

*A laser focus on data enables the state to identify common threads among schools making rapid gains.*

---

**by Erica Champagne  
and Susan Bowles Therriault**

# Leveraging Research to Improve Massachusetts's Schools

Consider two studies on school turnaround. In 2017, a national study from the U.S. Department of Education showed no significant effect on students' academic outcomes from the substantial federal investment in School Improvement Grant (SIG) funding.<sup>1</sup> The second study, from 2016, shows that students at all grade levels significantly improved their performance in reading/English language arts (ELA) and mathematics for all three years that their low-performing schools in Massachusetts received SIG funding when compared with students in similar schools that did not receive this funding.<sup>2</sup>

After the three years of federal funding, the achievement gains in both ELA and math at these Massachusetts schools equaled an additional year of schooling (figure 1). Furthermore, researchers LiCalsi and colleagues found that the schools that received SIG funding significantly reduced the achievement gap between English learners and non-English learners when compared with similar schools.

State boards of education might well ask what led to these significant improvements in student and school outcomes in Massachusetts and why the national study failed to find similar effects. While further research must be conducted to establish whether there are any causal relationships between the funding and student outcomes, it is still worth taking a look at the Massachusetts policies and strategies that created the conditions in which these positive results were achieved.

At the heart of the state's efforts has been a focus on using research to improve practice at the school, district, and state levels. The Massachusetts Department of Elementary and Secondary Education (ESE) and the Massachusetts Board of Elementary and Secondary Education are deeply committed to ensuring that

every student in the state has access to a high-quality education, and they have combined this commitment with an openness to innovation (box 1).

After just one year of SIG implementation in the state's turnaround schools, Education Commissioner Mitchell Chester in 2011 asked his team to document what was working in the state's lowest performing schools that had engaged in redesign efforts. While hard to answer with early quantitative data, this simple request set the stage for qualitative annual monitoring of the effectiveness of turnaround strategies. After four years of this monitoring, researchers identified consistent trends in schools that were making rapid gains in student achievement.<sup>3</sup> In 2014, they distilled their findings into a set of turnaround best practices (box 2).

Supported by this research, ESE began to align its assistance efforts with these turnaround practices. The department took four key steps:

- It revised the required turnaround planning template to allow schools and districts to choose evidence-based strategies that fit their contexts, so long as they were aligned with the framework of practices.
- It aligned its application and scoring rubric for competitive federal SIG funding with the revised turnaround plan and the research results from successful schools and in so doing raised the bar for all SIG-funded schools, which could no longer focus on only one or two strategies of varying quality.
- It changed its process for monitoring progress, adding a turnaround practices and indicators rubric to assess implementation of each of the best practices at its turnaround schools.<sup>4</sup> This rubric

gives schools better formative data with which to continuously improve.

- It focused its direct assistance toward supporting better implementation of the turnaround practices in the field, aligned with the needs identified through the monitoring process. Disseminating information about its discoveries of strategies and actions that are working in its turnaround schools is a key component of these efforts. It develops field guides, videos, and self-assessment tools that are aligned to the turnaround practices.

## Coupling Monitoring and Research

A monitoring function is often embedded in federal and state legislation around school improvement. ESE, like other state education agencies (SEAs), collects a warehouse of data that can be used to aid its understanding of the improvement process, identify schools and districts that share particular challenges, and discover areas of need.

How SEAs design this monitoring function varies from state to state. Some maintain it internally; others contract out. Regardless, SEAs typically tailor their monitoring to the specific needs of individual low-performing schools—for example, assessing how well a school is implementing a school-specific curriculum. But such an approach inhibits collection of consistent data that allows for comparison over time

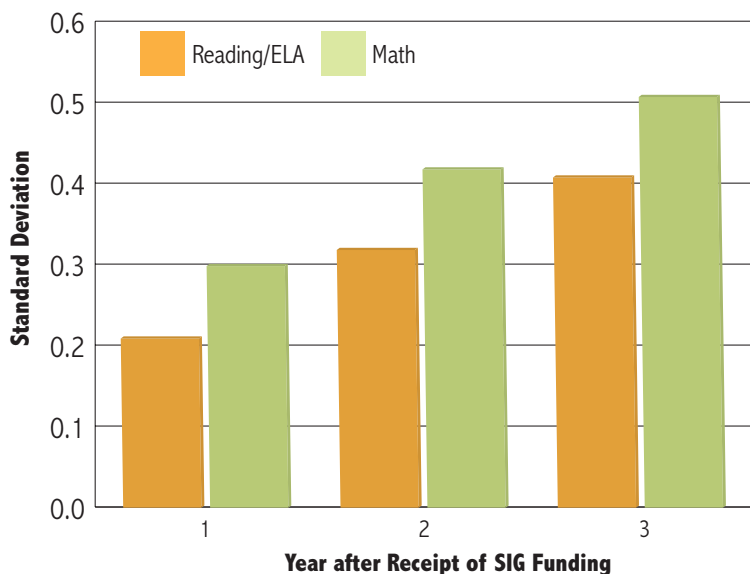
and across schools.<sup>5</sup> This lack of consistency in turn makes it difficult for SEAs to learn from their monitoring what is working across all schools in the state and curtails the possibility of replication of a successful school strategy at other schools with similar challenges.

With its partner, the American Institutes for Research, ESE has developed a different approach in which research drives monitoring. The practices and indicators rubric mentioned above is the centerpiece of these efforts.<sup>6</sup> The rubric frames and focuses Massachusetts's improvement and support efforts on those activities that research has shown are most essential, yet it is flexible enough to cover the range of configurations and options available to Massachusetts's schools. Rather than being a list of prescriptive, detailed requirements, the rubric teases out conditions at schools and looks for evidence that best practices are in place.

The rubric is designed to provide maximal information with minimal data collection burden on schools. Data include instructional observations; a 10-minute, online staff survey; and interviews and focus groups with key district and school stakeholders. These data are collected and analyzed using methodologies that ensure findings' reliability and validity. Each school receives a report within a month of the monitoring visit, and the school and its district are expected to integrate the findings into their annual school turnaround plan.

**Because the data are consistently collected annually and across schools, the ratings on the rubric can be compared over time and across districts and across the state.**

**Figure 1. Scores on Massachusetts's State Assessment at Schools Receiving SIG Funding (Effect Sizes in Years 1-3)**



---

**The trove of data can be mined—for example, to compare and contrast strategies in place to turn around low-performing high schools.**

Because the data are consistently collected annually and across schools, the ratings on the rubric, along with results from schoolwide instructional observations, can be compared over time and across districts (that have more than one low-performing school) and across the state. This analysis lets districts and the state identify common areas of struggle within low-performing schools and consider targeted strategies or supports to address them. When solutions are not immediately apparent, ESE can draw on its monitoring data to identify outlier schools that are not struggling in the problem area and focus research on strategies that the outliers are applying. ESE can then offer practitioners and school leaders detailed information about how similar schools have addressed the issues they face.

State boards of education can leverage this opportunity by encouraging their SEA to report information about trends in the needs of struggling schools and by supporting broader statewide efforts to focus resources on targeting these needs. They can also be a voice for continuity, urging consistent measurement of school systems over time.

A research-driven monitoring approach allows ESE to ask and answer questions of policy and practice.<sup>7</sup> The trove of data can be mined—for example, to compare and contrast strategies in place to turn around low-performing high schools.<sup>8</sup> Such research must do the following: 1) answer pertinent, practical questions of policy or practice; 2) inform continuous improvement at the state level; 3) provide feedback and information to schools and districts; 4) highlight innovations and solutions that practitioners in high-need areas can use.

## Prescription versus Flexibility

There are challenges. ESE wrestles in particular with the tension between being prescriptive versus being focused on specific student needs. For example, some states limit schools' options to a particular program or strategy, such as a given reading curriculum or other intervention that may match neither the underlying needs of students nor the capacity of the district or school. This level of prescription removes decision making from the leaders and teachers who are closest to the students.

ESE is committed to allowing for the innovation and flexibility necessary to realize improvements in student outcomes. And it gives districts and schools the flexibility to adapt strategies based on data-informed decisions, thus sending a clear message to them about the importance of engaging in a continuous improvement process. In turn, ESE models continuous improvement through its system of support and by continuously soliciting feedback from schools and districts on how it can improve.

State boards can support state agencies in these efforts by ensuring there is room for innovation and adaptation. This support entails a commitment to providing cover for this type of flexibility as well as holding the SEA accountable for monitoring and adapting to the needs of schools.

Finally, the tension between monitoring and supporting improvement is significant. It is difficult to do both well, as school and district stakeholders have difficulty distinguishing between the roles the state is playing. ESE has circumvented this challenge by outsourcing monitoring to its research partner while ESE staff handle support for districts and schools.

This separation in who handles the functions does not mean that monitoring does not

### Box 1. Conditions That Supported Results in Massachusetts

- State law was supported by the School Improvement Grant.
- State education agency's turnaround office focused on building district capacity.
- The agency's research agenda was tied to consistent, long-term monitoring of turnaround schools.
- Education leaders committed to using innovations to increase autonomy for school leaders, alternative school management options in Lawrence, and alternative governance structures in the Springfield Empowerment Zone (SEZP), as well as SEA receivership for both districts and schools.

## Box 2. Turnaround Practices

**1 Leadership, Shared Responsibility, and Professional Collaboration**  
The school has established a community of practice through leadership, shared responsibility, and professional collaboration.

**2 Intentional Practices for Improving Instruction**  
The school employs intentional practices for improving teacher-specific and student-responsive instruction.

**3 Student-Specific Instruction and Supports to All Students**  
The school is able to provide student-specific supports and interventions informed by data and the identification of student-specific needs.

**4 School Climate and Culture**  
The school has established a climate and culture that provides a safe, orderly, and respectful environment for students and a collegial, collaborative, and professional culture among teachers that supports the school's focus on increasing student achievement.

inform direct assistance, however. ESE takes this research partnership one step further: All staff are expected to use relevant research and resources to inform practice. Thus the data from the monitoring of low-performing schools, as well as branches of commissioned research focused on collectively identified problems of practice, drive decisions about how to provide support. State boards of education can support these efforts by encouraging the use of research to provide evidence for continuing, adjusting, or deviating from practices and asking for information about current evidence or plans for establishing evidence for endeavors that SEAs use.

ESE cannot wait for academia to conduct and publish research to meet the particular needs of its struggling schools. Rather, ESE and AIR themselves are amassing the evidence to determine the practices that can help Massachusetts's schools. Ultimately, ESE is using research and research partners to strengthen the quality and impact of supports for its lowest performing schools and districts—really digging into what works and what does not work. It is through these efforts, in partnership with a state board that is committed

to using research to drive decision making, that ESE hopes to build an evidence base for strategies that lead to school improvement. ■

<sup>1</sup>Lisa Dragoset et al., "School Improvement Grants: Implementation and Effectiveness (Final Report)" (Washington, DC: U.S. Department of Education, Institute of Education Sciences, 2017).

<sup>2</sup>Christina LiCalsi et al., "Evaluation of Massachusetts District and School Turnaround Assistance: Impact of School Redesign Grants" (Washington, DC: American Institutes for Research, 2015); Christina LiCalsi and Dionisio Garcia Piriz, "Evaluation of Level 4 School Turnaround Efforts in Massachusetts—Part 2: Impact of School Redesign Grants" (Washington, DC: American Institutes for Research, 2016).

<sup>3</sup>Brett Lane et al., "Turnaround Practices in Action: A Practice Guide and Policy Analysis" (Baltimore, MD: Institute for Strategic Leadership and Learning, 2014).

<sup>4</sup>American Institutes for Research and Massachusetts Department of Elementary and Secondary Education, "Massachusetts Monitoring Site Visits Turnaround Practices Indicators and Continuum" (September 2015), [www.doe.mass.edu/turnaround/howitworks/monitor-site-visits-turnaround-indicators.pdf](http://www.doe.mass.edu/turnaround/howitworks/monitor-site-visits-turnaround-indicators.pdf).

<sup>5</sup>Andrea Boyle et al., "State Systems of Support under NCLB: Design Components and Quality Considerations" (Washington, DC: American Institutes for Research, 2008).

<sup>6</sup>AIR and ESE, "Massachusetts Monitoring Site Visits."

<sup>7</sup>For example, see Laura Stein et al., "Evaluation of Level 4 School Turnaround Efforts in Massachusetts—Part 1: Implementation Study" (Washington, DC: American Institutes for Research, 2016); LiCalsi et al., "Evaluation of Level 4 School Turnaround—Part 2."

<sup>8</sup>Alexandra Kistner et al., "Lessons Learned in Massachusetts High School Turnaround: A Resource for High School Leaders" (Washington, DC: American Institutes for Research, 2017).

**Erica Champagne is director of the Office of Effective Practices in Turnaround at the Massachusetts Department of Elementary and Secondary Education. Susan Bowles Therriault is a managing researcher at AIR and a member of the Massachusetts Conditions of Education Task Force.**