



DATA QUALITY CAMPAIGN

Using Data To Improve Student Achievement

Paige Kowalski
CADREI
October 19, 2010

The National Context

- Federal Funding Mechanisms
 - ❖ Race to the Top (RTT)
 - 12 states awarded \$3.5 billion
 - ❖ State Fiscal Stabilization Funds (SFSF)
 - All 50 states required to build statewide longitudinal data systems
 - ❖ Investing in Innovation (i3)
 - \$650 million just awarded to districts
 - ❖ Teacher Incentive Grants
 - Grants to states/districts to improve teacher effectiveness and develop compensation systems tied to student achievement.
 - ❖ IES SLDS Grant Program
 - 12 America COMPETES Act elements are required (aligned to DQC's elements)
 - \$500 million awarded to date to all but 9 states
 - ❖ ESEA Reauthorization
 - USED's Blueprint for Reform is closely aligned to the priorities of ARRA

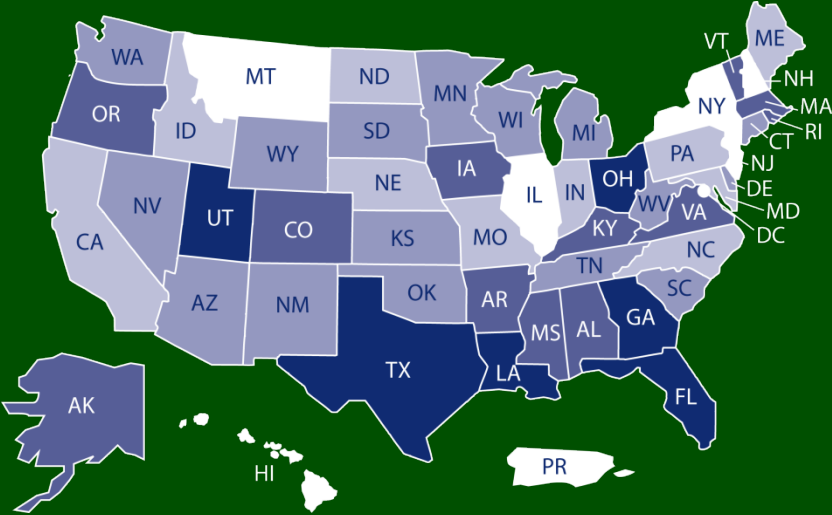
The Ten Essential Elements

(out of a possible 52 states including DC and PR)

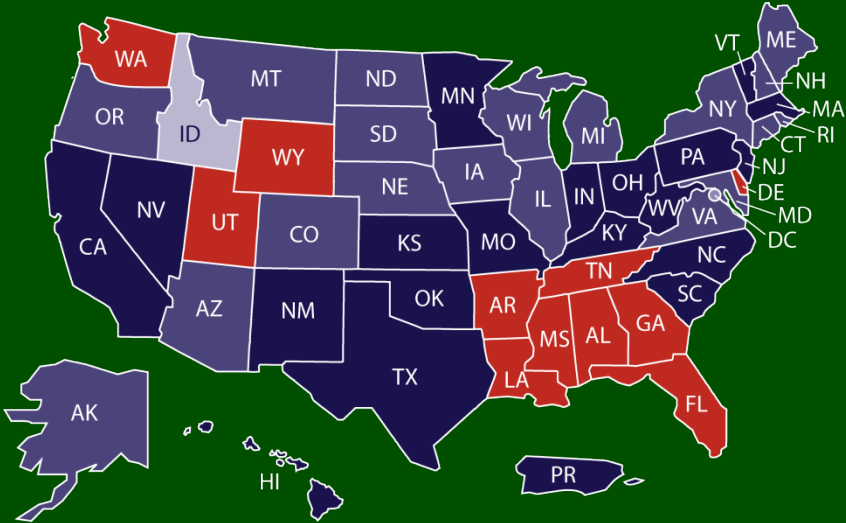
10 Essential Elements of a Longitudinal Data System	2005	2009
1. Unique statewide student identifier	36	50
2. Student-level enrollment, demographic and program participation information	38	51
3. Ability to match individual students' test records from year to year to measure growth	32	50
4. Information on untested students	25	46
5. Teacher identifier system with ability to match teachers to students	13	24
6. Student-level transcript information, including information on courses completed and grades earned	7	23
7. Student-level college readiness test scores	7	37
8. Student-level graduation and dropout data	34	51
9. Ability to match student records between the P-12 and postsecondary systems	12	32
10. State data audit system assessing data quality, validity, and reliability	19	49

State of the Nation

2005



2009



DQC 10 State Actions to Ensure Effective Data Use

Expand and link data systems across P-20

- Link state K-12 data systems with early learning, postsecondary, workforce, and others
- Create sustainable support for the longitudinal data system (LDS)
- Develop governance structures to guide LDS
- Build state data repositories

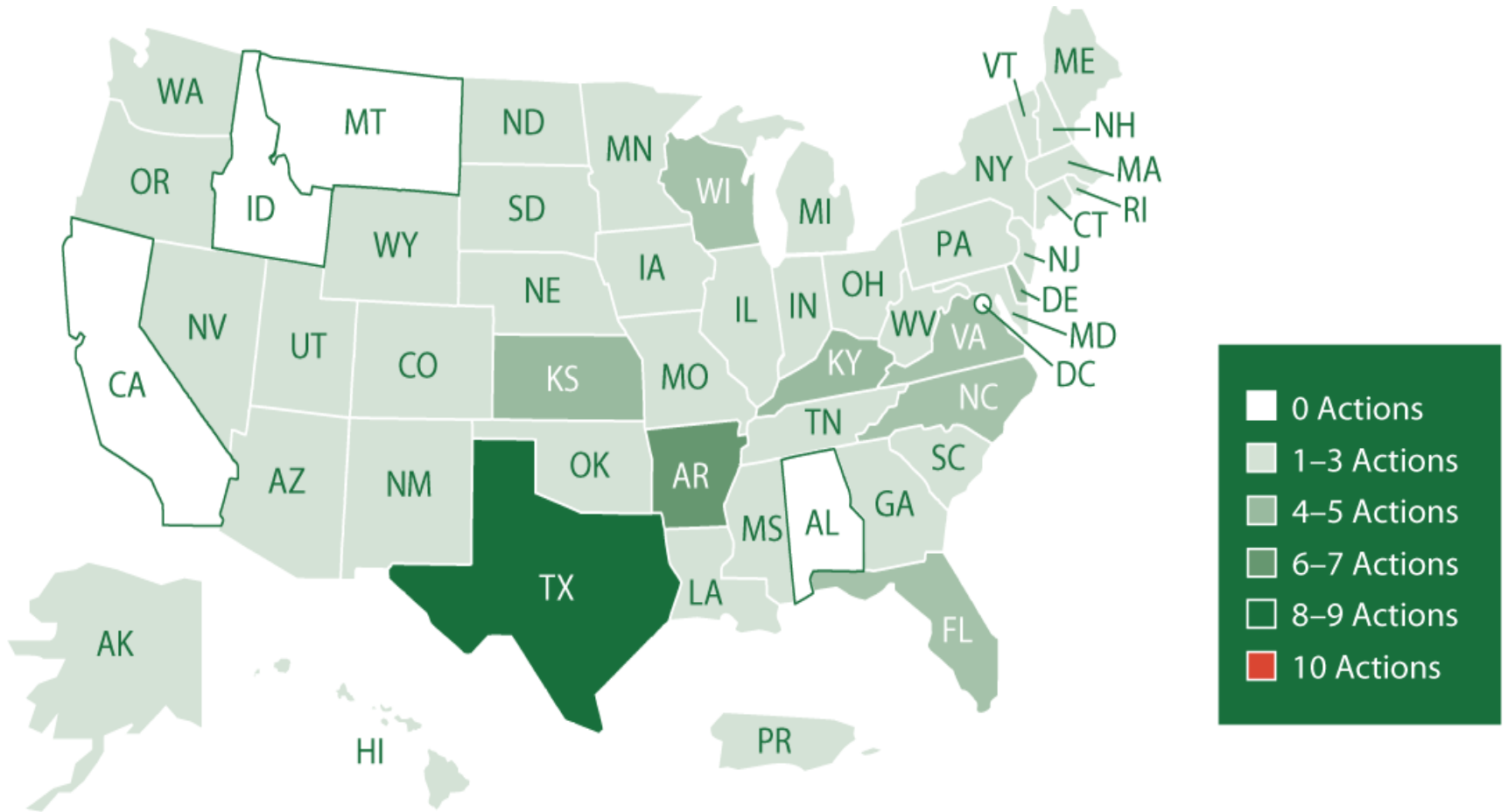
Ensure that data can be accessed, analyzed, and used

- Provide timely role-based access to data
- Create progress reports with student-level data for educators, students, and parents to make individual decisions
- Create reports with longitudinal statistics to guide change at system level

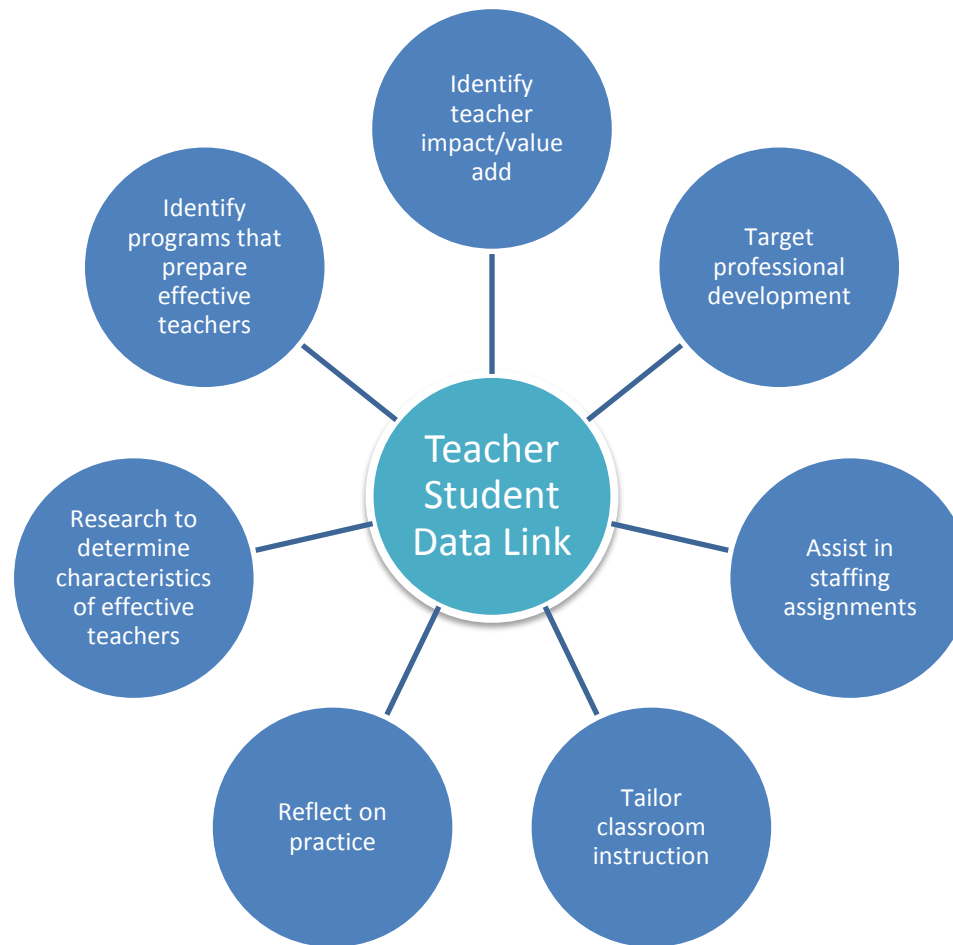
Build capacity of all stakeholders to use longitudinal data

- **Develop a research agenda**
- **Implement policies to ensure educators know how to use data appropriately**
- Raise awareness to ensure all key stakeholders know how to access and use data

State of the Nation: 10 Actions



The Teacher-Student Link is the *Linchpin* in Improvement Efforts at *ALL* Levels



2010 DQC Survey: Element 5

(Currently reporting: 23 states and Puerto Rico)

- Adding questions* to get a sense of implementation practices
 - ❖ Who do you assign a teacher /educator ID to besides teachers? Counselors, librarians, principals, resource specialists, etc.
 - ❖ Do you connect more than one educator to a student?
 - ❖ Is the teacher ID consistent across all databases? HR, certification, enrollment, professional development?
 - ❖ Do you have a statewide definition for teacher of record?
 - ❖ How do you collect the time period during which a teacher taught a student? Option 1: At one point in time during the school year; Option 2: At more than one point in time during the school year; Option 3: Specific start and end dates throughout the school year.

** These are not the exact questions on the survey but represent what we're asking.*

DQC State Action 8: What it Takes

(16 states as of 2009)

- To be considered as having taken this Action, a state must have:
 - ❖ Developed a **P-20/workforce research agenda** in conjunction with other organizations; and
 - ❖ Established a process by which **outside researchers** can propose their own studies for approval and/or obtain state data for external research.

DQC State Action 9: What it Takes

(0 states as of 2009)

- To be considered as having taken this Action, a state should demonstrate that it:
 - ❖ Provides **training** opportunities to educators on using data;
 - ❖ Leverages its **licensing authority** to require educators to demonstrate an adequate ability to interpret and use data;
 - ❖ Leverages its **program approval authority** to require pre-service programs to demonstrate that they are preparing teachers to use and interpret data;
 - ❖ **Partners with its preparation programs** to provide instruction to teachers and principals on how to use student-level data; and
 - ❖ Automatically **shares aggregate-level data** with its educator preparation programs, particularly information about how teachers perform as measured through their students' performance.

Exhibit ES-6. Categories of Data-driven Decision Making

Decision Type
Category 1: Staff examine data for whole grade or school to ascertain areas for school improvement; examine data for individual students for purposes of class placement or assignment to services, including identifying “bubble kids” whose growth is likely to affect the school’s AYP status.
Category 2: Teachers analyze performance of students in their class on individual items or standards for purposes of better aligning their content coverage with the accountability test or deciding what to reteach or how to group students within the class.
Category 3: Staff examine data for different teachers or for different methods dealing with the same content to derive insights for improving the way they teach. Staff use comparative data to evaluate the effectiveness of specific instructional strategies.

Source: U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, *Use of Education Data at the Local Level From Accountability to Instructional Improvement*, Washington, D.C., 2010

ES-7. Percent of Case Study Schools Reporting Each Decision-making Category

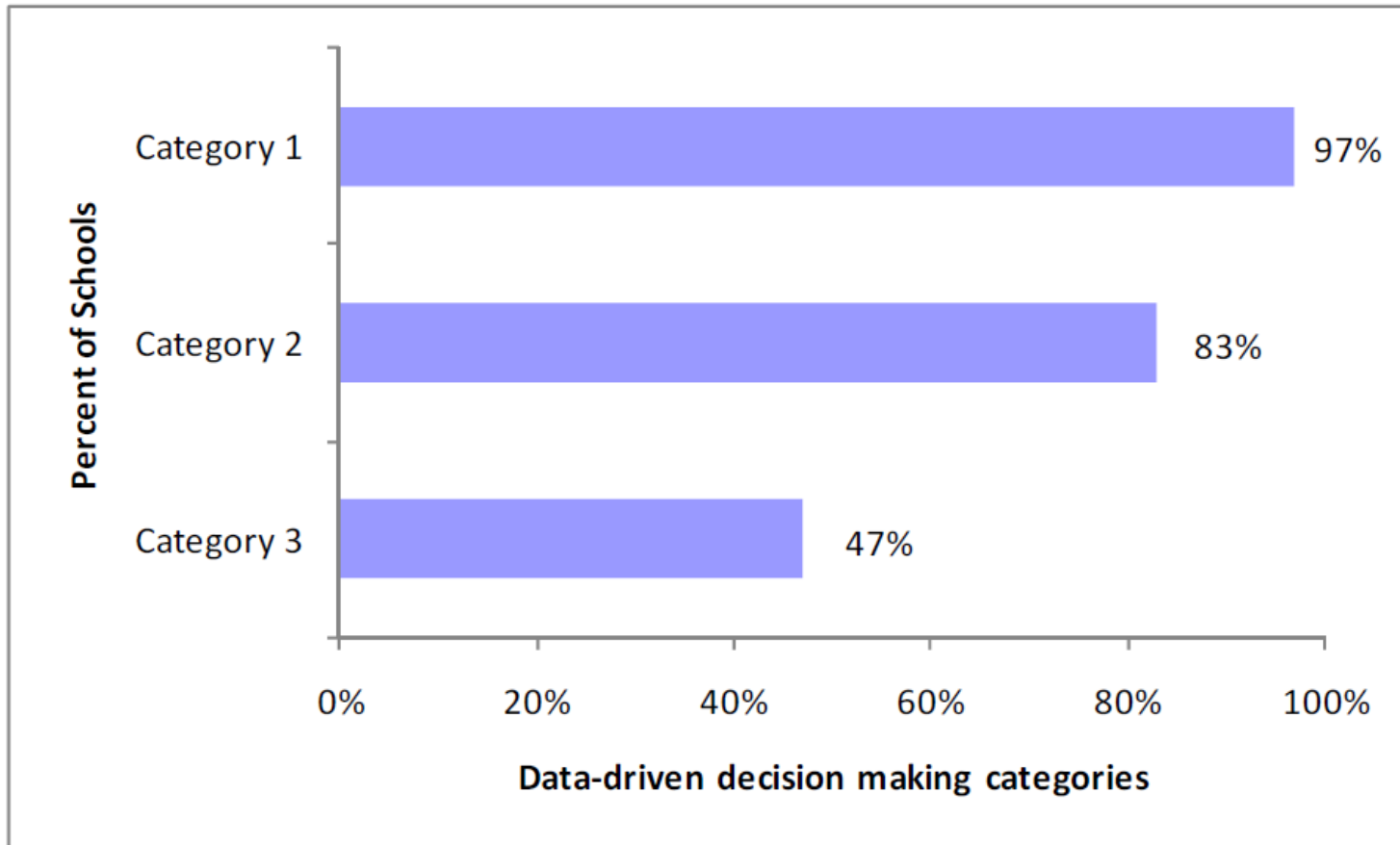
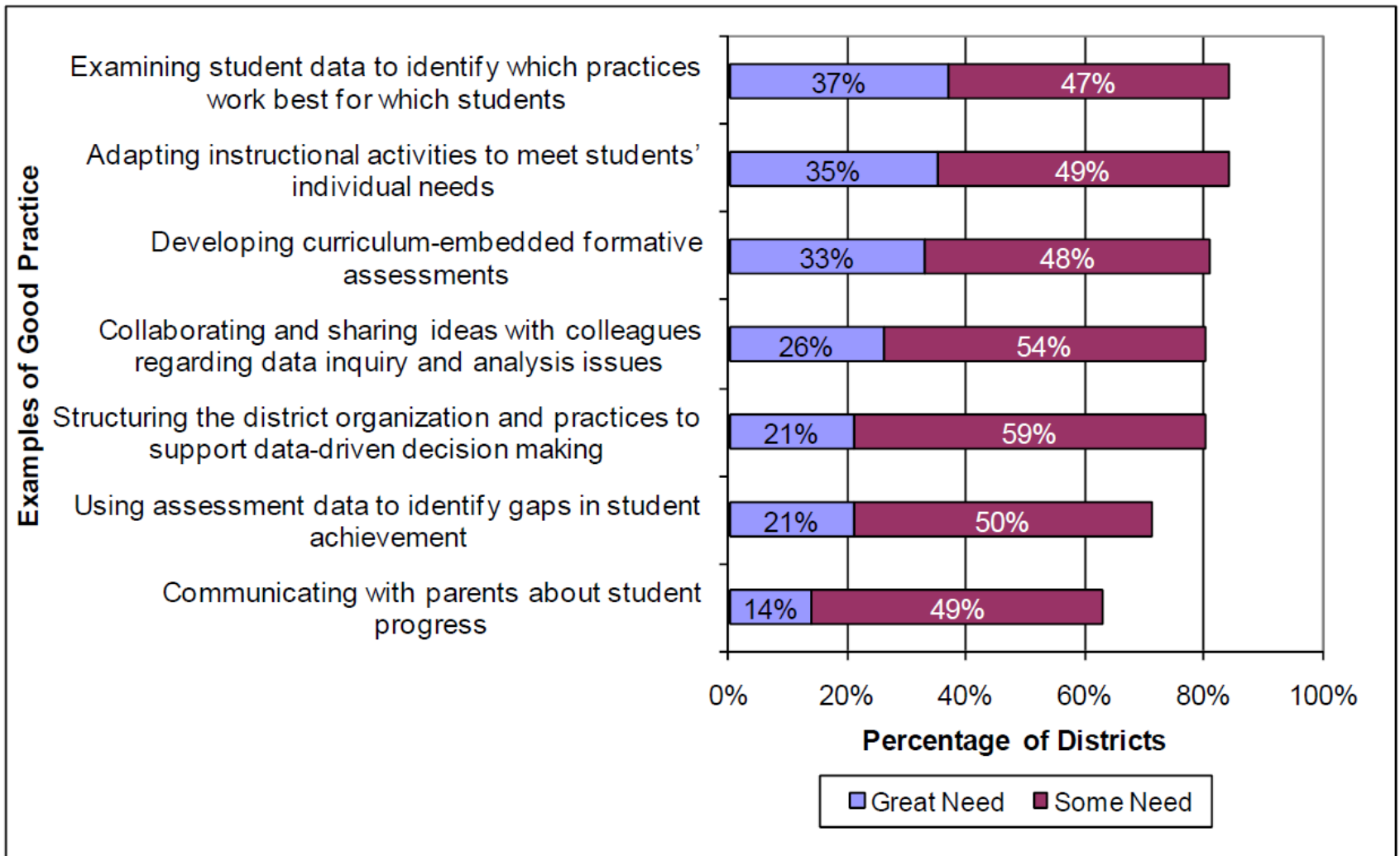


Exhibit reads: Among case study schools, 97 percent provided examples of Category 1 uses of data.

Source: U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, *Use of Education Data at the Local Level From Accountability to Instructional Improvement*, Washington, D.C., 2010

Exhibit ES-4. District Perceptions of Needed Examples of Good Practice



Source: U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, *Use of Education Data at the Local Level From Accountability to Instructional Improvement*, Washington, D.C., 2010

Teacher Data Template: DQC, AACTE, CCSSO, NCATE

TEACHER DATA	ADMINISTRATIVE LEADER DATA	ANALYTIC PURPOSE (BY PREPARATION PROGRAM/INSTITUTION)
<p>Career Path</p> <ul style="list-style-type: none"> ■ Year hired ■ Characteristics of school at which employed (high needs/high minority/high poverty/low performing/urban/rural) ■ Subject(s) taught ■ In original job placement in year two and year three after program completion (options could include same school, moved to another school in district, taught in another district, left the state, left the profession and write in reason for turnover) ■ Characteristics of students in the school such as percentage of English language learners, percentage of students with disabilities, student learning, attendance, graduation rates and college/community college matriculation where applicable in terms of status or growth ■ Characteristics of students the teacher is assigned in terms of poverty level, education of parents and previous education performance 	<p>Career Path</p> <ul style="list-style-type: none"> ■ Year hired ■ Characteristics of school at which employed (high needs/high minority/high poverty/low performing/urban/rural) ■ In original job placement in year two and year three after program completion (options could include same school, moved to another school in district, taught in another district, left the state, left the profession and write in reason for turnover) 	<p>Meeting Program Goals</p> <p>Career path analysis helps institutions and programs know whether program goals are being met for employment and preparation of teachers to meet the needs of diverse students in different situations. Also, feedback on persistence in teaching, or whether former candidates remain in other education positions, would help further refine the institution's education preparation goals.</p>
<p>Induction Experience</p> <ul style="list-style-type: none"> ■ Licensure status (remain on initial license, next level state license, district tenure status or National Board Certification) ■ Teacher satisfaction with preparation program (surveys, focus groups or interviews on quality of their preparation programs overall and on specific dimensions such as content, pedagogy, assessment, clinical and field experiences, classroom management, addressing diverse learning needs, teamwork, etc.) ■ Assistance the school or district provides to teachers in their first year of teaching (structured mentoring program, making consultants available, etc.) ■ Principal satisfaction with quality of the teachers 	<p>Induction Experience</p> <ul style="list-style-type: none"> ■ Leader satisfaction (as measured by surveys, focus groups or interviews) with perceived quality of their preparation programs overall and on specific dimensions ■ Assistance the school or district provides to leaders in their first year of service (structured mentoring, making consultants available, etc.) ■ Superintendent satisfaction with quality of the leader and also with quality of leaders coming from all preparation programs 	<p>Evaluating Program Strengths and Weaknesses</p> <p>Information on licensure status is one way to determine whether candidates who are teaching are appropriately progressing in early stages of their career.</p> <p>Information on the satisfaction of former candidates, tracked over time, should be directly relevant in assessing how well candidates are being prepared for the challenges they will actually face on the job.</p> <p>The information may identify particular courses or experiences that fall short, prompting further discussion, perhaps personal and in depth, with former candidates to determine what specific changes are needed.</p> <p>Information on assistance provided by the employing school or district will also identify topics on which new teachers need help and become additional sources of program evaluation data.</p> <p>Institutions will know whether their own program provides assistance to graduates in their first year of teaching (through structured programs in induction, online or otherwise) or arranges for such assistance through their employers or third parties. The areas/topics of this assistance would be useful to institutions in identifying areas of weakness in their preparation programs.</p>

Teacher Data Template: DQC, AACTE, CCSSO, NCATE

TEACHER DATA	ADMINISTRATIVE LEADER DATA	ANALYTIC PURPOSE (BY PREPARATION PROGRAM/INSTITUTION)
Performance Measures of Individual Teachers	Performance Measures of Individual Administrative Leaders	Achieving Preparation Purpose
<ul style="list-style-type: none"> ■ Measures of value added by teachers to growth in student learning ■ Re-administration of performance assessments from preparation clinical experience as indicators of growth ■ Performance evaluation results ■ Merit pay and/or other awards received ■ Observational measures of teacher's classroom performance (e.g., Framework for Teaching and Classroom Assessment Scoring System-Secondary [CLASS-S] as well as domain-specific protocols such as Mathematical Quality of Instruction [MQI] and Protocol for Language Arts Teaching Observations [PLATO]). ■ Evidence of leadership roles (e.g., National Board Certification, academic coaching, team leadership, union leadership, etc.) 	<ul style="list-style-type: none"> ■ Measures of value added by leaders to growth in student learning ■ Other school-level student performance measures such as graduation rates and college/community college matriculation (where applicable) in terms of status or growth measures ■ Measures of improved school-level working conditions with self-reporting, teacher perceptions and/or observational protocols ■ Performance evaluation results 	<p>With the current policy interest in judging teacher performance on the basis of the success of students, this category of information is critical for institutions to judge their own success in preparing teachers. Measures for administrators are less well defined at this point but will emphasize creating environments conducive to student learning.</p> <p>The addition of measures such as merit pay, observations, leadership roles performed, etc. help to supplement the student learning data but do not substitute for them.</p> <p>Institutions will be able to look across all of their former candidates hired in a district and the experiences of all former candidates program by program to determine if patterns of strengths or weaknesses are identified.</p>

Moving Forward.....Determine *Your* State's Landscape

- DQC Element 5: The Teacher/Student Data Link
 - ❖ Does my state have a teacher/student link? If so, what best practices were followed? How has the data been used and/or how do we *plan* to use it?
 - ❖ How does my state define “teacher of record”?
 - ❖ To what degree are districts involved in the implementation of the teacher/student link? What districts in my state are doing this well and how can we learn from their efforts?
 - ❖ State Examples: AR, FL, GA, LA, OH, TN

- DQC State Action 9: Build Educator Capacity to Use Data
 - ❖ ARRA requires states to implement element 5 and plan for high stakes use of the data, but how can we ensure that the state also *serves the educators* by providing *timely access* to the data and ensuring they have the capacity to use the data?
 - ❖ How is my state working with districts, regional service centers, and teacher preparation programs to ensure educators are appropriately trained in data literacy?
 - ❖ Is my state sharing data with teacher preparation programs?
 - ❖ Are we leveraging the state's credentialing and program approval authority to ensure that pre-service teachers receive adequate training in data literacy?
 - ❖ State Examples: AR, OR, NH, KS, LA

Moving Forward....Determine *Your* Role

➤ Research Agenda

- ❖ Does the SEA have a research office and/or a clearly articulated research agenda?
- ❖ What is the analytical capacity of your SEA? What do you have to offer in terms of filling gaps?
- ❖ Are your research interests aligned with the needs of the SEA?
- ❖ Have you negotiated MOUs to share data and outlined policies/processes to support this?

➤ Teacher Preparation/PD

- ❖ Determine the questions your TEP *must* be able to answer in order to inform resource allocation decisions and produce more effective teachers.
- ❖ Align pre-service program offerings with the skills necessary as outlined in the InTASC standards around data use.

➤ Common Data Standards and Privacy

- ❖ The research community has more experience and a deeper understanding of these two issues and can help states develop/implement policies.

Final Thoughts

- Colleges of Education are *best positioned* to help states, districts, schools, and educators use data for continuous improvement!
- Read state Race to the Top applications for a sense of your state's needs!
- Survey the landscape and develop programs/certificates/degrees that meet the emerging needs around data use....
 - ❖ Data coaches for schools/districts
 - ❖ District data fellows (e.g., Harvard's Strategic Data Fellows)
 - ❖ Data analysis courses/certificates for state *program* staff
 - ❖ New courses of study combining teaching, policy, data
- *Help fill these jobs.....*

21st Century Jobs in Education Require New Skills/Understanding of Data

- **TNTP's Data and Operations Manager, Denver**
 - ❖ Collecting, cleaning, organizing and analyzing raw teacher performance and student achievement data; utilizing SPSS and Excel to create and maintain data management systems for the program
 - ❖ Experience working in high-need schools
 - ❖ Developing communication materials, including talking points and presentations
- **Jacksonville's Public Ed Fund Director of Data and Policy**
 - ❖ ...report on the quality of public education in Jacksonville through data compilation, synthesis (quantitative and qualitative), evaluation...;
 - ❖ Produce policy briefs, blog posts, newsletter articles and reports to disseminate research findings;
 - ❖ With the organization president, develop and execute broad data sharing agreements with the school district and local institutions of higher education; Create and manage policies for data storage, security and destruction.
- **Ed Trust's Higher Education Research and Policy Analyst, DC**
 - ❖ Collect and analyze data for the Access to Success Initiative; Analyze national datasets to identify barriers to access and success
 - ❖ Package research and data for lay audiences for Education Trust presentations and reports

Resources

- *Teacher Identifiers and Improving Education Practice: Experiences in Colorado and the Nation*, Colorado Children's Campaign and the University of Colorado Denver, <http://dataqualitycampaign.org/resources/826>
- *Effectively Linking Teachers and Students: The Key to Improving Teacher Quality*, Data Quality Campaign, <http://www.dataqualitycampaign.org/resources/details/993>
- *Using Longitudinal Data Systems to Inform State Teacher Quality Efforts*, Partnership for Teacher Quality, <http://www.dataqualitycampaign.org/resources/details/952>
- *Leveraging State Longitudinal Data Systems to Inform Teacher Preparation and Continuous Improvement: A Data-Sharing Template To Prompt Discussion and Strategic Planning*, Data Quality Campaign, <http://dataqualitycampaign.org/resources/details/1008>
- *DQC 2009 Survey Results*, Data Quality Campaign, <http://dataqualitycampaign.org/survey/elements>
- *DQC 2010 survey* <http://www.dataqualitycampaign.org/resources/details/1027>

Contact Information

Paige Kowalski

Paige@DataQualityCampaign.org

202.262.5004

www.DataQualityCampaign.org