# Data-based Decision-making: Three State-level Educational Leadership Initiatives

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The accountability required by school-reform measures such as No Child Left Behind has placed increased emphasis on data analysis for appraising schools, administrators, teachers, and students. The focus of accountability-driven initiatives is developing policies and procedures that collectively influence the district, the school, and most important, the classroom (e.g., O'Day and Smith 1993; Shen and Ma 2006; Smith and O'Day 1990).

The Wallace Foundation has awarded grants focused on enhancing educational leadership in data-based decision-making. The foundation's State Action for Education Leadership Project II (SAELP II) awarded grants to state departments of education in Ohio, New Mexico, and Michigan to develop school leaders' data-based decision-making. This article describes the progress and potential of those initiatives.

## The Ohio SAELP II Initiative: Training School-leadership Teams

Ohio's SAELP II initiative trains school-leadership teams to access, interpret, and apply value-added information obtained from the statewide accountability system. The Columbus Public Schools (CPS), the Columbus Education Association, Ohio State University (OSU), and Battelle for Kids contributed to developing the program's "train the trainers" model for elementary and middle school "All-School Improvement Teams" (ASIT). Two Regional Value-Added Specialists (RVAS) taught each leadership team—a principal, a building union representative, two other classroom teachers, and a parent—how to use value-added information

in redesigning preparation and professional-development programs. OSU's graduate-level classes for members of the CPS leadership teams allowed participants to choose from various training modes to address different learning styles and scheduling needs. Options included workshops, self-paced data e-school modules, and graduate-level OSU course work featuring face-to-face and online instruction.

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The training developed data-based decision-making skills by teaching team members how to:

- use value-added information, along with other forms of data analysis, to improve student achievement with informed decisions;
- report student information by quintiles and different demographic groups;
- use value-added reporting to monitor year-to-year student progress, regardless of achievement level;
- focus professional-development efforts on areas of greatest need;
- create an ASIT network for sharing information and practices related to value-added reporting; and
- identify best practices for raising student achievement to replicate in other classrooms and schools.

CPS piloted the training model and obtained feedback from school personnel to ensure that the final training model met school-site needs. Despite several challenges that inhibited progress—mobility of CPS staff, scheduling difficulties, and lack of value-added data for CPS high schools—all CPS elementary and middle school teams received a full day of training in using value-added information, including opportunities to experiment with manipulating data. In addition, a core group of elementary teachers, including team members, took the OSU course on data analysis and value-added information to deepen understanding of the data. Trained school leaders have used the value-added growth model to analyze the educational needs of students who are not showing a year or more of growth. The analysis indicates that CPS students are having the greatest difficulty with assessments that include high-level, multi-part items and items requiring extended or short responses. Benchmarking measures that validate student progress have helped build and maintain teacher morale.

CPS educators should thus be better equipped to interpret and use value-added information when the value-added progress measure is added to the Ohio Accountability System in 2007–2008. In preparation for that change, Battelle for Kids (www.battelleforkids.org) and the Ohio Department of Education (www.ode.state.oh.us) are sponsoring a comprehensive skills-development program for a cadre of educators representing Ohio's twelve school-improvement regions. Battelle for Kids is offering a toolkit of interactive and print materials to complement the program. Beginning in 2005–2006, eighty Regional Value-Added Specialists made a two-year commitment to learn more about the uses and benefits of value-added analysis and to provide training for other educators.

In addition, Ohio is developing a new data-exchange system, D3A2 (www.d3a2.org), to support decision-making at the state, district, school, and classroom levels. A collaborative effort of data users and providers, the system is designed to provide timely and accurate data to all users— from the classroom teacher customizing instruction based on data to the researcher conducting longitudinal analysis of student academic growth.

## The New Mexico SAELP II Initiative: Accountability Literacy

New Mexico faces particular challenges among students from culturally or economically diverse backgrounds. New Mexico ranks near the bottom on national measures of reading and math achievement (e.g., NAEP) as well as in poverty and student well-being. To address the challenges, in 2003 the state approved the Public School Reforms Act, which calls for key elements of systemic reform:

• challenging curricula;
• a three-tiered, performance-based teacher-licensure system;
• a more responsive governance structure;
• stronger accountability and assessment systems; and
• an aligned system of support for students, families, and schools.

New Mexico's SAELP II initiative focuses on ensuring that administrators and other educational leaders receive the resources necessary to use accountability data effectively. The New Mexico Department of Finance and Administration's Office of Education Accountability (OEA) are leading the SAELP II initiative. OEA has established a partnership with the Public Education Department, the Children's Cabinet (state agencies that deal with children and youth), the New Mexico Coalition of School Administrators, and six demonstration school districts.

During the first year of the grant, the partnership sought to answer three key questions:

1. What kinds of accountability data do principals, superintendents, and other educational leaders need?
2. What constraints do principals, superintendents, and other educational leaders encounter in obtaining and using accountability data effectively?
3. How can the SAELP II project help remove those constraints?

The answers to those questions were not surprising. First, principals, superintendents, and other leaders need data on student achievement and teacher effectiveness, as well as data that could show trends and could be used to improve instruction. Second, educational leaders face problems such as getting data on time and agreeing what data are needed. Third, educational leaders want the SAELP II initiative to ensure that

• data are gathered and disseminated effectively and used for appropriate and constructive purposes;
• leaders have the time, resources, and authority to make decisions based on the data;
• training and data-mining tools are developed; and
• improvements are made in how leaders are prepared in the university and supported through meaningful professional development.

The answers to the three key questions can be organized into New Mexico's Hierarchy of Educational Leaders' Data Needs (adapted from Maslow), as shown in the illustration.

The answers to the three key questions also contributed to the idea of "accountability literacy." The term refers to an educational leader's ability to understand the strengths and weaknesses of accountability data; to use that data to negotiate support for education in political, professional,

and community settings; and to improve students' lives by using data to argue effectively on their behalf. Information gathered through the SAELP II initiative reveals that many educational leaders in New Mexico have difficulty even obtaining access to important data, while others have struggled to develop accountability literacy on their own.

To address those problems, SAELP II has taken the following steps:

- developing data tools, including pivot tables and a data-based decision-making Web site, to help principals and superintendents analyze student achievement based on New Mexico's standards and benchmarks;
- creating a principal support network that provides professional development in accountability literacy to a cohort of principals from eight school districts;
- helping principals and superintendents effectively use New Mexico's new Student Teacher Accountability Reporting System (STARS) to improve student achievement;
- working with New Mexico's universities to improve recruitment, preparation, appraisal, and professional development for principals; and
- creating the New Mexico Children's Budget to track the funding allocated to youth-serving programs across all facets of state government.

**Leaders Support
Student Success**

**Leaders Need to Turn
Data into Action**

**Leaders Need Data Tools
and Training**

**Leaders Need Social Support,
Organizational Support, and Authority**

**Leaders Need Accurate Information
Used for Positive Purposes**

**Leaders Need Basic Data Gathered
in a Timely and Efficient Manner**

More detail about each of those activities and other efforts associated with New Mexico's SAELP II initiative can be found at <www.nmsaelp2.org>.

## The Michigan SAELP II Initiative: A Coalition Approach

Michigan's SAELP II initiative formed the Michigan Coalition of Educational Leadership, which seeks to improve educational leaders' data-based decision-making skills at several levels. The coalition includes the governor's office, the Michigan Department of Education, the major professional organizations, and three universities that prepare more than 50 percent of Michigan's educational administrators. The coalition has focused on four major tasks:

- developing demonstration sites for data-based decision-making;
- connecting the effective use of data with the Michigan Framework for School Improvement;
- infusing data-based decision-making into the professional development and endorsement of professional associations; and
- strengthening data-based decision-making instruction in educational-leadership programs at three universities.

Sixteen principals from four urban school districts with large populations of disadvantaged students participated in developing demonstration sites for data-based decision-making. The initial activity was a context analysis based on interviews with the principals. The principals responded to questions about their comfort in using data, barriers they had encountered in using data, and decisions they had made based on data. The interviews revealed that the principals struggled with time constraints, felt overwhelmed by the massive amounts of data, and lacked knowledge about ways to use data streams from multiple data sources to improve student achievement.

The principals then participated in two three-day retreats and five workshops. During the activities, the principals received the following types of training:

- an overview of balanced leadership (Marzano, Waters, and McNulty 2005) and "what works in schools" (Marzano 2003);
- professional development on data-analysis strategies for input, process, and output data;
- information on strategies for linking data to curriculum, instruction, and student achievement; and
- instruction on development of high-impact strategies to support the new Michigan Framework for School Improvement.

As part of a systematic data-mining process, the SAELP II initiative connected the Michigan Educational Assessment Program (MEAP), district-administered norm- and criterion-referenced tests, Standard and Poor's data, and other data sources. The principals began to understand the meaning behind data streams and data monitoring, the importance of benchmarking, and using multiple data sources to connect data with high-impact strategies in curriculum and instruction. In a working session, the principals met with their school-improvement teams to explore the uses of data for decision-making.

The SAELP II initiative is now applying lessons learned from the demonstration sites to implement projects involving the Michigan Framework for School Improvement, voluntary certification of administrative leaders, professional development and endorsement, and university-based educational leadership programs. The new Michigan Framework for School Improvement comprises five strands: teaching and learning, instructional leadership, personal and professional leadership, school and community relations, and data and information management. Each strand includes a data component. The SAELP II initiative complements statewide introduction of the Michigan School Improvement Framework by emphasizing the use of data to identify a school's strengths and weaknesses and to develop high-impact strategies for promoting student achievement.

In collaboration with the Michigan Department of Education, the SAELP II initiative is creating data-based decision-making modules for voluntary certification. In the early 1990s the Michigan legislature abolished administrative certification. Anticipating the passage of a new voluntary-certification bill, the Department of Professional Preparation Services has assembled a committee to help develop standards for certification and endorsement. Data-based decision-making will be an integral component of voluntary certification.

Recently the Michigan Department of Education and major professional associations received a grant to develop a professional-development program for principals for administrative endorsement. The Michigan Leadership Improvement Framework Endorsement (MI-LIFE) project is developing a leadership-training curriculum based on the new Michigan School Improvement Framework. The MI-LIFE endorsement program will include strong components on data-based decision-making. Marion Ginopolis, the director of the MI-LIFE project, asserts: "The integration of data analysis that the Wallace Foundation Grant Project [SAELP II] adds to each of the courses of the MI-LIFE leadership curriculum will elevate the MI-LIFE program from best practice to exemplary leadership." Because the legislature is passing a bill that allows professional associations to provide endorsements to school administrators, a data-based

decision-making component also is being developed for major professional organizations' endorsement programs.

Finally, SAELP II is enabling professors from Central Michigan University, Eastern Michigan University, and Western Michigan University to develop modules on data-based decision-making for their respective educational-leadership programs. Such programs, complementing the work of other SAELP II projects, will help achieve the goal of equipping all educational administrators in Michigan with effective data-based decision-making skills.

## Coda

The SAELP II initiatives in Ohio, New Mexico, and Michigan engage all major state stakeholders in systematically improving student achievement through data-based decision-making. The three states' approaches provide a reservoir of information on promoting data-based decision-making. Data-driven leadership is not a fad: it will continue to influence decisions made by teachers, principals, boards of education, and other educational leaders. The lessons learned from the SAELP II initiatives of those three states are likely to affect many states, districts, and classrooms in the near future.

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