DATAQUALITY CAMPAIGN
Using Data To Improve Student Achievement
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Why Data Matter in ESEA Reauthorization

Recommendations to ensure data are used to improve student achievement

SUMMARY

America can no longer afford an education system that fails to use data effectively to guide decisionmaking. The education sector is facing ever-increasing demands to improve student outcomes, reduce burden, increase efficiency, and improve transparency. These demands cannot be met without the strategic and effective use of data. Due to the tremendous progress across the nation in building statewide longitudinal data systems, states are well positioned to put data to work at all levels of the education sector to meet these goals and improve student achievement.

Over the last decade the federal government has been a crucial partner in supporting and accelerating state and local efforts to build the capacity to use data effectively to improve student achievement. The reauthorization of the Elementary and Secondary Education Act (ESEA) provides a strategic and unique opportunity to better connect data with policy to ensure states, districts, and schools have the data capacity to meet their needs. In fact, nearly every high-priority item in national, federal, state, and local discussions for improving ESEA—and in proposals from across the political spectrum—requires high-quality longitudinal data for its design, implementation, or evaluation.

In this publication, the Data Quality Campaign (DQC) recommends **three core strategies** to embed throughout the reauthorizing ESEA legislation—and eventual federal and state implementation—to support state and local efforts to effectively use data to improve student achievement and system performance:

1. **Update and align existing federal data systems investments** to help states address current and emerging realities and focus on effective data use.
2. **Expect and encourage states to develop the data capacity** required to successfully inform, implement, and evaluate priority policies and practices.
3. **Reduce burden, increase efficiency, and improve transparency** of appropriate information by further streamlining and improving federal data collection and reporting requirements and providing stakeholders with the information they need to make good decisions.

This is not about collecting more data. Regardless of the diverse approaches to federal policy or priorities for ESEA reauthorization, any strategies for education reform likely require that the right individuals have the right information, at the right time, to make better decisions to ensure every American is prepared for the 21st-century knowledge economy. ESEA reauthorization provides a strategic and unique opportunity to better connect the data and policy agendas and ensure that every stakeholder—from parents to policymakers—has the information to meet their needs. This is why data matter, for ESEA reauthorization, and improving student achievement. The education sector will only meets its goal of ensuring every child graduates from high school prepared for the knowledge economy when all stakeholders use quality data to make informed decisions aimed at improving student outcomes.

Introduction

We can no longer afford an education system that fails to use data effectively to guide decisionmaking. Consider the demands facing the education sector today: Expectations to graduate every student college and career ready require unprecedented alignment of policies and practices across the early childhood; elementary, secondary, and postsecondary education; and workforce sectors. Students and educators are taking ever more diverse and individualized paths through the education and workforce systems. The stagnant unemployment rate means that policies to create jobs and better prepare individuals for higher-skill opportunities are crucial. Furthermore, the economic crisis has compelled leaders to focus on improving system efficiency and maximizing return on investments. Now is the time to harness the power of data for improved decisionmaking that will foster continuous improvement to ensure all students are prepared for college and careers, reduce burden and increase efficiency, and improve transparency across the education sector.

States have made tremendous progress building statewide longitudinal data systems with significant potential to help meet these goals of improving student outcomes, reducing burden, increasing efficiency, and improving transparency. In 2005 the Data Quality Campaign (DQC) identified the *10 Essential Elements of a Statewide Longitudinal Data System* to provide a roadmap for state policymakers as they built K–12 statewide longitudinal data systems designed to collect, store, and use longitudinal data to improve student achievement and outcomes. At that time, no state had all 10 Essential Elements. Five years later states have demonstrated substantial improvement: according to *Data for Action 2010: DQC's State Analysis*, 24 states have implemented all 10 Essential Elements and many more are well on their way.

See Appendix 2 on page 11 for a description of the *10 Elements* and *10 Actions*, and states' current progress in implementing them.

It's time to leverage those infrastructure investments and put the data to work at all levels of the education sector to improve policy and practice to increase student achievement. While every aspect of our lives has been transformed by the effective use of data, education has not yet turned the corner and become a data-driven enterprise. DQC's *10 State Actions to Support Effective Data Use* provide a roadmap for state policymakers to create a culture in which quality data are not only collected but also used to increase student achievement. The 10 Actions are organized around three imperatives: linking data systems across P–20 and the workforce to answer key questions, ensuring that appropriate data can be accessed while protecting privacy, and building the capacity of all stakeholders to use longitudinal data.

While state policy leadership is critical to advance these efforts, it will take the collaborative efforts of multiple stakeholders to

- ✓ shift the culture around data use from *compliance and accountability* to *continuous improvement*
- ✓ integrate the use of data into the daily business of education
- ✓ embrace the power of longitudinal data across the P–20/W spectrum
- ✓ increase public demand for data
- ✓ provide stakeholders with appropriate access to data
- ✓ build stakeholders' capacity to use data effectively to guide their decisionmaking
- ✓ proactively address concerns about the irresponsible use of education data through strong policies and practices
- ✓ align and coordinate local, district, state, and federal efforts to maximize opportunities and reduce duplication

ESEA Must Support Effective Data Use to Improve Student Achievement and System Improvement

The federal government has been a crucial partner in supporting and accelerating state and local efforts to build the capacity to use data effectively to improve student achievement. When the No Child Left Behind Act of 2002 mandated that data about student achievement be publicly reported for all students and by student subgroup, federal policy set the education system on a new path toward transparency. A few months later, the Education Sciences Reform Act of 2002 authorized a new program, the Statewide Longitudinal Data Systems (SLDS) program, to help states "design, develop, and implement statewide longitudinal data systems to efficiently and accurately manage, analyze, disaggregate, and use individual student data." Over the next eight years, this program yielded 75 grants to 41 states and Washington, DC. While many states had been developing these systems for years, this federal focus and investment drastically increased both state capacity and political will to focus on data systems.

The importance of data to the success of other education efforts was affirmed by its inclusion as one of the four assurances of the State Fiscal Stabilization Fund (SFSF) in the American Recovery and Reinvestment Act of 2009 (ARRA), as a requirement or priority activity for many competitive grant programs (including Race to the Top and Race to the Top–Early Learning Challenge) and as a proposed priority for the U.S. Department of Education's (ED) discretionary funding activities. In exchange for SFSF funds, every state's governor and education chief committed to establishing a statewide P–16 longitudinal data system with the 12 America COMPETES Elements and to publicly reporting longitudinal statistics on high school graduates' enrollment and success in postsecondary education. The initial deadline to meet these requirements was September 30, 2011 (page 4 discusses subsequent changes to this deadline). The COMPETES Elements reflect leading states' efforts and align with DQC's 10 Essential Elements (see Appendix 3 for more information).

Now, the reauthorization of the Elementary and Secondary Education Act (ESEA) provides a strategic and unique opportunity to better connect the data and policy agendas and ensure that every stakeholder—from parents to policymakers—has the data capacity to meet their needs.

In this publication DQC recommends three core strategies to embed throughout the reauthorizing ESEA legislation—and eventual federal and state implementation— to support state and local efforts to effectively use data to improve system performance and student achievement:

1. **Update and align existing federal data systems investments** to help states address current and emerging realities and focus on effective data use.
2. **Expect and encourage states to develop the data capacity** required to successfully inform, implement, and evaluate priority policies and practices.
3. **Reduce burden, increase efficiency, and improve transparency** of appropriate information by further streamlining and improving federal data collection and reporting requirements and providing stakeholders with the information they need to make good decisions.

1. Update and align existing federal data systems investments to help states address current and emerging realities and focus on effective data use.

BACKGROUND

The significant progress states have made in building the basic infrastructure for statewide longitudinal data systems is due in large part to the federal investments made over the last 10 years. While many states were already working to build and use their SLDS for state policy priorities, NLCB's data reporting requirements, the investment through the SLDS program, ARRA's focus on data capacity, and SFSF's timeline and requirements have prioritized and accelerated these efforts.

As with any infrastructure investment, the work of building longitudinal data systems is never done. There are certain issues proving more challenging for states, and states must make a long-term commitment to continuously improve

data quality and system capacity—for *effective data use*, not mere *compliance*.
For some of the more complicated elements, summarized below, states struggled to work through the political, technical, and policy issues at the pace required to meet the September 2011 deadline:

- student-level transcript information
- student-level college readiness test scores
- teacher identifier system with the ability to match teachers to students
- linking systems, matching data, and sharing information across systems, particularly between K–12 and postsecondary

In September 2011 ED acknowledged these challenges when it announced the September deadline would be moved to January 2012 and proposed additional changes that would permit states to receive additional extensions until December 2012. Overall DQC believes these proposed changes strike a sensible balance: they maintain a commitment to advancing states' efforts to collect and use data for continuous improvement and richer accountability while making adjustments that reflect states' current implementation realities. Federal policymakers must keep this lesson in mind as they consider including data requirements in future federal policies.

For more information, see DQC's analysis of *ED's Proposed Changes to SFSF Data Collection and Reporting Requirements—Initial Analysis*.

Continued progress on infrastructure investments must be accompanied by the more the difficult work of changing culture and building capacity to support effective use of P–20/W data.
The implementation of policies and practices that promote the use of data is much more challenging than building the technical infrastructure of a longitudinal data system. As states tackle implementing the 10 State Actions to Support Effective Data Use, they are facing challenges of turf, trust, technical issues and time:

- **Turf:** The current culture and structures in education do not support stepping across traditional boundaries. People and organizations are accustomed to working only within their defined territories.
- **Trust:** Individuals and agencies will face a new world of transparency and accountability as cross-sector information is generated and shared. Given that education data have to date primarily been used as a hammer to punish rather than a flashlight to illuminate and inform continuous improvement, mistrust about how data will be used is pervasive.
- **Technical issues:** A range of technical issues must be addressed, including matching data records when there is no common individual identifier, lack of interoperability among data systems, and implementing security frameworks to protect data.
- **Time:** Success in these endeavors is hindered when the necessary stakeholders have not prioritized this work. Policymaker leadership is required to ensure that this work is both prioritized and given adequate time and resources.

It is critical to pair stable, sustained state support for statewide data systems with federal support to shift states from using data merely for compliance to leveraging its power to inform continuous improvement, increase efficiency, and improve transparency. Effective data use is not an IT project. Federal investments in data systems must reflect this—in their goals, priorities, selection criteria, and peer review processes—to help reinforce the connection between data and policy.

What Congress should do through ESEA reauthorization:

Update and align existing federal data systems investments to help states address current and emerging realities and focus on effective data use.

- Reauthorize the federal SLDS program with the following principles:
  - Focus on building capacity to use data from across the P–20/W system to answer critical questions.
  - Wean states off the use of federal funds for "building" data systems by establishing a baseline for data capacity and prioritizing federal funds to address remaining difficult issues (e.g., connecting to workforce systems, connecting teacher and student data systems, collecting transcript information by student) and cultural challenges (e.g., time, turf, technical issues, and trust). Then shift focus to supporting innovative practices that enable stakeholders to appropriately and effectively access, analyze, and use data to improve student

achievement.
- Encourage cross-state collaboration to not only share best practices but also explore the emerging issue of connecting student and teacher information across state lines, which would account for the reality of teacher and student mobility that currently results in a dearth of critical information about these mobile stakeholders.
- Improve application and peer review processes to ensure clarity for applicants and alignment between policy and technical goals.
- Improve transparency around grantees' use of funds, linking to progress and lessons learned from program implementation.

» Direct federal agencies to improve coordination of grant programs (including application requirements and timeline) that support states' efforts to build data capacity (e.g., SLDS, Race to the Top–Early Learning Challenge, Workforce Data Quality Initiative) to maximize funds and encourage further state coordination.

2. Expect and Encourage States to Develop the Data Capacity Required to Successfully Inform, Implement, and Evaluate Priority Policies and Practices.

BACKGROUND

Nearly every high-priority item in national, federal, state, and local discussions on improving ESEA—and in proposals from across the political spectrum—requires high-quality longitudinal data to inform its design, implementation, and evaluation. Consider the following examples from recent proposals:[1]

Evaluating teacher and principal effectiveness based on student academic performance	*requires*	The ability to robustly connect information about students' academic achievement and growth with teachers and principals
Shifting from status models of accountability to growth models of accountability	*requires*	Longitudinal data about student over time
Producing, reporting, or using college- and career-readiness indicators for K–12 schools and systems	*requires*	Longitudinal data about students' participation, progress, and success in college and the careers
Requiring states, districts, or schools to develop customized improvement strategies or plan based on needs assessments, diagnostic reviews, and local needs	*requires*	Providing school leaders and educators with timely, appropriate access to robust data
Providing students (and their parents) with more choices for their path to a college- and career-ready diploma	*requires*	Providing students and parents with timely, appropriate access to good information about their educational choices

The impact of well-intentioned policy proposals (such as those noted above) will be compromised if ESEA reauthorization does not reinforce that robust longitudinal data is paramount to their success. Data implications cannot be an afterthought; ESEA reauthorization should build support and reinforce state efforts to develop the necessary data capacity to inform, implement, and evaluate their policies as well as the necessary time, incentives, and transparency to ensure their efforts are high-quality and focused on impact, not compliance.

While many leaders feel an urgency to advance these and other policy changes, policymakers must avoid creating the unintended consequence of states building data system capacity in compliance mode. Instead, state, federal, and local leaders and practitioners must work together to balance *expediency* with *quality that meets stakeholders' needs.* A compliance-oriented SLDS is a technology project. But a use-driven system requires states to negotiate trust and turf issues among multiple levels of stakeholders and across multiple agencies. All states need the time to learn from emerging best practices to implement elements with quality the *first time around*—so that states avoid launching a compliance-oriented system that only serves to increase mistrust among stakeholders of the system. This does not mean waiting years for the vital information necessary to meet our goals and answer our questions—we cannot afford not to use robust information as quickly as possible. However, it does mean it is critical to take the time and steps necessary to

[1] DQC does not promote specific policies related to non-data issues. These examples are used to highlight the relationship between data and other policy issues.

ensure the data is high-quality and that critical stakeholders find value in and trust it.

As an example, consider state efforts to ensure data capacity to measure teacher effectiveness based on student achievement data. Last year 35 states reported the ability to link teacher and student data. Five of those states have joined the Teacher-Student Data Link (TSDL) project, which supports the development of a TSDL designed for high-stakes use. The five collaborating states have spent two years engaging with stakeholders and making critical decisions about related policies—such as developing a statewide definition of *teacher of record*. Even these leading states still have significant work to do to align this work with their policy goals and move from an IT-driven TSDL to a policy-driven TSDL.

For more information, about promising practices related to the role of data in measuring teacher effectiveness, see *Using Data to Improve Teacher Effectiveness: A Primer for State Policymakers*.

What Congress should do through ESEA reauthorization:

Expect and encourage states to develop the data capacity required to successfully inform, implement, and evaluate priority policies and practices.

- *If* ESEA requires states to implement policies that require statewide longitudinal data for design, implementation, or evaluation, ensure that states are given enough time to implement the quality data systems the first time around—so that states avoid launching a compliance-oriented system that only increases mistrust among stakeholders of the system.
- *If* ESEA includes provisions that require states to use measures of teacher or principal effectiveness based on student academic achievement or growth, ensure states link teachers to students reliably and consistently to produce high-quality information, including
  - a statewide definition of *teacher of record*
  - the ability to connect multiple teachers per student per course
  - a process for teachers to verify their class rosters
- *If* ESEA requires states or districts to produce indicators of student outcomes, such as high school graduation rates or college-going rates, encourage states to leverage investments in SLDS to produce these indicators—including the ability to follow students and teachers across state lines.
- *If* ESEA includes policies or programs designed to improve teachers' effectiveness, require "improving educators' data literacy" as a required or allowable activity. Consider using the following definition of data literacy: "data-literate educators have the ability to accurately and effectively access, interpret, communicate, and act on data (included, but not limited to assessment data) to improve student achievement in a manner appropriate to their professional role and responsibilities.
- *If* ESEA requires states, districts, or schools to develop and implement improvement strategies, then
  - emphasize the role of data in designing, implementing, and evaluating these strategies
  - require states to leverage SLDS investments to provide educators and system leaders with actionable information to guide their efforts
- Encourage states to leverage federal funding opportunities to build the capacity at the state education agency (SEA) to analyze data from SLDS and communicate it as actionable information to districts, schools, and other stakeholders.

3. Reduce burden, increase efficiency, and improve transparency of appropriate information by further streamlining and improving federal data collection and reporting requirements and providing stakeholders with the information they need to make good decisions.

BACKGROUND

To change the culture around the use of data from a compliance focus to fueling continuous improvement, states need collaborative and supportive partnerships with federal and local governments to ensure alignment, reduce burden and duplicative efforts, and provide accountability and transparency. Federal policy, as shaped through the ESEA reauthorization, can support this collaborative partnership by emphasizing the need to share data with appropriate stakeholders, to promote the efficiencies of data systems, and to ensure the privacy, security and confidentiality of this sensitive information.

Data cannot be used to improve decisionmaking if no one can see them. Empower parents, educators, system leaders, policymakers, and community members with the information they need to make good decisions by making it publicly available. While states have made significant progress building data systems and collecting data, few are actually publishing longitudinal indicators publicly. Requiring states to publicly post metrics that demonstrate progress in meeting federal requirements as an alternative to compliance reporting meets multiple goals. It can provide better evidence of impact, and requires less paperwork, than compliance reports to ED that describe plans and processes. Moreover, making data transparent and accessible to stakeholders supports effective use of data. State requirements to publicly report information must also ensure that data is easy to find and understand. Too often state data is presented in a difficult format (e.g., lengthy data file) or with education policy terms incomprehensible to the people making critical education decisions. Data is also often buried in places that many stakeholders cannot find. Publicly reported data should be published in a user-friendly manner that is easily understood by all stakeholders.

Using common data definitions, formats, and code sets will improve quality, consistency, and comparability of information, while reducing the burden over the long haul. As policymakers and system leaders seek to link systems, match data, and share information to address priority questions or comply with reporting requirements, the absence of interoperability creates unnecessary, but persistent and pernicious, barriers to access and use. The time and resources squandered reconciling data sets inhibit the development of new tools and services. Vendors must tailor products to each system's or state's specifications, increasing time and costs. Comparability of information across system lines is undermined, and data quality is risked, as data sets are reworked into new formats. In light of state demands to improve cross-agency system linkages, significant efforts are under way to provide voluntary common data standards that will reduce burden, increase efficiency, and improve the comparability, quality, and utility of data. DQC is a partner in the Common Education Data Standards (CEDS) Initiative, a coalition of education stakeholders that includes state K–12 and higher education organizations, nonprofit organizations, and vendors working together to ensure that common data definitions, formats, and code sets for a subset of key data elements become commonly and voluntarily adopted and widely used.

State and federal policymakers must proactively address concerns about the privacy, security, and confidentiality of student data, including finalizing FERPA regulations. Using data to improve student outcomes and protecting the privacy, security, and confidentiality of student information are not mutually exclusive goals. Policymakers and stakeholders at all levels must ensure that there is an appropriate and effective balance between the use of data to inform policy decisions and robust policies and practices that protect the privacy, security, and confidentiality of personally identifiable data.

- ✓ **Protecting publicly reported data:** Some stakeholders have concerns that publicly reporting metrics based on student-level data has the potential to violate student privacy and confidentiality. Much-discussed methods to ensure subgroups sizes (*n-sizes*) are large enough to provide this protection do not adequately address the concern. A new technical guide from NCES discusses these issues and provides some recommendations. If the federal policy moves in the direction of increased public reporting, it should take into account these concerns.
- ✓ **Clarifying FERPA:** The federal Family Educational Rights and Privacy Act (FERPA) was passed in 1974 to protect the privacy of student education records and impose limits on the disclosure of student records by educational agencies and institutions that receive funds from the U.S. Department of Education. In the 30 years since FERPA was enacted, however, the data landscape and the state role in data collection, sharing, and use has expanded, and states have consistently asked for clarification around how states' sharing and use of longitudinal data relates to student privacy protections. To successfully, effectively, and efficiently meet state goals and federal requirements, states need clear, consistent final guidance, which has been promised since 2009. In April 2011 ED made significant progress in proposing draft regulations that would clearly permit the limited sharing of appropriate data for answering critical questions and address some of the outstanding questions raised. However ED has not yet finalized these regulations, leaving many states in difficult positions. ED needs to prioritize finalizing FERPA regulatory changes in the very short term to ensure states have the clarity needed on FERPA to plan accordingly. If not, legislative action may be necessary.
- ✓ **Strengthening state policies:** Clarifying and enforcing FERPA is only one piece of the puzzle; it is also critical that states implement strong policies and practices, in line with best practices from other sectors, to protect the privacy, security, and confidentiality of student information. Resources regarding these state actions can be found on DQC's website.

What Congress should do through ESEA reauthorization:

Reduce burden, increase efficiency, and improve transparency of appropriate information by further streamlining and improving federal data collection and reporting requirements and providing stakeholders with the information they need to make good decisions.

- Improve efficiency and the quality, consistency, and comparability of education data by
  - requiring federal data collections to use data definitions, formats, and code sets articulated through the Common Education Data Standards (CEDS) Initiative
  - encouraging states, districts, and schools to use common data definitions, formats, and code sets, such as those articulated through the Common Education Data Standards (CEDS) Initiative, when publicly reporting education indicators
- Ensure reporting requirements included in ESEA are necessary, are not duplicative, provide actionable information, and where possible, leverage investments in statewide longitudinal data systems by using longitudinal statistics when appropriate.
- Where possible and appropriate, require grantees, including states and districts, to publicly report data on student outcomes or other evidence of impact, instead of merely reporting compliance data to ED. These requirements should make clear that such reporting must use the best available statistical and other methods to protect the privacy and confidentiality of students' personally identifiable information.
- Direct ED to finalize FERPA regulations that balance support for effective data use with protections for the privacy, security, and confidentiality of student data. Where possible, encourage states to strengthen their own privacy and security policies to complement federal laws.

RELATED DQC RESOURCES

- *ED's Proposed Changes to SFSF Data Collection and Reporting Requirements—Initial Analysis* (September 2011).
- *FY12 SLDS Competition - DQC Summary* (September 2011)
- *Leveraging Federal Funding for Longitudinal Data Systems - A Roadmap for States*
- *Using Data to Improve Teacher Effectiveness: A Primer for State Policymakers* (July 2011)
- *Preparing Every Citizen for the Knowledge Economy: A Primer on Using Early Childhood, K–12, Postsecondary and Workforce Data* (October 2011)
- *Supporting Data Use While Protecting the Privacy, Security and Confidentiality of Student Information: A Primer for State Policymakers* (April 2011)
- Multiple FERPA related resources

About the DQC

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 will provide 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.

For more information

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Appendix 1: Summary of DQC's ESEA Recommendations

1. Update and align existing federal data systems investments to help states address current and emerging realities and focus on effective data use.

- Reauthorize the federal SLDS program with the following principles:
  - Focus on building capacity to use data from across the P–20/W system to answer critical questions.
  - Wean states off the use of federal funds for "building" data systems by establishing a baseline for data capacity and prioritizing federal funds to address remaining difficult issues (e.g., connecting to workforce systems, connecting teacher and student data systems, collecting transcript information by student) and cultural challenges (e.g., time, turf, technical issues, and trust). Then shift focus to supporting innovative practices that enable stakeholders to appropriately and effectively access, analyze, and use data to improve student achievement.
  - Encourage cross-state collaboration to not only share best practices but also explore the emerging issue of connecting student and teacher information across state lines, which would account for the reality of teacher and student mobility that currently results in a dearth of critical information about these mobile stakeholders.
  - Improve application and peer review processes to ensure clarity for applicants and alignment between policy and technical goals.
  - Improve transparency around grantees' use of funds, linking to progress and lessons learned from program implementation.
- Direct federal agencies to improve coordination of grant programs (including application requirements and timeline) that support states' efforts to build data capacity (e.g., SLDS, Race to the Top–Early Learning Challenge, Workforce Data Quality Initiative) to maximize funds and encourage further state coordination.

2. Expect and encourage states to develop the data capacity required to successfully inform, implement, and evaluate priority policies and practices.

- *If* ESEA requires states to implement policies that require statewide longitudinal data for design, implementation, or evaluation, ensure that states are given enough time to implement the quality data systems the first time around—so that states avoid launching a compliance-oriented system that only increases mistrust among stakeholders of the system.
- *If* ESEA includes provisions that require states to use measures of teacher or principal effectiveness based on student academic achievement or growth, ensure states link teachers to students reliably and consistently to produce high-quality information, including
  - a statewide definition of *teacher of record*
  - the ability to connect multiple teachers per student per course
  - a process for teachers to verify their class rosters
- *If* ESEA requires states or districts to produce indicators of student outcomes, such as high school graduation rates or college-going rates, encourage states to leverage investments in SLDS to produce these indicators—including the ability to follow students and teachers across state lines.
- *If* ESEA includes policies or programs designed to improve teachers' effectiveness, require "improving educators' data literacy" as a required or allowable activity. Consider using the following definition of data literacy: "data-literate educators have the ability to accurately and effectively access, interpret, communicate, and act on data (included, but not limited to assessment data) to improve student achievement in a manner appropriate to their professional role and responsibilities.
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  - emphasize the role of data in designing, implementing, and evaluating these strategies
  - require states to leverage SLDS investments to provide educators and system leaders with actionable information to guide their efforts
  - Encourage states to leverage federal funding opportunities to build the capacity at the state education agency (SEA) to analyze data from SLDS and communicate it as actionable information to

districts, schools, and other stakeholders.

3. Reduce burden, increase efficiency, and improve transparency of appropriate information by further streamlining and improving federal data collection and reporting requirements and providing stakeholders with the information they need to make good decisions.

- Improve efficiency and the quality, consistency, and comparability of education data by
  - requiring federal data collections to use data definitions, formats, and code sets articulated through the Common Education Data Standards (CEDS) Initiative

  - encouraging states, districts, and schools to use common data definitions, formats, and code sets, such as those articulated through the Common Education Data Standards (CEDS) Initiative, when publicly reporting education indicators
- Ensure reporting requirements included in ESEA are necessary, are not duplicative, provide actionable information, and where possible, leverage investments in statewide longitudinal data systems by using longitudinal statistics when appropriate.
- Where possible and appropriate, require grantees, including states and districts, to publicly report data on student outcomes or other evidence of impact, instead of merely reporting compliance data to ED. These requirements should make clear that such reporting must use the best available statistical and other methods to protect the privacy and confidentiality of students' personally identifiable information.
- Direct ED to finalize FERPA regulations that balance support for effective data use with protections for the privacy, security, and confidentiality of student data. Where possible, encourage states to strengthen their own privacy and security policies to complement federal laws.

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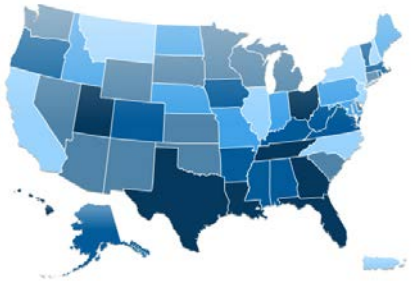
Appendix 2: State Progress Implementing DQC's 10 Essential Elements & 10 State Actions*

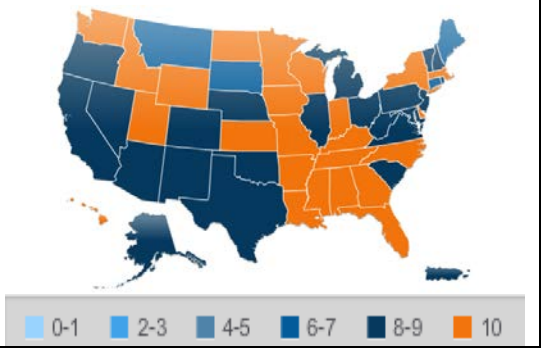
10 Essential Elements of a Longitudinal Data Systems

1. A unique student identifier **(52 states)**
2. Student-level enrollment, demographic, & program participation information **(52 states)**
3. The ability to match individual students' test records from year to year to measure academic growth **(52 states)**
4. Information on untested students **(49 states)**
5. A teacher identifier system with the ability to match teachers to students **(35 states)**
6. Student-level transcript information, including information on courses completed & grades earned **(37 state)**
7. Student-level college readiness test scores **(46 states)**
8. Student-level graduation & dropout data **(52 states)**
9. The ability to match student records between the P-12 & postsecondary systems **(41 states)**
10. A state audit system assessing data quality, validity, & reliability **(52 states)**

2005 – No state had all 10 Elements



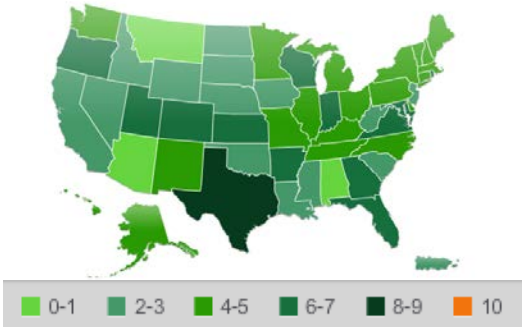
2010 – 24 states have all 10 Elements



10 State Actions to Support Effective Data Use

Link data systems across P-20 & the workforce to answer key questions	1. Link state K-12 data systems with early learning, postsecondary, workforce, & other (9 states) 2. Create sustainable support for LDS (32 states) 3. Develop governance structures to guide LDS **(40 states)** 4. Build state data repositories **(40 states)**
Ensure that appropriate data can be accessed while protecting privacy	5. Provide timely role-based access to data **(8 states)** 6. Create progress reports with student-level data for educators, students, & parents to make individual decisions **(23 states)** 7. Create reports with longitudinal statistics to guide change at system level **(27 states)**
Build capacity of all stakeholders to use longitudinal data	8. Develop a research agenda **(28 states)** 9. Implement policies to ensure educators know how to use data appropriately **(1 state)** 10. Raise awareness to ensure all key stakeholders know how to access & use data **(9 states)**

2010 – No state has implemented all 10 Actions



*The number of states listed for each Element & Action is drawn from *Data for Action 2010: DQC's Annual State Analysis*.

***HEADS UP: In winter 2011 DQC will release the results of its* Data for Action 2011: DQC's State Analysis.**

Appendix 3: Alignment between DQC's 10 Essential Elements & America COMPETES Act's 12 Elements

In 2005 the Data Quality Campaign (DQC) identified the *10 Essential Elements of a Statewide Longitudinal Data System* to provide a roadmap for state policymakers as they built statewide longitudinal data systems designed to collect, store, and use longitudinal data to improve student achievement and outcomes. States' self-reported progress in implementing the 10 Essential Elements is captured annually through *Data for Action: DQC's Annual State Analysis*.

In 2007 the federal America COMPETES Act, codified 12 "Required Elements of a P–16 Education Data System." In 2009 the federal American Recovery and Reinvestment Act (ARRA) required states, as a condition of receiving State Fiscal Stabilization Funds (SFSF), to commit to building a data system that consists of these elements. The subsequent cycles of the federal Statewide Longitudinal Data Systems program have required grantees to include these elements. States' self-reported progress in meeting the COMPETES Elements in captured in their annual SFSF report.

The table below demonstrates the significant alignment between DQC's 10 Essential Elements and the 12 COMPETES Elements. The one substantive difference is that all of DQC's 10 Essential Elements only apply to K–12 education whereas some of the COMPETES Elements apply to K–12 and postsecondary education or to only postsecondary education.

	The COMPETES Act Required Elements (P–16)	DQC 10 Essential Elements (K–12)	
P–12 & postsecondary	**(1)** a unique statewide student identifier that does not permit a student to be individually identified by users of the system	**(1)** a unique statewide student identifier that connects student data across key databases across years	K-12 only
	(2) student-level enrollment, demographic, and program participation information	**(2)** student-level enrollment, demographic, and program participation information	
	(3) student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P–16 education programs	**(8)** student-level graduation and dropout data	
	(4) the capacity to communicate with higher education data systems	**(9)** the ability to match student records between the P–12 and higher education systems	
	(5) a state data audit system assessing data quality, validity, and reliability	**(10)** a state data audit system assessing data quality, validity, and reliability	
P–12 only	**(6)** yearly test records of individual students with respect to ESEA assessments	**(3)** the ability to match individual students' test records from year to year to measure academic growth	
	(7) information on students not tested by grade and subject	**(4)** information on untested students and the reasons they were not tested	
	(8) a teacher identifier system with the ability to match teachers to students	**(5)** a teacher identifier system with the ability to match teachers to students	
	(9) student-level transcript information, including information on courses completed and grades earned	**(6)** student-level transcript information, including information on courses completed and grades earned	
	(10) student-level college readiness test scores	**(7)** student-level college readiness test scores	
Postsecondary only	**(11)** information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework		
	(12) other information determined necessary to address alignment and adequate preparation for success in postsecondary education		