



# DATA QUALITY CAMPAIGN

Using Data To Improve Student Achievement

Paige Kowalski  
AYPF/DQC Field Trip  
June 23, 2009

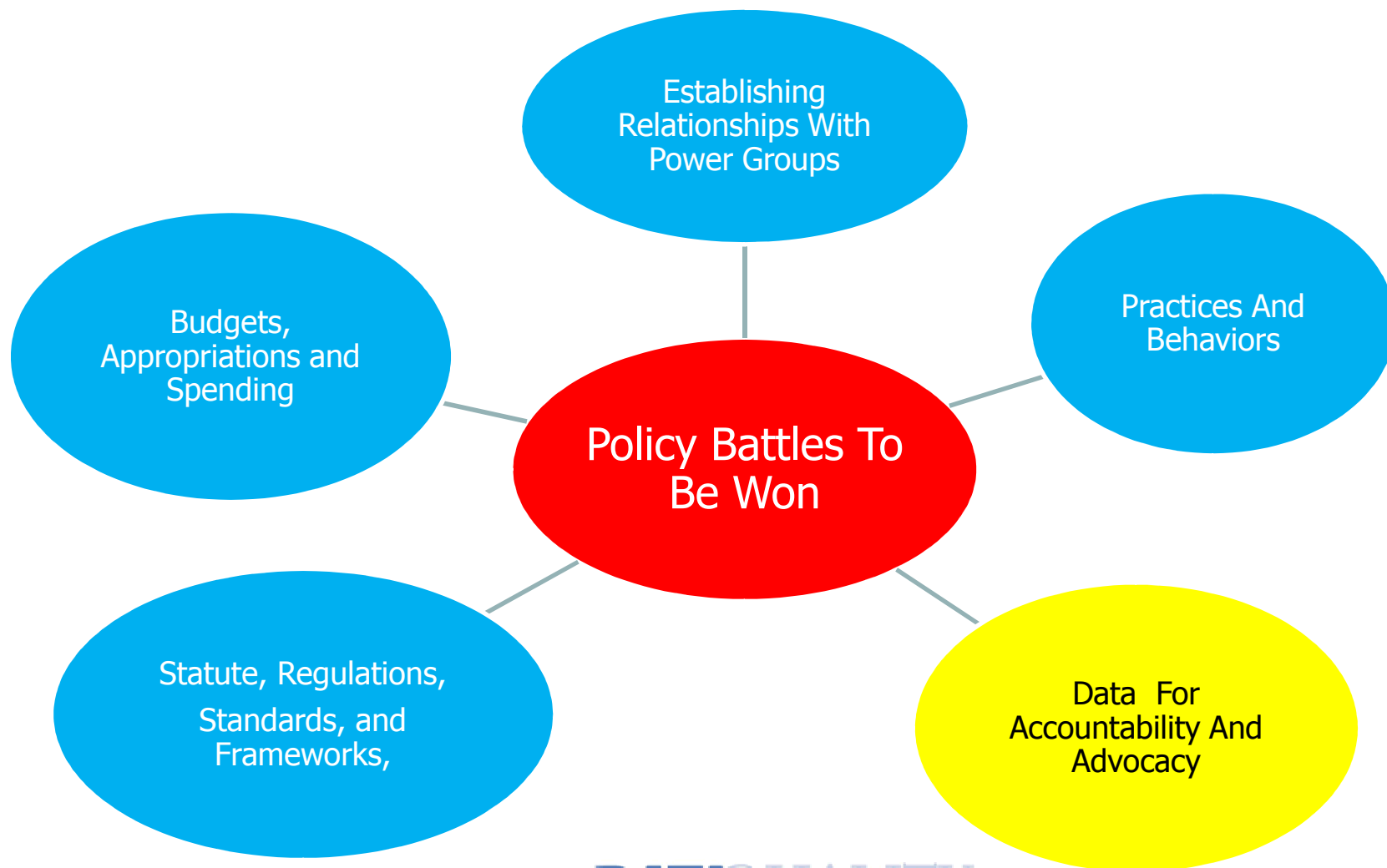
# Session Overview

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- Connecting Policy and Data
  - What are “killer” questions?
  - An example from New Mexico
- DQC: Changing the Data Conversation
  - State of the States
- Data Opportunities in ARRA
- 10 State Actions for Effective Data Use
- State Team Exercises

# Thinking About Data And Policy

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# The Notion Of Killer Questions

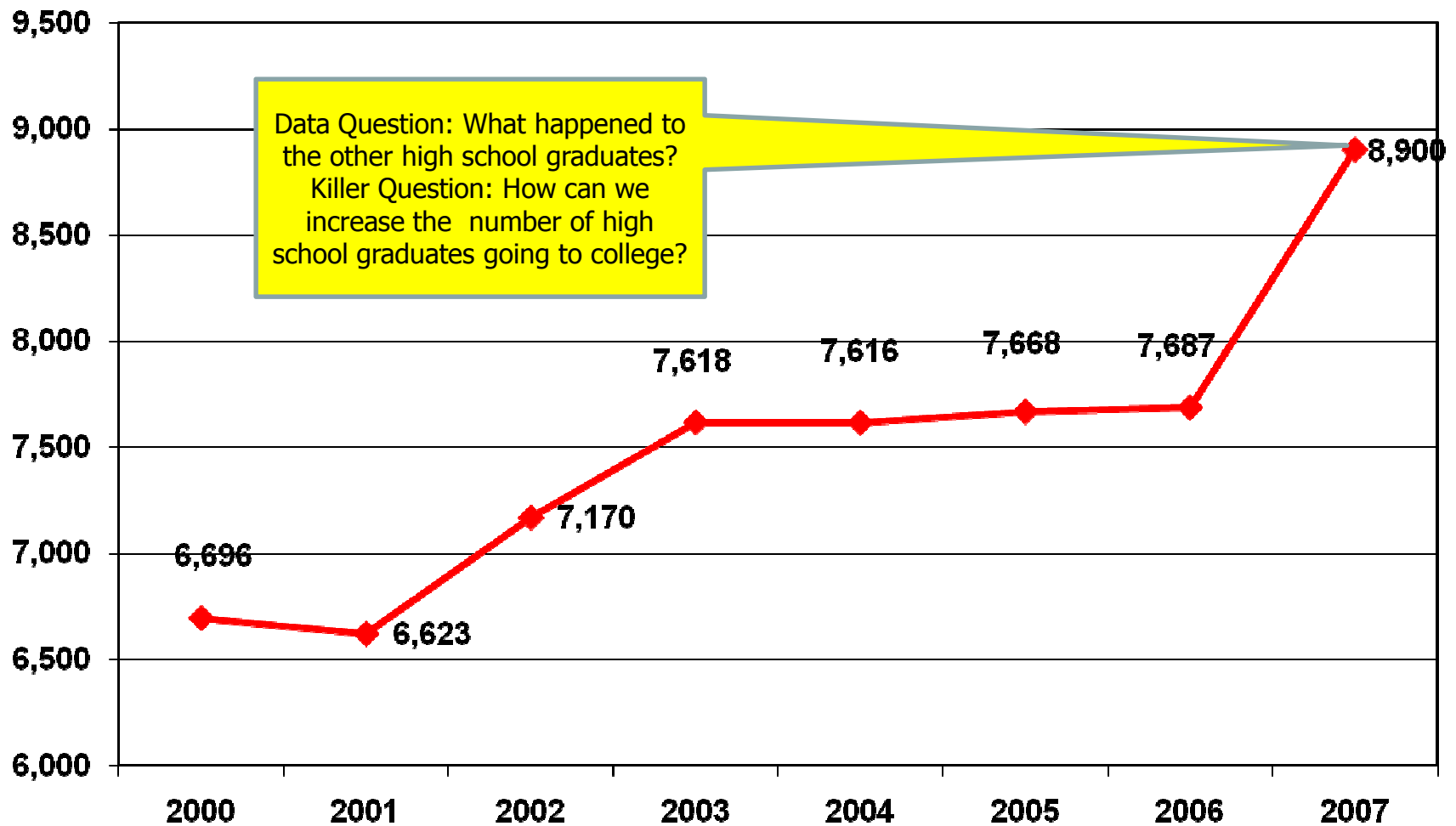
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- The term “Killer Questions” was developed by several states working with The Wallace Foundation in a effort to improve the data-informed decision-making process of principals and other school leaders.
- Killer questions refers to the key policy and political questions that come up over and over when leaders look at good data (e.g. student achievement, graduation, dropout, health and safety indicators, financial resources, workforce needs) and say, “How do I use these data to make a difference?”
- Answering killer questions requires judgment, the ability to deal with ambiguity, and the authority to allocate time, people, and money.
- Identifying and addressing the killer questions is important whether one is at the school house or the state house.
- The better one’s data system, the more one is confronted with the killer questions.

# Data Questions, Policy Questions, Political Questions

Question Type	Data Questions	Policy Questions	Political Questions
Policy Elements	Data For Advocacy and Accountability	Statute, Regulation, Standards, Frameworks, Budget	Power Groups, Practices & Behaviors
Example 1	<ul style="list-style-type: none"> <li>•What percentage of students score proficient or above on achievement tests in math or reading?</li> <li>•What are the achievement gaps among different groups of students?</li> </ul>	<ul style="list-style-type: none"> <li>•How should the certification requirements for teachers be strengthened?</li> <li>•What kinds of instructional interventions should be implemented?</li> <li>•How will these reforms and interventions be funded and where will the money come from?</li> </ul>	<ul style="list-style-type: none"> <li>•Who has the influence to change how teachers are prepared?</li> <li>•What groups control professional development?</li> <li>•Who controls where the most effective teachers and principals are placed?</li> <li>•Who evaluates the teachers?</li> <li>•Who can change how resources are allocated?</li> </ul>
Example 2	<ul style="list-style-type: none"> <li>•What percentage of ninth graders enter college four years later?</li> <li>•What percentage of high school graduates take remedial courses in college?</li> </ul>	<ul style="list-style-type: none"> <li>• What changes do we make in high school standards and teacher training to ensure that more students graduate ready to succeed in college?</li> <li>• What statutory changes should be enacted to better align the curriculum between high school and college ?</li> <li>• How will these initiatives be funded and where will the money come from?</li> </ul>	<ul style="list-style-type: none"> <li>• Who has the influence to change practices and behaviors in high school?</li> <li>• Who has the power to get colleges and high schools to talk to one another?</li> <li>• Who has the influence to get high schools and colleges to cooperate rather than compete for limited resources?</li> </ul>

## Number Of New Mexico Public High School Graduates Included In The Study: 2000 - 2007



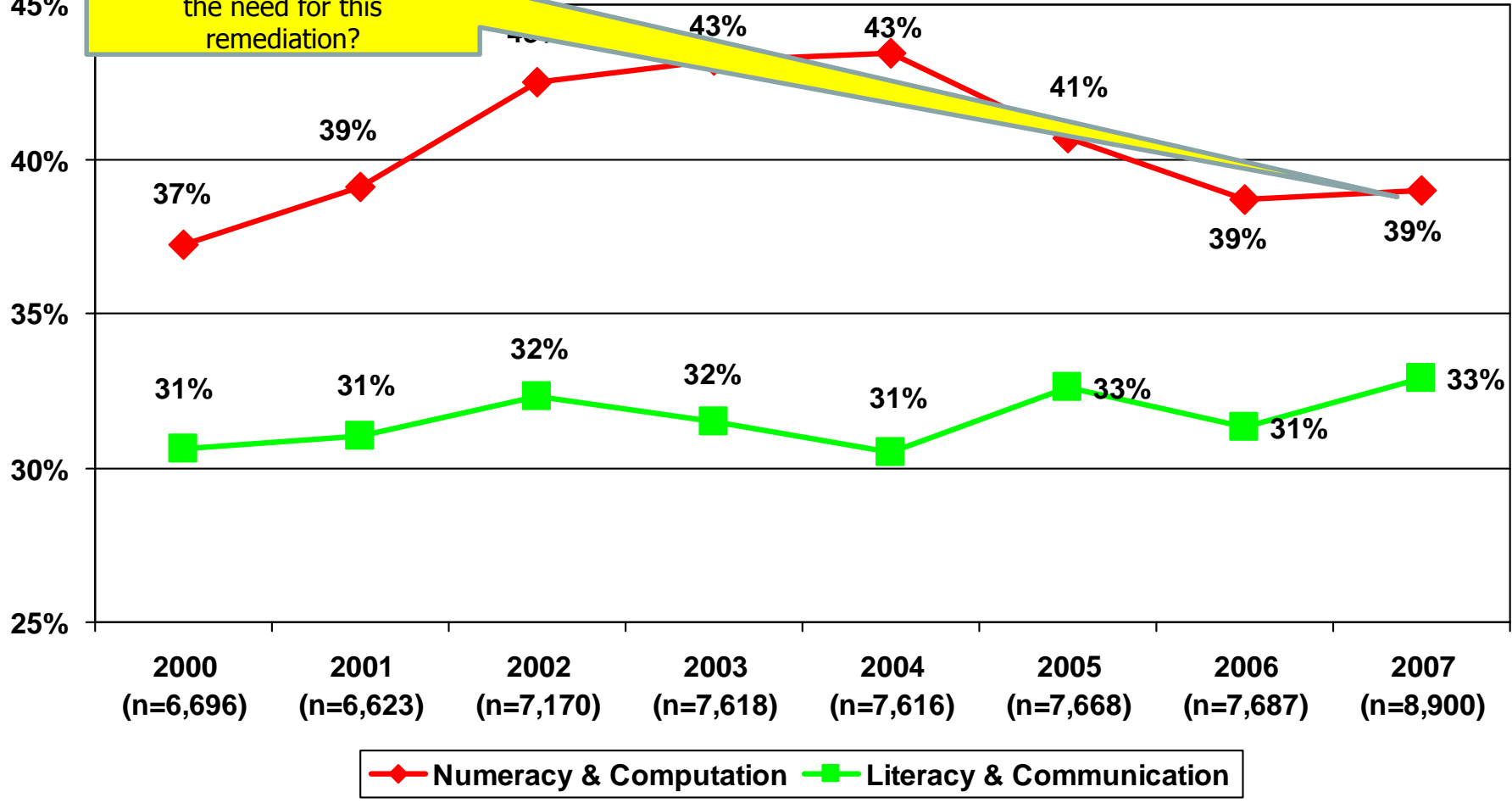
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# Percentage Of New Mexico Public High School Graduates Who Took Remedial Classes In Just Math OR In Just Reading: 2000-2007

Killer Question: What changes in curriculum and teacher training will reduce the need for this remediation?



# The Killer Questions Should Guide the Development of the Data System

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Key Policy Questions



Data Questions

Longitudinal Data Systems



# What You Can Do with Longitudinal Data

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- Longitudinal data gives you the *power* to answer questions about:
  - Student academic growth
  - Whether students are “on track” to later success
  - School effectiveness with well-prepared and poorly-prepared students
  - Student mobility and attrition
  - Teacher preparation and effectiveness

# Longitudinal Data Systems and Improvement Efforts

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## Longitudinal data systems inform good decision making at all levels

- Teachers and administrators are able to **tailor instruction** and programs to individual student needs.
- Policymakers are **better informed** with information based on student level data over time.
- Researchers can better **evaluate impact** of specific programs, approaches, and pedagogy on student achievement.

# The Ten Essential Elements

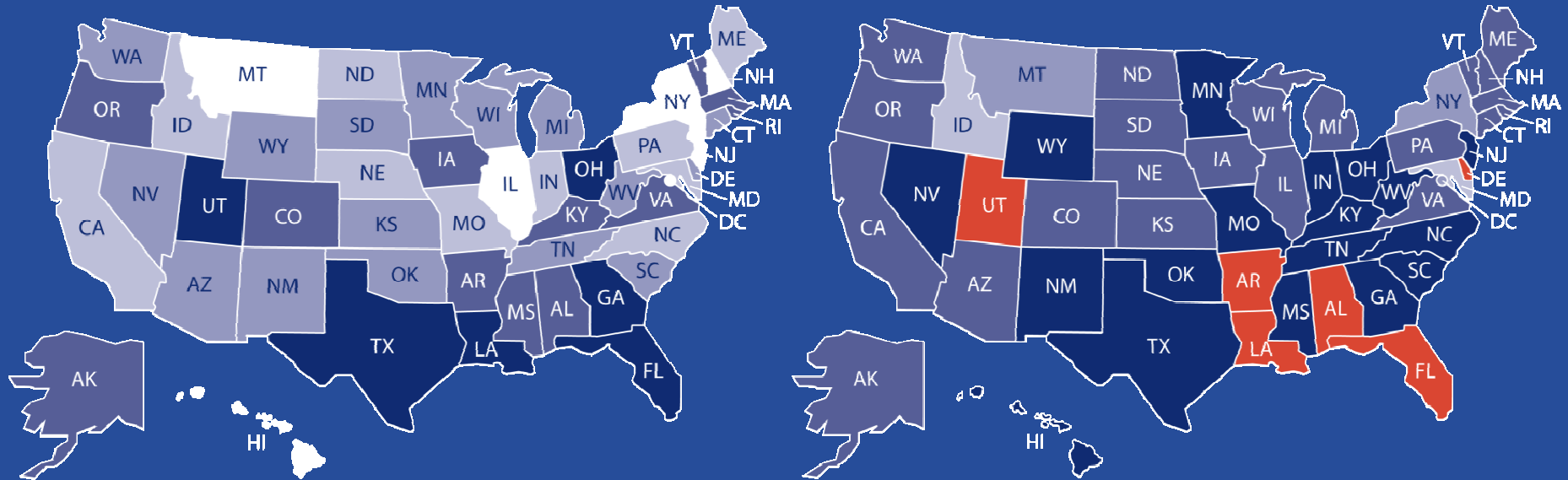
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<b>10 Essential Elements of a Longitudinal Data System</b>	<b># States</b>
1. Unique statewide student identifier	36 -- 48
2. Student-level enrollment, demographic and program participation information	38--49
3. Ability to match individual students' test records from year to year to measure growth	32--48
4. Information on untested students	25--41
5. Teacher identifier system with ability to match teachers to students	13--21
6. Student-level transcript information, including information on courses completed and grades earned	7--17
7. Student-level college readiness test scores	7--29
8. Student-level graduation and dropout data	34--50
9. Ability to match student records between the P-12 and postsecondary systems	12--28
10. State data audit system assessing data quality, validity, and reliability	19--45

# DQC Progress: 2005-2008

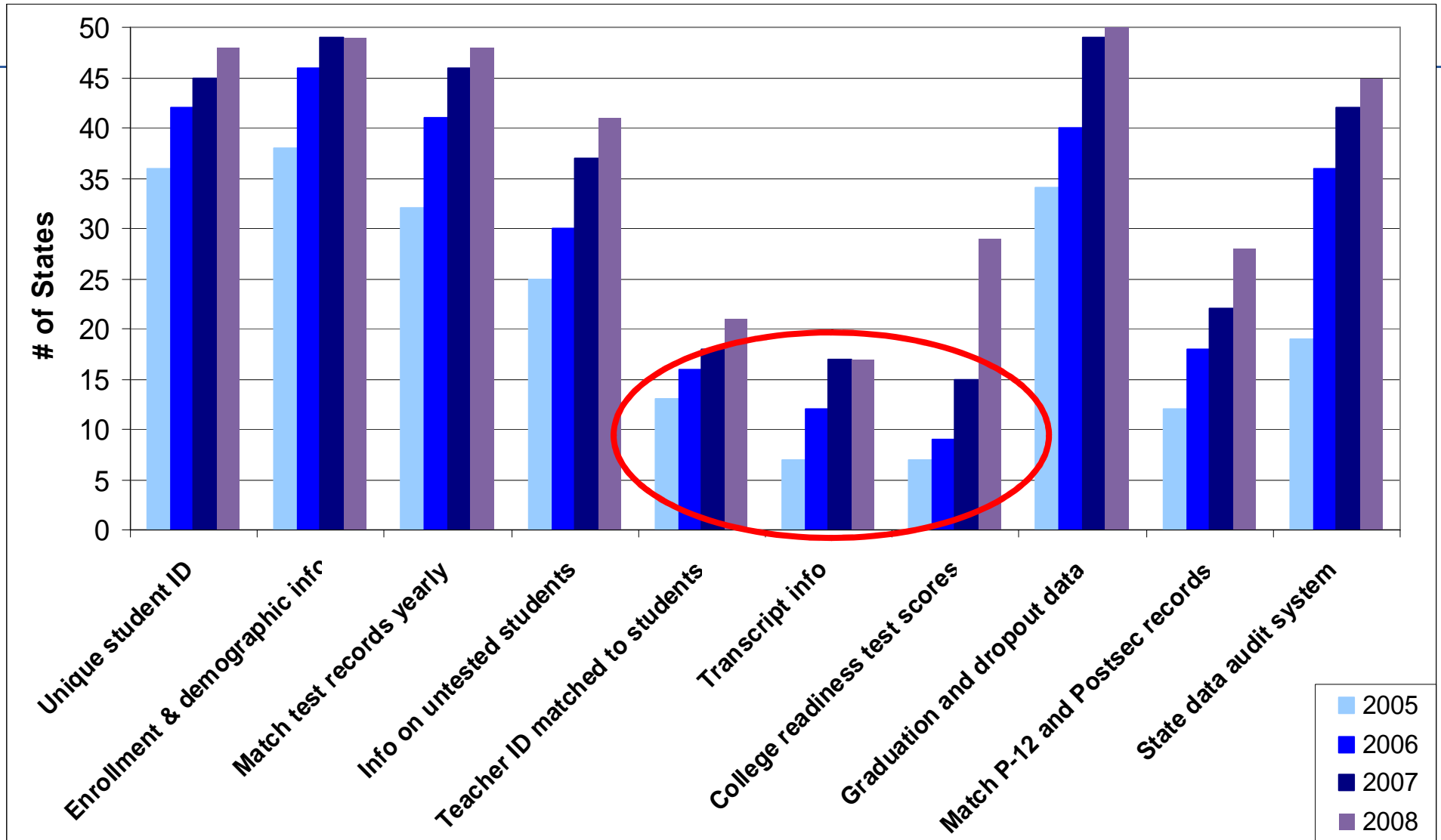
2005

2008



- 0 elements/not part of 2005 survey
- 1-3 elements
- 4-5 elements
- 6-7 elements
- 8-9 elements
- 10 elements

# DQC Progress: State of the States



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# The State of YOUR State

Elements	DC	ID	MD	NJ	VT
1. Unique statewide student identifier	X			X	X
2. Student-level enrollment, demographic, and program participation information	X		X	X	
3. Ability to match individual students' test records from year to year to measure growth				X	X
4. Information on untested students		X		X	X
5. Teacher identifier system with ability to match teachers to students					
6. Student-level transcript information, including information on courses completed and grades earned	X				
7. Student-level college readiness test scores	X	X		X	
8. Student-level graduation and dropout data	X		X	X	X
9. Ability to match student records between the P-12 and postsecondary systems				X	X
10. State data audit system assessing data quality, validity, and reliability			X	X	X

# Data Opportunities in ARRA

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## \$250 Million for State Longitudinal Data Systems

- Competitive Grant managed by Institute of Education Sciences
- Help states implement and use state longitudinal data systems (based on DQC ten elements, but also postsecondary and workforce data)
- Since 2005 50 states have applied for these grants in 3 rounds of funding; 27 states have received in first 2; 3<sup>rd</sup> round just awarded to 27 states
- RFA expected late summer 2009

# Data Opportunities in ARRA

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## \$53.6 Billion in Stabilization Funds

- \$48.6B to assist education budgets (formula)

To tap into these funds, states must meet 4 Assurances:

1. Equalize Teacher Distribution
2. Enhance Quality & Alignment of Assessments
3. Support Struggling Schools
4. **IMPROVE THE COLLECTION & USE OF LONGITUDINAL DATA**

- \$4.35B State Incentive Grants—Race to the Top

Distributed by Secretary by competitive grant to help states fully meet the assurances goals

- \$650M Local Innovation Funds – What Works Innovation Funds

Distributed by the Secretary by competitive grants to help LEAS expand their work and serve as models for best practices

# 10 State Actions To Ensure Effective Data Use

**Expand** the ability of state longitudinal data systems to link across the P–20 education pipeline and across state agencies.

- 1** Link state K–12 data systems with early learning, postsecondary education, workforce, social services and other critical state agency data systems.
- 2** Create stable, sustained support for robust state longitudinal data systems.
- 3** Develop governance structures to guide data collection, sharing and use.
- 4** Build state data repositories (e.g., data warehouses) that integrate student, staff, financial and facility data.

# Q: Why Link Data Across Sectors?

## A: To Answer Critical Policy Questions!

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- How many of our state's high school graduates need remediation in college?
- What is the college going rate for our high school graduates? College completion?
- What percentage of our college graduates continue to live and work in our state?
- To what degree do our state financial aid programs improve college access?
- How much do our high school and college graduates earn in the workforce over time? What about the drop-outs?
- How many of our high school and college students are employed while they are in school and what kind of impact does it have on their academic success?
- Which industries employ the majority of our state's high school and college graduates?
- Which of our teacher education programs produce alumni whose pupils perform at a higher level on assessments?
- To what degree does participation in early childhood programs increase kindergarten readiness? Are these gains sustained through third grade?
- 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?
- Do students who earn college credit in high school more likely to go to college? Are they more likely to graduate from college on-time?

# 10 State Actions To Ensure Effective Data Use

**Ensure** that data can be accessed, analyzed and used, and communicate data to all stakeholders to promote continuous improvement.

5

Implement systems to provide all stakeholders timely access to the information they need while protecting student privacy.

6

Create progress reports with individual student data that provide information educators, parents and students can use to improve student performance.

7

Create reports that include longitudinal statistics on school systems and groups of students to guide school-, district- and state-level improvement efforts.

# Potential Performance Report

## Student Report Potential Performance Report (PPR)

A PPR will be produced for every student in 8<sup>th</sup>-12<sup>th</sup> grade

1) School Year	2008-2009
2) District	Abbeville 60
3) School	Calhoun Falls High School
4) Grade	10
5) Student	Smith, Fred Doe
6) StateID	123456
7) SASI Perm#	435667
8) Ethnicity	W
9) Race/Ethnicity Indicator	6
10) Race	5
11) Gender	M
12) Birthdate	10/10/1995
13) 3rd Grade PACT ELA (** below basic)	Basic
14) 3rd Grade PACT Math (** below basic)	Below Basic **
15) 6th Grade PACT ELA (** below basic)	Below Basic **
16) 6th Grade PACT Math (** below basic)	Basic **
17) Credits Earned (<5 for 9th, <11 for 10th, <17 for 11th grades)	9

The report includes a student header...

...and individual records by grade and school

18) Grade	19) School Year (yy-yy)	20) District	21) School	22) Enrolled Date	23) Withdrawn Date	24) Overage (** >=2 years)	25) # of Discipline Events (** 150, 151, 152, =500-743 codes)	26) # of Disposition Events (** >=2 suspensions of SUS, SUPX, EXP)	27) Daily Absences (** >8)	28) Period Absences (Informational only)	29) Times Retained (** >=1)	30) Multiple Enrollments (** >=3)	31) Homeless (** if yes)	32) Single Parent (** if yes)	33) Displaced Homemaker (** if yes)	34) 9th Grade Math (** <=69)	35) 9th Grade English (** <=69)	36) # At Risk Indicators (** parameters met or exceeded)	37) At Risk Student Model Used
10	08-09	Abbeville School District	Calhoun Falls High School	8/20/08		2**	10**	3**	6	11	**	**	Y**	N	N			8	
	07-08	Department of Juvenile Justice	Birchwood School	3/20/08	6/2/08	2**	11**	0	18**	25	**	**	N	N	N			7	Some model code(s)
	07-08	Lexington One School District	Lexington High School	8/19/07	3/15/08	1	12**	1	15**	4		**	N	N	N			5	
9	06-07	Aiken School District	Aiken High School	2/5/07	6/4/07	0	9	1	15**	4		**	N	N	N	72	62**	5	
	06-07	Abbeville School District	Abbeville High School	8/21/06	1/20/07	-1	14	1	15**	4			N	N	N	82	72	3	
8																			
Totals						2**	56**	6**	69**	48**	1**	5**	Y**	N	N	72	62**	11	Some model code(s)
						38)	39)	40)	41)	42)	43)	44)	45)	46)	47)	48)	49)	50)	51)

# 10 State Actions To Ensure Effective Data Use

**Build** the capacity of all stakeholders to use longitudinal data for effective decisionmaking.

8

Develop a purposeful research agenda and collaborate with universities, researchers and intermediary groups to explore the data for useful information.

9

Implement policies and promote practices, including professional development and credentialing, to ensure that educators know how to access, analyze and use data appropriately.

10

Promote strategies to raise awareness of available data and ensure that all key stakeholders, including state policymakers, know how to access, analyze and use the information.

# Professional Development Roadmap

## The Oregon DATA Project

[www.oregondataproject.org](http://www.oregondataproject.org)

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- Gap analysis -- Creation of Professional Development Road Map
- Strand 1: Creating a Data Culture
  - Administrators, district leaders, teacher leaders
- Strand 2: Using Data to improve learning in districts and schools
  - Administrators, district leaders, teacher leaders
- Strand 3: Using Data to improve learning in the classroom
  - Principals, classroom teachers

# Strategic Stimulus Investments to Promote the Use of Data

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States should consider using ARRA funds to:

- Fully implement the DQC 10 Essential Elements
- Embark on the new 10 State Actions to Ensure Effective Data Use
- Work collaboratively with districts to ensure state systems are built to serve district needs
- Address data architecture issues (and work to develop common data models) to promote interoperability of data systems

# Contact Information

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Paige Kowalski  
Data Quality Campaign

[Paige@DataQualityCampaign.org](mailto:Paige@DataQualityCampaign.org)

202.262.5004

[www.DataQualityCampaign.org](http://www.DataQualityCampaign.org)