DATA QUALITY CAMPAIGN

Using Data To Improve Student Achievement

in partnership with

Achieve, Inc.

American Diploma Project Network

MEASURING *What* MATTERS

Creating a Longitudinal Data System To Improve Student Achievement

Does your state collect the data you need to answer these questions?

- How many students drop out or are otherwise unaccounted for after 8th grade?
- Which schools produce the strongest academic growth for their students?
- What achievement levels in middle school indicate that a student is on track to succeed in rigorous courses in high school?
- What high school performance indicators (e.g., enrollment in rigorous courses or performance on state tests) are the best predictors of students' success in college or the workplace?
- What percentage of high school graduates who go on to college take remedial courses?

Longitudinal Data: The Information You Need To Improve Your Schools

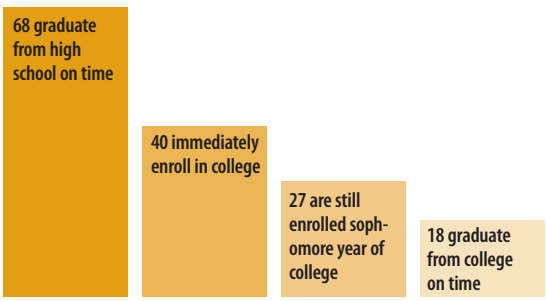
A rapidly changing global economy and concerns about our ability to create a competitive workforce have focused national attention on the quality of America's education system. The 2005 National Education Summit on High Schools, which was sponsored by Achieve and the National Governors Association, focused on high schools and their critical role in preparing young people for a successful future. Governors and business and education leaders at the Summit reviewed sobering data on the gaps each state must close to produce better-prepared graduates, and many states have embraced an aggressive policy agenda in an effort to close these gaps.

But gauging the effect of these efforts will be difficult and time consuming if states do not have data systems that provide ready access to the high-quality information decisionmakers need.

There is no shortage of data in our education system today. States and school districts are gathering large amounts of information on school and student performance. The challenge now is to make sure states are collecting the *most relevant data* and that they have a coordinated system for using them effectively.

Few Students Make It through the Education Pipeline

For every 100 9th graders ...



Source: National Center for Public Policy and Higher Education, *Policy Alert,* April 2004. Data are estimates of pipeline progress rather than actual cohort. They are not based on longitudinal data.

THE MANY BENEFITS OF LONGITUDINAL DATA

To provide educators with the data they need to improve student achievement, states need more than a series of one-time snapshots of student performance. They need a system that collects high-quality data about how *individual students* are doing *over time,* from prekindergarten through 12th grade and into postsecondary education. This information — also known as longitudinal data — makes it possible to:

- follow students' academic progress as they move from grade to grade;
- determine the value-added and efficiencies of specific schools and programs;
- identify consistently high-performing schools so that educators and the public can learn from best practices;
- evaluate the effect of teacher preparation and training programs on student achievement; and
- focus school systems on preparing a higher percentage of students to succeed in rigorous high school courses, college and challenging jobs.

To take full advantage of the power of longitudinal data, states need systems that can exchange information within and across pre-K–12 and postsecondary systems and states. This will allow states to continue monitoring achievement as students move from place to place and through the education pipeline.

In addition, states need a strategy for training policymakers, educators and others to use this information — both to improve policies and practices and to hold schools accountable for achievement gains.

THE NEED IS URGENT

Improving student achievement is imperative — our students simply are not learning enough to meet the demands of today's competitive world. Studies show that:

- Too few students make it through the education system.
- Jobs that support a middle-class lifestyle and offer opportunities for advancement require higher-level skills and more education than ever before.
- Students from other countries routinely outperform U.S. students on international assessments, which could signal a threat to our leadership in the global economy.
- Those U.S. students who do graduate high school often require costly remedial education or training in basic skills.

To help make the changes necessary to meet this challenge, educators and policymakers need timely access to accurate longitudinal education data. We must work to build the systems at the state level that can deliver these data.

10 Essential Elements of a

To build a complete longitudinal data system, states must include the following **10 essential elements:***

1

A unique statewide student identifier. As students move from grade to grade and from district to district, this ID number will allow states to accurately measure the progress of every student over time, from pre-kindergarten through grade 12.

36 states report having this element

2

Student-level enrollment, demographic and program participation information. This information will help identify which programs are helping students succeed. It also will help account for students who transfer from school to school and ensure that test data are disaggregated correctly.

38 states report having this element

3

The ability to match individual students' test records from year to year to measure academic growth. Being able to match test records for individual students from last year to this year will provide valuable diagnostic information to teachers and principals and will help educators monitor each student's academic growth.

32 states report having this element

4

Information on untested students. With this information, states can ensure that students from all groups are participating in state tests and account for students who were exempted from the tests.

25 states report having this element

5

A teacher identifier system with the ability to match teachers to students. Many states collect data on teacher education and certification, but matching teachers to students by classroom and subject is critical to understanding the connection between teacher training and qualifications and student academic growth.

13 states report having this element

6

Student-level transcript information, including information on courses completed and grades earned. States will be able to track course-taking patterns and analyze their relationship to success on state assessments and readiness for college and work.

7 states report having this element

Longitudinal Data System

7

Student-level college readiness test scores. Student performance on the SAT, SAT II, ACT, Advanced Placement, International Baccalaureate and other college readiness exams is a good indicator of whether students are prepared to succeed in postsecondary education and work; however, currently only seven states maintain this information from year to year at the student level. But some states are going a step further by building college readiness tests into their statewide assessment systems.

7
states report having this element

8

Student-level graduation and dropout rate. A majority of states currently collect annual records on individual graduates and dropouts. But a new National Governors Association (NGA) compact signed by 48 states aims to create a more valid, reliable and consistent graduation rate that tracks students from 9th to 12th grade. Based on National Center for Educational Accountability analyses, only 14 states currently can calculate the graduation rate defined in the NGA compact.

34
states report having this element

9

The ability to match student records between the pre-K–12 and postsecondary systems. Opening the lines of communication between pre-K–12 and higher education is critical to ensuring that students succeed at the postsecondary level. Connecting student performance in college to what happens in high school will give high schools the information they need to align curriculum and instruction to ensure that graduates are better prepared for college and work.

12
states report having this element

10

A state data audit system assessing data quality, validity and reliability. The decisions made in education are only as good as the information on which they are based.

19
states report having this element

* IS YOUR STATE COLLECTING THE RIGHT INFORMATION?

In August 2005, the National Center for Educational Accountability, with support from The Broad Foundation and the Bill & Melinda Gates Foundation, conducted a survey about state data systems to learn how many states already have the 10 essential elements in place. The results: No state has all 10 elements, and only eight states have at least seven elements of a longitudinal data system.

To see state-by-state results and find out more about what it takes to create a longitudinal data system, go to www.DataQualityCampaign.org.

FUTURE DIRECTIONS OF STATE DATA SYSTEMS

These 10 elements are essential but not sufficient. States need to plan for a series of next-generation improvements — in fact, some states are already working on them. In the future, data systems can make it possible to:

- **Connect school performance with spending.** A longitudinal data system identifies which schools and school systems perform well. But to better understand what it costs to improve student performance, states also need to collect financial information at the school and program levels and link it to individual student achievement data over time. Very few states do this today.
- **Connect school performance to employment and other systems.** Educators and policymakers need to know whether schools are preparing students for long-term success in the workplace, not just in college. Obtaining this information requires matching the academic (both pre-K–12 and postsecondary) and employment records of individual students. States also should consider incorporating into their education data systems, as needed, records from other social service agencies that have information that is relevant to students' health and safety.
- **Transfer records across systems and states.** In an increasingly mobile world, people regularly move across state borders, making it difficult to tell, for example, whether a student has dropped out or has moved to a new state. Therefore, not only do data systems need to be able to exchange information with other systems — such as postsecondary — within the state, but they also need to be able to exchange information with systems in other states. The key is ensuring that data systems built by different vendors in different states use common data standards and definitions.

CALL TO ACTION

No state data system currently includes every one of these 10 essential elements. (To see how your state stacks up, visit www.DataQualityCampaign.org.)

All states should make it a priority to put them in place within the next three years. For this reason, a group of national organizations has launched the Data Quality Campaign to encourage and support policymakers' efforts to fully develop and use longitudinal data in education.

States are spending hundreds of millions of dollars to improve student achievement. But without quality data, they are essentially flying blind. Policymakers need to act now to put in place the policies and resources to ensure that each state has a longitudinal data system and the culture and capacity to translate the information into specific action steps to improve student achievement.

This brochure was produced by the Data Quality Campaign and made possible with the financial support of the Achieve, Inc., American Diploma Project Network.

DATA QUALITY CAMPAIGN

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
- implement state longitudinal data systems to improve student achievement.

The campaign provides tools and resources that states can use as they develop quality longitudinal data systems and also will serve as a national forum for reducing duplication of effort and promoting greater coordination and consensus among like-minded organizations.

Founding partners in the Data Quality Campaign include:

- Achieve, Inc.
- Council of Chief State School Officers
- National Center for Educational Accountability
- National Governors Association Center for Best Practices
- Standard & Poor's School Evaluation Services
- Alliance for Excellent Education
- The Education Trust
- National Center for Higher Education Management Systems
- Schools Interoperability Framework Association
- State Higher Education Executive Officers

The campaign is managed by the National Center for Educational Accountability (NCEA) and supported by the Bill & Melinda Gates Foundation. For more information, visit the campaign Web site at www.DataQualityCampaign.org.

AMERICAN DIPLOMA PROJECT NETWORK

Formed out of the 2005 National Education Summit on High Schools, the American Diploma Project (ADP) Network is a coalition of 22 states, led by Achieve, Inc., that have committed to align K–12 standards, assessments, curriculum and accountability with the demands of postsecondary education and work. ADP states are taking four actions:

- Aligning high school standards with the knowledge and skills required for success after high school.
- Requiring all high school graduates to take challenging courses that prepare them for life after high school.
- Streamlining the assessment system so that the tests students take in high school also can serve as readiness tests for college and work.
- Holding high schools accountable for graduating students who are ready for college or careers, and holding postsecondary institutions accountable for students' success once enrolled.

For more information, visit Achieve's Web site at www.achieve.org.

FIND OUT MORE

Visit the Data Quality Campaign Web site at www.DataQualityCampaign.org for more information about the:

- **10 essential elements** and the state policy actions required to establish, maintain and use a quality longitudinal data system;
- results of NCEA's **2005 survey** that show where your state stands on the 10 essential elements; and
- **tools, materials, meetings and information** that can aid states and interested organizations seeking to ensure increased quality, accessibility and use of data.