information they need to strengthen their curricula and instruction to better prepare students.

Fundamentals in Designing State Longitudinal Data Systems

In addition to the 10 essential elements described in the December newsletter, states need to ensure that they take into account the following fundamental concepts in the construction of their longitudinal systems:

Privacy Protection: One of the critical concepts that should underscore the development of any longitudinal data system is preserving student privacy. An important distinction needs to be made between applying a "unique student identifier" and making "personally identifiable information" available, for example. It is possible to share data that are unique to individual students but that do not allow for the identification of that student.

Data Architecture: Data architecture defines how data are coded, stored, managed, and used. Good data architecture is essential for an effective data system. With standards in place that are used by everyone, staffing resources and processing or cycle time can be greatly reduced, data can be made available to users when they need them, and reports can be based on clear and common definitions.

Data Warehousing: Many states are in the process of designing and building or upgrading their data warehouses. Policymakers and educators need a data system that not only links student records over time and across databases but also make it easy for users to query those databases and produce standard or customized reports.

Interoperability: Data interoperability entails the ability of different software systems from different vendors to share information without the need for customized programming or data manipulation by the end user. Interoperability reduces reporting burden, redundancy of data collection, and staff time and resources. It depends on systems having common data standards and definitions.

Portability: Data portability is the ability to exchange student transcript information electronically across districts and between PK-12 and postsecondary institutions within a state and across states. Portability has at least three advantages: it makes valuable diagnostic information from the academic records of students who move to a new state available to their teachers in a timely manner; it reduces the time and cost of transferring students' high school course transcripts; and it increases the ability of states to distinguish students who transfer to a school in a new state from dropouts. The large interstate movement of students in the wake of Hurricane Katrina made the value of such a system obvious.

Professional Development around Data Processes and Use: Building a longitudinal system requires the ongoing professional development of the people charged with collecting, storing, analyzing and using the data produced through the new data system. Professional development for staff – both managers and users – must occur to assist all employees and stakeholders of the state education system to be active consumers of the data.

Researcher Access: Research using longitudinal data can be an invaluable guide for improving schools and helping educators learn what works. These data are essential to determining the value-added of schools, programs, and specific interventions. The Data Quality Campaign is dedicated to protecting student privacy under the Family Education Rights and Privacy Act.

"Access to quality data is key in educational reform and movement. SIFA is proud to be a part of the DQC and will support the work by aligning schools, states and software developers and vendors in our collective efforts as professionals to access and utilize this quality data. It is critical that the DQC work, targeted to state leaders, aligns the data quality work that schools and local agencies do each day since the highest quality data exists at its source – the local classroom."

Larry L. Fruth II, Ph.D.
Executive Director
Schools Interoperability
Framework Association

DATAQUALITY
CAMPAIGN
Using Data To Improve Student Achievement
www.DataQualityCampaign.org

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We're on the Web!
See us at:
www.DataQualityCampaign.org

State Policy Initiatives

States are moving forward with policy initiatives to redefine the high school, build longitudinal data systems, and build aligned P-16 systems. Visit the DQC website (state-specific activities section) to see visual mappings of which states are engaged in the following efforts:

- Achieve's American Diploma Project
- the Decision Support Architecture Consortia
- IES Longitudinal Data Systems grantees
- NGA Honor States
- NASH/Ed Trust State P-16 Project
- Wallace SAELP High

School Leadership Group.

Please contact Nancy Smith to advise us of any other initiatives that should be highlighted.

(www.DataQualityCampaign.org)

DQC Newsletter Information

The DQC newsletter will be distributed monthly to policymakers, the business community, the higher education community, state education agency staff, and all DQC partners.

Each month's newsletter will highlight news, conferences, and resources associated with the DQC, along with state-specific examples and experiences that might be of use to other states.

If you have suggestions for issues to highlight or cover, please share them with us so that we can be assured of meeting your needs with the newsletter.

About the DQC

The Data Quality Campaign is a national, collaborative effort to encourage and support state policymakers to improve the collection, availability, and use of high-quality education data, and to implement state longitudinal data systems to improve

student achievement. The campaign aims to provide tools and resources that will assist state development of quality longitudinal data systems, while also providing a national forum for reducing duplication of effort and promoting greater

coordination and consensus among the organizations focusing on improving data quality, access and use.

The DQC is supported by the Bill & Melinda Gates Foundation.