

Accelerating the Learning of the Kids Who Need It Most

Elementary schools across the country struggle to close the achievement gap for low-income students. For a number of years, the scores of low-income students have remained flat or increased no more than the rest of the population. In order to narrow the gap, the scores of low-income students must improve at a faster pace than their non-low income peers.

The Bay State Reading Institute (BSRI) is working with over 40 elementary schools in MA, most of which are closing the gap. The 2014 Massachusetts state-wide assessment (MCAS), considered one of the most rigorous in the country, shows that low-income students at BSRI's schools are progressing faster than other low income students across the state, and faster than their non-low income peers.

The BSRI Model

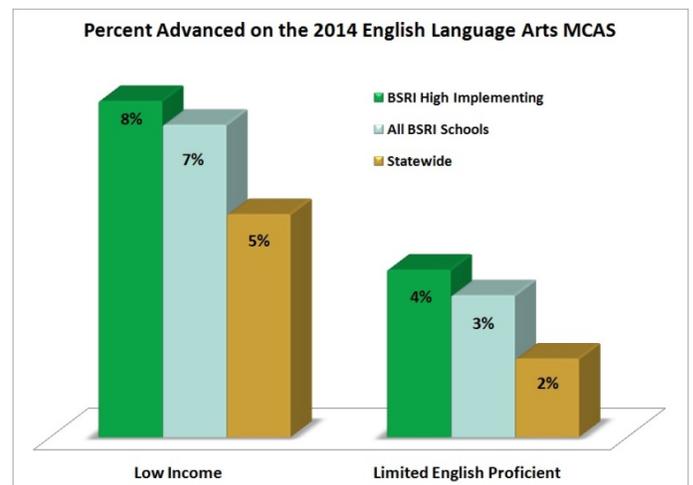
While we begin with a focus on literacy instruction, the BSRI model positively impacts instruction across the curriculum. Through expert coaching and professional development, BSRI helps schools transform classroom practice and build a collaborative school culture.

The key elements of the BSRI model include:

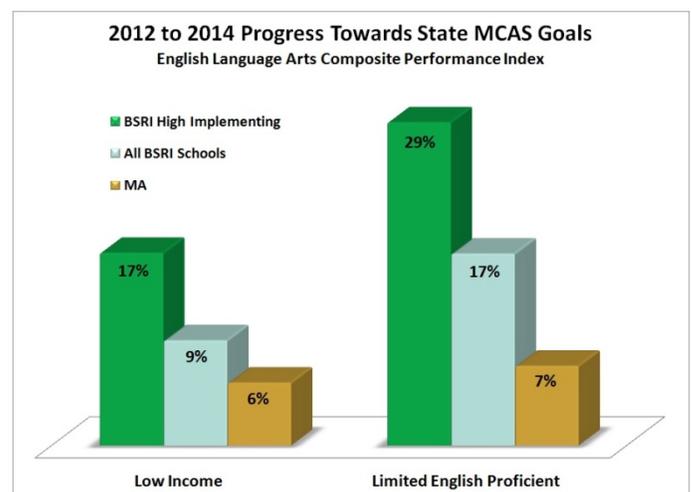
- **Instruction:** The school holds high expectations for student performance; teaching is done in differentiated small groups, and students work collaboratively and with self-direction.
- **Mentoring:** Professional development is integrated with hands-on, in-school coaching that is individualized to meet teacher needs.
- **Data:** Teachers use data in collaborative decision making to group students, choose interventions and set goals for student learning.
- **Leadership:** The principal is a knowledgeable leader, frequently discussing individual student progress and visiting classrooms; establishing priorities, building on teacher strengths, and holding difficult conversations with teachers when needed.

The BSRI Impact Study

BSRI conducts a detailed annual analysis of our students' MCAS performance. This data is then correlated with 50 measures of how well BSRI's model has been implemented in each school. The results show that when the BSRI model implemented well, students rapidly improve in both English language arts and math. This study also points to the most powerful levers for accelerating student learning: teacher collaboration and principal leadership.



At the 60% of BSRI partner schools with strong fidelity to our model, fifty percent more low-income students scored Advanced on ELA tests than the state average.



In two years, low income and limited English proficient students at BSRI schools made 3 and 4 times more progress towards state goals than their peers across the state.

BSRI Schools Make Big Gains with Low Income Students on the 2014 MCAS

Highlights:

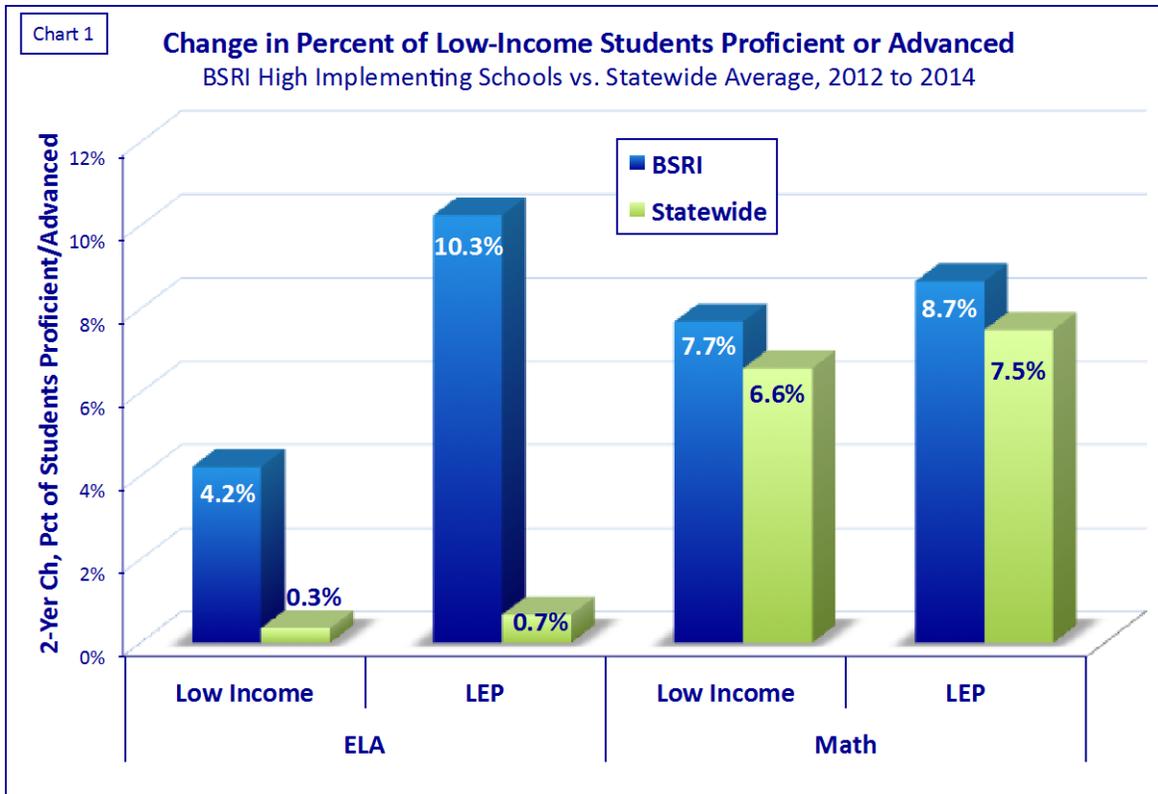
- Bay State Reading Institute partner schools made big gains with their low-income students from 2012 to 2014, in both reading and math. These gains were far larger than gains made statewide with comparable students.
- The gains made by Limited English Proficient students at the BSRI schools were even larger than the gains made by all low-income students
- The percent of BSRI low-income and LEP students who scored “Advanced” on the 2014 MCAS was up substantially from 2012, in both ELA and math.
- BSRI schools’ 2014 SGP scores (they compare 4th and 5th grade students with other students across the state who had similar scores a year earlier) are substantially higher than state averages. This is true both for low-income students and also for non low-income students, in both reading and math.
- The SGP scores for BSRI low-income 4th and 5th graders are at the 81st percentile when ranked against all other schools that report results for low-income students.

Increasing Percentages of Low-Income Students Proficient or Advanced:

Looking at all English Language Arts results for low-income students (Table 1), BSRI schools moved from 39.7% of low-income students proficient or advanced in grades 3-5 in 2012 to 44.0% in 2014; the corresponding statewide percentage remained essentially unchanged, at 37%.

Looking separately at students with limited English proficiency (most of whom are also in the low-income data), BSRI schools made very large gains – 10.3% - more than 10 times the statewide gains.

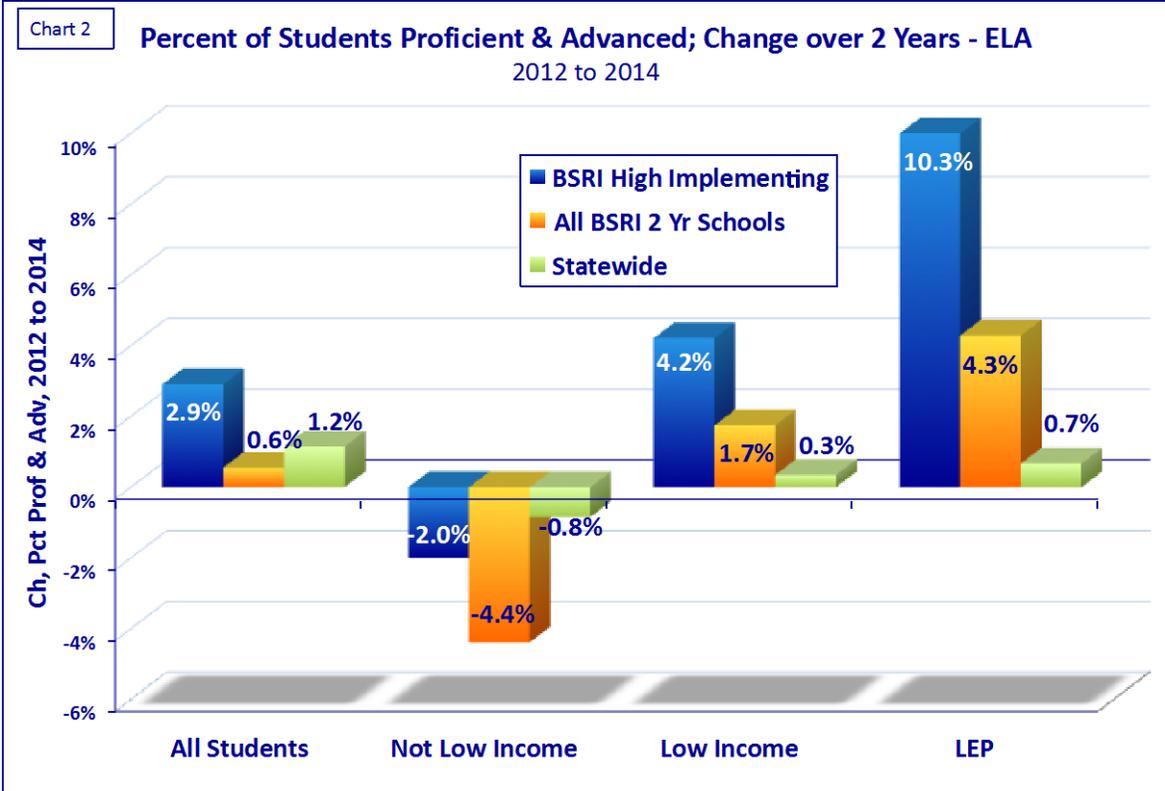
In math, low-income students statewide and at BSRI schools made significant gains, but the gains at the BSRI schools were somewhat higher.



Background:

In the spring of 2014, 39 BSRI partner schools administered the MCAS tests. Twelve of these schools were in their first year working with BSRI; since it is unreasonable to expect major changes in just one year, the analysis here concentrates on the remaining 27 schools. Of these, 18 were rated by BSRI coaches (**in a survey completed well before the MCAS results were known!**) as strong implementers of the BSRI model. In layman’s terms, these 18 schools actually followed the BSRI program. Because of the checkerboard pattern of MCAS administration across districts and schools this past spring, only 16 of these 18 schools actually reported MCAS results. These 16 schools tested 3,185 students; there were 2,015 students tested at the 9 low implementing schools and 1,871 students at the first-year schools.

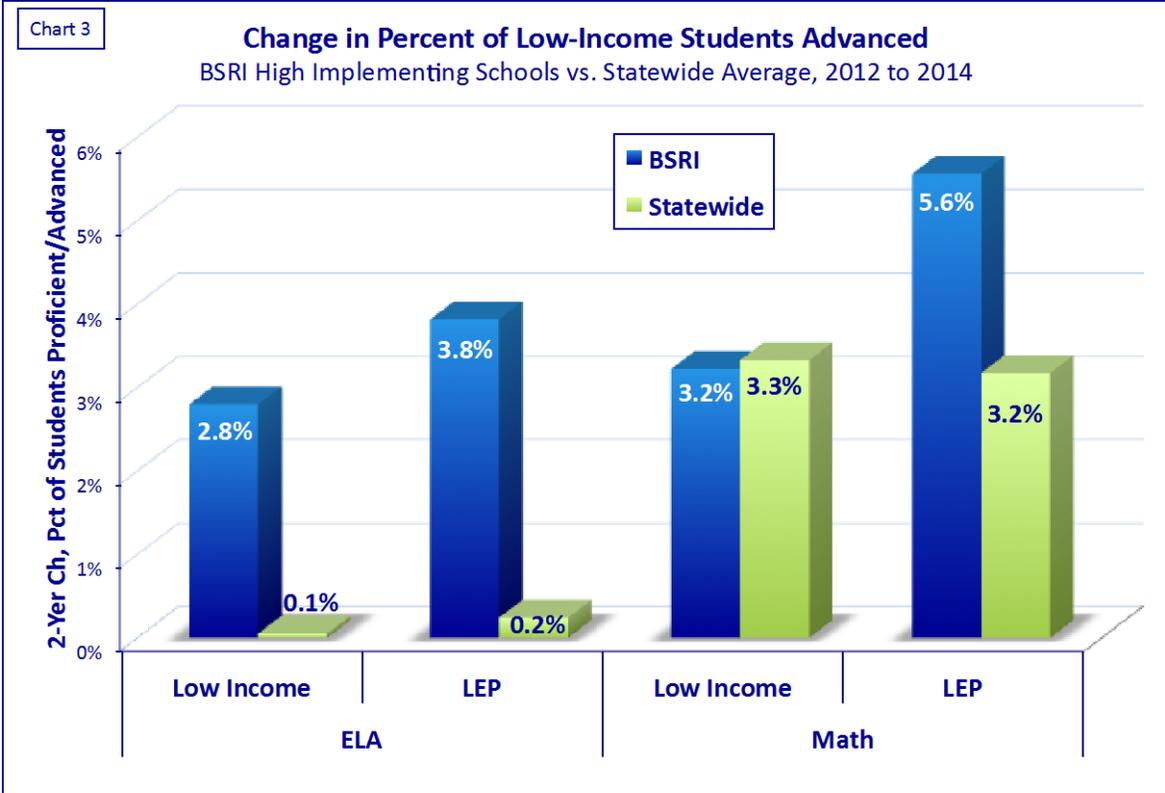
The chart below shows the 2-year change in ELA results for the 16 high-implementing schools and overall results for all 25 2-year BSRI schools. It also shows results for non-low-income students. In all cases, the data is for grades 3, 4, and 5 combined; the BSRI schools are compared with statewide averages for demographically comparable students.



BSRI’s strength is its performance with low-income and LEP students. At the high implementing schools, these students account for 63% and 8%, respectively, of all students tested; the comparable statewide figures are 39% and 6%. As intended, then, BSRI is working primarily with schools from high-poverty areas – schools with a poverty rate 60% higher than the state average. As chart 2 also shows, the performance of students who are not low-income (that is, who are not eligible for free- and reduced-cost lunches) is an area that needs improvement – particularly at the low implementing schools. The remainder of this paper explores in more depth the results at the 16 high-implementing schools.

Signs of Excellence – Students Advanced

A key part of the BSRI program is setting high expectations for student performance. One way to measure success along these lines is to look at the percent of students who score in the advanced range on the MCAS tests. As shown in chart 3, BSRI (high implementing) schools have shown strong gains in the percent of very-high-scoring low-income and limited-English students. In English language arts, the percentage of low-income students scoring advanced went up by 2.8% over the past 2 years (from 5.0% of low-income students to 7.8%) while the state average was unchanged (at 5.1%). The 2014 gains, then, put BSRI schools at a higher percentage of low-income students scoring advanced in English Language Arts than the statewide average. The high performance of limited English students at BSRI schools developed just over the past 2 years, rising from 0 in 2012 to 3.8% in 2014 (more than twice the statewide average of 1.8%).



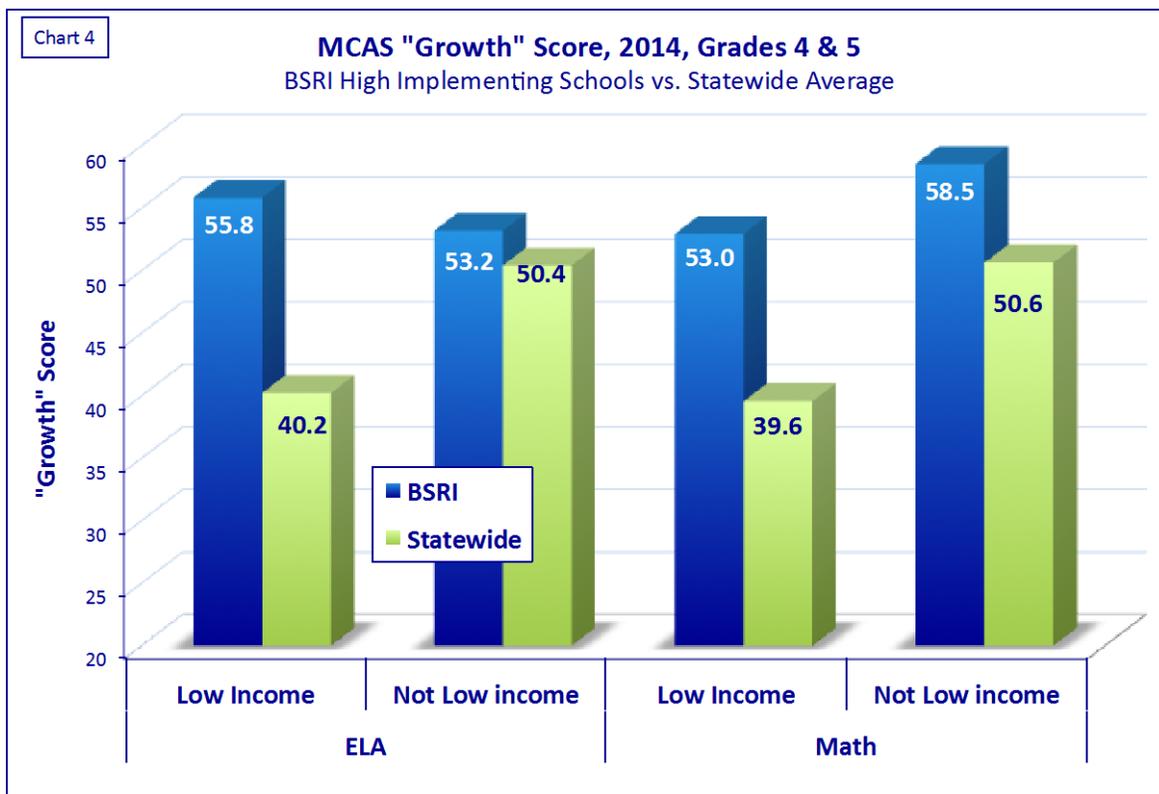
In math, low-income students at BSRI schools made gains similar to the state average, but the overall percent scoring Advanced remained above the state average (14.2% vs. 12.9%).

Comparing 4th and 5th Grade Results with Other Schools

The SGP, (or “growth”) scores published by the state’s Department of Elementary and Secondary Education (DESE) allow a clear apples-to-apples comparison of how 4th and 5th grade students compare with other students across the state who started the year at the same level. In 4th grade, for example, every student’s score is compared with all of the other students who had the same score in 2013 on the 3rd grade MCAS test.

Because this measure takes account of where the students started, it can also be thought of as a measure of how far teachers at any school moved their students compared to teachers across the state with equally well prepared students.

More about the SGP: For an individual student, the SGP score is her percentile as compared with all other students with the same prior year score. For a class or school, the score is the average of the individual student scores. By definition, the statewide SGP for all students in any grade is 50. A score of 60 for an individual student places her at the 60th percentile. It is rare for a whole class to score at this level, a school score of 60 would put that school at the 80th percentile amongst schools across the state.



Fourth and fifth grade teachers at the BSRI schools are doing better – in the case of low-income students, much better – at moving students than are teachers with academically comparable students elsewhere in the state. One striking statewide finding is that if two 3rd graders, one low-income and one not, have comparable 3rd grade scores, they are unlikely to have comparable 4th grade scores. (The average growth score statewide in grades 3, 4, and 5 is (by definition) 50 for all students. But it is 50.4 for students who are not low income, and only 40.2 for low-income students.¹)

To put this into perspective, the BSRI low-income ELA score of 55.8 represents the 81st percentile of all schools reporting results for low-income students. (Only 19% of all schools with significant low-income populations are outscoring the 16 BSRI schools.)

What We Learn from the BSRI Survey

As we've done in past years, BSRI conducted an internal survey of our principal coaches and literacy consultants; we asked them to rank each of the schools they worked with on how well each school is implementing some 50 different elements of the BSRI model. By looking at the correlation between the MCAS measures of school performance and the

¹ These statewide figures were calculated as weighted averages of growth scores for all schools reporting test data on low-income students.

survey results, we can gain insights into the characteristics of successful schools that are most predictive of MCAS gains.

The correlation between a school's overall survey rating and the 2-year change in the percent of its students (all students) scoring proficient and advanced is 41%. This overall average obscures a wide variation in the correlation between MCAS gains and school scores on individual questions.

The questions most highly correlated with MCAS gains (shown below with the degree of correlation) represent a statistically derived guide to some of the key elements of successful school change:

- 54% Do grade-level teams work co-operatively to prepare activities for the workstation?
- 51% Does the central office back the principal if teachers look for comfort in resisting the BSRI program?
- 49% How effectively do teachers actually use their common planning time?
- 47% How successful are teachers at planning instructional goals for the day's lesson and communicating them clearly to students? Does their planning reflect curriculum standards, make effective use of curriculum materials, and reflect key elements of the BSRI model? Does the teacher have a clear, well-positioned focus wall?
- 46% Does the principal have difficult conversations with teachers in need of improvement?
- 45% How closely do teachers conform to the BSRI goal of a 120-minute reading block in grades K-2 and 90 minutes in grade 3 and up?
- 45% Do the school's reading coach, special education teachers, and ELL teachers work for the school principal? (That is, does the principal select them and do they report to him/her without undue interference from the central office?)
- 44% When students read, are they talking to their partners or colleagues about predictions, summarizing, looking for evidence, or degree of understanding?
- 43% Is the teacher using techniques like turn-and-talk, no-arms-raised, writing on whiteboards, thumbs up or down, and no-opt-out to keep all children engaged?
- 43% How close is the coordination between classroom teachers and interventionists?
- 42% To what extent is there a group of teachers actively resisting change?
- 42% How well are the teachers doing with the introduction of reciprocal teaching – both the amount of it and the quality?
- 42% Does the principal have effective control over the instructional program in the school in such areas as assigning students to particular interventions?
- 41% Do teachers limit whole group time during the reading block to 30 minutes or less?

This list fits nicely with what common sense, frequent visits to classrooms, and the literature about the most successful schools abroad tell us about good schools – teachers need to work together, principals need to be strong educational leaders, students should work collaboratively on high-level tasks like asking each other questions and looking for evidence. Also, it works best when the principal has effective day-to-day control of her school, when he has the backing of the central administration, when she and her teachers have high expectations for student performance, and when teachers are working on making sure all students are engaged.

These questions also illustrate the importance of what we might call the pyramid of administrative responsibility. Ultimately, improved classroom teaching leads to improved student performance. But it is highly unlikely to get all or almost all teachers in a school to make the necessary changes without strong leadership from the principal. She needs to know what pedagogy she's looking for, to make specific requests for pedagogical change to individual teachers, and to hold difficult conversations when teachers do not respond.

Farther up the pyramid, the principal needs the support of the central office. As with teachers, some principals will not give educational leadership the necessary priority without clear direction and occasional difficult conversations from the superintendent.