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Testimony before the Commission on the No Child Left Behind Act
May 9, 2006

No organization, industry, sector, or individual can make sound, rational decisions without using quality information. Educators and policymakers are beginning to recognize the value of better information as an essential tool for improving schools. The No Child Left Behind Act, by requiring the use of disaggregated data to identify the achievement gaps among various student population groups, adds transparency to a system that had become complacent by the numbing power of school-wide averages. My testimony today focuses on the incredible power of data to ensure that we meet our common goal of educating every American child to the levels required to compete in our global, knowledge-based economy. I urge the Commission to build on the data provisions of the No Child Left Behind Act, and to provide states with the support needed to develop longitudinal data systems. Without complete, reliable, accessible data, efforts to close achievement gaps and improve performance are hindered.

The Power of Longitudinal Data

Today there is no data shortage in our education system. States and school districts gather great amounts of school and student performance information already. We are data rich, but information poor. To provide educators with the data needed 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 perform over time, from pre-kindergarten 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 program;
- Identify consistently high-performing schools so educators and the public can learn from best practices;
- Evaluate the effect of teacher preparation and training programs on student achievement; and
- Facilitate meeting legal reporting requirements such as those under the No Child Left Behind Act.
- Provide information regarding local, state and federal programmatic effectiveness and financial return on investments

Access to these data gives teachers the information they need to tailor instruction to help each student improve, gives administrators the resources and information to effectively and efficiently manage their education enterprises, and enables policymakers to evaluate which policy initiatives demonstrate the best evidence of increasing student achievement.

To take full advantage of the power of longitudinal data, states need systems that can exchange information within and across PK-12 and postsecondary systems and states. This allows states to monitor achievement as a student moves from place to place and through the education pipeline. In addition, states need strategies for training policymakers, educators and others to use information. This will improve policies and practices and help hold schools accountable for achievement gains.

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Elements of a Longitudinal Data System

Although each state's education system is unique, ten elements are essential in a longitudinal data system:

1. A unique statewide student identifier.
2. Student-level enrollment, demographic and program participation information.
3. The ability to match individual student test records from year to year to measure academic growth.
4. Information on untested students.
5. A teacher identifier system with the ability to match teachers to students.
6. Student -level transcript information, including information on courses completed and grades earned.
7. Student level college readiness test scores.
8. Student-level graduation and dropout data.
9. The ability to match student records between the pre K-12 and postsecondary systems.
10. A state data audit system assessing data quality, validity, and reliability.

In building a statewide data system with each of these components, the state should ensure that student records are transferred easily, privacy is protected, data definitions and requirements are clear, and the system facilitates data use and user-friendly reporting.

Status of State Data Systems and the Data Quality Campaign

Many states are building the capacity to collect and manage sizable quantities of information about schools and districts, and some of those states are developing the ability to match individual student records over time and across databases. However, most states still lack these comprehensive systems, and policymakers lack an

understanding of how to fund and support these systems. Where systems do exist, policymakers and educators often lack the knowledge and vision of how to take advantage of the information they produce.

No state data system currently includes every one of the 10 Essential Elements. Only eight states have at least seven elements of a longitudinal data system. To support states in their efforts to build these systems, 10 national organizations launched the Data Quality Campaign last November to encourage and support policymakers' efforts to fully develop and use longitudinal data. As part of the campaign's efforts, we will conduct a survey of every state's data system annually through 2009. Results of this survey, beginning in 2005, and other campaign tools and resources, are available at www.DataQualityCampaign.org.

The most compelling parts of the survey results are the policy implications based on the "completeness" of state data systems. For example, while fifty Governors signed on to the National Governors Association "Graduation Compact" to use consistent calculations of graduation rates based on longitudinal data, only 14 states have the necessary data systems to allow them to calculate this rate. Only 21 states have the data systems to measure the academic growth of individual students year-by-year; and only eight states have data systems to identify the percentage of high school graduates who take remedial courses in college. As we consider aligning the education pipeline, restructuring high schools, increasing the rigor of courses, and closing achievement gaps, it is vital that we have the data to inform the dialogue. States spend hundreds of millions of dollars to

improve student achievement. But without quality data, they are flying blind.

Policymakers need to put in place policies to ensure that each state has a longitudinal data system in addition to the capacity and culture, to translate the information into specific action steps that improve student achievement.

In our meetings with state policymakers, educators, researchers, and administrators, we hear an overwhelming consensus about the need to build longitudinal statewide data systems. The questions raised are about *how* to build these systems, the costs of the system components, and how states and districts would train people to use this new data. Based on initial feedback, the campaign partners are confident that we can reach our goal of each state having a longitudinal data system in use by 2009.

Recommendations to Build on No Child Left Behind's Data Provisions

The No Child Left Behind Act, for the first time in our nation's history, made every school district and state report on the academic proficiency of all students. Most of the discussion around this requirement has focused on the Adequate Yearly Progress accountability component. But data is only the beginning of the conversation. Data must not only be used to identify schools in need of improvement, but also the proven strategies necessary to help those schools. To nurture a culture of continuous improvement, we need to ensure that teachers, administrators, researchers, parents, students, and policymakers have easy access to data that follows individual students over time. Only with this complete data, and the training in how to use it, will our education

system close performance gaps and meet our goal of all children reaching proficiency by 2014.

Reauthorization of the No Child Left Behind Act provides an opportunity to continue our nation's nascent efforts to use data in educational policy and practice. I offer three recommendations for consideration by the Commission:

1. **Promote the use of data for both accountability purposes and as a powerful tool for school improvement.** NCLB, through public reporting of school data, has made information more accessible. This is the beginning of a culture change. The reauthorization of NCLB must fuel growing demand for continual access and use of educational data. Teachers and administrators need to use data to assess the progress of their students and schools as part of their daily routine, not as something that is thought about once a year when annual statewide assessment scores are released. Researchers need access to the data to fuel their studies of effectiveness in school practice with the end goal of informing and improving teaching and learning. NCLB reauthorization should continue to highlight the power of data not only to hold schools accountable, but also to inform teaching and management practices and policy.
2. **Support state efforts to develop longitudinal data systems.** While increasing numbers of states acknowledge interest in building these state level systems, many of them lack a roadmap, political will and/or resources to do so. The Data

Quality Campaign is leveraging the leadership of national organizations to reinforce the importance of data to policy decisions, as well as to design tools and information which help states understand the costs and processes to build the systems. The federal government's competitive grant program for building longitudinal data systems (through the US Department of Education's Institute of Educational Sciences) is providing 14 states with grants to build these systems while being part of a peer network. States are expressing urgent need for this "start up" funding. Incentives, directives, or funding that could be provided by NCLB to build these systems would enable states to develop the data infrastructure.

3. Build the capacity of every stakeholder in the education system to use data.

It is essential to have on-going professional development of the people charged with collecting, storing, analyzing and using the data produced through a longitudinal data system. The local school employee who inputs course grades needs to understand fully how his/her works fits into the broader data system, the principal needs to understand how data can effect daily school management—both facilities and academic decisions—and policymakers need to understand how their decisions are limited or expanded based on the quality of the data available.

For these changes in culture and management to occur, states need to make it a priority to rethink and reorganize how education data is managed throughout the

system, increase training and professional development for staff—both managers and users—and assist all employees and stakeholders of the state education system to be active consumers of the longitudinal data system. States could be directed to use a portion of any new funds provided for building high-quality longitudinal data systems to provide the professional development and training of data managers and users at the district and school levels. In addition, an allowable use of the professional development grants already provided under NCLB's title II grants to states for 'Preparing, Training, and Recruiting High Quality Teachers and Principals' should explicitly mention the professional development and training of teachers and administrators on the use of data for school improvement at the local levels.

“Without data, you’re just another person with an opinion.” This aphorism underscores the importance of making educational decisions at every level based on valid and reliable information. There has never been a more unique opportunity or urgent need for every state to create and embrace a longitudinal data system. As a nation, we must take advantage of this unique moment and work together to ensure that states have the data foundation and infrastructure they need to support and enrich the hard work under way to strengthen our schools and improve student achievement.