DATA QUALITY CAMPAIGN
Using Data To Improve Student Achievement
www.DataQualityCampaign.org

July 2011

States Now Collect Quality Data but Need To Act To Improve Student Achievement

As state policymakers strive to ensure that every student is taught by an effective teacher and is ready for college and 21st-century careers, they must also make drastic budget cuts. States cannot do more with less without collecting and using quality data to determine which programs and policies increase student achievement and the state's return on investment.

The Data Quality Campaign's (DQC) sixth annual state analysis, *Data for Action 2010*, reveals that states have made unprecedented progress collecting longitudinal information that enables them to follow individual students over time. However, states have not taken the necessary actions to create a culture of effective data use.

To leverage current investments and support data use, states must act to ensure that they link appropriate data across educational systems (from early childhood through postsecondary and the workforce), that these data are accessible to stakeholders and that those stakeholders have the capacity to use data to improve student achievement.

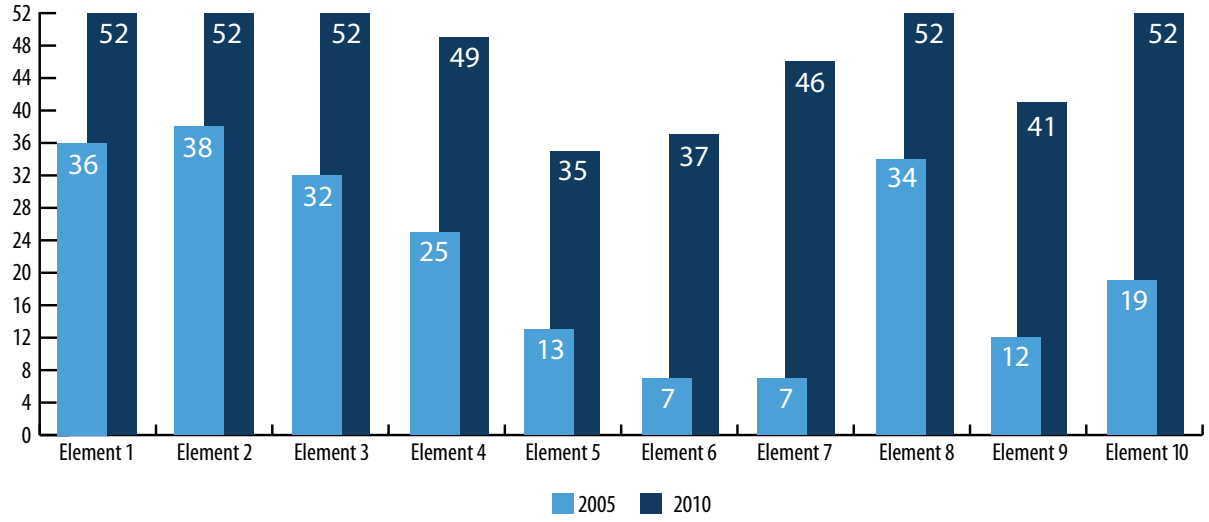
States have made unprecedented progress, but the remaining Essential Elements are also the most critical to current policy discussions

When the DQC launched in 2005, no state had the 10 Essential Elements of Statewide Longitudinal Data Systems. Now, **24 states** have the 10 Essential Elements, and every state has committed to implement all 10 by September 2011.

Despite states' progress, the most elusive elements are those that are most critical to informing today's policy conversations on teacher effectiveness and college and career readiness:

- **17 states** cannot match individual teachers to individual students (Element 5);
- **15 states** do not collect student-level information on course-taking and grades (Element 6); and
- **11 states** do not have the technical ability to link student-level data between P–12 and postsecondary (Element 9). Of the 41 states that report the ability to link student-level data between P–12 and postsecondary, just **23 states** have actually linked the data regularly.

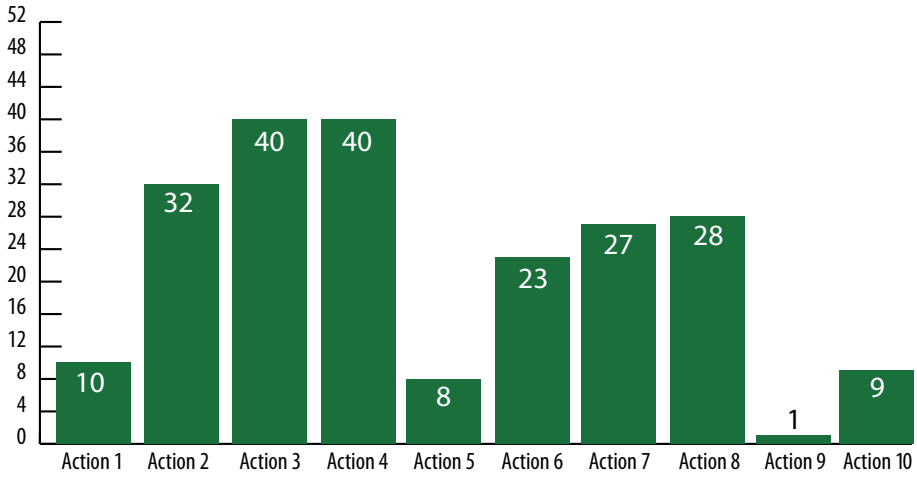
Number of States with Each Essential Element



States have not taken action to ensure data are used

States have made unprecedented progress collecting longitudinal data. However, no state has taken all of the 10 State Actions To Support Effective Data Use, and just **13 states** have taken six or more. Nationwide, data are not linked across education systems or accessible to stakeholders, and those stakeholders do not have the capacity to use data to improve student achievement.

Number of States with Each State Action



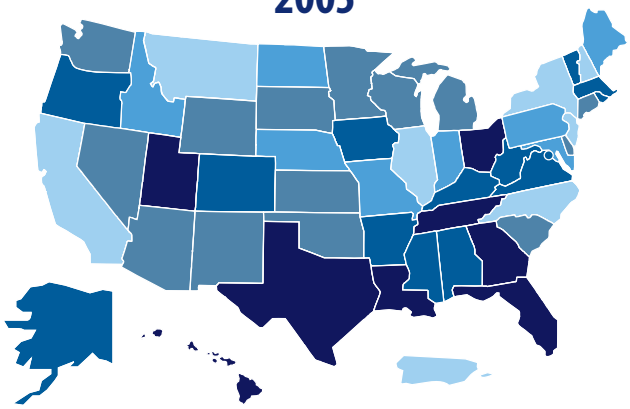
Key priorities to create a culture of effective data use

Thanks to the unprecedented progress states have made over the past six years, state policymakers now have quality data to determine what works in education. We cannot afford not to use this information. To leverage current investments in state data systems and ensure data are used, states must now focus on the following five key priorities:

- **Fulfill the 50-state commitment to implement the 10 Essential Elements by September 2011.**
- **Link K–12 with early childhood, postsecondary and workforce data to answer critical policy questions.** Most states report having the technical ability to link K–12 data with early childhood, postsecondary and the workforce, and 40 states have cross-agency governance structures in place. However, only 10 states actually link P–20 and workforce data regularly. The barriers to linking data are not technical but instead require political will and state leadership to overcome them.
- **Provide teachers, students and parents with access to longitudinal student-level data.** Key stakeholders must have appropriate access to information while protecting privacy and ensuring the confidentiality and security of the data (Actions 5–7). Forty-five states report that they provide aggregate reports based on longitudinal data to state policymakers. However, few states provide teachers (30 states), parents (13 states) and students (10 states) with access to student-level data, profoundly limiting their ability to make informed decisions about individual students' education.
- **Share data about teacher impact on student achievement with educator preparation institutions.** As more states can technically link teacher and student data (Element 5), states must ensure that these data are shared with educator preparation institutions. However, only two states automatically share teacher performance data with teacher preparation institutions. Without this key feedback on the impact their graduates have on student achievement, teacher preparation programs cannot improve to ensure that all educators are prepared to be effective in the classroom.
- **Enact statewide preservice policies, including certification and licensure and program approval, to build educator capacity to use data.** Almost every state is providing inservice training on data access and use, yet states must enact preservice policies that ensure educators have the capacity to appropriately use data to increase achievement for all students (Action 9). Only 21 states have policies that ensure preservice teachers begin their careers with the skills to analyze and use data. Without these policies, teachers are entering the classroom without the necessary skills to use data to improve student achievement.

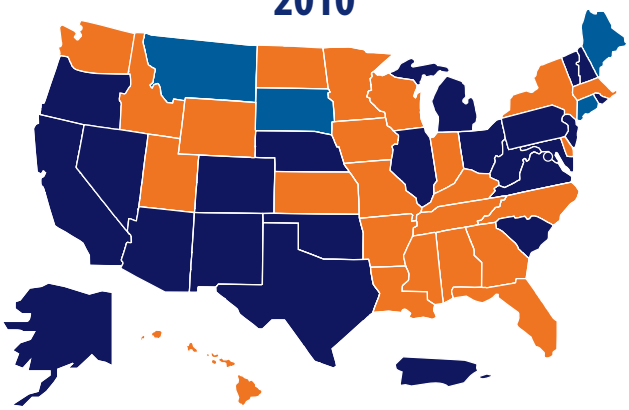
10 Essential Elements of Statewide Longitudinal Data Systems

2005



No state had all 10 Essential Elements

2010



24 states have all 10 Essential Elements

Number of Elements

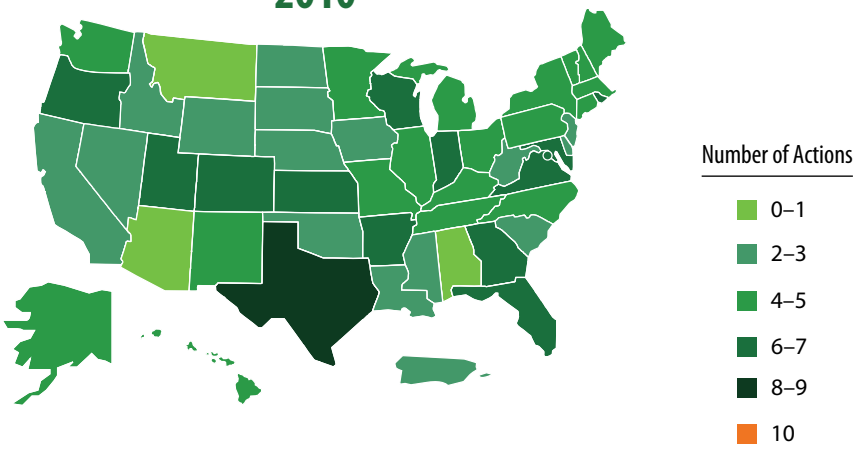
- 0–1
- 2–3
- 4–5
- 6–7
- 8–9
- 10

Element	
1.	A unique student identifier
2.	Student-level enrollment, demographic and program participation information
3.	The ability to match individual students' test records from year to year to measure academic growth
4.	Information on untested students and the reasons why they were not tested
5.	A teacher identifier system with the ability to match teachers to students
6.	Student-level transcript data, 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 P–12 and postsecondary systems
10.	A state data audit system assessing data quality, validity and reliability

To see individual state progress in implementing the 10 Essential Elements, visit www.DataQualityCampaign.org.

10 State Actions To Support Effective Data Use

2010



No state has all 10 State Actions

Action	
Link data systems across P–20 and the workforce to answer key questions	
1.	Link state K–12 data systems with early childhood, postsecondary, workforce and other critical data systems
2.	Create stable, sustainable support for longitudinal data systems
3.	Develop governance structures to guide data collection and use
4.	Build state data repositories
Ensure that appropriate data can be accessed while protecting privacy	
5.	Provide timely, role-based access to data while protecting privacy
6.	Create progress reports with student-level data for educators, students and parents
7.	Create reports with longitudinal statistics to guide system-level change
Build the capacity of all stakeholders to use longitudinal data	
8.	Develop a purposeful research agenda
9.	Implement policies and promote practices to build educators' capacity to use data
10.	Promote strategies to raise awareness of available data

To see individual state progress in implementing the 10 State Actions, visit www.DataQualityCampaign.org.

Connecting Data and Policy: States Now Have the Data To Answer Critical Policy Questions

The questions below, though not exhaustive, demonstrate how robust longitudinal data systems, combined with a culture of effective data use, can inform decisions aimed at improving student achievement. With the 10 Essential Elements in place, policymakers and practitioners can begin to answer today's key policy questions, including:

ISSUE AREA	CRITICAL POLICY QUESTIONS	KEY INDICATORS	ESSENTIAL ELEMENTS	NUMBER OF STATES	IMPLICATIONS
College and Career Readiness	✓ Are my state's policies and data systems aligned to ensure that expectations in P–12 support student success in postsecondary education and in the workplace?	✓ What percentage of students graduate, according to the four-year cohort graduation rate required by the 2008 federal regulations?	1, 2, 8	52 states	Although 41 states report the technical ability to link P–12 and postsecondary data (Element 9), only 23 actually link the data on a regular basis (Action 1). States must act to ensure that data are linked across education systems, from early childhood through postsecondary and the workforce.
		✓ What percentage of students require remediation in postsecondary institutions?	1, 2, 8, 9	41 states	
		✓ What percentage of students have taken the necessary coursework and exams to prepare them for college and work, and what were their achievement levels?	1, 3, 4, 6, 7	31 states	
		✓ What achievement levels in grades 3 through 7 indicate that a student is on track for later success?	1, 2, 3, 4, 6, 7, 8, 9	25 states	
Evaluating School Success Based on Student Performance	✓ Is my state holding schools and districts accountable for student growth? ✓ Do we know what factors contribute to the highest amount of growth?	✓ How many students are achieving at least one year's academic growth every year?	1, 3, 4	49 states	Every state has the technical ability to link data over time to measure student growth (Element 8), but only 15 states provide growth reports on individual students to parents and students, profoundly limiting their ability to make informed education decisions about individual students.
		✓ Which schools produce the strongest academic growth among initially poorly prepared students and among initially well-prepared students?	1, 2, 3, 4	49 states	
		✓ Which teachers consistently achieve the most individual student growth in their classrooms?	1, 2, 3, 4, 5	34 states	

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ISSUE AREA	CRITICAL POLICY QUESTIONS	KEY INDICATORS	ESSENTIAL ELEMENTS	NUMBER OF STATES	IMPLICATIONS
Teacher/ Principal Effectiveness	✓ Do my state's policies ensure a measurably effective educator workforce? ✓ Are these efforts evaluated to ensure that every student has an effective teacher?	✓ Which educator preparation pathways and institutions produce more effective teachers, as measured by student performance?	1, 2, 3, 4, 5	34 states	As more states can technically link teacher and student data (Element 5), states must enact policies to ensure that educators have the capacity to appropriately use data to increase achievement for all students (Action 9). Only two states share teacher performance data with teacher preparation programs, severely limiting the programs' ability to ensure that all educators are prepared to be effective in the classroom. Only one state (Florida) has taken the necessary actions to build educator capacity to use data.
		✓ What percentage of students were assigned an ineffective teacher two or more years in a row, as measured in part by a value-added model?	1, 2, 3, 4, 5	34 states	
		✓ Which professional development programs have the greatest impact on the effectiveness of teachers, as measured by student performance?	1, 2, 3, 4, 5, 6, 7	29 states	
		✓ What percentage of principals increased the overall effectiveness of their teachers and schools, as measured by student performance?	1, 2, 3, 4, 5, 6, 7, 8, 9	23 states	
Resource Allocation	✓ Does my state prioritize resources to target programs and practices that improve student achievement?	✓ In which classes, grades and schools does class size have a measurable impact on student achievement?	1, 2, 3, 4, 5	34 states	State policymakers finally have the information to understand what works in education and can allocate resources accordingly. However, state policymakers have not created a culture of effective data use that ensures data are linked and accessible and that stakeholders have the capacity to use data. We cannot afford not to use this information.
		✓ Which teachers are most effective with larger classrooms?	1, 2, 3, 4, 5, 6, 7	29 states	
		✓ How do the achievement levels and outcomes of students enrolled in online/ virtual courses compare to those of students enrolled in traditional courses?	1, 2, 3, 4, 6, 7, 8	31 states	
		✓ How does dual enrollment affect student outcomes?	1, 2, 3, 4, 6, 7, 8, 9	25 states	

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The **Data Quality Campaign (DQC)** is a national, collaborative effort to encourage and support state policymakers to improve the availability and use of high-quality education data to improve student achievement. The campaign provides tools and resources that will help states implement and use longitudinal data systems, while providing a national forum for reducing duplication of effort and promoting greater coordination and consensus among the organizations focused on improving data quality, access and use.