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Evaluation Report: Year 1

**Building a Strong Foundation:
Mathematics and Science
Partnership**

Sponsored by:

**The Rhode Island Department of
Education and the US Department
of Education**

September 2010

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Prepared by:
Research & Evaluation Division
The Education Alliance at Brown University

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EXECUTIVE SUMMARY

The Education Alliance at Brown University has been invited to conduct the external evaluation of Rhode Island's Math and Science Partnership program for the Rhode Island Department of Education (RIDE). The evaluation is a collaborative effort, closely working with RIDE and other partners to provide support for implementation and inform mid-course improvements and progress toward program outcomes. The nature of the Building a Strong Foundation (BSF) program is to respond to the needs of the district and therefore the structure of the program is not necessarily static. To account for this, The Alliance has designed a mixed-methods evaluation plan that provides objective qualitative and quantitative data on effects of program implementation.

The evaluation plan utilizes a cohort design including both quasi-experimental and descriptive methods to effectively recognize the unique components of the BSF program. The cohort design allows evaluators to examine how the BSF program builds capacity for standards-based instruction over the course of three years as each cohort engages with different program components. The Alliance evaluators examine not only how the program builds capacity within cohorts, but also compares the program elements and assesses the longitudinal impact of program participation across cohorts.

Rather than have specific evaluation questions, the evaluation seeks to describe how program implementation proceeds and to document adaptations, as well as measure program impacts on (1) the culture of academic standards, (2) teacher knowledge, and (3) student achievement. The quasi-experimental component of the evaluation includes three pre- and post-assessments of stakeholders' perspective on the culture of academic standards, teachers' perspective on the culture of academic standards, and teacher knowledge of the content and pedagogy within the academic standards. Additionally, evaluators capture aspects of program implementation through the use of multiple qualitative data methods.

In Year 1 implementation of the BSF program, evaluators collected survey data from both stakeholders and teachers and conducted focus groups with multiple program groups. Data is presented in detail in the report; however, a synthesis of these various data collected from participant groups provide summary evaluation findings for Year 1 implementation. Broad program findings include:

- *The BSF program implemented a program structure and intensity that was effective for multiple program participant groups.* A consensus across participant groups pointed to the benefits of including school and district leadership, teachers, and ISPs in program participation. Teachers viewed their school leadership as critical elements to their individual and other teachers' success in implementing the BSF program. Participants remarked that program investment in teachers and leadership represented an investment from RIDE in the system of standards-based instruction and student achievement as well as a culture of professionalism. Additionally, participants viewed the role of the ISPs as a means of sustaining BSF program investments and providing a level of confidence in the program's longevity and impact.

Evaluation data provided evidence that there were high levels of participation across groups and low levels of attrition. Support for this was found in conversations among participants that suggested the intensity of program participation worked well across groups. Data revealed that stakeholders from the Open Sessions experienced similar shifts in the culture of academic standards, as did the Intensive Session participation. Teachers and leadership from the Intensive Sessions viewed the BSF program activities as appropriately scheduled for their workloads, yet rigorous enough for participants to report being productive.

- *Multiple participant groups reported high levels of BSF program buy-in and consistent program goals.* In addition to low levels of attrition, the BSF program participants reported high levels of buy-in to program goals and activities. Survey and focus group data suggested that while teachers and stakeholders reported varying needs for the BSF program, after one year of participation, most participants understood the need for increased standards-based instruction. After one year of BSF program participation, both leadership and teachers viewed the buy-in as high; however, both groups were cognizant that with increased implementation in Year 2, buy-in challenges will increase. These groups recognized that by building the foundation in Year 1, capacity for Year 2 implementation was increased. Also recognized was the structure built for communication within a school (between leadership and teachers) that would support future buy-in.

  A clear and consistent BSF program vision was evident in evaluation data. All program participants noted the importance of a coherent and aligned curriculum that every teacher would use every day, and that every student would be learning core content every day. Varying participants groups were aware of their role in this vision and all groups articulated their responsibility in achieving this goal. These responsibilities and roles were articulated as part of a culture of professionalism. Participants also noted BSF program activities, tools, and resources, which would support the attainment of this consistent vision.

- *Across BSF program participant groups, early impacts were measured that indicate momentum for classroom level impacts.* Each participant group reported that the BSF program and program work were productive toward the goals of improved classroom instruction and student achievement. Although participants recognized the longitudinal nature of the program goals, all groups observed the momentum of the BSF program. This momentum was also measured by the stakeholder and teacher surveys where shifts in the culture of academic standards were documented. Participants reported being encouraged and excited for Year 2 implementation, noting that the program impacts and capacity will grow. These findings represent early indicators of the program's ability to effect classroom instruction and student achievement.

Through data collection and analysis, evaluators suggest data-driven recommendations that the BSF program might consider as program implementation builds. Evaluators will continue to work formatively with the BSF program to critically examine recommendations along with program milestones and data. The following are the evaluation recommendations for consideration: (1) maintain fundamental BSF program structure, including multiple program groups and intensity levels, as well as a consistent program vision; (2) support leaders and

teachers in developing strategies to gain broad teacher buy-in, involvement, and implementation in Year 2; (3) continue to develop the role of ISPs, building in interactions with participants and moving to a more transparent role; and (4) consider district characteristics in recruitment and collaboration among districts.

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SECTION I: INTRODUCTION

OVERVIEW OF THE BUILDING A STRONG FOUNDATION PROGRAM

The Mathematics and Science Partnership (MSP) program provides formula grants to states under Title II, Part B of the No Child Left Behind Act of 2001. As outlined by the US Department of Education, the purpose of the program is to increase student achievement in mathematics and science by improving teachers' content knowledge and teaching skills.

Specifically, the MSP program seeks to:

- Focus on the education of mathematics and science teachers as a career-long process that continuously stimulates teachers' intellectual growth and upgrades teachers' knowledge and skills; and
- Develop more rigorous mathematics and science curricula that are aligned with challenging state and local academic content standards, and with the standards expected for postsecondary study in mathematics and science.

In Rhode Island, Building a Strong Foundation (BSF) is designed to work toward such goals through partnerships among districts, the Rhode Island Department of Education (RIDE), and the Charles A. Dana Center at the University of Texas at Austin. BSF seeks to increase instructional coherence at all levels of the educational system by aligning curriculum, instruction, and assessment to each other and to the state's Grade Levels Expectations (GLEs) and Grade Span Expectations (GSEs) and by providing teachers and teacher-leaders with the opportunity to partake in an in-depth study of the GLEs/GSEs. BSF seeks to increase teacher content knowledge and student achievement by:

- Providing targeted support for self-selected school districts to carry out the work of alignment within their system;
- Developing a network of intermediary service providers (ISPs) to build capacity and infrastructure at all levels of the system to sustain the alignment work long-term; and
- Leveraging and aligning the resources necessary to support the work of alignment across all levels of the system.

To achieve these outcomes for teachers, the main partner-provider, The Dana Center, works closely with the districts on an individual basis to tailor a project to their unique needs. The basic structure of the BSF program, however, will be the same statewide. For Year 1, the initiative was divided into two strands, open session or intensive district work, each with slightly different methods and commitment levels. Districts chose the strand in which they would like to participate and whether to focus on mathematics or science, both of which the districts identified in an application submitted to RIDE.

Intensive Work. Intensive district work entails a minimum of a three-year time commitment to working with a team from the Dana Center and/or the ISP team paired with that particular district. Initially, the districts beginning in Year 1 (Cohort I) will work solely with a Dana Center team in their chosen subject area while the Dana Center trains a cohort of ISPs. The

districts beginning the work in Year 2 (Cohort II) will have a combination of Dana Center teams and a team of ISPs as facilitators. Cohort III and following will work with teams of ISPs. The Dana Center will train new ISPs each year and, once training is completed, will certify that those ISPs can replicate the Dana Center sessions and strategies faithfully.

Intensive district work is tailored to the needs of the specific district in either mathematics or science. The intensive district work has two elements to it: (1) a leaders-oriented strand and (2) a teachers-oriented strand. Each strand consists of six single- or multi-day sessions with tasks to be completed by each strand between the sessions. The leaders' strand focuses on the same topics and tasks presented in the open sessions (tools and strategies for improving science/math curriculum, instruction and assessment alignment), but at a deeper level due to the in-between-session work. The teacher element focuses on studying the state standards; developing, aligning, and refining the scope and sequence to support a viable and guaranteed curriculum; and creating aligned units of study (the latter primarily occurring in the second year of the project). Both elements are designed to meet the goals of improving curriculum alignment and teachers' skills.

Open Session. Open sessions are characterized by six day-long professional development sessions spaced over the course of a single year. Four cohorts of three district-teams each (per year) attend these sessions to explore various tools and strategies for improving mathematics and science curriculum, instruction, and assessment alignment. The open sessions help districts to determine where they are with respect to the goal of BSF: improvement in student achievement in mathematics and science through alignment across curriculum, instruction, assessment and the GLEs/GSEs. Some districts, upon completion of the one-year program, may decide to continue the work at a deeper level by applying to be a part of the second or subsequent cohort of the intensive district work.

EVALUATION OF THE BSF PROGRAM

The Education Alliance at Brown University has been invited to conduct the external evaluation of Rhode Island's Math and Science Partnership program for RIDE. The evaluation is a collaborative effort, closely working with RIDE and other partners to provide support for implementation, and inform mid-course improvements and progress toward program outcomes. The nature of the BSF program is to respond to the needs of the district and therefore the structure of the program is not necessarily static. To account for this, The Alliance has designed a mixed-methods evaluation plan that provides objective qualitative and quantitative data on effects of program implementation. The following section details the evaluation methods and data collection implemented.

SECTION II: EVALUATION DESIGN & APPROACH

The evaluation plan utilizes a cohort design including both quasi-experimental and descriptive methods to effectively recognize the unique components of the BSF program. The cohort design allows evaluators to examine how the BSF program builds capacity for standards-based instruction over the course of three years as each cohort engages with different program components. The Alliance evaluators examine not only how the program builds capacity within cohorts, but also compares the program elements, and assesses the longitudinal impact of program participation across cohorts.

Rather than have specific evaluation questions, the evaluation seeks to describe how program implementation proceeds and document adaptations, as well as measure program impacts on (1) the culture of academic standards, (2) teacher knowledge, and (3) student achievement. The quasi-experimental component of the evaluation includes three pre- and post-assessments of stakeholders' perspective on the culture of academic standards, teachers' perspective on the culture of academic standards, and teacher knowledge of the content and pedagogy within the academic standards. Additionally, evaluators capture aspects of program implementation through the use of multiple qualitative data methods. Chart 1 displays the evaluation methods and timeline.

Chart 1. Evaluation Methods and Timeline

Program Component	Method	Year 1	Year 2	Year 3
Culture of Academic Standards	Teacher Survey	√	√	√
	Stakeholder Survey	√	√	√
Teacher Knowledge	Teacher Alignment Chart		√	√
Student Achievement	NECAP	√	√	√
Program Milestones	Focus Groups	√	√	√
	Program Documents	√	√	√

Stakeholder Survey. In efforts to support the state in a standards-based initiative, the evaluation reflects this focus in understanding how the BSF program changes stakeholder's attitudes, beliefs, and use of academic standards. Stakeholders include those individuals participating in program events, such as district and school leadership, and curriculum leaders, as well as the Intermediary Service Providers (ISPs). Stakeholders complete a pre-survey prior to engaging in program efforts, as well as a post-survey at the end of each program year. The survey is flexible to collect data from varying participant role groups (i.e., teacher, principal, superintendent, ISP, etc.). The survey is designed to measure participants' changes in attitudes, beliefs, perceived

knowledge of academic standards, as well as the frequency at which standards impact various levels of the educational system.

Teacher Survey. Similar to the stakeholder survey, teachers complete a pre- and post-survey regarding their attitudes, beliefs, and use of the standards. In Year 1 this evaluation method was conducted as a retrospective post-survey; however, in Years 2 and 3, this survey is adapted to be administered as a traditional pre- and post-survey. This quasi-experimental design allows evaluators to determine the specific changes that occur in the culture of academic standards among teachers.

Teacher Knowledge. The BSF program shift from a specific element of mathematics or science content to a broad but in-depth understanding of the academic content standards is reflected in the evaluation through an assessment of teacher knowledge. The Alignment Chart, an instrument developed by the Dana Center to promote teachers' exploration of the sequence of student learning, including prior and pedagogical content knowledge, is used as secondary data by evaluators. Teachers individually complete these charts in Years 2 and 3 and data is coded based on a rubric to assess growth in teachers' knowledge. In collaboration with the Dana Center, exemplars are generated from the Alignment Charts to serve as the foundation for rubric scoring. This process provides scores on the Alignment Chart that fulfill the Federal legislation requirement for program funding. These data are not to be used for any purpose other than to assess growth as part of the BSF program.

Student Achievement. The state of Rhode Island administers the New England Common Assessment Program (NECAP) student achievement test in October for math and May for science. These data are usually available by March the following year. The evaluation plan will incorporate analyses of changes in student math and science achievement as part of the evaluation of the BSF program to the extent that these data are available. Where possible, the evaluation team will examine specific test questions or sections of student scores to determine the level of impact the BSF program may have made on student achievement and to break analyses down by student sub-groups.

Program Milestones. Qualitative data is gathered on program milestones. Specifically, evaluators conduct focus groups with each participating group, each program year. These focus groups include teachers, education leaders, Dana Center Staff, and ISPs. These data provide insights into buy-in, satisfaction, and sustainability of the BSF program and highlight any mid-course program adaptations that have occurred or might be considered. Program documents (professional development materials, presentations, curriculum, etc.) are also collected to offer understanding of the implementation activities and milestones.

EVALUATION METHODS: YEAR 1

In Year 1 of BSF program implementation, evaluators focused on the development of instruments, as well as the capturing of implementation data. To this end, the survey assessing the culture of academic standards was developed and tested for reliability in Year 1. A copy of this survey can be found in Appendix A. The survey was founded on a body of research assessing attitudes and beliefs on academic standards in the vocational arena, as well as in science, technology, and mathematics standards (e.g., Belcher & McCaslin, 1996; Benjamin, 2003; Harwood, Hansen, & Lotter, 2006; Johnson, 2004; Kya, Yager, & Dogan, 2009). Note that the stakeholder survey was adapted and shortened for the retrospective format that teachers completed; however, the survey variables that were measured in both survey included the same items. The retrospective survey method has been established as a reliable and useful methodology for exploring how individuals change their attitudes and beliefs over time (Drennan & Hyde, 2008; Nimon, 2007).

Also, evaluators conducted artifact reviews to assess which instrument would best serve RIDE as a measure of teacher content knowledge. In Year 1, the Teacher Alignment Chart instrument was identified through a collaborative process and tailored for program needs to ensure that pre- and post-assessments of teacher knowledge are measured in Years 2 and 3. As noted in Chart 1, these data are to be collected in Year 2 as baseline measures and in Year 3 to measure the extent to which teachers have displayed growth in their knowledge of content and pedagogy within the academic standards.

The Year 1 evaluation of the BSF program included various focus groups with participating district leadership, ISPs, Dana Center staff, and teachers. The focus group protocol was centered on understanding the successes and challenges of program implementation and identifying teacher and classroom needs that would support the greatest program impact. In addition to implementation data, the Year 1 evaluation afforded opportunities to examine early program impacts through measures of the culture of academic standards. Due to the timing of the NECAP exam and reporting of results, the Year 1 evaluation report marks a baseline measure of student achievement where data from the previous academic years (2008-2009 and 2009-2010) are reported.

LIMITATIONS

Caveats to the evaluation data collected are important to note prior to expressing interpretations of the results. The evaluation design, while quasi-experimental, does not afford cause and effect interpretations. This suggests that findings presented here do not reflect the impacts of the BSF program in isolation; rather, the quasi-experimental design does allow for an understanding of how stakeholders and teachers change while participating in the BSF program. The design provides results that can be associated with BSF program participation.

Limitations exist with sampling where the evaluation includes a sample of participants and not all participants. For example, in particular in Year 1, where participants were invited to participate in evaluation focus groups, these participants were not randomly selected and

therefore have selection biases. Both RIDE and evaluators used common strategies to account for selection bias and maintain representative sampling.

Finally, in Year 1, the evaluation implemented a retrospective data collection technique with participating BSF teachers. Although initially planned to be a true pre- and post-survey, teacher interest within participating districts was stronger than anticipated and teachers were enrolled into the program after the timeline for pre-survey assessment. Rather than drop these participants from the evaluation, a retrospective survey was developed where teachers could respond retrospectively regarding their beliefs and attitudes of the academic standards. This method does not allow for direct analyses of changes pre- and post-assessment; however, the survey provides insight into how teachers viewed the program impacting their attitudes and beliefs.

SECTION III: BSF IMPLEMENTATION

To examine implementation of the BSF program, data centered on four focus groups that were facilitated and analyzed by evaluators. In Spring 2010, focus groups were conducted with eight participants from the Dana Center, five teachers from multiple participating districts, seven ISPs, and seven district and school level leaders. RIDE recruited all 27 participants to take part in the focus groups due to the participants' involvement in the first year of program implementation. The focus group protocol was designed to collect data on various perspectives on indicators of implementation, including: participants' program satisfaction, feasibility of program implementation, and the success and challenges of program implementation.

PROGRAM SATISFACTION

Focus group participants expressed high levels of satisfaction with the BSF program. School and district leadership, teachers, and ISPs viewed their role as building the capacity of their respective districts to carry out the BSF program. Each group noted a sense of ownership and responsibility for teacher and student success. For example, a Dana Center staff member noted the building process was going well, "We are not the only ones who do this work, but we are part of a small group that does this work. The idea of building the foundation made it unique."

Teachers and administrators recognized that the Dana Center brought in a facilitation process using the academic standards, which was different from other programs in the past that brought districts new materials. One focus group participant remarked, "I like the idea of bringing a process rather than a product." With a similar perspective of empowerment, school leaders noted the walkthrough activity was "for our own learning." A Dana Center staff member stated a similar purpose: "Create, through a building process, a culture of professionalism and build people to do the work that needs to be done."

One teacher mentioned making a choice to be more involved in the BSF program than previous programs. "It [the BSF program] definitely seems more driven with more teacher involvement." A Dana Center staff member indicated about two dozen participating teachers met with teachers from outside their districts every ten weeks to make decisions about the scope and sequence. District and school level leadership and the Dana Center staff articulated that teachers have greater buy-in because "they feel more valued." A teacher indicated, "Building everything from the ground up, everyone is more familiar with what to teach."

Another teacher provided an example of the Dana Center's role. "We had all decimal and fraction work in the first two quarters. The Dana Center facilitator asked, 'Do you really want to do that?' We said, 'According to the research that is a consistent flow.' She said, 'Don't you think that is going to burn the students out?' I went back and I looked and said, 'No.' She said, 'Good answer'."

The common theme of empowerment and partnership was also reflected in the collaboration of Cumberland, Lincoln, and Woonsocket school districts to participate jointly in creating a

common scope and sequence for mathematics across districts. This collaboration was referenced in several focus groups as an example of how the BSF program is bridging collaboration, building momentum, and extending beyond previous programs.

School and district leadership noted that the partnership across districts combined with the inclusion of all grade levels, K-12, resulted in sharing resources, building capacity, and added a sense of optimism. Leadership and teachers noted that the collaboration sent a different message, one where multiple levels of the education system were invested in the program. Dana Center staff recognized the strength of having multiple district leaders partnering and referenced research that suggests that school and district leadership are necessary for teacher and student impacts.

Focus group participants consistently mentioned the use of data to make decisions. Teachers indicated that as part of the BSF program activities, teachers used student test scores to examine the gaps in the current curriculum. Teachers were in agreement with this approach, and as one focus group participant described it, the data driven process resulted in a shift from asking, "Why do we need to change?" to "How do we need to change?"

Using data was also mentioned by a Dana Center staff member who described using formative surveys to gain feedback from a broad group of teachers on draft curriculum scope and sequence documents. Teachers noted these steps were useful given that other teachers within their school wanted to have a say in the direction of the program and "in the end, buy-in will be greater."

A participant from the Dana Center focus group noted, "Everyone is learning from the research to make decisions that are the local needs and concerns and what is best for education and best practices." Participants from all focus groups noted research supported building local capacity to improve student learning. "You are trying to bring in best practice." Another teacher remarked:

> It is very research based and data based and data driven. They [Dana Center] took us from square one and looked at our grade span expectations, GLEs. We really got into what the state is requiring us to teach. It builds our curriculum, scope and sequence based on that. At first I couldn't see the light at the end of the tunnel. Now I can see the process.

FEASIBILITY OF PROGRAM IMPLEMENTATION

During focus groups, participants were prompted to discuss the BSF program's short- and long-term goals. All groups recognized the long-term goal of improved teaching and student learning; however, the steps toward these goals drew on important facets of the BSF program. Common goals and themes arose related to the feasibility of program implementation, including: program communication, a coherent and aligned curriculum, and program tools and resources.

Program Communication

Consistently across focus groups, participants noted that the ongoing and supportive communication at all program levels was key to teachers building the capacity to improve instruction and thereby improve student achievement. School and district leadership and teachers remarked that the communications from the Dana Center staff and RIDE were reflective of a professional community and an investment in teachers and students. Teachers, in particular, also noted that the communication from their school and district leadership was a sign of support and commitment, the kind of investment needed to carry out curriculum changes in the classroom.

Focus group participants recognized that a product of the supportive program communication was a culture of professionalism, where each BSF program participant was valued for their role in student learning. Inclusion of school and district leadership allowed this culture to be adopted within the school environments. For example, school administrators agreed that they aimed to attain high teacher expectations and "in the long term, teacher capacity. The teachers are excited and their work is valued."

A Coherent and Aligned Curriculum

One of the most commonly mentioned BSF program goals was to have every teacher using the curriculum every day, with every student, which ultimately would lead to equity and access to the educational system for all students. At the end of Year 1 implementation, each focus group participant knew his or her respective responsibilities to attain this goal. For example, in Year 1, steps toward this objective included studying the standards, reviewing relevant research to make well-informed decisions regarding the sequence of the curriculum, and rigorous assessment of the scope and resources supportive of the sequence of the curriculum.

Participating teachers viewed Year 1 as an intensive study that resulted in a product that would impact their instruction on a daily basis. These teachers were confident in attaining the goal of every teacher implementing a coherent and aligned curriculum every day with every student, but they recognized that the hard work has "just begun." Focus group teachers were directly involved in the intensive study in Year 1 and described the process as one "that every teacher should complete." Teachers noted that while their instruction has changed as a result, it will take the next two years to begin to measure these instructional changes across classrooms, schools, and districts.

Program Tools and Resources

The school and district leadership and ISP focus group participants frequently discussed the value of the classroom walkthrough process and tool. Participants described the process of conducting classroom walkthroughs as an effective means of gathering data on instruction, as well as an effective strategy to "open dialogue about gaps in instruction." Leadership noted that the walkthrough tool often revealed the need to have difficult discussions among educators, but that with data, these discussions were more productive. The ISP group also mentioned the

benefits of participating in classroom walkthroughs to understand the needs of a particular school or district.

Naturally, the focus group discussions often led to the topic of common planning time (CPT). Leadership and teachers shared their school's structure around CPT and while teachers wanted to use this time for collaborating around the BSF program work, often CPT was earmarked for school improvement planning, or grade level or department meetings. Leadership did not see a way around this structure without extending the school day, and teachers expressed frustration regarding the wasted time. The Dana Center staff viewed the time struggle as a need to rethink how to use the school day time more efficiently: "Rethinking resources is a big part of sustaining this program." One participant said, "At the building level, the principal has to have the ability to schedule teacher time to work together. At the district level, what structures do we provide to give buildings the ability to do this?" It was evident in the evaluation focus groups that the conversations of time have begun and that schools will need support in rethinking strategies for their school day structure that reflect the BSF program needs around collaboration.

The ISPs were often mentioned as a resource that will be utilized in future implementation years. During focus groups, ISPs were similarly described as "leaving something behind" in terms of program structure and supports. The ISP group identified themselves as trainers who will support the BSF program work as the program expands to a greater number of schools and districts. School administrators in the leadership focus group understood that the ISPs would build the capacity for the state to expand and sustain the BSF work; however, this group agreed that it is not clear how this would happen. Teachers noted the process of integrating the ISPs was similarly vague because it was a resource to be used in the future.

FUTURE PROGRAM IMPLEMENTATION: CHALLENGES & SUCCESSES

Participants from each focus group optimistically indicated implementation was on target and feasible into Year 2 of the BSF program. Teachers in particular noted developing a "systems perspective" that would support future implementation years. One teacher described Year 2 implementation in the following way: "We will all go through it together. It is scary and we have to figure it out. There will be resources." Many teachers added that the material is not brand new. "It is the same GLE that you have been teaching; it is just age appropriate."

The sentiment for future BSF program implementation was similar across focus groups. One participant summarized Year 2 implementation as "hard, challenging, and positive." It was a common perspective that implementing the curriculum in Year 2 is a "wait and see" scenario because there are still unknowns. For example, participating teachers noted that there are other teachers within their school who will work hard to implement the curriculum, while other teachers will reject the curriculum to maintain control over their classroom. While Dana Center participants suggested that many teachers share the vision of a "guaranteed and viable curriculum," they added that "lone wolf" teachers could no longer see themselves as the curriculum director for their classrooms. The teachers agreed: "Closing your door doesn't help your students when Teacher B gets your students." Another noted, "One of the hardest things for teachers is to give up favorite lessons that are not part of scope and sequence."

Focus group participants noted the challenges of accountability for implementation of the curriculum in Year 2. One strategy noted by participants was the sharing of communication within their buildings. Teachers mentioned taking notes and sharing them with their principal, and another teacher mentioned that their principal sent out memos to all teachers. These strategies were used to increase school level buy-in for Year 2 implementation with the goal of informing all teachers early enough so that they can begin implementation at the start of the 2010-2011 school year. The classroom walkthroughs and CPT were also mentioned as resources that could support Year 2 implementation.

Worthy of note was one teacher's concern that inconsistent student attendance would impact Year 2 implementation of the curriculum. Not all teachers who participated in the focus group taught in schools where student attendance is an issue and they were struck by the struggles that attendance could cause on the goal of equity and access to a viable curriculum for all students. Focus group dialogue did not address strategies that could support future BSF program implementation in the context of student attendance issues.

To summarize, few challenges arose in focus group conversations regarding Year 1 BSF program implementation. However, challenges were raised that focused on future implementation years. Analyses of the focus group data suggested the following potential challenges:

- Accountability and timing of implementation of the curriculum;
- CPT for teachers to continue to build capacity;
- Role of ISPs and the expansion of the BSF program.

Successes were more broadly experienced and related directly to program implementation. Successes that were identified in Year 1 included:

- Culture of professionalism and collaboration;
- Data driven processes, tools, and resources;
- Common language, vision, and goals.

The common language, vision, and goals can not be overstated as it was consistent and apparent across qualitative data. The focus group data provided several examples where varying participants described converging themes through use of common language and vision. Examples of convergence of themes are provided in Chart 2.

Chart 2. Commonality of Themes Across the Focus Groups

Theme	Role Group	Quote Example
Coherence	Teacher	"There is a multi-year commitment here. Next year is all about implementing and revising and working forward."
	Leadership	"The curriculum must be cohesive and coherent."
	ISP	"We have teachers from one part of RI speaking to someone from another part of RI. … Cohesiveness that we didn't have before. Same conversations."
	Dana Center	"Coherence – helping districts focus on mathematics and science curriculum so that all students receive same curricula."
Foundation Building	Teacher	"Everyone is beyond awareness level, then most are on personal level. They should be getting to the next one, managing. This is how it is going to affect me and that is appropriate. We are right where we are supposed to be."
	Leadership	"The non-negotiable on the table included a common scope and sequence and a willingness to bind together."
	ISP	"If you are all using the same standards and the same GLEs as a foundation will there be a great difference or microscopic difference?"
	Dana Center	"It is not us telling you what to do but bringing in the processes and research and allowing the teachers and the leaders here to take part in that."
Teacher Capacity Building	Teacher	"It definitely seems more driven and teacher involvement. We are a big district so sometimes I feel more of us need to be involved."
	Leadership	"We are building capacity within our state. …In the long term, teacher capacity."
	ISP	"Teachers are always willing, but we never had these great tools. The tools help the teachers collaborate and it is the leadership needs to foster the growth and make it continue."
	Dana Center	"We are seeing the immergence of teacher leaders too. It is intentional on our part and I think we are seeing it."
Equity and Access to Students	Teacher	"Getting everyone on the same page, teaching the same thing, benefit to the students. Test scores are a benefit, but this is something that is doing what is best for kids."
	Leadership	"Guaranteed curriculum and implemented in the same order... The transient rate is at 30%. This is major for our kids."
	ISP	"It (viable curriculum) gets to every student and every teacher."
	Dana Center	"Part of Dana Center beliefs are around equity and access to all students. It shouldn't be that you happen to be in Dave's classroom so you happen to get the standards. It is about leveling the playing field for everyone in the system."
Data Driven Work	Teacher	"[the program is] Way different. It is very research based, data based, and data driven."
	Leadership	"We were looking at elementary scores and pulling them apart."
	ISP	"They (teachers and administrators) need to look at the data in the schools and focus on how the data is going to help them with that (common vision)."
	Dana Center	"The data was an important piece because there was a dissatisfaction with the performance of students in RI. There was a sense of urgency and that became readiness."

SECTION IV: BSF EARLY IMPACTS

As described in the evaluation methods section, two surveys were developed to examine the early impacts of the BSF program participation on stakeholders and teachers. Both surveys measured participants' perceptions around the culture of academic standards. Because the administration of the surveys were different, the stakeholder survey being a true pre- and post-survey while the teacher survey was completed retrospectively, cross comparisons between these methods are limited.

For both the stakeholder and teacher surveys, individual survey items were generated to measure variables associated with the culture of academic standards. Eight variables were measured in the stakeholder survey, including: Beliefs Regarding the Standards, Student Mastery of Standards, Teacher Mastery of Standards, Personal Familiarity of Standards, Personal Understanding of Standards, Attitudes Regarding the Standards, Classroom Use of Standards, and PD Use of Standards. For purposes of reducing the time for teachers to complete the survey, the teacher survey included only Beliefs Regarding the Standards, Personal Familiarity of Standards, Personal Understanding of Standards, Classroom Use of Standards, and PD Use of Standards variables.

Four of the variables proved to be highly reliable (Beliefs Regarding the Standards, Personal Understanding of Standards, Classroom Use of Standards, and PD Use of Standards). The remaining four variables were moderately reliable (Student Mastery of Standards, Teacher Mastery of Standards, Personal Familiarity of Standards, and Attitudes Regarding the Standards).[1] Generating variables from multiple survey items allows for a stronger assessment of changes than individual survey items, thereby increasing the ability for evaluators to detect reliable effects.

Evaluators investigated the early impacts of BSF program participation on both stakeholders and teachers. While finding statistically significant impacts on participants in Year 1 would not be expected, examining attitudes and beliefs allows for the capture of early shifting in thinking and culture. In future years, the cohort design will reveal effects that would be expected after two and three years of program participation.

STAKEHOLDERS IMPACTS

Sample Characteristics

Of the 87 stakeholders who participated in the evaluation survey, roles included: Superintendent (2%), Assistant Superintendent (10%), Principal (59%), Assistant Principal (5%), Curriculum Director (14%), Department Chair (1%), Content Coach (3%), and ISP (3%). Several participants reported combinations of Department Chair, Content Coach, and Curriculum Director. The majority of the sample was female (70%) and Caucasian (94%). The majority of

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[1] Reliability was measured using Cronbach's Alpha with 'highly reliable' classifying those variables that received an Alpha of .80 or above and moderately reliable variables receiving an Alpha of .60 and above.

the sample held a Masters Degree with 30 or more credit hours (57%), followed by Masters Degrees (25%), and Doctorate Degrees (18%). While the majority of stakeholders reported a combination of certifications (53%), Secondary Mathematics certifications made up 17% and Secondary Science certifications made up 8% of participants. In terms of years teaching, 35% reported over 25 years, 32% reported 16 to 25 years, 23% reported 10 to 15 years, and 10% reported 5 to 9 years teaching.

Culture of Academic Standards

Statistically significant changes were found in stakeholders' beliefs on academic standards. In particular, stakeholders shifted their beliefs as to whether the standards are "too specific" or "too general." Prior to BSF participation, the majority of stakeholders believed both of these statements characterized the standards; however, after BSF participation, beliefs that the standards were too specific or too general decreased. That is, after program participation stakeholders balanced beliefs as to whether the standards were specific or general. Other survey items on beliefs regarding standards did not attain such large shifts (see Table 1).

Table 1. Stakeholder Beliefs of the Standards

The RI GLEs/GSEs...	*Agreement*	
	Pre-Survey *N = 87*	*Post-Survey* *N = 70*
are too specific.	93	12
are too general.	73	26
improve student achievement.	93	93
provide a benchmark for comparing students' skill levels.	90	91
improve instruction in core content areas.	8	85
improve instructional strategies implemented in the classroom.	62	72
align the content taught across a district.	86	93
can be used to develop assessments.	100	96
have a positive effect on student learning.	91	93
provide a basis for measuring student learning.	94	96
enhance the educational system in the state.	93	93
increase the competitiveness of RI student nationally.	74	82
require additional preparation time to integrate into instruction.	78	75
require improvement in students' competencies to integrate them in instruction effectively.	77	82
improve differentiated instruction.	44	53

No significant changes in stakeholders' beliefs on student mastery of standards were found; however, 75% more stakeholders believed that those students who master the standards are different than those who do not. Table 2 displays the changes on individual survey items measuring stakeholder beliefs on student mastery of the academic standards. Few stakeholders (13%) believed this to be true prior to the program; yet, over a majority (88%) of stakeholders endorsed this statement upon completing Year 1 BSF program participation.

Table 2. Stakeholder Beliefs on Student Mastery of Standards

	Agreement	
Students who successfully master the GLEs/GSEs...	*Pre-Survey* *N = 87*	*Post-Survey* *N = 70*
have smoother transitions between grades than those who did not.	89	97
have a higher level of knowledge in core content areas.	88	96
are different than students who do not meet the standards.	13	88
have exceptional teachers.	42	53
have academically involved parents/guardians.	50	39

Similar to student mastery, no significant changes in stakeholders' beliefs on teacher mastery of standards were measured. In terms of teachers mastering the standards, stakeholders did not believe that those teachers who implement the standards in their classrooms are more experienced than those who do not implement the standards in either the pre- or post-survey (see Table 3). The remaining survey items measuring stakeholders' beliefs on teachers' mastery of the academic standards were endorsed prior to BSF program participation and remained high following Year 1. Overall, stakeholders viewed teachers who implement the standards as more effective teachers with deeper content knowledge who spend more time integrating resources than teachers who do not implement the standards.

Table 3. Stakeholder Beliefs on Teacher Mastery of Standards

	Agreement	
Teachers who implement the GLEs/GSEs...	*Pre-Survey* *N = 87*	*Post-Survey* *N = 70*
are more effective teachers than those who not use the standards.	84	88
have deeper content knowledge than those who do not implement the standards.	57	69
integrate new resources into their classroom.	65	69
are more experienced teachers than those who do not implement the standards.	12	17
spend additional time planning their instructional strategies.	89	84

Table 4 contains the survey items for stakeholders' familiarity of the academic standards. To be expected through self-reporting, no statistically significant changes were measured. Stakeholders reported minimal changes in their perceptions of their familiarity and understanding of the standards. That is, at both time points, stakeholders reported high levels of familiarity with the standards.

Table 4. Stakeholder Familiarity of Standards

I am familiar with the GLEs/GSEs...	*Agreement*	
	Pre-Survey *N = 87*	*Post-Survey* *N = 70*
for mathematics.	97	100
for science.	81	88
for the grade levels in my school (or district).	94	96
for which students in my school/district are not proficient.	90	93
for which the students in my school/district are proficient.	90	93

In contrast with stakeholders' report of their familiarity of the standards, there were statistically significant changes found in stakeholders' reported understanding of the standards after program participation (see Table 5). Although investigation of individual survey items did not reveal any single item that experienced a dramatic shift, each item consistently increased at the post-survey. These shifts are indicative of early impacts on stakeholders' culture of standards-based education where stakeholders have increased their understanding, which is a benchmark to changes in practice.

Table 5. Stakeholder Understanding of Standards

I have a strong understanding of the GLEs/GSEs...	*Agreement*	
	Pre-Survey *N = 87*	*Post-Survey* *N = 70*
for mathematics.	74	84
for science.	53	67
for the grade levels in my school (or district).	76	85
for which students in my school/district are not proficient.	75	81
for which the students in my school/district are proficient.	74	84

Further stakeholder data supports early impacts of program participation where statistically significant changes occurred in stakeholders' attitudes to standards (Table 6). Examination of individual survey items suggests several shifts in stakeholders' attitudes toward the standards, including increases in agreement that teachers have adequate understanding of the standards and

increases in stakeholders suggesting that they personally need additional PD in core content areas as well as instructional strategies to fully understand the standards.

These items reveal that after program participation, stakeholders perceive that teachers have increased knowledge of standards. Also, stakeholders have become aware that they, as program stakeholders, also need additional training to implement standards in such a way to improve student achievement. These were reflected in a dramatic shift in stakeholders' attitudes, where 86% were confident in their content knowledge but not their understanding of the standards; however, after one year of program participation only 12% of stakeholders still felt that they did not adequately understand the standards.

Table 6. Stakeholder Attitudes Toward the Standards

	Agreement	
	Pre-Survey N = 87	Post-Survey N = 70
I am as familiar with the GLEs/GSEs as other educators in my school/district.	73	84
Teachers at my school/district have adequate understanding of the GLEs/GSEs.	47	74
Most teachers at my school/district are addressing the GLEs/GSEs in their classrooms.	64	87
I am confident that my training thus far prepares me to address the GLEs/GSEs in my role.	82	97
I am confident in my content knowledge, but **not** in my understanding of the GLEs/GSEs.	86	12
Additional professional development in *core content areas* will help me to fully understand the GLEs/GSEs.	32	67
Additional professional development on *instructional strategies* will help me fully understand the GLEs/GSEs.	28	66

The evaluation survey also measured significant changes in stakeholders' beliefs on the classroom use of the standards (see Table 7). Specifically, increases in the frequency of standards used in the classroom to integrate inquiry-based instruction were found. Similar to other survey items related to differentiated instruction, stakeholders reported low frequency and use of standards to support differentiated instruction.

Table 7. Stakeholder Beliefs of the Classroom Use of Standards

How frequently do you believe the GLEs/GSEs are addressed in classrooms at your school/district to...	Frequent	
	Pre-Survey N = 87	Post-Survey N = 70
plan a lesson.	27	43
develop a learning assessment.	35	44
develop a unit of instruction.	31	48
integrate inquiry-based instruction.	17	38
differentiate instruction.	11	13
address student learning needs.	15	29
prepare for NECAP.	49	67

There were no statistically significant changes in stakeholders' beliefs around the use of the standards for PD (Table 8). There were few changes in how stakeholders reported using standards in PD that focused on content, instruction, student achievement, or lesson development. With the exception of standards being used to develop and review school and district improvement plans, the majority of stakeholders reported that academic standards were not frequently part of PD. Although this finding appears contrary to BSF program implementation, stakeholders included school and district level leadership, and groups that often participate in PD that is not focused on the classroom but rather around leadership and school improvement.

Table 8. Stakeholder Beliefs of the PD Use of Standards

How frequently do you address the GLEs/GSEs in school/district professional development...	Frequent	
	Pre-Survey N = 87	Post-Survey N = 70
gain depth in a content area.	39	38
gain instructional strategies.	33	38
compare/share student work.	43	41
assess student improvement.	43	48
plan extracurricular activities.	13	19
co-plan or share lessons.	22	35
develop/review school and district improvement plan.	52	62

TEACHER IMPACTS

Sample Characteristics

The methods section describes the process of gathering teacher data regarding the culture of academic standards where due to greater teacher interest, a retrospective teacher survey was completed as part of the evaluation. This method allowed evaluators to capture data on the larger group of teacher participants without missing the pre-survey data for those added teachers. Measuring the pre- and post-data simultaneously, however, does not allow for statistical significance to be measured in terms of changes from the pre- to post-survey. Therefore, teacher survey data were analyzed similarly to stakeholder data but without directly measuring statistical significance.

Teachers who participated in the retrospective survey were those who were part of the intensive BSF work, which included Cranston, Cumberland, Lincoln, and Woonsocket school districts. Of the 104 teachers who participated in the evaluation survey, the majority of the sample was female (77%) and Caucasian (91%). Participating teachers held a variety of degrees, including Bachelors level (39%), Masters level (35%), and Masters level with 30 or more credit hours (26%). While the majority of teachers reported a combination of certifications, Secondary Mathematics certifications made up 27% and Secondary Science certifications made up 13% of participants. Several teachers noted having a Special Education Certification (12%). In terms of years teaching, 31% reported 5 to 9 years teaching, 29% reported 10 to 15 years, 25% reported 16 to 25 years, 10% reported over 25 years, and 5% reported teaching 4 years or less.

Culture of Academic Standards

Similar to stakeholders, teachers reported greater balance in their beliefs of the academic standards after BSF program participation, thereby reducing perceptions that the standards are too specific or too general (see Table 9, next page). Increases from prior to after program participation were found in teacher agreement that the standards enhance the educational system in the state. Similar to stakeholders, teachers reported that the standards have little influence on improving differentiated instruction. Interestingly, 12% of teachers noted being certified in Special Education.

Table 9. Teachers Beliefs of the Standards

The RI GLEs/GSEs...	Agreement	
	Prior N = 104	After N = 104
are too specific.	23	8
are too general.	46	38
improve student achievement.	67	84
provide a benchmark for comparing students' skill levels.	74	86
improve instruction in core content areas.	75	87
improve instructional strategies implemented in the classroom.	56	72
align the content taught across a district.	65	93
can be used to develop assessments.	85	97
have a positive effect on student learning.	70	88
provide a basis for measuring student learning.	75	90
enhance the educational system in the state.	56	87
increase the competitiveness of RI student nationally.	59	76
require additional preparation time to integrate into instruction.	83	78
require improvement in students' competencies to integrate them in instruction effectively.	77	81
improve differentiated instruction.	38	50

The retrospective survey allowed teachers to assess their own understanding after BSF program exposure. Teachers reported substantial increases in their familiarity of the standards, both those standards for their specific grade levels and the standards for which students in their school/district are not proficient (Table 10).

Table 10. Teacher Familiarity of Standards

I am familiar with the GLEs/GSEs...	Agreement	
	Prior N = 104	After N = 104
for mathematics.	74	86
for science.	40	37
for the grade levels in my school (or district).	63	89
for which students in my school/district are not proficient.	54	74
for which the students in my school/district are proficient.	58	75

Participating teachers reported greater agreement in understanding the standards for mathematics than science (Table 11). Further examinations into the differences among mathematics and science participants are explored in the following section. Teachers also report substantial gains in understanding the standards for the grade levels within their particular school.

Table 11. Teacher Understanding of Standards

I have a strong understanding of the GLEs/GSEs...	Agreement	
	Prior N = 104	After N = 104
for mathematics.	63	84
for science.	41	41
for the grade levels in my school (or district).	62	85
for which students in my school/district are not proficient.	53	70
for which the students in my school/district are proficient.	57	70

Teachers reported increases in use of standards across classroom activities (Table 12). Interestingly, when teachers responded to how often they used the standards in the classroom prior to the BSF program, the majority of teachers did not report implementation of any particular classroom activity. However, with the exception of differentiated instruction, teachers reported increases in use of standards for several classroom activities. These data suggest that the BSF program is being implemented at the classroom level and changing students' exposure to the academic standards.

Table 12. Teacher Beliefs of the Classroom Use of Standards

How frequently do you believe the GLEs/GSEs are addressed in classrooms at your school/district to...	Frequent	
	Prior N = 104	After N = 104
plan a lesson.	29	70
develop a learning assessment.	33	67
develop a unit of instruction.	33	71
integrate inquiry-based instruction.	23	59
differentiate instruction.	19	45
address student learning needs.	24	51
prepare for NECAP.	47	73

Similar to teachers' reports of using the standards in the classroom, increases were evident in teachers' use of the standards in PD (see Table 13). Less often teachers reported using the standards in PD around comparing student work, assessing student improvement, or in planning extracurricular activities. The majority of teachers, however, reported frequently using the standards in PD around content, instructional strategies, lesson development, and school and district improvement plans. These frequencies were greater than those reported by the stakeholder group.

Table 13. Teacher Beliefs of the PD Use of Standards

| | *Frequent* | |
How frequently do you address the GLEs/GSEs in school/district professional development...	*Prior N = 104*	*After N = 104*
gain depth in a content area.	26	56
gain instructional strategies.	18	52
compare/share student work.	15	40
assess student improvement.	17	48
plan extracurricular activities.	9	29
co-plan or share lessons.	23	54
develop/review school and district improvement plan.	25	50

SECTION IV: GROUP LEVEL ANALYSES

The survey and focus group data collected allowed evaluators to examine group level participation. The survey data included stakeholders and teachers from multiple school districts who participated in Open and Intensive BSF sessions and were from mathematics and science content areas. To support understanding of program implementation and scope, investigating group association can provide data for future program planning.

PARTICIPANT GROUPS

Both BSF program stakeholders and teachers responded to surveys measuring the culture of academic standards. Because these data were collected through differing methodologies (pre-post-survey and retrospective survey), average stakeholder and teachers responses can not be directly compared. An exploratory investigation, however, was conducted to find converging results. Table 14 provides this exploratory analysis, where mean responses for each group are presented on the common variable measures across groups. Consistent increases in variables were experienced across both participating stakeholders and teachers.

Table 14. Stakeholder and Teacher Means

	Stakeholders		*Teachers*	
	Time 1	*Time 2*	*Time 1*	*Time 2*
Beliefs of Standards (scale 1 - 4)	2.78	2.91	2.67	2.87
Personal Familiarity (scale 1 - 4)	3.00	3.11	2.62	3.08
Personal Understanding (scale 1 - 4)	2.77	2.95	2.54	3.00
Classroom Use (scale 0 – 5)	2.96	3.26	2.89	3.87
PD Use (scale 0 -5)	2.75	2.91	2.38	3.25

ISPs were another participant group; however, within the stakeholder survey only three participants identified themselves as ISPs. This sample size is too small to examine particular characteristics associated with this group. ISPs were included in the implementation analysis, as they took part in an evaluation focus group summarized earlier.

SESSION GROUPS

As designed, the stakeholder survey included participants from both Open and Intensive Sessions. Evaluators broke out the analysis, examining changes in variables from the pre- to the post-survey to isolate effects of session participation. The sample included 78 Open Session and 54 Intensive Session participants. It was expected that the Intensive Session participants would experience greater shifts in the culture of standards given the more intense BSF program participation and contact. Contrary to this expectation, both Open and Intensive Session participation experienced similar gains in beliefs, understanding, attitudes, and classroom use of academic standards. Interestingly, the strength of the change of beliefs around the standards was greater for stakeholders in the Open Sessions. This result might be explained by the larger sample size for Open Sessions. Overall, the session group analysis suggests that both the Open and Intensive Sessions were impactful in shifting the culture of standards within participating districts.

DISTRICT & CONTENT GROUPS

The stakeholder survey did not have a large enough sample of participants per district to examine district or content level differences. That is, there were 17 districts that participated in the stakeholder survey (both Open and Intensive Session stakeholders); however, several of these districts had only 6 participants. This sample was not large enough to break out district level differences. The teacher survey included teachers representing multiple Intensive Session districts that allowed for examination of how BSF program impacts differ based on the district context.

The district group analysis explored survey response per district to uncover useful BSF program findings that differed across participating districts. The sample included Intensive Session teachers from Cranston (N = 36), Cumberland (N = 19), Lincoln (N = 17), and Woonsocket (N = 25). Seven teachers did not report their district and were not included in the district level analysis. The district group analysis is confounded to some extent with the content focus of each district. For example, Cranston was the only district that focused on science and therefore examples where the Cranston teachers differed from other district teachers might be a reflection of content rather than the district context. Evaluators explored multiple interpretations and triangulated data from multiple sources to identify whether district and content groups differences were related to district or content associations. Therefore, these differences are divided below per district or content group interpretations where appropriate.

District Differences

Although all participating districts reported similar levels of understanding and familiarity of academic standards after BSF program participation, Woonsocket teachers reported coming into the program with greater familiarity and understanding of the standards than other participating districts. Given this difference, Woonsocket teachers reported less improvement in knowledge and understanding of standards associated with BSF program participation than other districts.

Lincoln teachers reported less agreement that the standards improve the instructional strategies implemented in the classroom than other participating districts, both prior to and after program participation. Interestingly, Lincoln was the only district where prior to program participation, less than the majority of teachers reported that the academic standards improved instructional strategies. Lincoln teachers also reported less frequent use of standards in the classroom to develop an assessment, differentiate instruction, integrate inquiry-based instruction, or address student needs both prior to and after program participation than other districts. In line with these findings, a greater number of Lincoln teachers than other district teachers reported that implementing the standards required additional preparation time. Overall, these data along with focus group data suggest that program impacts differ for Lincoln because it is a smaller district with higher student proficiency. That is, data suggested that teachers from better performing districts did not view the standards as integral to their teaching or student success.

The teacher survey also revealed that greater numbers of Woonsocket teachers reported that standards improved differentiated instruction. In fact, Woonsocket was the only district where the majority of teachers agreed both prior to and after program participation that the academic standards support differentiated instruction. Additionally, Woonsocket teachers reported higher percentages of understanding and familiarity of the standards for which their students are and are not proficient than other districts, both prior to and after program participation. Taken together with focus group data, these findings suggest that due to high numbers of students with Individualized Education Plans in this district, Woonsocket teachers view the standards and the BSF program as supporting differentiated instruction. Also, due to the low levels of student performance in this district, teachers have been working with and have become familiar with the academic standards prior to the BSF program, more than other districts.

Cranston and Woonsocket district teachers reported higher frequencies of using standards to prepare for NECAP than other participating districts. Similarly, Cranston and Woonsocket teachers reported high frequencies of using the standards to co-plan or share lessons, as well as using the standards for school and district improvement plans. Both Cranston and Woonsocket, although participating in the BSF program for differing content areas, have lower performing students than Cumberland and Lincoln and therefore are using the standards in planning, instruction, and assessment more often.

Content Differences

The teacher survey provided opportunities to examine where the content area focus – mathematics or science – produced varying teacher impacts. For example, teachers participating in the science component of the BSF program reported greater balance between the standards being too specific or too general as compared with the mathematics districts. Not surprisingly, science participants reported less familiarity and understanding with the mathematics standards, while the mathematics districts reported less familiarity and understanding of science standards. It was the case, however, that teachers who participated in the mathematics program also reported gaining familiarity and understanding of science standards. The same was not found among science participants, as they did not report gaining familiarity or understanding with the mathematics standards.

SECTION V: BASELINE STUDENT ACHIEVEMENT DATA

In Rhode Island, NECAP science assessments for students are administered during May of each school year. Test results then become available the following October. Given this timeline, Alliance evaluators have organized a summary of student science NECAP scores for the BSF Cohort I districts (Table 15). Complete science is yet available for the 2009-2010 school year, which would reflect BSF Year 1; therefore, 2008-2009 data was gathered to serve as a baseline. The evaluation will continue to track student achievement data; however, impacts on student achievement are not expected to be measured until the 2010-2011 school year, as this is the first year of classroom level implementation.

Table 15. Baseline Science NECAP Data

Cohort I Schools	2008-2009 Proficient and Above		2009-2010 Proficient and Above	
	Mathematics	*Science*	*Mathematics*	*Science*
Cranston	53	26	55	N/A
Cumberland	58	29	62	N/A
Lincoln	68	35	N/A	N/A
Woonsocket	35	13	37	N/A

Notes: (1) Data gathered by evaluators from eRIDE database through online external access. (2) N/A denotes data that was not available through the eRIDE database.

SECTION VI: SUMMARY EVALUATION FINDINGS & RECOMMENDATIONS

SUMMARY OF EVALUATION FINDINGS

In Year 1 implementation of the BSF program, evaluators collected survey data from both stakeholders and teachers and conducted focus groups with multiple program groups. Data is presented in the previous report sections; however, synthesis of these various data collection and participant groups provide summary evaluation findings for Year 1 implementation. Broad program findings include:

- *The BSF program implemented a program structure and intensity that was effective for multiple program participant groups.* A consensus across participants groups was that it was beneficial to include school and district leadership, teachers, and ISPs in program participation. Teachers viewed their school leadership as critical elements to their and other teachers' success in implementing the BSF program. Participants remarked that program investment in teachers and leadership represented an investment from RIDE in the system of standards-based instruction and student achievement, as well as a culture of professionalism. Additionally, participants viewed the role of the ISPs as a means of sustaining BSF program investments and provided a level of confidence in the program's longevity and impact.

  Evaluation data provided evidence that there were high levels of participation across groups and low levels of attrition. Support for this was found in conversations among participants that suggested the intensity of program participation worked well across groups. Data revealed that stakeholders from the Open Sessions experienced similar shifts in the culture of academic standards as did the Intensive Session participation. Teachers and leadership from the Intensive Sessions viewed the BSF program activities as appropriately scheduled for their workloads, yet rigorous enough for participants to report being productive.

- *Multiple participant groups reported high levels of BSF program buy-in and consistent program goals.* In addition to low levels of attrition, the BSF program participants reported high levels of buy-in to program goals and activities. Survey and focus group data suggested that while teachers and stakeholders reported varying needs for the BSF program, after one year of participation, most participants understood the need for increased standards-based instruction. After one year of BSF program participation, both leadership and teachers viewed the buy-in as high; however, both groups were cognizant that with increased implementation in Year 2, buy-in challenges would increase. These groups recognized that by building the foundation in Year 1, capacity for Year 2 implementation was increased. Also recognized was the structure built for communication within a school (between leadership and teachers) that would support future buy-in.

  A clear and consistent BSF program vision was evident in evaluation data. All program participants noted the importance of a coherent and aligned curriculum that every teacher would use every day, and that every student would be learning core content every day.

Varying participants groups were aware of their role in this vision and all groups articulated their responsibility in achieving this goal. These responsibilities and roles were articulated as part of a culture of professionalism. Participants also noted BSF program activities, tools, and resources, which would support the attainment of this consistent vision.

- *Across BSF program participant groups, early impacts were measured that indicate momentum for classroom level impacts.* Each participant group reported that the BSF program and program work were productive toward the goals of improved classroom instruction and student achievement. Although participants recognized the longitudinal nature of the program goals, all groups observed the momentum of the BSF program. This momentum was also measured by the stakeholder and teacher surveys where shifts in the culture of academic standards were documented. Participants reported being encouraged and excited for Year 2 implementation, noting that the program impacts and capacity would grow. These findings represent early indicators of the program's ability to effect classroom instruction and student achievement.

EVALUATION RECOMMENDATIONS

Through data collection and analysis, evaluators suggest data-driven recommendations that the BSF program might consider as program implementation builds. These recommendations are designed to be discussion points with data evidence for ongoing program improvements, rather than to be taken as simple keys to program success. Evaluators will continue to work formatively with the BSF program to critically examine recommendations along with program milestones and data.

- *Maintain fundamental BSF program structure, including multiple program groups and intensity levels, as well as a consistent program vision.* Program successes included the inclusion of multiple participant groups, a consistent vision, collaboration, and supportive tools and resources. Maintaining these program components will aid in continued growth of Cohort I districts as well as Cohort II districts. In particular, participants appreciated the consistency of the BSF program goals, the awareness of program efforts by school and district leadership, the intensity of program participation, and the collaboration across districts.

- *Support leaders and teachers in developing strategies to gain broad teacher buy-in, involvement, and implementation in Year 2.* School and district leadership and teachers all mentioned the challenges that might arise in Year 2 implementation with the broadening of teacher participation and classroom implementation. Teachers were particularly concerned about getting "all" school teachers implementing the curriculum. Strategies that might support Year 2 implementation include: (1) use of the Open Session component to invite intensive district teachers who do not have the direct participation to become aware of implementation; and (2) work with school and district leadership to use CPT (or part of the designated time) for BSF program discussions. It will also be important to document classroom implementation in Year 2, in terms of cases where both successes and challenges were met.

- *Continue to develop the role of ISPs, building in interactions with participants and moving to a more transparent role.* Participants groups, including the ISPs themselves, were less clear about the ISP role as compared to other program roles. While all groups valued the ISP role for sustainability and support in future implementation years, the activities and responsibilities of the ISPs was not clear to participants. This lack of clarity was not a concern among participants as they recognized that the role of the ISP was not fully developed and would not be utilized until future program years. Articulating the role of the ISPs is likely to become more important in Year 2 and therefore, providing more in-depth understanding of the role of this group will also be important to ensuring effective use and awareness of this program resource.

- *Consider district characteristics in recruitment and collaboration among districts.* Focus group and survey data suggested that participation varied in relation to district characteristics. Smaller districts and districts with fewer students in need of academic improvement reported less benefit from program participation. These data are not longitudinal and do not suggest that these districts do not need the BSF program. It will be important to continue to examine how district characteristics impact program implementation. In Year 1, Lincoln (a smaller district with fewer students in need of academic improvement) was partnered with Cumberland and Woonsocket. This partnership was valued by all participants and viewed as a success. It might be that partnering higher performing districts that have more resources with lower performing districts that have less resources benefits both. These effects should be explored as implementation builds.

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APPENDIX A: COPY OF SURVEY INSTRUMENT

The following survey is part of the evaluation of Rhode Island's Math Science Partnership conducted by The Education Alliance at Brown University. The evaluation includes an exploration into how partnerships are leveraged for standards-based education and student success. The survey takes approximately 15 minutes to complete. The data collected will remain confidential, where participants' responses will be aggregated to protect identity in reporting used for program improvement. Thank you for your time.

For each of the following series of statements, please circle the response that best describes your perspective.

1.) The Rhode Island GLEs/GSEs…	Strongly Disagree	Disagree	Agree	Strongly Agree
a. are too specific.	1	2	3	4
b. are too general.	1	2	3	4
c. improve student achievement.	1	2	3	4
d. provide a benchmark for comparing students' skill levels.	1	2	3	4
e. do **not** improve instruction in core content areas.	1	2	3	4
f. improve instructional strategies implemented in the classroom.	1	2	3	4
g. align the content taught across districts and the state.	1	2	3	4
h. can be used to develop in class assessments.	1	2	3	4
i. have a positive effect on student learning.	1	2	3	4
j. provide a basis for measuring student learning.	1	2	3	4
k. enhance the educational system in the state.	1	2	3	4
l. increase the competitiveness of Rhode Island students nationally.	1	2	3	4
m. require additional preparation time to integrate into instruction.	1	2	3	4
n. require improvement in students' competencies to integrate them in instruction effectively.	1	2	3	4
o. improve differentiated instruction in the classroom.	1	2	3	4

2.) Students who successfully master the GLEs/GSEs…	Strongly Disagree	Disagree	Agree	Strongly Agree
a. have smoother transitions between grades than those who did not.	1	2	3	4
b. have a high level of knowledge in core content areas.	1	2	3	4
c. are not any different than students who do not meet the standards in terms of knowledge.	1	2	3	4
d. have exceptional teachers.	1	2	3	4
e. have academically involved parents/guardians.	1	2	3	4

3.) Teachers who implement the GLEs/GSEs…	Strongly Disagree	Disagree	Agree	Strongly Agree
a. are more effective teachers than those who do not.	1	2	3	4
b. have deeper content knowledge than those who do not.	1	2	3	4
c. integrate new resources into their classroom (i.e., technology, textbooks, laboratories, etc.).	1	2	3	4
d. are more experienced teachers than those who do not.	1	2	3	4
e. are less experienced teachers than those who do not.	1	2	3	4
f. spend additional time planning their instructional strategies.	1	2	3	4

4.) I am familiar with the GLEs/GSEs…	Strongly Disagree	Disagree	Agree	Strongly Agree
a. for mathematics.	1	2	3	4
b. for science.	1	2	3	4
c. for the grade levels in my school (or district).	1	2	3	4
d. for which students in my school/district are **not** proficient.	1	2	3	4
e. for which students in my school/district are proficient.	1	2	3	4

5.) I have a strong understanding of the GLEs/GSEs…	Strongly Disagree	Disagree	Agree	Strongly Agree
a. for mathematics.	1	2	3	4
b. for science.	1	2	3	4
c. for the grade levels in my school (or district).	1	2	3	4
d. for which students in my school/district are **not** proficient.	1	2	3	4
e. for which students in my school/district are proficient.	1	2	3	4

6.) Please indicate your level of agreement with the following statements…	Strongly Disagree	Disagree	Agree	Strongly Agree
a. I am as familiar with the GLEs/GSEs as other educators in my school/district.	1	2	3	4
b. Teachers at my school/district have adequate understanding of the GLEs/GSEs.	1	2	3	4
c. Most teachers at my school/district are addressing the GLEs/GSEs in their classrooms.	1	2	3	4
d. I am confident that my training thus far prepares me to address the GLEs/GSEs in my role.	1	2	3	4
e. I am confident in my content knowledge, but **not** in my understanding of the GLEs/GSEs.	1	2	3	4
f. Additional professional development in *core content areas* will help me to fully understand the GLEs/GSEs.	1	2	3	4
g. Additional professional development on *instructional strategies* will help me fully understand the GLEs/GSEs.	1	2	3	4

7.) How frequently do you believe the GLEs/GSEs are addressed in the classrooms at your school/district to…	Not at All					Very Often
a. plan a lesson.	0	1	2	3	4	5
b. develop a learning assessment.	0	1	2	3	4	5
c. develop a unit of instruction.	0	1	2	3	4	5
d. integrate inquiry-based instruction.	0	1	2	3	4	5
e. differentiate instruction.	0	1	2	3	4	5
f. address student learning needs.	0	1	2	3	4	5
g. prepare for NECAP.	0	1	2	3	4	5

8.) How frequently do you address the GLEs/GSEs in school/district professional development to…	Not at All					Very Often
a. gain depth in a content area.	0	1	2	3	4	5
b. gain instructional strategies.	0	1	2	3	4	5
c. compare/share student work.	0	1	2	3	4	5
d. assess student improvement.	0	1	2	3	4	5
e. plan extracurricular activities.	0	1	2	3	4	5
f. co-plan or share lessons.	0	1	2	3	4	5
g. develop/review school and district improvement plan.	0	1	2	3	4	5

9.) Demographic information…	
a. Which district are you from?	_____
b. What is your role within the district?	☐ Teacher ☐ Principal ☐ Assistant Principal ☐ Superintendent ☐ Assistant Superintendent ☐ Curriculum Director Other: _____
c. Gender:	☐ Female ☐ Male
d. Ethnic Background:	☐ African-American ☐ American Indian/Alaskan Indian ☐ Hispanic ☐ Asian or Pacific Islander ☐ Caucasian Other: _____
e. What is the highest level of degree you have attained?	☐ Bachelors ☐ Masters ☐ Master plus 30 credit hours or more ☐ Doctorate
f. I am certified to teach the following field(s):	☐ Early Childhood ☐ Elementary

	☐ Secondary Mathematics ☐ Secondary Science Other: _____
g. Years of teaching experience:	☐ 0-4 ☐ 5-9 ☐ 10-15 ☐ 16-25 ☐ Over 25