Race to the Top: Promising Approaches to Establishing Meaningful Data Systems Fostering Continuous Improvement (Goal 2)

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Introduction

Through the recently passed American Recovery and Reinvestment Act (ARRA), the U.S. Department of Education will conduct a national competition among states for a $4.35 billion “Race to the Top” incentive program designed to push states to improve education quality and results. The Race to the Top fund will help drive substantial gains in student achievement by supporting states that make dramatic progress on four reform goals outlined in the ARRA. Race to the Top grants will be awarded in two rounds — fall 2009 and spring 2010.

What are the four reform goals?

Race to the Top funds must support efforts designed to achieve four goals:

1. Making progress toward rigorous college- and career-ready standards and high-quality assessments that are valid and reliable for all students, including English language learners and students with disabilities

2. Establishing pre-K to college and career data systems that track progress and foster continuous improvement

3. Making improvements in teacher effectiveness and in the equitable distribution of qualified teachers for all students, particularly students who are most in need

4. Providing intensive support and effective interventions for the lowest-performing schools.

Some promising actions

This ECS Briefing Memo highlights promising state approaches aimed at achieving Goal 2 — and identifies the components that make them so promising. If your state has achieved strong results using different approaches, please let us know.

Utah

K-12 and postsecondary coordination required:
Many states do not explicitly require K-12 and postsecondary to collaborate on development of P-16 data systems — such efforts often rely on voluntary initiatives between agencies. However, legislation requires the state board of education and the board of regents to coordinate K-12 and postsecondary information technology systems to allow individual student academic achievement to be tracked through both education systems using the same unique student identifier.¹

Florida

Florida was first state to enact policy establishing a data warehousing spanning K-12 and postsecondary: The stated legislative intent of implementing Florida’s performance accountability system is to answer the following questions:

(1) What is the public receiving in return for funds it invests in education?

(2) How effectively is Florida’s K-20 education system educating its students?

(3) How effectively are the major delivery sectors promoting student achievement?
How are individual schools and postsecondary institutions performing their responsibility to 
educate their students as measured by how students are performing and how much they are 
learning?

Answering these questions requires K-20 data, and Florida policy includes several strong elements:

**A focus on improving data quality and timeliness:**

State policy requires the Commissioner of Education to develop strategies to improve data quality and 
timeliness. The Commissioner of Education is required to determine the standards for the required data, 
monitor data quality and measure improvements — and to report annually to the state board, the state 
university system governing board, the president of the Senate and the speaker of the House regarding 
data quality indicators and ratings for all school districts and public postsecondary educational 
institutions.

**A K-20 data warehouse to hold the data:**

All data that postsecondary institutions collect and that the Commissioner deems appropriate must be 
integrated into the K-20 data warehouse. All public educational institutions must provide data to the K-20 
data warehouse in whatever format the Commissioner specifies. School districts and public 
postsecondary institutions are required to maintain information systems that will provide the State Board 
of Education, the Board of Governors of the State University System and the Legislature with information 
and reports necessary to address the specifications of the accountability system.

**Postsecondary feedback element:**

In addition, Florida is one of 23 states with a postsecondary feedback system, which provides information 
to a high school graduate’s district and/or high school on that student’s need for remediation upon 
entering a postsecondary institution in the state. However, unlike most states with postsecondary 
feedback systems, Florida requires every district and high school, as part of its school improvement plan, 
to develop strategies to improve student readiness for postsecondary education based on annual analysis 
of the feedback report data. Arkansas has a similar requirement.

**Numerical benchmarks based on P-20 goals:**

While states are striving to improve student outcomes at the K-12 and postsecondary levels, few states 
have set P-20 goals in the form of numerical performance benchmarks based on reliable data from the 
state P-20 data system. In December 2008, the Florida State Board of Education approved Florida’s Next 
Generation PreK-20 Education Strategic Plan, which sets annual goals from FY09 through FY15 building 
upon baseline data from the 2007-08 school year, and identifies strategies (i.e., state policies and 
programs) to be applied in 2008-09 to make progress toward achieving those goals. So for example, 
while many states aim to increase the number of high school students who are college- and career-ready, 
the Strategic Plan translates this aspiration into four objectives:

- Increase number and percentage of students scoring "college-ready" in math and language arts 
on approved postsecondary readiness assessment
- Increase number and percentage of high school students graduating with industry certification or 
Ready to Work Credential
- Increase student participation and performance in accelerated options of Advanced Placement, 
International Baccalaureate, dual enrollment and Advanced International Certificate of Education
- Define College and Career Readiness

Annual progress toward attainment of these objectives is measured through several numerical goals, one 
of which is “Number and percentage of students enrolled in community college the year following high 
school graduation meeting approved postsecondary readiness standard via assessment in math; reading; 
writing; [and] in all three subjects.” The document identifies several 2008-09 strategies to leverage 
improvement in this and the other college- and career-readiness goals: these strategies include college 
and career readiness alignment; next generation high school accountability; next generation middle and 
elementary school accountability; and end-of-course exams.
California

Teacher training in data analysis and use:
While many states are in the process of developing longitudinal data systems, relatively few states have adopted policies to support teacher training in data analysis and use. Legislation allows K-12 teachers participating in the Mathematics and Reading Professional Development Program the option of fulfilling up to 40 of the latter 80 hours of required follow-up training in such areas as:

- Data analysis
- Alignment of assessment and instruction
- Implication of data analysis and its effect on increasing student achievement
- Impact on pupil success through diagnostic teaching
- Statewide and local data management systems.

If a district chooses to offer the option of professional development in any such areas, it must contract with a state-approved training provider whose training curriculum meets state board criteria. The legislation authorizes the state superintendent to appoint an advisory committee to ensure the quality and effectiveness of the training provided on these areas. Any such advisory committee must be composed of professionals with expertise in data analysis, the implications regarding management of universal access, providing student instruction while teaching the academic content standards and English language development standards, and experience in using data analysis to increase student academic achievement.8

Oregon

Teacher training in data analysis and use:
An Oregon initiative is helping train teachers to use data to improve student outcomes. The Oregon DATA (Direct Access to Achievement) Project is a statewide effort “to improve student achievement by collecting, analyzing and using longitudinal data to inform individual instruction.” Teachers who complete training will be able to use classroom-level formative data to tailor instruction to individual students’ needs. Launched in July 2007 with a $4.7 million grant from the U.S. Department of Education’s Institute of Education Sciences, the three-year project had trained over 1,000 educators from roughly 110 districts as of March 2009.9

Colorado

Inclusion of the “P” in the P-16 data system:
Complete P-16 or P-20 data systems require the “P” to be included. While many states claim they are developing “P-16 data systems,” it is not always clear that these systems actually include students in early childhood education programs. Colorado legislation enacted in 2008 requires the commissioner of education, in cooperation with the executive director of the department of human services, to convene a working group by September 2008 to review the issues related to assigning a unique student identifier to children receiving state- or federally subsidized early childhood education services, including services provided through the child care development block grant and Head Start. The working group must adopt protocols by which the department of education, the department of human services, districts, charter schools, early childhood councils, and early childhood care and education councils will cooperate in assigning unique student identifiers. The working group also must consider methods to encourage and facilitate the assignment of unique student identifiers to students who are receiving early childhood education services that are not subsidized by state or federal funding. Legislation required the commissioner to report to the head of the office of information technology the findings and protocols adopted by the working group by February 2009.10

Maryland

Fostering continuous improvement. Data alone is not enough. It is a tool.
Maryland’s “Bridge to Excellence in Public Schools Act,” enacted in 2002, fosters continuous improvement through its choice of policy elements. The Act directed every county board to develop and implement a comprehensive master plan, submitted to the state for review and approval by October 2003 and an updated plan in 2008 and 2009. Each master plan has to describe the goals, objectives and strategies that will be used to improve student achievement and meet state performance standards and
local performance standards in each segment of the student population. Beginning in 2011, updated plans must be submitted annually. Each plan and update must include:

- Goals aligned with state and local performance standards
- Implementation strategies for achieving goals and objectives
- Methods for measuring progress toward meeting goals and objectives
- Time lines for implementation of the strategies for meeting goals and objectives
- Time lines for meeting goals and objectives
- A description of the alignment of the county board's budget with goals, objectives, and strategies for improving student achievement
- The impact of the proposed goals, objectives, and implementation strategies on public school facilities and capital improvements that may be needed to implement the plan or update
- The strategies that will be used to ensure that full-day kindergarten programs are provided to all kindergarten students by the 2007-08 school year.\(^{11}\)
- The strategies that will be used to ensure that publicly funded pre-kindergarten programs are available to all eligible children by the 2007-2008 school year.\(^{12}\)

Each plan or update must include goals, objectives and strategies for the performance of specified subgroups, including English language learners, students with disabilities, pre-kindergarten and kindergarten students, gifted and talented students, and career/technical education students. Each plan or update must also include goals, objectives and strategies for the performance of students failing to meet — or to make progress toward — state performance standards. This includes any segment of the student population that is, on average, performing at a lower achievement level than the student population as a whole — as well as strategies to address any disparities in achievement identified for any segment of the student population.

If the state superintendent determines that a plan or update will not have the effect of improving student achievement and increasing progress toward meeting state performance standards, he/she may require specific revisions. Or, if a school system fails to demonstrate progress toward improving student achievement in each segment of the student population during a school year, the state superintendent must review the system’s plan and may require specific changes to the plan or update. In addition, the state superintendent must advise the governor and the general assembly regarding the distribution of state funds to a county that fails to meet state performance standards in each segment of the student population.\(^{13}\)

The Bridge to Excellence in Public Schools Act also requires the department of education to evaluate the effect of increased state aid for education on student and school performance in each local school system. This evaluation must include an assessment of the extent to which county boards are successful in implementing the comprehensive master plans.\(^{14}\)

An external evaluation by MGT in 2008 determined that a vast majority of schools are implementing best practices such as team strategic planning, data analysis, professional learning communities, targeted professional development, aligned and effectively delivered curricula, a student-centered approach to teaching and learning, inclusion and co-teaching with support for English language learners and students with disabilities, a supportive school environment and effective leadership. The evaluation also identified a "statistically significant cumulative effect" on student achievement with five practices:

1. "Grade/subject area team meetings for planning"
2. Use of student-level data for planning instruction
3. Discussing instructional practices in team meetings
4. Reading and math teacher specialists
5. Targeted, embedded professional development."\(^{15}\)

**Additional resources**

ECS state policy collections and analysis can guide you as your state moves forward to address the effectiveness and equitable distribution of teachers. The following resources may be of particular help:
Recent State Policies/Activities: No Child Left Behind – Storing/Using Data:
http://www.ecs.org/ecs/ecscat.nsf/WebTopicView?OpenView&count=-1&RestrictToCategory=No+Child+Left+Behind--Storing+Using+Data

Postsecondary Feedback Systems database:

P-16/P-20 Councils: List of Issues/Initiatives Council Is Addressing data point:

P-16/P-20 Councils: Policy Changes Brought About by P-16/P-20 Coordinating Body data point:

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**Equipping Education Leaders, Advancing Ideas**

1. **UTAH CODE ANN. § 53A-1-603.5**
2. **FLA. STAT. ANN. § 1008.31(1)(a)**
3. **FLA. STAT. ANN. § 1008.31(3)**
4. **FLA. STAT. ANN. § 1008.31(3)**
5. **FLA. STAT. ANN. § 1008.37**
6. **ARK. CODE ANN. § 6-15-2401**
8. **CAL. EDUC. CODE § 99237.6**
10. **COLO. REV. STAT. § 22-2-134 and 26-6-121**
11. **MD. CODE ANN., EDUC. § 7-101(e)**
12. **MD. CODE ANN., EDUC. § 7-101.1(d)**
13. **MD. CODE ANN., EDUC. § 5-401**
14. **MD. CODE ANN., EDUC. § 5-402**