The Data-Driven School Transformation Partnership (DSTP)

A five year project of the Bay State Reading Institute and 12 Massachusetts elementary schools.

A. Need for the Project and Quality of the Project Design

The Bay State Reading Institute (BSRI) was established by a retired Massachusetts Associate Commissioner of Education for School Readiness who designed and began the implementation of MA Reading First, and the current external evaluator for the Alabama Reading Initiative. Their experience has taught them that a program design which contains widely accepted best practices for using data to improve instruction is not enough. Successful use of data to generate consistent improvement in student achievement requires whole school transformation. Whole school transformation depends on creating consensus around priorities and commitment to best practices but at the same time must exhibit flexibility in responding to the unique context and needs of each child, school and community. (Rossi & Stingfield, 1995)[i] BSRI and the 12 elementary school partners that comprise the Data-Driven School Transformation Partnership (DSTP) propose to use this balanced approach to transform each school so that it effectively and consistently uses data to significantly and consistently improve student achievement.

Students in the twelve DSTP schools are 63% low-income, 49% non-white, and 25% ELL. 55% of third grade students in these schools scored below proficient on the 2009 Massachusetts Comprehensive Assessment System (MCAS) English Language Arts test; 12 percentage points below the MA state average of 57%.[ii] Early reading difficulty is a strong predictor of poor academic achievement in later grades, as well as behavior and emotional problems, referrals to

special education, lower high school graduation rates, higher incarceration rates, and a limited ability to contribute to the 21st century economy.[iii]

The DSTP schools have an established record of poor performance even though, in many cases, they have been making a concerted effort for years to improve the literacy of their students. In this, these schools are not unique. They have found that the strengths of intervention designs are often lost in the challenges of implementation.[iv] The seemingly intractable nature of this challenge drew each of these 12 schools to partnership with BSRI.

Students in BSRI's 18 current partner schools show significant gains in literacy, and the schools themselves have transformed into motivated, cohesive, and committed organizations. The teachers and principals in BSRI partner schools report feeling respected, praised, empowered and motivated by the information they receive from assessments of students. As a result of partnership with BSRI, members of each school community commit to measuring and analyzing their own performance by individual student achievement data. Their unique strengths and circumstances positively influence the turnaround process. Teachers discover that their students are capable of far more than they realized and as a result, students achieve more. (See the BSRI White Paper written by SchoolWorks, BSRI's independent evaluator on pages 2 - 15 of Appendix H.) Schools are also attracted to BSRI partnership because it costs a fraction of what is typically associated with engaging a school turnaround partner.

The DSTP will use data in two strategies to make significant gains in student achievement. First, the DSTP will implement a whole-school transformation that improves student gains through the

assessment, analysis and use of student achievement data. Second, the DSTP will advance the knowledge of successful, consistent replication of a turnaround model through a rigorous controlled study which evaluates the BSRI Turnaround Coaches and examines the relationship between student achievement, the implementation of data-driven continuous improvement strategies, and the interventions used by BSRI Turnaround Coaches to help schools transform their practice. This experimental study will make explicit the competencies required of successful turnaround coaches and the organizations that support them.

Strategy One: Dramatically improve student achievement in 12 high-need schools using BSRI's model of data-driven literacy instruction. Partner schools will implement the following changes:

- *Scientifically Based Core Curriculum and Intervention Materials:* Partner schools will have what they need including a sound core curriculum, resources, intervention programs and the professional development necessary to use them effectively.
- *Frequent Assessment:* All students are assessed with the DIBELS 3 times a year; struggling readers are assessed as often as weekly. GRADE and/or MAZE/DAZE will be used to monitor vocabulary and comprehension – areas not covered by DIBELS. The assessment data on individual students will be routinely used in parent teacher conferences to illustrate the strengths and weaknesses of the child's literacy development and what strategies can be used at home to build on strengths and address weaknesses.
- *Data Meetings:* Fall, winter, and spring grade-level data meetings will be led by the principal. They will praise teachers for gains students have made, and also focus on specific, additional steps to be taken by classroom teachers and the school's interventionists to

advance students who are still not where they need to be. These agreed-upon strategies will be monitored through subsequent principal walkthroughs.

- *Strong Instructional Leadership:* Every principal will dedicate two to three hours daily to classroom walkthroughs and other instructional leadership tasks, and will have the authority to direct the work of all of the teachers in the building including SPED, Title 1 and other support staff. Each school will form a school leadership team comprised of the principal, the school-based literacy coach, other staff, and the BSRI Turnaround Coaches.
- *School-Based Literacy Coach:* A literacy coach in every school will model, co-teach, mentor and support teachers to improve and differentiate instruction. The literacy coach will also lead the assessment teams.
- *Common Planning Time:* Teachers at each grade level will have regular protected time together to discuss curriculum and individual student progress.
- *Literacy Block:* Each school will reorganize its day to ensure a 120 minute literacy block. A limited amount of time will be spent in whole-group instruction. The remainder of the time will used for small-group differentiated instruction. The participation of para-professionals, volunteers, SPED, Title 1, and other teachers will be coordinated to maximize the support students receive during the literacy block.
- *Intervention:* Implementation of a 3-tiered intervention model will provide increased and explicit instruction to struggling readers. Students who are below proficient readers will receive more frequent assessments, and the data from these assessments will guide the interventions they receive.
- *Differentiation and Small-Group Instruction:* Students will have meaningful differentiated individual or small group activities and have a clear understanding of what they are supposed

to be doing and why. Teachers will receive support in the design and implementation of high-quality instruction as well as classroom management skills to maximize student productivity.

- *Professional Development (PD):* Implementing differentiated instruction in dynamic classrooms and effectively using data and scientifically based literacy research to guide instruction are significant challenges for teachers. Central to BSRI's approach is hands-on, in-school coaching tied to professional development and linked to priorities set jointly by BSRI and the school's leadership team.

Strategy Two: Evaluate the interventions used by BSRI Turnaround Coaches to help schools transform their practice and make explicit the competencies required of successful turnaround coaches and the organizations that support them. The DSTP and its external evaluator will implement the following:

- *Develop Assessment Tools:* BSRI and its external evaluator, SchoolWorks, will analyze current data which reflects the relationship between implementation of each of the model components and student gains in 18 schools which currently partner with BSRI. SchoolWorks, the external evaluator, will use this data to develop periodic and formative assessments of BSRI's practice as a turnaround partner.
- *Hold Data Meetings and Modify Interventions:* Just as principals and classroom teachers hold data meetings to analyze student data and modify their practice accordingly, BSRI Turnaround Coaches will meet to analyze the implementation fidelity data and differentiate their practice accordingly.

- *Evaluate Turnaround Coach Practice:* BSRI and SchoolWorks will examine the practice of the Turnaround Coaches to identify the strategies they employ to change behavior in schools and the skills and knowledge base they draw from to do so.
- *Evaluate a Control Group:* SchoolWorks will conduct similar assessments in a control group of six schools that are not receiving the support of BSRI. Control group schools will be assessed for the prevalence of the same instructional practices and this data will be correlated with student achievement scores, helping to identify the specific value added by BSRI as a turnaround partner.
- *Draw Connections Between Turnaround Practice and Student Gains:* SchoolWorks will produce an annual analysis of its findings, and an interim and final trend report examining the connections between interventions, teacher and principal behavior change, and student achievement, drawing a clear picture of school progress and the turnaround process.
- *Conduct a Comparative Analysis:* BSRI will compare the results of this assessment with research which describes key competencies of system change coaches. This comparative analysis will result in a comprehensive description of successful school turnaround coaches and the organizations which supports them.
- *Disseminate Results:* Results of these analyses will be widely disseminated to encourage peer review, comment, and comparison with other data-driven literacy centered turnaround efforts, and feedback will be incorporated into BSRIs work.

B. Strength of Research, Significance of Effect, and Magnitude of Effect

Successful implementation of an evidence-based practice depends on four elements: the efficacy of the practice, as determined by scientific testing in ideal circumstances, the quality of its

implementation, the effectiveness of the practice in a particular context, and close monitoring to determine whether or not it is actually working.[v] The efficacy of each component of the BSRI model has been firmly established in multiple research studies, and many well-known and validated interventions combine some of these components. Only a brief highlight of some recent studies showing the efficacy of these components can be included here.

- Scientifically based core curriculum and intervention materials ensure that the content of what is taught is valid and assessed. (Allen, 2002; Downey, 2001; English & Steffy, 2001)[vi]
- Frequent assessments that are aligned with the curriculum and provide quick turn-around of results are one of the most powerful influences on student achievement. (Marzane, 1998; Marsh et al., 2006; Petty 2006)[vii]
- Data meetings provide opportunities for collaborative monitoring of effectiveness, identification of student needs and appropriate instructional strategies. (Darling-Hammond et al., 2009; Gallimore et al., 2009)[viii]
- Strong instructional leadership from the principal and a leadership team is identified in every study of successful school turnaround. (Berends et al., 2001; Duke, 2004; Leithwood et al, 2004; Marzano, Waters, and McNulty,2005; Marsh et al., 2006; Hall and Hord 2000)[ix]
- School-based literacy coaches assist in the transference of PD into teacher practice, build shared accountability, and enhance teacher effectiveness, one of the strongest determinants of difference in student learning. (Matsumara et al., 2008; Joyce and Showers, 1995; Darling-Hammond, 1999; Nye et al., 2004; Sanders & Rivers, 1996)[x]
- Common planning time for teachers is required to change and adjust practice, curriculum and assessment to effectively respond to students with a variety of ever-changing needs.

(Elmore, 1996; Fullan & Hargreaves 1996, Wald & Castleberry, 2000; Johnston et al 2007, Darling-Hammond 1999).[xi]

- A Literacy Block consisting of 120 minutes per day of mostly small group instruction is highly correlated with student literacy gains. (Paugh et al, 2007; Reis et al 2007.)[xii]
- Three-tiered intervention utilizes frequent assessments and increased, explicit and effective instruction to struggling readers to help close the achievement gap. (Gersten, R, 2008)[xiii]
- Differentiation and small-group instruction maximizes the impact of language arts instruction. (Tobin, R., McInnes, A., 2008; Walker-Dalhouse, Doris; Risko, Victoria J., 2009; Barton, Rhonda; Stepanek, Jennifer, 2009)[xiv]
- Professional development which contains both content and pedagogical knowledge is essential for changing teacher practice (Mason, 2002; Supovitz & Klein, 2003; Marsh et al., 2006; Weiss & Pasley, 2006)[xv]

A model which requires all the necessary components does not necessarily lead to gains in student achievement. Many studies have shown that the quality of implementation is as challenging as it is important.[xvi] In a comprehensive review of 22 meta-analyses or experimental research on implementation, Fixsen, et al identify four characteristics necessary for high-fidelity implementation.[xvii] These characteristics, all integrated into the DSTP model, are:

- practitioners who receive coordinated training, coaching, and frequent performance assessments;
- provision of the infrastructure necessary for timely training, skillful supervision and coaching, and regular process and outcome evaluations;

- the full involvement of stakeholders in the selection and evaluation of programs and practices; and
- policies, regulations, and funding which create a hospitable environment for implementation and program operations.

To these four points, the DSTP adds the necessity of a balance between consistency and flexibility. Turnaround requires creating consensus around goals and best practices, while at the same time protecting the ability of principals and teachers to respond flexibly to the needs of their school or students. (Cook and Payne,[xviii]) When done correctly, establishing common goals and best practices frees teachers and principals to pay attention to individual needs and strengths. They are the only ones in the position to notice and attend to this level of diverse detail, and without attention at this level, schools will not be able to help each and every child succeed.

The BSRI data-driven school turnaround model that will be used in the 12 DSTP schools has been tested in 18 schools over the last 4.5 years. Annual external evaluation attests to high implementation fidelity in each of these 18 schools, and consistent gains in student achievement. (See SchoolWorks BSRI White Paper, 2010, pages 2 - 15 in Appendix H)

BSRI uses measurable goals and benchmarks for each child set by the DIBELS team at the University of Oregon. (All charts referenced below can be found in the Data Appendix, pages 16 - 45 of Appendix H) The DIBELS scores for BSRI schools are summarized using a net percent at benchmark (NPB). The NPB is the percent of students assessed as proficient or above, minus those at high risk for grade level literacy. At the inception of their partnership with BSRI,

cohorts one, two and three had NPBs of 21.6, 17.1, and 14.6% respectively. By the end of their third year of partnership with BSRI, the cohort one schools had improved the NPB to 62%, an increase of 287%. (Appendix H, page 17) By the winter of cohort two's third year (the last assessment for which data is available), cohort two schools reached an NPB of 54.7%, representing an increase of 319%. (Appendix H, page 18) With cohort three, the two years of available data shows a similar trajectory of improvement. The NPB at the winter of their second year was 35.2%, an improvement of 241%. (Appendix H, page 19) Student gains as a result of BSRI's current partnerships are explored more thoroughly below in Section C. The statistical significance (T-statistic) of the increase in DIBELS scores at BSRI schools is 11.4% – far above the 1% needed to establish statistical significance. (Appendix H, pages 37 – 39)

The effect size of improvements in student achievement are determined by comparing the change in the mean score – a gain from 17.5 to 26.2 for kindergarten – with the standard deviation. In this case, the change is almost half a standard deviation. In a meta-analysis of comprehensive school reform initiatives, Borman et al, (2003) [xix] report that a strong effect size in the 2nd and 3rd year of implementation is typically .15. Thus, BSRI's effect sizes for kindergarten (.479), 1st grade(.318), second grade (.168) and 3rd grade(.471) are very large. (Appendix H, page 45)

Statistical significance is measured by the Anova Test (Analysis of variation). The F statistic from this test is a measure of whether the two means are really different from each other. An F value of 2.5 is generally regarded as indicating statistical significance for samples as large as BSRI. Analysis of BSRI student achievement data produces F statistics of 6.3 to 53.2.

(Appendix H, page 45) This is a very significant positive impact; the BSRI model warrants more formal and systematic study such as that described in this proposal.

C. Experience of the Eligible Applicant

BSRI has been a turnaround partner working with MA schools since the spring of 2005. BSRI partnered with 8 schools in their first year, adding a second cohort of 10 schools in the second year. Additional schools have been added, bringing the total number of schools currently in partnership with BSRI to 18. Student achievement data and an external evaluation both show that BSRI was able to increase by 120% the number of partner schools in one year without loss of fidelity to the model or dilution of student achievement gains, and that these trends have continued with 18 school partners. Addition of the twelve DSTP schools will represent a growth of 66%, half of what BSRI successfully managed in its second year. Furthermore, the addition of the DSTP cohort will be done by an organization and staff that have four and a half years of experience implementing this model.

BSRI has engaged in rigorous data collection and analysis since its inception. The DSTP evaluation and controlled study will be conducted by SchoolWorks, which has been the independent evaluator of BSRI since 2006. SchoolWorks specializes in qualitative assessments of schools achieving outstanding gains, evaluating current performance, strategies for improvement, and new model implementation. The evaluation proposed in this application is similar in size and scope to other evaluations they have done, including more than 200 annual independent reviews of MA schools for the MA Department of Education (since 1998),

assessment of the five finalist districts for the 2007 Broad Prize, development of case studies of schools with outstanding gains for the New Leaders for New Schools - Effective Practice Incentive Community, and review of effective practices in New York schools for the National Heritage Academy.

Two measures are used to analyze student achievement in BSRI schools; DIBELS and the MCAS English Language Arts (ELA) test scores. Both of these measures have strong documented reliability and validity. (For a more detailed look at BSRI student achievement data analysis, please see the Data Appendix, pages 16 - 45 in Appendix H.) BSRI schools use DIBELS for benchmark and formative assessments. Nonsense Word Fluency (NWF) at the end of kindergarten, and Oral Reading Fluency (ORF) for grades one through three are strongly predictive of word reading proficiency and reading comprehension as measured by the MCAS and are used to determine the percentage of students who meet benchmark literacy goals. BSRI has collected and analyzed DIBELS data for 100% of the students in its 18 current partner schools. Beyond third grade, BSRI continues to track oral reading fluency as well as the MCAS ELA Test.

Tracking each group of students through successive years in a BSRI partner school shows that the NPB increases quickly from kindergarten through second grade (i.e. 33% NPB in fall of 1st grade increases to 52% in fall of 3rd grade) and more gradually after that. (Chart 3 on page 19 of Appendix H) In other words, the impact of partnership with BSRI increases over time. This is true for most school reform initiatives, with full impact being reached only after at least 8 years. (Borman et al, 2003) Further analysis reveals that as a school implements the BSRI model, each

successive group entering a grade is more proficient than the group which was in that grade the previous year. This in an important finding because it means that, in order to move an entire school towards increasing proficiency, teachers must adjust their practice each year to accommodate students that enter their class at a higher level. (Charts 1 – 3 on pages 17 - 19, Appendix H)

Analysis of BSRI data shows that student performance on DIBELS is strongly predictive of performance on the MCAS English Language Arts test regardless of cohort or race/ethnicity. (Charts 10 – 12 on pages 28 – 30, Appendix H). In BSRI schools, instruction over the course of 1st, 2nd, and 3rd grades has far more to do with eventual success on the MCAS than where students were at the beginning of 1st grade. (Chart 14, page 32, Appendix H) Well over half the students at high risk in the spring of 1st grade were at low risk by the end of third grade. 51% of these were proficient on the MCAS, and most of these gains were made in first grade. (Chart 16, 17 on pages 35 – 36, Appendix H) In 3 out of the 4 cohort one districts, the BSRI partner school outperformed the rest of the schools in their respective districts; in 2 of these 3, the BSRI partner school went from lowest in the district to highest over the 3-year period. (Charts 18 – 21, pages 41 – 44, Appendix H)

BSRI schools outperform MA Reading First schools ORF scores by a margin of 17 – 36% (Charts 7 -9, pages 23 – 26, Appendix H) in all 4 years of implementation with available data. In a comparison of the ability of groups of schools in vocabulary, background knowledge, and comprehension skills, BSRI cohort 1 and 3 schools outperform all 3 groups of Reading First and Silber schools, even though the BSRI model had been implemented for less time than Reading

First. BSRI cohort two schools, in their second year with BSRI, performed slightly less well than Reading First cohort one schools in their 5th year. (Chart 15, page 34, Appendix H)

As explanatory variables, both minority status and 1st grade NWF were statistically significant (T-statistics of 3 or better, meaning significant at the .05% level of significance). However, as measured by their T-statistics, 2nd grade reading fluency is over 3 times more important than demography in "explaining" 3rd grade comprehension (T = 11.4 for 2nd grade ORF, T=3.6 for minority status). (Pages 37 - 39 of Appendix H.)

Quality of the Project Evaluation

SchoolWorks will conduct an external evaluation and controlled study of the effects of the DSTP. The purpose of the external evaluation is to determine to what extent BSRI is able to meet or exceed its goals in the implementation of its turnaround model. The purpose of the controlled study is to compare the effects of the DSTP on student achievement in reading proficiency between a set of 12 cohort schools and a control group of six schools with similar demographics and in the same districts as the DSTP schools. The evaluation and controlled study will be conducted based on a rigorous experimental design for assessing the effects of program implementation on student achievement in literacy proficiency.

SchoolWorks will also evaluate the characteristics of the Turnaround Coaches and their implementation of interventions to transform school practice in the DSTP schools. The function of this component of the evaluation is to identify, for purposes of replication, the competencies required of successful Turnaround Coaches. The experimental design ensures a valid basis for

answering three key questions: What is the impact of the BSRI model as a whole on literacy proficiency? What effect does implementation fidelity have on student achievement? What effects do BSRI Turnaround Coaches have on the implementation of the BSRI model?

The SchoolWorks evaluation will use the ten research-based elements of the DSTP model as the framework for collecting data about the implementation of the model, the effect on student achievement, and the role of the Turnaround Coaches. The elements will be defined in a protocol with criteria and indicators to rate each school on an index of implementation fidelity and intensity. The index will be supported by multiple sources of evidence to measure how well schools participating in the DSTP are implementing the ten elements of the model compared with the control group not supported by BSRI.

SchoolWorks will provide review teams of experienced educators and conduct trainings on the protocol and the data collection tools to ensure inter-reliability. The reviewers will collect and analyze data about the fidelity of implementation through multiple sources of evidence. Each of the tools developed to collect this evidence will be based on evaluation tools that SchoolWorks has developed and tested on BSRI evaluations for the past four years. Two SchoolWorks reviewers will be assigned to each school and will visit every school in the spring of the planning year to conduct a baseline assessment and an evaluative visit will be scheduled during spring of the following four years. All reviews will be scheduled during the same eight week period. In each school, the reviewers will complete the same number of observations across similar grade levels. The evaluation will utilize multiple sources of evidence to understand how well a school is implementing the practices in relation to the criteria and indicators specified in the DSTP

protocol. Using observation tools and interview questions that are directly aligned to the DSTP criteria and indicators, reviewers will conduct multiple classroom observations and interviews with principal, reading coach, interventionists, and a representative group of teachers. Each school will complete a self study prior to the visit, providing the reviewer with initial information about each school's literacy-centered turnaround efforts.

On-site evidence collection will continue through additional document review that includes schedules of interventionists and services, DIBELS and other assessment data, data meeting agendas and minutes and walkthrough reports. After collecting multiple sources of evidence, the SchoolWorks reviewer will triangulate the data to complete an index of effectiveness that qualitatively rates each school on both implementation fidelity and intensity.

The evaluation of the impact of the Turnaround Coaches will be specific to the DSTP schools. Interview questions, self studies and surveys for these schools will include an additional set of questions aligned to the criteria developed to measure the effectiveness of the Turnaround Coaches. SchoolWorks will administer a series of online surveys to collect and track perception data specific to the role and interventions of the Turnaround Coaches and require Turnaround Coaches to complete a self study. SchoolWorks will schedule a reviewer to conduct two additional observations of the Turnaround Coaches in role specific activities such as modeling data meetings, teaching intervention strategies, or working with principals. Annually, the reviewer will analyze the data to identify skill sets that Turnaround Coaches use to differentiate their practice to successfully support schools.

SchoolWorks will produce an annual comprehensive report that compares the DSTP cohort to the control group and documents the current practices across both sets of schools in each of the following areas: assessment, small group instruction, literacy block, common planning time, reading curriculum, three-tiered response through intervention, principal walk-through practices, principal's use of data with faculty, activities of school-based literacy coach and professional development for literacy. The analysis of its findings will examine the connections between interventions, teacher and principal behavior change, and student achievement. In addition, the report will include a section that specifically discusses the findings relative to the effectiveness of the Turnaround Coaches. BSRI will use the SchoolWorks evaluations as part of the impact discussion on reading proficiency and student achievement. It will also use the results to develop replication and scaling strategies.

E. Strategy and Capacity to Further Develop and Bring to Scale

The DSTP schools serve 6,800 students (excluding the students in the control schools). The DSTP will use a whole school turnaround model, which by definition, reaches every student in the school. As it already does with 18 schools, BSRI will collect data to measure impact at least three times each year on 100% of students in each building, ensuring that every student is being positively impacted.

BSRI's senior management have considerable experience implementing and evaluating literacy interventions being brought to scale at a state-wide level. (See Section G for more detail.) The

evaluation proposed for the DSTP will identify what qualities of personnel and organizational practice are needed to implement the model with fidelity as it scales. BSRI has strong financial and political support from the State, elected representatives, superintendents, and teachers. (See letters of support on pages 1 - 14 of Appendix D.) BSRI maintains a cost-effective intervention model with low overhead which can be maintained as the organization grows. Schools that are not in high-needs districts are increasingly requesting partnership with BSRI and are willing to pay for it. BSRI funnels this money into partnerships with cash-poor schools and expects to be able to do this on a larger scale in the future.

The current BSRI schools and the proposed DSTP schools serve populations of students which vary widely in income, race, ethnicity, and primary language. The schools themselves vary in size from 256 to 880 students. (See chart of the demographics of DSTP schools on pages 47 – 48 of Appendix H, and MOUs for all partner schools in Appendix D, pages 15 - 21.) The DSTP model explicitly incorporates a balance between model implementation fidelity and active engagement in each school's individual diversity, strengths and opportunities. The BSRI design is based on the belief that embracing diversity is not only beneficial but absolutely critical to turnaround success. This active involvement of diversity leads to an easy fit for schools who partner with BSRI. Perhaps the most meaningful measure of ease of use is the extent to which new schools request to partner with BSRI. BSRI currently has more partnership requests than those included in DSTP. Ease of use of the BSRI model of data-driven school turnaround was noted by teachers and principals in annual SchoolWorks evaluations. (SchoolWorks White Paper, pages 2 - 15 of Appendix H)

Over 5 years, the cost of the DSTP averages $100,000 per school per year. If evaluation costs are excluded, the annual cost averages just under $87,000. The per-student cost is $64 per student for five years – just under $13 per student per year. This compares very favorably to other programs; the school improvement grants announced in MA will spend 3 times as much - $1,500,000 per school over a 3-year period; our cost is $500,000 over five years. Effective implementation of the BSRI model takes five years. The costs to do this for 100,000, 250,000 and 500,000 students would be $6,400,000, $16,000,000 and $32,000,000 respectively.

BSRI is committed to present the results of the DSTP study in peer reviewed journals and through the professional networks represented by DSTP staff and partners. BSRI will also present the findings of the DSTP to the MA Department of Elementary and Secondary Education at the end of the grant period. BSRI does not hold any of its findings as proprietary information, and actively pursues collaboration with other organizations committed to school improvement.

F. Sustainability

BSRI has a reputation for collaborative, effective, and efficient partnerships that has led to widespread support. The MA Department of Elementary and Secondary Education recently named BSRI as the only preferred partner for elementary schools requiring reform. The MA Legislature directly supports the work of BSRI with an annual line item allocation. BSRI is supported by the US and MA Senators and Congressmen representing the districts (current and proposed) in which BSRI works. The MA Association of School Superintendents supports school partnerships with BSRI, as do many individual superintendents, principals and teachers. (See pages 1 – 14 of Appendix D for letters of support.)

Findings from the DSTP evaluation will guide BSRI to increased effectiveness and efficiency. The knowledge gained will be incorporated into the work, hiring, and training of BSRI coaches, and will guide the future professional development offered to schools. If warranted by the evaluation, BSRI is committed to changing its model of intervention to increase effectiveness.

BSRI commits to long-term partnership with each of its DSTP schools. This commitment reflects a realistic assessment of the rate of organizational change, personnel turnover, and the relationship between long-term fidelity to a model and continued accountability. This long term partnership is sustainable because the intensity of the intervention decreases gradually after the first year, and dramatically after the fifth year. The anticipated annual cost per school for years 5 – 10 is $50,000. Schools that enter into partnership with BSRI understand that they will be responsible for covering $15,000 of the costs of long term partnership, and that Title 1 money can be used to cover this expense. BSRI also offers coaching to superintendents who are working to secure material support from their communities. In order to protect its commitment to long-term partnership, BSRI maintains a cash reserve. This money will be used to continue work with the DSTP schools in the event that other sources of funding cannot be found.

G. Quality of the Management Plan and Personnel

The DSTP will be managed by BSRI's Executive Director, Barbara Gardner. Ms. Gardner was BSRI's co-founder and has been Executive Director since its inception in 2005. As ED, Ms. Gardner will lead the coordination and supervision of the Turnaround Coaches. Ms. Gardner has

extensive experience managing large organizations and offering excellent leadership in education, planning, policy and finance. Prior to directing BSRI, she was the MA Department of Education Associate Commissioner for School Readiness. In that capacity she wrote a successful $100m federal Reading First grant and led its initial implementation. As Associate Commissioner, Ms. Gardner provided leadership, developed policies, and managed state-wide implementation of multiple programs addressing school readiness, early childhood education, literacy, and teacher professional development. From 1986 to 2000, Ms. Gardner was a member of the MA House of Representatives. She served on the House Ways and Means Committee, Joint Committee on Energy, and Joint Committee on the Environment. She served in leadership positions, first as Vice-Chair of the Joint Committee on Education, Arts and Humanities from 1990 – 1994, and then as House Majority Whip from 1996 – 2000.

Joining Ms. Gardner in managing the DSTP is Ed Moscovitch, BSRI's co-founder and Chairman of the Board. Dr. Moscovitch will lead BSRI's data collection and analysis in coordination with SchoolWorks. For the last 22 years, Dr. Moscovitch has been the President of Cape Ann Economics. In this capacity he has been the outside evaluator for the Alabama Reading Initiative since 2002. Dr. Moscovitch analyses data from over 500,000 Alabama students in more than 1,000 schools. He is responsible for assessing, analyzing and drawing policy conclusions. Dr. Moscovitch was one of the drafters of the 1993 MA Comprehensive Education Reform Act, and has conducted numerous studies for educational organizations across the country. Dr. Moscovitch has considerable executive management experience, including serving as the Chief Budget Officer for the State of Massachusetts and Vice-President of Data Resources, Inc. BSRI will be the fiscal agent for the DSTP.

Robin Coyne Hull has been SchoolWorks' Project Manager for BSRI since 2006. She is also the lead evaluator of 12 annual school quality reviews in six states, the DC Charter Schools, the EPIC Silver Gain Schools, and a five-year federal Voluntary Public School Choice grant project in Foxboro, MA. She presents nationally on topics related to effective teaching strategies and evaluation. Before working for SchoolWorks, Ms. Coyne Hull was the principal of several schools.

All of the Turnaround Coaches who will work on the DSTP were previous principals of high-performing schools and/or expert reading coaches, and have served as Turnaround Coaches for BSRI with current partner schools or will mentor with experienced Turnaround Coaches before working independently. They are all experienced trainers of teachers, consultants, and presenters. (See resumes for all key personnel in Appendix C).

The DSTP is a collaborative turnaround partnership between BSRI and the 12 partner schools and six control schools. Each party has clearly defined roles and responsibilities and are guided by a mutually agreed-upon timeline and benchmarks for success. (See outline of strategies, goals, objectives, and outcomes on pages 48 -51 of Appendix H) The DSTP will follow an implementation timeline based on what has proven successful in BSRI's current partnerships with 18 schools, with modifications at each DSTP school to reflect their particular needs. The initial planning year will typically be spent assessing curriculum and turnaround needs and determining a good match of Turnaround Coaches for each school. A baseline evaluation followed by initial large group professional development will also take place in the first year.

Each of the four years of implementation will follow a schedule of fall, winter and spring assessments of all students and grade-level data meetings, Turnaround Coaches will spend three days per month in each school during the first two implementation years, and gradually decrease time in schools after that. In between visits, Coaches maintain regular contact with principals and school-based literacy coaches through email and telephone conversations. Turnaround Coaches meet quarterly as a group to reflect on and evaluate their practice, and maintain frequent contact with each other in between reflection meetings. The external evaluation is conducted in the spring each year.

The Data-Driven School Transformation Project will improve the achievement of over 6,800 students in five years using data to assess and guide both student learning and the turnaround intervention. Student achievement as measured by a net percent at benchmark on DIBELS assessments will grow 20% each year - fall to spring the first year of implementation, then spring to spring in each subsequent year. In addition, by the end of the grant period, the 12 DSTP schools will have learned to embody the BSRI model. Each successive class of children at these schools will experience increasing benefit from the turnaround of these schools. The DSTP will have produced and widely distributed the results of its controlled study which clarifies the role, characteristics and skill set of successful turnaround coaches. Lastly, BSRI will be poised to continue replication of its intervention in additional schools, scaling in a way that preserves fidelity to the model and student achievement gains.

[i] Rossi, R & Stringfield, C (1995) What We Must Do for Students Placed at Risk. *The Phi Delta Kappan*, Vol. 77, No. 1 pp. 73-7

[ii] Massachusetts Department of Education, Spring 2009 MCAS Tests: Summary of State Results. Retrieved from http://www.doe.mass.edu/mcas/2009/results/summary.pdf

[iii] McKinsey et al (2009) The Economic Impact of the Achievement Gap in America's Schools *Social Sector Office*; Torgesen, J. K. (1998). Catch them before they fall: Identification and assessment to prevent reading failure in young children. *American Educator,* American Educator, v22 n1-2 p32-39 Spr-Sum; Pascopella, A. (2002). Overhauling an Early Education Program. *Curriculum Administrator*, 8, 34–37; Scanlon, D. M. & Vellutino, F. R. (1996). Prerequisite skills, early instruction, and success in first grade reading: Selected results from a longitudinal study. *Mental Retardation and Development Disabilities*, 2, 54–63.

[iv] Carnine (1999) Why Education Experts Resist Effective Practices (And What It Would Take To Make Education More Like Medicine). *Thomas B. Fordham Foundation*, For full text: http://www.edexcellence.net.; Gersten & Smith-Jones (2001) Reflections on the Research to Practice Gap. *Teacher Education and Special Education*, v24 n4 p356-61 Fall; Greenwood and Abbott (2001) The Research to Practice Gap in Special Education. *Teacher Education and Special Education*, v24 n4 p276-89 Fall; Detrich, R., Keyworth, R., & States, J. (2008) A Roadmap to Evidence-Based Education: Building an Evidence-Based Culture. *Journal of Evidence-Based Practices for Schools*, 8(1).

[v] Detrich, R., Keyworth, R., & States, J. (2008) A Roadmap to Evidence-Based Education: Building an Evidence-Based Culture. *Journal of Evidence-Based Practices for Schools, 8*(1), p 30.; Detrich, R., Keyworth, R., & States, J. (2008) *Advances in evidence-based education: A roadmap to evidence-based education.* Oakland, CA: Wing Institute.

[vi] Allen, R. (2002). Keeping kids in school. *Education Update, 44 (8).* Retrieved at www.ascd.org/affiliates/articles/eu200212_allen.html; Downey, C.J., Steffy, B.E., Poston, W.K., & English, F.W. (2009). *50 Ways to close the achievement gap, 3rd Edition.* Thousand Oaks, CA: Corwin Press.; English, FW & Steffy, BE (2001). *Deep curriculum alignment: Creating a level playing field for all children on high stakes tests of educational accountability.* Scarecrow Education, Maryland.

[vii] Marzano, R. J. (1998). *A theory-based meta-analysis of research on instruction.* Aurora, CO: Mid-continent Research for Education and Learning; Marsh, JA, Pane, JF, & Hamilton, LS (2006). *Making sense of data-driven decision making in education: Evidence from recent RAND research.* Occasional papers series, document no. OP-170-EDU.; Petty, Geoff, *Evidence-based Teaching; a practical approach.* Cheltenham; Nelson Thornes, 2006

[viii] Darling-Hammond, L., Chung Wei, R., Andree, A., Richardson, N., & Orphanos, S. (2009) *Professional Learning in the Learning Profession.* National Staff Development Council. Retrieved at http://www.nsdc.org/library/publications/index.cfm; Gallimore, R., Ermeling, B.A., Saunders, W.M., & Goldenberg, C. (2009) Moving the Learning of Teaching Closer to Practice: Teacher Education Implications of School-based Inquiry Teams. *Elementary School Journal,*

v109 n5 p537-553 May 2009; Goldenberg, C. (2004). *Successful school change: Creating settings to improve teaching and learning*. Teachers College Press, New York.

[ix] Berends, M., Kirby, S. N., Naftel, S., & McKelvey, C. (2001). *Implementation and performance in new American schools: Three years into scale-up.* (No. MR-1145). RAND Corporation Santa Monica, CA; Duke, D. (2004). The Turnaround Principal: High Stakes Leadership. *Principal Magazine,* 84(1), 12-23.; Kenneth Leithwood ; Alma Harris ;David Hopkins (2008) Seven Strong Claims About Successful School Leadership, *School Leadership & Management: Formerly School Organization*, 1364-2626, Volume 28, Issue 1, 2008, Pages 27 – 42; Marzano, R. J., Waters, T., & McNulty, B. (2005*). School leadership that works: From research to results.* Association for Supervision and Curriculum Development, Alexandria, VA; Marsh, JA, Pane, JF, & Hamilton, LS (2006). *Making sense of data-driven decision making in education: Evidence from recent RAND research.* Occasional papers series, document no. OP-170-EDU; Hall, GE, & Hord, SM . (2000). *Implementing change: Patterns, principles, and potholes*. Allyn & Bacon, Boston.

[x] Matsumara, L.C., Garnier, H., Junker, B., Resnick, L., & DiPrima Bickel, D. (2008). The Influence of Content-Focused Coaching® on Reading Comprehension Instruction and Student Achievement. Paper presented at the annual meeting of the Society for Research on Educational Effectiveness (SREE).; Joyce, B. & Showers, B. (1995). Student Achievement Through Staff Development, *Fundamentals of School Renewal*. 2nd ed, White Plains, N.Y.:Longman; Darling-Darling-Hammond, L., Chung Wei, R., Andree, A., Richardson, N., & Orphanos, S. (2009) *Professional Learning in the Learning Profession.* National Staff Development Council.

Retrieved at http://www.nsdc.org/library/publications/index.cfm; Nye, B., Konstantopoulos, S., & Hedges, L. (2004). How Large are Teacher Effects? *Educational Evaluation and Policy Analysis*, 26(3), 237-257.; Sanders, W., & Rivers, J. (1996,) *Cumulative and Residual Effects of Teachers on Future Student Academic Achievement.* Knoxville, University of Tennessee Value-Added Research and Assessment Center TN.

[xi] Elmore, R. F. (1995). Teaching, Learning and School Organization: Principles of Practice and the Regularities of Schooling. *Educational Administration Quarterly*, 31(4), p. 335 – 337.; Fullan, M. & Hargreaves, A. (1996). *What's Worth Fighting for in Your School?* New York: Teachers College Press.; P. Wald & M. Castleberry (2000) *Educators as Learners: Creating A Professional Learning Community in Your School*, Alexandria, VA: Association for Supervision and Curriculum Development.; Johnston, Jef, Knight, Mary, Miller, Laura (2007). Finding Time for Teams: Student Achievement Grows as District Support Boosts Collaboration. *Journal of Staff Development*, v28 n2 p14-18.; L. Darling-Hammond (1999), Target Time Toward Teachers, *Journal of Staff Development* Journal of Staff Development, v20 n2 p31-36 Spr

[xii] Paugh, Patricia; Carey, Jane; King-Jackson, Valarie; Russell Shelley (2007) Negotiating the Literacy Block; Constructing Spaces for Critical Literacy in a High Stakes Setting. *Language Arts*, v85 p31-42.; Reis, Sally M; McCoach Betsy, Coyne, Michael; Schreiber, Frederic; Eckert, Rebecca; Gubbins, Jean (2007) Using Planned Enrichment Strategies with Direct Instruction to Improve Reading Fluency, Comprehension, and Attitide Toward Reading: An Evidence –Based Study. *Elementary School Journal*, v108 n1 p3-24.

[xiii] Gersten, R., Compton, D., Connor, C.M., Dimino, J., Santoro, L., Linan-Thompson,S., and Tilly, W.D. (2008). *Assisting students struggling with reading: Response to Intervention and multi-tier intervention for reading in the primary grades. A practice guide.* (NCEE 2009-4045). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. DOE. http://ies.ed.gov/ncee/wwc/publications/practiceguides/.

[xiv] Tobin, R., McInnes**, A.** (2008) Accommodating differences: Variations on differentiated literacy instruction in Grade 2/3 classrooms. *Literacy 42, 1,3-9;*. Walker-Dalhouse, Doris; Risko, Victoria J. (2009) Crossing Boundaries and Initiating Conversations about RTI: Understanding and Applying Differentiated Classroom Instruction. *Reading Teacher*, v63 n1 p84-87.; Barton, Rhonda; Stepanek, Jennifer. (2009) Three Tiers to Success. *Principal Leadership*, v9 n8 p16-20.

[xv] Supovitz, J.A. & Klein, V. (2003) *Mapping a course for improved student learning: How innovative schools systematically use student performance data to guide improvement.* University of Pennsylvania, Graduate School of Education: Center on Reinventing Public Education.; Marsh, JA, Pane, JF, & Hamilton, LS (2006) *Making sense of data-driven decision making in education: Evidence from recent RAND research.* Occasional papers series, document no. OP-170-EDU; Weiss, IR, & Pasley, JD (2006) Scaling up instructional improvement through teacher professional development: Insights from the local systemic change initiative. Consortium for Policy Research in *Education Research Brief* (March), 5-6.

[xvi] Geoffrey D Borman; Gina M Hewes; Laura T Overman; Shelly Brown (2003) Comprehensive school reform and achievement: A meta-analysis. *Review of Educational Research;* Summer 2003; 73, 2; Research Library Core pg. 166

[xvii] Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M. & Wallace, F. (2005). *Implementation Research: A Synthesis of the Literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).

[xviii] Cook, T.D., and Payne, M.R. (2002) Objecting to the Objections to Using Random Assignment in Educational Research. *Evidence Matters.* Washington, DC: Brookings Institution Press.

[xix] Geoffrey D Borman; Gina M Hewes; Laura T Overman; Shelly Brown. (2003) Comprehensive school reform and achievement: A meta-analysis. *Review of Educational Research;* Summer; 73, 2.