



Magnet Schools Assistance Program **Grant** Application

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CONTENTS

PRIORITY 1—NEED FOR ASSISTANCE	1
(a) <i>The costs of fully implementing the magnet schools project as proposed</i>	1
(b) <i>The resources available to the applicant to carry out the project</i>	7
(c) <i>The extent to which the costs of the project exceed the applicant’s resources</i>	7
(d) <i>The difficulty of carrying out the project</i>	9
PRIORITY 2—NEW OR REVISED MAGNET SCHOOL PROJECTS and STRENGTH OF EVIDENCE TO SUPPORT NEW PROJECTS	12
PRIORITY 3—SELECTION OF STUDENTS	17
PRIORITY 4—INCREASING RACIAL INTEGRATION AND SOCIOECONOMIC INTEGRATION	17
SELECTION CRITERIA (a): DESEGREGATION.....	22
(1) <i>The effectiveness of the plan to recruit students from different social, economic, ethnic, and racial backgrounds into the magnet schools</i>	22
(2) <i>How it will foster interaction among students of different social, economic, ethnic, and racial backgrounds</i>	29
(3) <i>How it will ensure equal access and treatment for eligible project participants who have been traditionally underrepresented</i>	36
(4) <i>The effectiveness of all other desegregation strategies</i>	41
SELECTION CRITERIA (b): QUALITY OF PROJECT DESIGN	48
(1) <i>The manner and extent to which the magnet school program will improve student academic achievement for all students</i>	48
(2) <i>The extent to which the applicant demonstrates that it has the resources to operate the project beyond the length of the grant</i>	69
(3) <i>The extent to which the training or professional development services to be provided by the proposed project are of sufficient</i>	72
(4) <i>The extent to which the proposed project is supported by strong theory</i>	75
SELECTION CRITERIA (c): QUALITY OF MANAGEMENT PLAN.....	101
(1) <i>The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget</i>	101

(2) How the applicant will ensure that a diversity of perspectives are brought to bear in the operation of the proposed project 108

SELECTION CRITERIA (d): QUALITY OF PERSONNEL.....111

Qualifications of personnel and experience and training in fields related to the objectives of the project, including curriculum development and desegregation..... 111

SELECTION CRITERIA (e): QUALITY OF PROJECT EVALUATION121

(1) The extent to which the methods of evaluation will, if well-implemented, produce evidence of promise..... 123

(2) The extent to which the methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data to the extent possible 133

(3) The extent to which the costs are reasonable in relationship to the objectives, design, and potential significance of the proposed project 146

PRIORITY 1—NEED FOR ASSISTANCE

(a) The costs of fully implementing the magnet schools project as proposed

There are two Connecticut. One is affluent, suburban, and predominantly white. Their children attend schools with many resources supported by a property tax base that is formidable. The other is poor urban, and predominantly African-American and Hispanic. Their children attend schools that have fewer resources supported by a weak tax base. In national comparisons, Connecticut consistently has one of the largest achievement gaps between white students and black and Hispanic students. For example, on the 2015 administration of the National Assessment of Educational Progress (NAEP), the gap for NAEP reading at the fourth grade between white and black students was fourth highest in the country and between white and Hispanic students was sixth highest in the country.

In Connecticut, if you are an African-American or Hispanic child from a low-income home, it is almost a certainty that your neighborhood school will be a low performing, segregated school. Connecticut utilizes a five category school classification system, with Category 1 representing the highest rating. In 2015-16, through the accountability system, Connecticut identified 135 low- performing schools (categories 4 and 5), classified as Turnaround or Focus. Turnaround schools are the lowest performing schools in the state, and Focus Schools are those schools with the lowest academic performance or graduation rate for the High Needs subgroup. 65% (88) of the state's focus and turnaround schools are located in five districts, all of which are overwhelmingly African-American and Hispanic, and poor: New Haven (26 schools), Hartford (22), Bridgeport (19), Waterbury (14), and New Britain (7).

Hartford's high number of low-performing schools demonstrates tremendous need, and the district has been designated an Alliance District, meaning it is one of the lowest performing

districts across the state. Four percent of Connecticut's public schools are operated by Hartford Public Schools (HPS), but Hartford schools account for 33% of Turnaround schools and 9% of Focus schools. None of Hartford's schools received the state's highest performance accountability rating, and only six schools were rated as Category 2, meaning the school fell within the average range for performance. The overwhelming majority of Hartford's community schools are low-achieving and economically and racially isolated.

Hartford's demographics are challenging. It is one of the country's poorest cities, and the poorest in Connecticut. Per capita income, according to the 2013 American Community Survey, was \$16,619 as compared to \$37,892 for the state as a whole, and more than \$3,000 less than Bridgeport, which is Connecticut's second poorest city. Hartford's mean (\$42,468) and median (\$29,430) income levels are also the lowest in Connecticut. This is in stark contrast to neighboring West Hartford, which has a median income of \$86,569. Fifteen percent of Hartford residents age 25 and older have a Bachelor's degree or higher, as compared to 60% in West Hartford and 37% in Connecticut. Approximately 21,400 students are enrolled in Hartford Public Schools, of whom 78% are low-income based on free and reduced price lunch eligibility; 18% are English Language Learners (ELL); and 89% are minority students.

Hartford's struggle to provide high quality education in a racially and economically isolated context is not a new struggle. Frustrated by the lack of quality education, on April 18, 1989, eighteen school-aged Hartford residents filed a civil rights claim against the State of Connecticut in the landmark case *Sheff v. O'Neill* (*Sheff*). The plaintiffs alleged constitutional violations to the fundamental right to equal education opportunity.

On July 9, 1996, the Connecticut State Supreme Court held that public school students in the City of Hartford attended schools that were racially, ethnically, and economically isolated in

violation of the Connecticut Constitution. The original complaint, written in 1989, still holds true today and gives voice to all Hartford students who are denied the opportunity to attend a high performing school. "This complaint is brought on behalf of school children in the Hartford school district, a great majority of whom -- 91 percent -- are black or Hispanic, and nearly half of whom -- 47.6 percent -- live in families that are poor. These children attend public schools in a district that is all but overwhelmed by the demand to educate a student population drawn so exclusively from the poorest families in the Hartford metropolitan region. The Hartford school district is also racially and ethnically isolated: on every side are contiguous or adjacent school districts that, with one exception, are virtually all-white, and without exception, are middle- or upper-class in socioeconomic composition...The educational achievement of school children educated in the Hartford school district is not, as a whole, nearly as great as that of students educated in the surrounding communities. These disparities in achievement are not the result of native inability: poor and minority children have the potential to become well-educated, as do any other children. Yet the State of Connecticut, by tolerating school districts sharply separated along racial, ethnic, and economic lines, has deprived the plaintiffs and other Hartford children of their rights to an equal educational opportunity, and to a minimally adequate education -- rights to which they are entitled under the Connecticut Constitution and Connecticut statutes."

The court was unequivocal. Racial segregation, whether *de jure* or *de facto*, is illegal. Accordingly, the State was placed under a mandatory court order to remedy the Hartford Public Schools' racial isolation and disparity in educational opportunities. Three programs were designed to attain this goal: the interdistrict magnet program, which creates high quality magnet schools that enroll Hartford and suburban students; the Open Choice Program, which encourages

Hartford students to attend schools in suburban districts; and charter schools, which attract Hartford and suburban students.

The Capitol Region Education Council (CREC) manages the Open Choice program and operates seventeen interdistrict magnet schools in the Hartford region. These programs are designed to support the State of Connecticut in meeting its responsibility, as outlined in the State Supreme Court's decision, to provide Hartford-resident minority students with the opportunity to attend high quality, integrated schools. Gains have been made since 1996, with approximately 9,108 Hartford residents enrolled in integrated settings during the 2015-16 school year. Across the greater Hartford region, forty strategically placed interdistrict magnet programs are successfully attracting students from Hartford and the surrounding affluent suburbs. The variety of themes and locations as well as available bussing encourages socioeconomic and racial diversity, and ensures that all families have options best suited to individual needs and that the burden of travel to high quality, integrated schools is not placed solely on Hartford families. Nonetheless, thousands of Hartford students are still educated in racially and ethnically isolated, poorly performing schools. Non-magnet Hartford schools are on average 96% minority in contrast to CREC's magnet schools, which are approximately 70% minority.

In December 2013, the State and the plaintiffs entered into the Phase 3 Stipulation and Proposed Order for Sheff v. O'Neill (Sheff v. O'Neill, 2013), acknowledging that "the parties are cognizant the efforts will need to continue beyond June 30, 2014, to further reduce racial, ethnic, and economic isolation Hartford-resident minority students." Pursuant to the Phase 2 agreement in 2010, and explicitly continued in Phase 3, the State Department of Education created the Regional School Choice Office (RSCO), to implement the recruitment, application and selection process for all school choice programs that are part of the Sheff settlement, including magnet

schools and the Open Choice program. The purpose of this centralization was to produce a seamless school choice program for the entire Hartford region. There is one application, one lottery and one voice to explain to parents the high quality choices that are available to them.

This project is product of the RSCO collaboration and describes a regional plan that will reduce racial, ethnic and socioeconomic isolation throughout Connecticut's greater Hartford region. Through grant funds, three existing magnet schools, The Metropolitan Learning Center (MLC), CREC Academy of Science and Innovation (ASI), and CREC Public Safety Academy (PSA), will be significantly revised and an Open Choice magnet preschool, the Enfield Public Schools Prekindergarten STEAM Academy, will be developed. Although originally conceived to counter racial and economic isolation, the three existing magnet schools are experiencing a shift in demographics, with a steady increase in Black and Hispanic enrollment from approximately 65% to over 70% at each school. In addition, none of the schools have achieved socioeconomic diversity reflective of the Hartford Region. In the 2015-16 school year, PSA reached the threshold of students eligible for free and reduced lunch to operate under the Community Eligibility Provision of the National School Lunch Program, and the percent of low-income students at ASI (57%) and MLC (42%) is higher than the percent of low-income students residing in Connecticut (35%). The three revised schools will be developed and operated by CREC, and the fourth school will be developed and operated by an Open Choice district, Enfield Public Schools. The infusion of funds needed to support initial implementation and development of the proposed magnet programs will require financial resources beyond current levels.

State funds cover student transportation and the costs of the construction and renovation of schools that become interdistrict magnets. In addition, the basic operations for magnet schools

are supported by state funding and tuition from local districts. These funds are insufficient to cover the full costs of magnet theme development, including professional development and specialized materials and equipment needed to create high quality, theme specific programs, vital if a magnet school is to attract and retain a diverse population of students. Each aspect of the proposed project is designed to build professional and administrative capacity so that schools will develop the resources, systems and knowledge to continue successful programming after the grant cycle has ended. The State has approved these four schools as part of its plan to reduce the racial and economic isolation of Hartford resident minority students. All four schools will be supported by the RSCO and the State of Connecticut Department of Education.

The CREC/Enfield consortium is requesting approximately \$3 million per year to implement this project. This will fund a project director, a project coordinator, 7 magnet resource teachers, 3.5 family and community engagement specialists, professional development, theme supplies and equipment, and project evaluation. Because the State must meet the benchmarks established following the Sheff case, the four schools described in this application will operate whether or not this MSAP project is approved, though three of the four will not implement a revised theme and the fourth will do so with very limited resources. Without MSAP funds, personnel essential to the thematic development and implementation of these schools cannot be hired. Without the MSAP supported teachers, professional development, and supplies and equipment, the activities described in this proposal that make each school unique and improve instruction will be significantly hindered.

The total cost of this MSAP program, if fully funded and implemented, is \$3,089,294 for the first year, \$2,900,786 for year 2, \$2,935,469 for year 3, \$2,928,622 for year 4, and \$2,923,588

for year 5. The project will serve 1,564 students in year 1; 2,137 students in year 2; 2,222 students year 3; 2,292 students in Year 4; and 2,310 students in Year 5.

(b) The resources available to the applicant to carry out the project if funds under the program were not provided;

(c) The extent to which the costs of the project exceed the applicant's resources

Connecticut spent \$313 million for magnet schools in fiscal year 2017 and an additional \$11 million exclusively on the *Sheff* remedy. These funds are used to support basic operations and transportation for 126 programs and schools throughout the state. Despite standard annual increases in expenditures such as increases in salaries and benefits, the per pupil grant of \$10,443 for *Sheff* magnet schools remained flat for six consecutive years and was cut by 3.7% for the 2016-17 school year. For the 2018 fiscal year, Connecticut is facing a projected \$1.7 billion budget deficit. Given the state of Connecticut's economy, solving the current fiscal issues will require long-term efforts.

As a Regional Educational Service Center (RES-C), CREC has no power to tax property or derive income through taxation of any type. The majority of CREC's funding comes from the State's fixed per pupil grant as described above. The school districts in which magnet students reside contribute between \$4,125 and \$5,300 per pupil to make up the difference between the state grant and the cost of educating the student. Any increase in district tuition charges must be approved by the CREC Council, which is comprised of Board of Education representatives from 36 districts in the Greater Hartford Region. Given the current financial difficulties faced by the local school districts and municipalities, CREC must balance the costs of running high quality magnet schools that meet the needs of all learners and further burdening already-stretched communities in the Hartford area. This inability to access adequate funding has a direct impact on CREC students, resulting in reduced program and services. For example, CREC is no longer

able of offer summer school, and students must return to district for mandated services. CREC must use all available funds to support the essential operations of existing programs. As a result, a gap exists between current funding levels and the costs associated with developing new and revised high-quality magnet programs.

The state's budget crisis also severely limits the town of Enfield's ability to invest in critical thematic resources for the proposed preschool program. Despite small increases in enrollment since the 2014-15 school year, Enfield experienced a 2% reduction in state education aid from 2016 to 2017, with more cuts expected in the upcoming fiscal years. If passed by the legislature, the governor's proposed budget for 2018 would amount to a 9% cut in state aid. The full impact of the 2018 and 2019 biennial budget will not be known until late July of 2017, but it is likely that magnet funding and local education aid will experience cuts. As a result, federal aid has become profoundly important to fully support the thematic development of the proposed magnet programs. Neither CREC nor Enfield has the resources to support the increase in funding needed to support the proposed grant activities.

When sufficient resources are provided, there has been a clear impact on the educational opportunities afforded to Hartford students. Six of the eight CREC/Hartford consortium magnet schools funded in the 2010 MSAP cycle were selected to receive merit awards from Magnet Schools of America in 2016, recognizing them as among the best schools of their kind in the United States. In each of the past three years, the CREC Academy of Aerospace and Engineering, a school funded through the 2010 MSAP cohort, has been named one of the top three high schools in the state by US News and World Report. The Civil Rights Project at UCLA found that CT magnet schools, particularly in the Hartford region, reduce segregation and improve educational outcomes (Orfield and Ee 2015). The Connecticut State Department of

Education conducted an evaluation of choice programs and found that students in magnet schools outperform their peers in non-magnet schools, with students in RESC run schools performing at the highest levels (Mooney et al 2015). CREC's success in promoting high achievement among all students demonstrates that magnet schools, when adequately funded, have the potential to close the achievement gap and provide equitable access to high quality educational opportunities.

The Consortium partners understand that the most expensive period for a magnet is when it is first developing and implementing its theme. Significant investment in specialized professional development and supplies are necessary during the startup period and lessen once the program is well-established. While magnet schools always require marketing efforts, significant resources are needed in the early stages of program redesign and development to plan the marketing strategy and create recruitment materials to effectively promote new programs. Many of the schools in Hartford's suburbs are high-performing, requiring magnet schools to attract families who may not naturally consider looking outside of their immediate communities for schooling. In addition, Hartford is traditionally a highly transient district and educating families on school choice options is a constant need. Well-utilized resources for marketing can provide a significant boost to efforts aimed at attracting a diverse applicant pool to new or revised programs.

(d) The difficulty of carrying out the project for which assistance is sought, including how the design of the magnet schools project – e.g., the type of program proposed, location of the magnet school within the LEA - impacts on the applicant's ability to successfully carry out the approved plan.

The extreme income inequality across the Hartford region presents challenges to effectively carrying out the court ordered plan described in this proposal. When racial and economic isolation is the norm, the choice to attend a magnet school can feel like a risk. This is

true for all parents, suburban and urban. When attending a magnet school, a student and their parents give up the convenience and comfort of their neighborhood school, often sacrificing time and sleep for a longer commute. This impact is felt socially as well, with friendships spread across the region rather than concentrated in local school zones. While the city of Hartford has struggled with lack of resources and high need, the majority of suburban schools consistently perform well on state measures. As such, suburban families are often less motivated to consider a magnet school. Nonetheless, Sheff schools, particularly those supported by MSAP funds, have been able to mitigate barriers through strategically placed theme-based schools in Hartford and surrounding suburban towns.

When provided the necessary funding to fully develop well-researched, high-interest themes, interdistrict magnets in the Hartford region have a successful history attracting a substantial number of suburban and middle class students and successfully raising achievement levels for all students. The CREC Academy of Aerospace and Engineering received MSAP funds in the 2010 cycle and currently enrolls a diverse student population of 26% Black, 29% Hispanic, and 30% white, and 48% qualifying for free or reduced lunch. On the 2016 administration of the SAT, 85% of Aerospace students met or exceeded achievement levels for ELA and 70% met or exceeded achievement levels for math, outperforming the CT averages of 65% for ELA and 39% for math. With appropriate funding for theme resources and professional development, interdistrict magnet schools are successfully raising achievement for all enrolled students and are an effective solution to rectify racial and socioeconomic isolation.

While many of CREC's magnet schools are making progress towards closing the achievement gap, the three schools identified for significant revision in this proposal have struggled. Lack of funding to develop rich, theme-based curricula, purchase important theme

resources, and provide intensive professional development have resulted in poor performance across a variety of indicators on the state's 2015-16 school profile and performance reports. On the math portion of the SAT (state standardized test for Grade 11), only 11.9% of ASI students, 17.2% of MLC students, and 8.2% of PSA students met or exceeded the achievement level. The results for ELA were better, but only 62.7% of ASI, 50.6% of MLC, and 27.4% of PSA students met or exceeded achievement levels. At all project schools, black and Hispanic students account for a disproportionate number of suspensions and expulsions. For example, black students account for 36.16% of the student population across the three schools, but comprise 50.11% of all suspensions/expulsions. In addition, across the three schools an average of 27% of students were suspended, compared to the district average of 10%.

While CREC's magnet schools and the Open Choice program historically draw a large racially and socioeconomically diverse applicant pool, the schools seeking revision in this application have struggled to maintain application levels consistent with the rest of the district. For the 2017-18 lottery, ASI received only 17 first choice Hartford resident applicants for grade 6, far below the target of 55. 79% of MLC's first choice applicants for Grade 6 identify as Black or Hispanic, placing the school at risk of not meeting the *Sheff* desegregation standard. Likewise, 81% of PSA's grade 9 first choice applicant pool identifies as black or Hispanic, and the school received the district's lowest number of first-choice applicants. The Enfield Public Schools prekindergarten program, which will become STEAM Academy, received fewer Hartford applications than the number of seats offered during the on-time lottery application period. While the lottery application does not capture poverty data, there are concerns related to socioeconomic isolation at the target schools, since between 70 and 79% of applicants to the

three secondary schools reside in Connecticut towns with the lowest median incomes and highest concentrations of poverty.

The quality of the educational program and the resources within a school to provide a unique, high quality educational experience will be the decisive factor in convincing parents to enroll their children in a magnet school. The Consortium partners are committed to the development of unique, theme-based learning environments with the goal of preparing all students to succeed in college and beyond. With MSAP funding, every school would provide a rigorous and engaging theme-based curriculum and develop twenty-first century skills through project-based, technology enhanced learning opportunities.

The four schools in this proposal will operate over the next five years; however, MSAP funding is required to provide high-quality integration of the theme into the core curriculum; instructional resources to support the theme; and professional development to ensure differentiated and rigorous learning to attract students from every racial, ethnic and economic background. With MSAP support, they will successfully compete with suburban schools. Without MSAP support, these schools will struggle with resource-poor magnet programs, seriously compromising their chances of success. Although the state will continue to provide basic funding to the interdistrict magnet schools, it will not be sufficient to provide resources to develop schools equipped to effectively carry out the terms of the *Sheff* settlement.

PRIORITY 2—NEW OR REVISED MAGNET SCHOOL PROJECTS and STRENGTH OF EVIDENCE TO SUPPORT NEW PROJECTS

To ensure the best possible outcomes from its MSAP project, the CREC/Enfield Consortium will implement a variety of research-based programs, practices and strategies (see *Selection Criteria (b) Quality of Project Design*). Foundational to the implementation of the project is the development of school settings that meet all learner needs and encourage positive

social and emotional development. Alongside revised thematic opportunities, the schools will implement a variety of strategies aimed at ensuring equal opportunity and access for all students. To support and engage secondary students who have experienced trauma, the secondary schools will utilize Cognitive Behavior Intervention for Trauma in Schools (CBITS). To support positive social and emotional growth, particularly for students exhibiting challenging behaviors, the Preschool STEAM Academy will implement *Second Step*. Both of these programs are evidence-based, demonstrating success in contexts similar to the proposed project. By implementing and evaluating the programs, the Consortium will build on previous research and further examine the connection between mental health/social and emotional development and academic performance. See Appendix A for the full studies.

Citation: Stein, B. D., Jaycox, L. H., Kataoka, S. H., Wong, M., Tu, W., Elliott, M. N., & Fink, A. (2003). A Mental Health Intervention for Schoolchildren Exposed to Violence. *JAMA*, 290(5), 603. doi:10.1001/jama.290.5.603

Citation Outcome(s): This study examined the impact of a 10-session standardized cognitive-behavior therapy intervention, Cognitive Behavior Intervention for Trauma in Schools (CBITS), on students who had reported exposure to violence and had clinical levels of Post-Traumatic Stress Disorder. Sixth grade students at two large middle schools in Los Angeles were randomly assigned to an early intervention group or to a wait-listed intervention group. Students were assessed before the intervention and 3 months and 6 months after the intervention on measures assessing child-reported symptoms of PTSD (Child PTSD Symptom Scale; range, 0-51 points) and depression (Child Depression Inventory; range, 0-52 points); parent-reported psychosocial dysfunction (Pediatric Symptom Checklist; range, 0-70 points); and teacher-reported classroom problems using the Teacher-Child Rating Scale (acting out, shyness/anxiousness, and learning

problems; range of subscales, 6-30 points). Adjusting for baseline differences, linear regression was used to estimate the mean difference between the 2 groups at 3 and 6 months. At 3 months, the early-intervention group had significantly lower scores on symptoms of PTSD (-7.0 difference; 95% CI; 1.08 SD effect size), depression (-3.4 difference; 95% CI; .45 SD effect size), and psychological dysfunction (-6.4 difference; 95% CI; .77 SD effect size). There was no difference in teacher-reported classroom behavior. After both groups received the intervention, there were no significant differences between the groups in symptoms of PTSD and depression; similar ratings for psychological function; and no significant differences in teacher-reported classroom behavior. Overall, the study found that CBITS can significantly decrease symptoms of PTSD and depression in students who are exposed to violence and can be delivered on school campuses by trained mental health clinicians.

With training and ongoing support from the Clifford Beers Clinic, a trauma-informed community-based mental health provider in New Haven, CT, CBITS will be implemented by the certified mental health clinicians located in the school-based health centers in each of the project's secondary schools. CBITS is an essential component of the project's logic model with the intended short-term outcome of decreased trauma symptoms; medium-term outcomes of decreased school suspensions and increased attendance; and long-term outcome of increased standardized test scores in reading and math.

Relevance to Proposed Project: This study is relevant to the CREC/Enfield consortium because, as in the studies, CBITS will be implemented in schools by trained mental health clinicians with adolescents, many of whom are students of students of color and low income. The study screened 769 sixth grade students at two urban large urban middle schools in East Los Angeles, an area of the city that is socioeconomically disadvantaged and primarily Latino. 126

students were eligible to participate in the intervention. Students had a mean age of 11 years, with 44% being female and 40% residing in households with incomes below \$15,000.

Differences do exist between the populations - the consortium will work with older adolescents; few of the consortium's students are Mexican-American, the primary ethnic group studied in the Los Angeles studies; and the Consortium's trauma screen will include traumatic events beyond exposure to violence. Despite some differences in target populations, the intervention's success in decreasing depression and PTSD symptoms for urban, adolescent youth provides a strong justification for inclusion in the proposed project. Further, UCLA CRESST will study the impacts of the intervention on participating students in the project's schools, and add to the body of available research on the effectiveness of CBITS, examining the effect on PTSD symptoms as well as academic achievement.

Citation: Low, S., Cook, C. R., Smolkowski, K., & Buntain-Ricklefs, J. (2015). Promoting social-emotional competence: An evaluation of the elementary version of Second Step®. *Journal of School Psychology, 53*(6), 463-477. doi:10.1016/j.jsp.2015.09.002

Citation Outcome(s): Utilizing a large-scale, matched, randomized-control design, this study examined the impact of the 4th Edition *Second Step* program combined with a brief proactive classroom management training on social-behavioral outcomes of kindergarten to 2nd grade students in 61 schools. Teacher-reported data were collected in the fall and spring. Teachers completed the Devereux Student Strengths Assessment--*Second Step* Edition, a norm-referenced behavior rating scale that assesses social-emotional competencies, and the Strength Difficulties Questionnaire, a brief behavior rating scale for 3-16 year olds. Behavioral observation data were also collected at three points throughout the year. The observation protocol was based on the Behavioral Observation of Students in Schools, which includes three behavioral coding

categories: on-task, off-task and disruptive behavior. Intervention effects were assessed with a mixed-model time x condition analysis, and effect size was computed according to the What Works Clearinghouse standards.

The study found that *Second Step* has the most profound impact on students with lower baseline competencies. For children with teacher-reported baseline competencies in the 50th percentile effects were found for conduct problems, hyperactivity, peer problems, prosocial skills, SEL skills, skills for learning, emotion management, and problem solving. No effects were found for observational behavior. Analysis also suggested that *Second Step* improved empathy and peer problems in classroom with more proactive, positive classroom management. Ethnicity and grade level did not moderate impact of the program.

Within the context of the Positive Behavioral Intervention and Supports (PBIS) framework, Second Steps will be implemented in the Enfield preschool program. Social and emotional learning is an essential component of the project's logic model with the intended short-term outcome of increased prosocial skills; medium-term outcome of decreased use of behavior plans; and long-term outcome of increased standardized test scores in reading and math.

Relevance to Proposed Project: The *Second Step* study included schools in Arizona and Washington State in urban and rural districts. 50% of participating Washington students and 78% of participating Arizona students qualified for free and reduced lunch. In addition, minority students represented 54.2% of Washington participants and 59.9% of Arizona participants. Likewise, the Enfield preschool program will enroll a diverse population. While the program will be implemented at the early childhood level instead early elementary, *Second Step* targets the same set of skills at both levels. The study found baseline level competency was the strongest predictor of impact. Grade level and ethnicity did not moderate program impacts. This indicates

the program’s potential to develop social and emotional skills, which is a main objective of high quality early childhood programs. In addition, the study concluded that universally delivered programs such as *Second Step* may be an effective way to support higher-risk children without additional resources for screening as well as the stigma associated with identifying high risk students. Since integration is a critical element of the preschool program, this finding supports the program’s goals of creating an inclusive learning environment.

See attached *Table 6 - New or Revised Magnet School Projects* for a description of how CBITS and Second Step are integrated into the schools’ program designs.

PRIORITY 3—SELECTION OF STUDENTS

See attached *Table 5 - Selection of Students*.

PRIORITY 4—INCREASING RACIAL INTEGRATION AND SOCIOECONOMIC INTEGRATION

The primary purpose of the CREC/Enfield MSAP project is the development of racially and socioeconomically integrated schools. The four CREC/Enfield MSAP consortium schools are part of the state’s *Sheff v. O’Neill* remedy, specifically created to “reduce racial, ethnic, and economic isolation” for Hartford resident minority students, as per the most recent Settlement Agreement (*Sheff v. O’Neill*, 2015).

Through a research study published in 2009, Bifulco, Cobb, and Bell found that middle and high school students residing in selected Connecticut cities, including Hartford, experienced greater academic achievement and a reduction in racial and economic isolation as a result of attending an interdistrict magnet school to which they had been admitted through a random lottery. The most positively impacted population of those included in the analysis were middle and high school students in the Hartford region, the very same population of students targeted to

be served by and benefit from three of the four schools in the CREC/Enfield project. The researchers also found that interdistrict magnet schools successfully reduced racial and economic isolation for the urban resident students attending such schools, a goal of both the *Sheff* settlement agreement and the MSAP.

The researchers looked at the mean performance on the state standardized assessments of students attending twelve interdistrict magnet high schools and seven interdistrict magnet middle schools, located in Connecticut. Their results analyses indicated that, on average, interdistrict magnet school attendance results in positive and statistically significant positive effects on the mathematics and reading achievement of students who reside in urban centers. The study also examined whether a lottery system for magnet school admissions has the effect of supporting improved academic achievement for urban, minority students and concluded that a lottery system for admission to interdistrict magnet schools can lead to improved academic outcomes for students in racially and economically diverse settings even when the families cannot self-select into the programs. Finally, the researchers analyzed racial/ethnic and socioeconomic (eligible for free lunch) enrollment data for magnet and non-magnet high school students, finding that magnet schools reduce racial and socioeconomic isolation for urban students, and increase the percentage of minority and free-lunch-eligible peers for suburban students.

In the Century Foundation's report "A New Wave of School Integration: Districts and Charters Pursuing Socioeconomic Diversity," authors Potter, Quick and Davies recognize the Hartford lottery as a model for the use of magnet school admissions and transfer policies to achieve socioeconomic integration through interdistrict enrollment efforts. This random lottery is the Regional School Choice Office (RSCO) lottery run by the CT State Department of Education, the same lottery used by all Sheff partners - including CREC and Enfield Public

Schools - to enroll students in magnet schools and the Open Choice program. Magnet school seats are set aside for suburban and Hartford resident students; and through Open Choice, Hartford students transfer to suburban districts. When coupled with effective marketing strategies, this lottery design results in racially and socioeconomically diverse student populations. This lottery will be used for entrance into the four magnet schools in this MSAP project.

The RSCO lottery strategy is based on regional community data. In the *Sheff* settlement agreement, twenty-two towns are identified as “Sheff region towns,” expected to participate in the efforts to remedy the isolation of Hartford resident students. Table A below provides the percentages of children younger than 18 years old living below the poverty level in each of the Sheff region towns, along with the percentages of children residing in Sheff Region towns who identify as Black not Hispanic or Latino, and Hispanic or Latino of any race; the number of residents applying for a spot in a magnet school during the current lottery season; and the percent of resident students already participating in magnet programs (Source: American Community Survey, 2015; CT State Department of Education). For the suburban seats in the magnet schools, the RSCO lottery provides preference to students residing in towns with lower participation rates. As demonstrated in the table below, these towns tend to be those with, on average, higher socioeconomic status and fewer black and Hispanic residents. The Hartford seats are reserved solely for students living in Hartford; Hartford’s residents, on average, are of lower socioeconomic status and are more likely to be black or Hispanic. Combining these two populations should result in racially and socioeconomically desegregated schools that will meet the goals set for this proposed MSAP project and the Sheff settlement agreement.

Table A: Sheff Town Demographic and Magnet School Data, Children

<i>Sheff Region Town</i>	<i>% children</i>	<i>% children</i>	<i># of Magnet</i>	<i>% of Students</i>
Suffield (2,281)	9.05	8.35	75	1.98
Farmington (4,078)	3.39	7.15	170	2.87
Simsbury (4,161)	2.81	12	190	3.4
Avon (3,288)	2.57	5.09	202	3.76
Granby (1,880)	2.9	5.71	75	3.9
Canton (1,632)	0.4	4.87	75	3.91
Glastonbury (5,996)	2.77	8.14	355	3.97
Ellington (2,647)	2.41	3.5	179	4.59
West Hartford (9,765)	9.92	22.95	603	4.7
Newington (4,069)	4.46	24.28	297	5
South Windsor (4,188)	4.83	14.43	368	5.27
East Granby (866)	3.04	8.86	72	5.88
Enfield (5,249)*	12.69	19.5	355	6.82
Rocky Hill (2,621)	8.65	14.71	504	7.44
Wethersfield (3,596)	2.43	22.6	380	8.36
Windsor Locks (1,572)	8.1	13.6	158	8.68
Vernon (3,224)	16.07	26.35	354	9.32

New Britain (10,144)*	32.68	68.6	1,514	13.22
East Windsor (1,049)	6.45	18.82	176	13.34
Manchester (6,290)	18.94	47.71	1,603	15.28
Windsor (3,212)	9.66	62.78	662	16.92
East Hartford (6,734)	21.87	73.3	1,836	18.84
Bloomfield (2,157)	5.57	79.36	550	29.04
Hartford (20,891)	44.8	89.65	5,919	40.09

**Towns not included in the original Settlement Agreement but contributing a significant number of magnet students.*

Resources from the state for marketing *Sheff* school choice options have dwindled, and school districts in the region have begun to actively market to their resident students in order to retain them in their schools. As a result, the schools in this application have experienced a decline in the diversity of their applicant pools. In the most recent lottery, 71.8% of applicants for the three secondary schools in this proposal reside in 6 towns: Hartford, New Britain, Windsor, Bloomfield, East Hartford, and Manchester. These six towns have the highest percentage of minority students and/or the highest levels of poverty in the region. In order to remain viable, the secondary magnet schools will revitalize their programs so that they are attractive to all populations of students throughout the region. All schools in the project must market effectively to ensure that school choice options are known and understood by both Hartford and suburban families. The Enfield Preschool must market to Hartford families to assure them that their young students will be welcomed, well-educated and well taken care of. MSAP resources will be utilized for marketing, theme upgrades and family engagement, to ensure a large and diverse applicant pool for the RSCO lottery, resulting in socioeconomically and racially integrated school populations. See *Selection Criteria (a)* for specific recruitment

strategies as well as approaches to ensure that students experience an integrated education in their magnet schools once they are enrolled.

SELECTION CRITERIA (a): DESEGREGATION

(1) The effectiveness of the plan to recruit students from different social, economic, ethnic, and racial backgrounds into the magnet schools.

As a consequence of the 1996 *Sheff* decision, the State of Connecticut was placed under court order to remedy the racial and economic isolation in Hartford's public schools and provide a "substantially equal educational opportunity" for all students. The Phase 3 Sheff Settlement Agreement, which mandates that the state "further reduce racial, ethnic and economic isolation for Hartford resident minority students," provides the framework for this proposal to ensure equal access for all students to a high quality education. Interdistrict magnet schools and Open Choice are the two primary means that the state has identified to attain integration goals.

This grant will support the revision of three magnet schools and the development of an Open Choice magnet school. In order to meet the requirements of the *Sheff v. O'Neill* stipulated agreement, the enrollment of the schools will consist of no more than 75% students who identify as any part Black/African American, or any part Hispanic. Through this project, approximately 1,000 Hartford resident students per year will be educated in reduced isolation settings, as defined by the Court.

The design of the lottery encourages socioeconomic diversity. The majority of Connecticut's suburban towns are wealthy. As described in Priority 4, the lottery prioritizes suburban towns least represented in choice programs, which tend to be areas of concentrated wealth and high-performing schools. Any student residing in Connecticut is eligible for and encouraged to apply to the secondary schools described in this application, and Hartford and Enfield residents are eligible to apply for a seat in the proposed Prekindergarten STEAM

Academy. No school in this proposal has academic or other entrance requirements. Admission to the schools will occur via the lottery application described in Table 5.

The consortium has developed a recruitment plan to attract students from all socioeconomic, ethnic, and racial backgrounds, targeting families in Hartford and the surrounding suburban districts. Through extensive and varied district- and school-level activities, families will be provided the needed information and tools to successfully submit an application to one or more magnet schools that best meet the needs of their children. In addition, the plan includes activities to sustain the engagement and interest of newly admitted students and their families from the time the lottery occurs to the start of the new school year.

The recruitment plan will be supported by the Regional School Choice Office (RSCO). The State of Connecticut has established RSCO to manage the lottery process and promote choice programs within the Hartford region. RSCO disseminates application and choice information in English and Spanish and has established 12 satellite offices throughout the Hartford region to provide easy access to print and online materials and assistance with the application process. The satellite offices are located in community organizations frequented by significant numbers of potential applicants such as libraries, churches, and after school programs. RSCO's community outreach, multilingual print materials, and support staff remove barriers that prevent non-native speakers and families with limited access to the internet or transportation from participating in choice programs. CREC, in collaboration with RSCO, has a proven track record of recruiting a diverse applicant pool. For the 2017-18 school year, CREC received 10,803 on-time, first choice applicants for its magnet schools. Of these applicants, 53% identify as Black or Hispanic/Latino and 2,216 are residents of Hartford. 2,583 minority Hartford residents also applied for a spot in a suburban Open Choice district.

With over thirty years of experience in the management of interdistrict magnet programs, the Consortium understands the importance of a robust recruitment plan to sustain integrated magnet programs and the need to invest resources into the implementation of such a plan. The Project Coordinator will oversee each school's recruitment plan and facilitate communication between RSCO, the district marketing team, the marketing contractor, and project schools. The activities for recruitment are categorized into three broad strategies: disseminate information, engage interest, and sustain interest. The tiered recruitment activities are grounded in the Funnel Framework outlined in the Magnet Schools Assistance Program's Student Recruitment Toolkit. The funnel starts wide, with the goal of raising magnet school awareness to as large an audience as possible, and narrows as students move from casual interest to submitting an application and enrolling in a magnet school. The expert marketing contractor hired through MSAP will advise the project on the best methods monitor the effectiveness of implemented strategies.

Application data will be monitored to ensure that the applicant pool represents racially and ethnically diverse families from both urban and suburban districts. Each school will create a marketing action plan utilizing the strategies listed below. The plan will also include an analysis of strengths and weaknesses, resources needed, timeline, and person responsible. If it is found that the applicant pool does not properly represent the targeted audiences, strategies will be modified and new actions developed.

Disseminate Information: In the first phase of recruitment, information about the programs will be widely disseminated through multiple methods. To counter any existing negative perceptions and clearly communicate new opportunities, MSAP funds will be used to rebrand the schools and develop new marketing materials. School-specific brochures and the RSCO magnet catalog and website are written in parent-friendly language in both English and Spanish, enabling

interested families to access and understand the materials. Advertisements, in both English and Spanish, will be placed in local newspapers throughout the Hartford region. In addition to print materials, radio advertisements and television commercials- also in English and Spanish- web advertisements, and social networking (Facebook, Twitter, Instagram, and Pandora) strategies will be used. Each school will maintain an individual website with a link to the online application and information about their schools, including contact information. RSCO's website provides information on all *Sheff* choice programs and the lottery application. In addition, CREC will participate in Hartford's community-based events and celebrations in order to support the local community and share information about CREC programs and services. These events include EnvisionFest Hartford, the Latino Expo, and the Connecticut Home Show. By continuing to build a strong and active presence in the Hartford community, CREC and Enfield are able to share information about school choice options. Representatives from the schools in this application will also participate in the community events, ensuring that the new programs are highlighted and understood. Each activity in this phase will include an invitation to attend a RSCO Magnet Fair or Open House.

Engage Interest: The districts and individual schools will provide opportunities for interested families to engage with administrators, teachers, parents and students. These recruitment activities create personal connections designed to engage interest and motivate parents to apply. Engagement activities are a key strategy for schools under significant revision to communicate the new theme and related academic and enrichment offerings. Each engagement activity will include an invitation to submit an application, offering assistance as needed. These opportunities include: ***Magnet Fairs***—During the recruitment season, RSCO and its partners hold multiple magnet fairs in the city of Hartford and the surrounding suburbs. All of the proposed magnet

schools will participate in RSCO fairs. Each magnet school will have a booth that contains marketing materials for potential applicants, developed with MSAP funds, including a display board with the school's theme, mission and special features. The table will also have the school brochure, a flyer of upcoming Open House dates, and other informational pamphlets. The booths will be manned by school administrators, teachers and, in some cases, parents and students. The school representatives will collect contact information from interested families and follow-up with calls, emails, and mailers to provide additional information, and to remind and encourage families to visit and apply to their school. **Open Houses**—Each MSAP school will host multiple Open Houses held at various times and days of the week to accommodate family schedules. Schools will select three to five dates before the lottery application deadline to invite potential students and parents to visit the school. During the Open House, the principal will conduct a presentation for families outlining the unique aspects of the school, followed by an open discussions based on parents' questions, and a tour of the building. Representatives from the Parent Teacher Organization will be present to answer questions and provide first-hand accounts of their experiences in the school. Open Houses will establish personal relationships with families and will be the first step in creating a strong home/school connection. Families will also meet the school's Family and Community Engagement Specialist, who will reach out to interested families following the Open Houses. **Lottery Assistance**—Throughout the application season, CREC will host application events throughout Hartford, focusing on hard to reach, impoverished Hartford neighborhoods. The events will be held in libraries, churches, and other community centers. The drop in style evenings will offer a friendly atmosphere, and Consortium representatives will provide technology and support to assist families in completing the application process. On-going application assistance will also be available at CREC's Hartford

office throughout the lottery season. ***Annual Back to School Block Party***—Each August, CREC hosts a Back to School Block Party for the residents of Hartford. Through partnerships with local businesses, CREC provides backpacks filled with school supplies, free haircuts, and food. The event is primarily a community outreach event, intended to help Hartford students prepare for the upcoming school year. The schools in this application will host theme-related activities at the event in order to build connections with Hartford students and spread the news about their programs. ***Community Links***—Although the recruitment plan seeks to overcome barriers through numerous and conveniently located fairs and RSCO satellite offices, some parents may not feel comfortable attending large or school-based events. The Consortium partners will engage in community outreach activities to complement fairs and Open Houses. By going into the community and meeting families where they are, families who were hesitant or who may not have been engaged will have an opportunity to find out information about magnet school options. The community outreach activities will include partnerships with social service agencies, presentations at local schools and community centers, “door to door” information sharing, and hiring community change agents to spread the word about magnet schools. CREC and Enfield will work closely with community organizations to disseminate information about the schools and assist in building a positive reputation in the community. ***Family Resource Center***—CREC opened the Trude Mero Family Resource Center (FRC) in 2013 so that Hartford families who could not easily travel to the suburbs due to lack of transportation, job schedules, child care or other concerns would have a place to interact and engage with their children’s schools within their own community. The FRC is easily accessible, located in the Wilson Gray YMCA in the North End of Hartford. Throughout the lottery season, the Family Resource Center staff will assist Hartford residents with the application process and share information about the

schools in this proposal. *Special Considerations for Underrepresented Students*— In order to attract underrepresented students to the STEM and public safety themed secondary schools in the Consortium (ASI and PSA), the districts will enlist the help of community organizations to create personal connections between the STEM and public safety schools and targeted minority groups, as well as disseminate information about STEM and public safety career opportunities. ASI and PSA will engage minority, female, and special needs students through partnerships with community organizations such as: Girl Scouts of CT, YWCA Hartford Region, Boys and Girls Club of Hartford, the Women’s League, Family Life Education, Hartford Neighborhood Center, Mi Casa Family Service and Education Center, HARC, Inc. (for people with intellectual disability and their families), Community Renewal Team, Inc., San Juan Sports Center, Inc., Catholic Charities Resettlement Office, Urban Alliance, Hartford City Mission, and The Village for Families and Children. The STEM and Public Safety schools will enlist the community organizations to distribute school information and assist families in the application process. By working with community organizations, the Consortium districts are developing awareness opportunities and creating connections between those opportunities and typically underserved populations.

Sustain Interest: Once the lottery has been conducted, follow up recruitment activities will be carried out to convert seat offers into enrollments. When students are selected from the lottery, within 24 hours parents will receive an email and phone call from the school. The parents will be encouraged to accept the placement and will be provided with detailed instructions for submitting their responses. During the critical response window, the schools will maintain frequent contact, answering questions and providing tours. After families formally accept the invitation to attend the school, each school will sustain engagement through activities such as:

hosting an orientation event for all accepted families; adding new families to the school newsletter distribution list; emailing monthly reminders to new families about school happenings to highlight the school's accomplishments and what parents can look forward to in the coming school year; inviting new families to high-interest, theme-based activities happening at the school; hosting a meet & greet with new families and returning families; pairing up families from the same hometowns; keeping track of those students/families that attend the welcome sessions and reaching out to those who do not attend to invite them back for subsequent activities/welcome sessions; encouraging shadow days for incoming students; identifying and training student or family ambassadors to reach out to new families and answer questions about the school; hosting summer student orientation sessions and distributing school spirit wear (t-shirts, hats, etc.) to students who attend the welcome sessions.

The Consortium recognizes that recruitment activities are only successful if parents and students feel welcomed and accepted into the school. Post-enrollment activities communicate a welcoming school climate for families from every racial, ethnic, and social background. By sending a clear message to all students that “we are glad you are here,” the school will promote an inclusive and supportive environment, generating excitement about the student's new school and inspiring confidence in parents. The recruitment activities set the tone for the culture and climate of the school and reinforce the value and importance of a diverse learning environment.

(2) How it will foster interaction among students of different social, economic, ethnic, and racial backgrounds in classroom activities, extracurricular activities, or other activities in the magnet schools.

The current concentration of low-income and minority students in Hartford limits interaction among students of different backgrounds. In many instances, exact enrollment data for Hartford's non-magnet schools is suppressed due to the small number of enrolled students

identifying as White, Asian, or Two or More Races. Where data is available, the average non-magnet Hartford school is 97% minority. Across all non-magnet schools in Hartford, an average of 90 percent of students qualify for free or reduced lunch. Interdistrict magnet schools and Open Choice have been effective in reducing minority and socioeconomic group isolation for Hartford students. CREC operates 16 magnet schools that serve 8,344 students, of which 6,077 (72.8%) are minority, 2,267 (27.2%) are non-minority and 3,961 (47.5%) qualify for free or reduced lunch. Through the Hartford Region Open Choice program, 2,350 Hartford resident students attend school in more affluent suburbs.

This project engages in activities and strategies explicitly designed to ensure interaction between students of different economic, ethnic, and racial backgrounds as part of each child's day to day experience as a magnet school student. All magnet school classes will be heterogeneous regarding race, ethnic group, gender, dominant language, and special needs populations. Secondary students will also participate in enrichment activities that promote interaction, such as robotics, sports programs, and leadership programs. Faculty involved with after school programming will recruit students with the goal of ensuring that clubs and activities are representative of the school population. Late busses will provide transportation for after school/enrichment activities to further ensure equitable access. Within the preschool, students will participate in group inquiry activities that support interaction among students. Teachers will be trained on how to meet the needs of diverse groups of students in heterogeneous classes using strategies to address the interests and academic and social needs of all students. Administrators will be supported in their leadership of schools dedicated to serving diverse students with excellence.

Heterogeneous Grouping: An Essential Component of High Quality Magnet Schools: The CREC/Enfield Consortium is committed to maintaining heterogeneous classes across the grades. Schools will use heterogeneous practices so that students struggling in one or more subject areas receive both increased academic support and exposure to a rigorous curriculum. The districts are committed to preventing tracking that frequently results in re-segregation of schools that have been desegregated. Research has found positive effects from heterogeneous grouping on student achievement, self-esteem, and interpersonal relationships for academically struggling students, including special needs students (Burriss et al., 2006; Burriss et al., 2008; Boaler & Staples, 2008; Long et al., 2012). For students achieving at below average, average and above average levels, tracking prevents interaction with a diverse group of peers. The effect is especially negative for poor and minority students and English Learner students, (ELs) since they are often placed in lower tracks that do not address their learning needs (Vang, 2005). Performance Measure 6.1 measures whether or not classes mirror grade level demographics and provides structural accountability to ensure heterogeneous grouping.

A key aspect of heterogeneous grouping will be an inclusive educational environment for students with disabilities and ELs. The inclusion of ELs and, to the fullest extent possible, students with disabilities in general education classes, extended-day activities, and all magnet activities, will provide them with the opportunity to interact with both English-dominant students and students without disabilities in a variety of formal and informal educational settings.

To maximize the benefits of heterogeneous grouping, teachers will participate in professional development that will help them use instructional approaches to facilitate learning for diverse students in flexible groups. Newly developed thematic units and lessons will be designed to include project based learning and differentiated instruction to reach all learners. In

addition, accommodations and modifications will be made for students with disabilities; language scaffolds will be provided for English language learners; and a tiered intervention system will be utilized for struggling learners.

Project Based Learning: *Project Based Learning (PBL) will be used to maximize students' potential as learners and support interactions among diverse learners.* Research has been conducted that focuses on the role of PBL in achieving equity in education, and it indicates, for example, that PBL can be a successful strategy for special education students in general education classrooms (Belland et al, 2009); for closing the science achievement gap in for African American male students in middle school (Geier et al, 2008); and for closing the socioeconomic and racial/ethnic achievement gap for high school students in mathematics (Holmes & Hwang, 2016). PBL is student-centered and empowers students to identify interests, engage in flexible ways of learning, and create a variety of products demonstrating their new knowledge. This highly personalized approach allows for differentiation of both instruction and assessment in a way that is natural to the learning process. A variety of strategies will be incorporated into the PBL approach to engage diverse groups of learners in a heterogeneous classroom, including: differentiation through teams; reflection and goal setting; mini-lessons; voice and choice in products; differentiation through formative assessments; and balancing teamwork and individual work (Miller, 2012).

By incorporating PBL into newly developed magnet units and lessons for all content areas, teachers will foster interaction among students that focuses on communicating and collaborating, and other 21st century skills such as thinking critically and making judgments; solving complex, multidisciplinary, open-ended problems; creativity; and entrepreneurial thinking (Partnership for 21st Century Skills, 2008). PBL provides authentic opportunities for

students to gain the skills necessary to interact with diverse groups of individuals, mirroring the environment that most will find when they reach the workforce.

Social Emotional Learning: The Consortium has embraced social emotional learning (SEL) as a means to promoting diversity, through the support of positive interactions and relationships between all adults and students in the school. A component of the SEL approach will be the development of trauma-sensitive schools and the implementation of Cognitive Behavioral Intervention for Trauma in Schools (CBITS) as a Tier 3 intervention for secondary students in need of more than the skill-building and Tier 1 practices described below. CBITS and related supports are described in detail in *Quality of Project Design*.

As defined by the Collaborative for Academic, Social and Emotional Learning (CASEL), the five core competencies of SEL are self-management, self-awareness, social awareness, relationship skills, and responsible decision-making. Research indicates that an explicit focus on SEL in schools leads to positive social and academic outcomes (Durlak et al, 2011). The Prekindergarten STEAM Academy will use *Second Step* to guide their SEL work. Utilizing the framework outlined in the Learning by Heart Initiative (Cervone & Cushman, 2014), the secondary schools in the project will focus their efforts on one or more of the key elements found to give power to social emotional learning. The six key elements are 1) A Web of Structural Supports; 2) An Intentional Community; 3) A Culture of Respect, Participation, and Reflection; 4) A Commitment to Restorative Practices; 5) A Curriculum of Connection and Engagement; and 6) A Focus on Developing Student Agency.

The **CREC Academy of Science and Innovation** will initially focus on element 4 - A Commitment to Restorative Practices. This involves a mindset shift for students and staff, away from the typical disciplinary practices of detention, suspension, and expulsion, to positive

alternatives focused on repairing relationships and resolving harm. The **Metropolitan Learning Center for Global and International Studies** will focus on element 6 - A Focus on Developing Student Agency. Projects developed by students using Ashoka's Changemaker framework (see below) to tackle real-world global problems will encourage students to develop agency, along with confidence in their academic and social skills and decision-making abilities. A new student government structure will give additional opportunities for students to exercise voice. The **CREC Public Safety Academy** will focus on element 5 - A Curriculum of Connection and Engagement. PBL is a component of this element, and will be implemented at all schools. In addition, this school will incorporate service learning, student choice through personalized learning plans and assignment choice, and the opportunity for students to demonstrate their expertise by teaching other students.

The Metropolitan Learning Center and the CREC Public Safety Academy are developing a partnership with the Ashoka Foundation's Youth Venture (www.youthventure.org). Ashoka's Everyone A Changemaker vision emphasizes empathy and aligns well with the SEL initiatives of both schools, focusing on the positive contributions that youth energy, creativity, and perspective can bring to their communities and the world. While Changemaking will be integrated in the Public Safety Academy's PBL work, MLC will adopt Changemaking as a major component of their theme revision. Ashoka agrees that there is excellent alignment between Changemaking and the International Baccalaureate Program, also implemented by MLC, and they look forward to working with the school to build and implement an IB-informed model.

The **Enfield Preschool STEAM Academy** will use the *Second Step*® Early Learning program for social and emotional learning. The program teaches skills that help children learn, manage their feelings, make friends, and solve problems. A large randomized control study of

the program found benefits for children with behavioral difficulties. The authors of the study concluded that “universally delivered programs such as *Second Step*® may be one way to provide some of the support needed by higher-risk children without the required additional resources to screen children and the stigma associated with identifying students as at risk” (Low, Cook, Smolkowski, & Buntain-Ricklefs, 2015). In addition, teachers will receive training and coaching related to executive functioning to support all students in accessing the thematic academic curriculum. Executive functioning skills include impulse control, emotional control, flexibly thinking, working memory, self-monitoring, planning and prioritizing, task initiation, and organization.

Professional Learning for Administrators and Teachers: If the magnet schools succeed in enrolling a diverse population of students, but do not educate them in an integrated manner, the schools have failed. To learn and practice school and classroom strategies that will ensure positive and meaningful interactions between diverse groups of students, teachers will be provided with expert professional development and technical assistance in these strategies, as well as on-going support from magnet resource teachers and administrators. In order for schools to be inclusive, school leadership must communicate the primary importance of valuing diversity. To lead schools that serve diverse students, principals should demonstrate “a relentless commitment to equity, voice and social justice,” and engage in “promoting inclusive cultures and practices in schools, and building positive relationships outside of the school.” (Riehl, 2000)

The professional learning needs of magnet school principals to carry out this work will be addressed. District goals around working effectively with diverse students and families align with the project goals, so an infrastructure for administrator support for leading magnet schools from this perspective is in place. Annually, the superintendent will select a text, based on the

expressed interests of the principals to inspire conversation and frame the district’s work for the year. Principals will meet with the Superintendent and other central office administrators including the MSAP project director monthly, and discuss successes and challenges as they work to incorporate the lessons from the book into their schools. With MSAP resources, the project’s building administrators will receive additional professional development in leading trauma-sensitive schools and other school-specific theme approaches and reform strategies.

(3) How it will ensure equal access and treatment for eligible project participants who have been traditionally underrepresented in courses or activities offered as part of the magnet school, e.g., women and girls in mathematics, science, or technology courses, and disabled students.

Programs, services and supports have been implemented to ensure the successful participation of Hartford-resident minority students in interdistrict magnet schools such as: marketing the programs to increase interest by both Hartford and suburban families; providing academic supports so that the needs of students are addressed; and providing free transportation for students, including for afterschool and enrichment activities. The recruitment plan above details activities for recruiting underrepresented students to the STEM and Public Safety schools.

Quality of Project Design (3) describes professional development to be provided to teachers to ensure that they have the skills to engage underrepresented students and support their success as well as strategies and systems to support EL students and students with special needs. In addition, the project’s secondary schools will reach out to and collaborate with professional organizations relevant to traditionally underrepresented participants, such as the Society of Hispanic Professional Engineers & Scientists, the Society of Women Engineers, the National Society of Black Engineers, the Association for Women in Science, and the American Association of People with Disabilities for programming, mentorship, and scholarship opportunities.

District Policies: Both Consortium districts involved in this program have policies that prevent discrimination (see Appendix B). For example, CREC’s *Nondiscrimination/ Equal Education Opportunity Policy* states that: *All personnel must ensure that every student has the right to participate fully in classroom instruction and extracurricular activities and shall not be abridged or impaired because of his or her protected status under the law.* Enfield’s states that: *It is the policy of the Enfield Board of Education not to discriminate on the basis of gender in its educational programs, activities, or employment practices as required by Title IX of the 1972 Education Amendments, or any other basis prohibited by Connecticut State and/or Federal Non-Discrimination Laws.*

Diversifying the Teacher Workforce to Reflect a Diverse Student Body: A growing body of research indicates that teachers of color benefit all students, contributing to student achievement and serving as role models. The U.S. Department of Education’s 2016 report, *The State of Racial Diversity in the Educator Workforce*, cited a study finding that “compared with their peers, teachers of color are more likely to (1) have higher expectations of students of color (as measured by higher numbers of referrals to gifted programs); (2) confront issues of racism; (3) serve as advocates and cultural brokers; and (4) develop more trusting relationships with students, particularly those with whom they share a cultural background.” Understanding the importance of a diverse teaching force, CREC has established an Educator Diversity Committee that plans district-wide recruitment and retention strategies implemented by the schools and the district’s Office of Talent Development and Research.

CREC has also partnered with Central Connecticut State University (CCSU) to support minority teacher candidates throughout the teacher preparation and certification process. Minority students enrolled in CCSU teacher preparation programs are eligible to join a CREC

cohort where they complete their field experience and student teaching in CREC schools; participate in a monthly seminar series at CREC; and are mentored by a CREC leader. The program provides teacher candidates with professional development, emotional support, and guidance through the job search process, ensuring they are well prepared for a career in education. The partnership has resulted in a strong candidate pool for openings in CREC schools, and the Enfield preschool program will have access to these candidates as well.

CREC also provides ongoing support to minority teachers hired through the CCSU partnership as well as those hired through other minority teacher initiatives, such as recruitment in Puerto Rico. Newly hired teachers form a cohort and meet in informal dine and discuss sessions throughout the year. CREC's new teacher support facilitator also provides classroom-based support and feedback at the request of cohort members.

Detracking/Opening Access to Advanced Coursework within Schools: Each school has measures in place to ensure all students have equal access to advanced coursework. MLC is implementing International Baccalaureate for all, providing equal access to a demanding course of study that is typically targeted only to high-achievers. ASI will require all students to take advanced STEM electives, and Public Safety will ensure all students participate in early college credit opportunities. Additionally, ASI will follow the Institute of Education Sciences practice guide, *Encouraging Girls in Math and Science*, to create a learning environment that is supportive of girls. Faculty will teach students that academic abilities are expandable and improvable; provide prescriptive, information feedback; expose girls and young women to female role models who have succeeded in math, science, technology and engineering; and provide spatial skills training. At the preschool level, the STEAM theme plays an important role in providing minority and female students access to STEM fields. Research has shown that

positive, early learning experiences are influential in a student's decision to pursue STEM fields (Dejarnette, 2012). As the preschool builds early exposure and positive self-efficacy, students will be more likely to continue in STEM at each transition age in the pipeline, elementary to middle, middle to high and high to college. Enfield Public Schools has committed to providing enhanced STEAM opportunities across all grade levels, and Hartford students admitted in the preschool are able, should they choose, to remain in the district through high school graduation.

Bringing CREC and EPS Closer to Hartford Families Placements for Hartford residents in the Hartford Region Open Choice program and the three CREC magnet schools in this application, are located outside the City of Hartford. To ensure equal access to school resources and staff, CREC opened the Trude Mero Family Resource Center (FRC) in 2013 so that Hartford families would have a place to interact and engage with their children's schools within their own community. By offering a meeting space for parents and educators and information sessions and forums on school and child development issues at a location that is close to families' homes, the center provides opportunities for families to participate more fully in their child's education. The FRC is easily accessible, located in the Wilson Gray YMCA in the North End of Hartford.

The goals of the FRC are to provide families and students additional support services that will increase their success in CREC Magnet Schools and in the Open Choice program; to collaborate with community-based organizations to enhance services to parents; to provide intervention and prevention services for CREC families who are at risk; to coordinate delivery of CREC's family services in partnership with other CREC programs and divisions; to provide a location for student and parent workshops, parent meetings, Planning and Placement team meetings, and other similar meetings and events within the Hartford community; to refer families and students to healthy recreational opportunities; to provide a year-round site for marketing and

obtaining applications to CREC Magnet Schools and the Open Choice program; and to match the needs of families with Hartford community agencies offering timely, and relevant services.

In 2015-2016, the FRC held 14 workshops and events with an average of 56 participants per event, including Communicating with Your Child, How to Improve Parent and Student Communication, Importance of Community Service, How to Obtain a Pardon, Tools for Effective Parenting, and nutritional workshops. Understanding the need for students to maintain ties with their communities as well as their schools, additional services were added for students within the Hartford community, so that they may participate in school-based activities, community-based activities, or both. For example, the Transitions program provides life skills support and enrichment opportunities to empower and inspire high-risk female students from CREC magnet schools, and to assist students transitioning from adolescence to womanhood. CREC's partnership with the YMCA has led to partnerships with other Hartford community agencies, including COMPASS, Capital City Education Alliance and Community Renewal Team, Inc. Community relationships help to support families and build their trust in CREC and Open Choice districts.

The activities and resources of this grant will expand educational opportunities for minority students, students from low-income families, English learners and students with disabilities by offering all students the opportunity to attend higher performing schools than they would have otherwise had access to. All students are eligible and are encouraged to apply to any of the schools described in this application. None of these schools has academic or other entrance requirements. In addition, strategies are in place to ensure that all families are able to participate in and support their child's learning, ensuring equal access to all school activities and offerings.

(4) The effectiveness of all other desegregation strategies proposed by the applicant for the elimination, reduction, or prevention of minority group isolation in elementary schools and secondary schools with substantial proportions of minority students.

As described above, the Consortium's strategies for enrollment are grounded in research (e.g., Bifulco et al, 2009) to maximize the potential for desegregation. However, it is important to ensure that students experience integration beyond admittance to the schools. It is imperative that students are not re-segregated in an environment intended to provide an integrated education. To achieve this objective, cultural competency will provide a foundation for the magnet schools' strategies. All four of the project's schools will work to 1) create culturally responsive systems and culturally competent educators, and 2) engage diverse families and communities. Each school will begin its work with an assessment of needs and strengths, and will build a five-year plan of work around the assessment's findings. Strategies will be informed by practices that have proven effective in CREC's more than twenty year history of designing and implementing magnet programs in the Hartford region.

Creating Culturally Responsive Systems and Culturally Competent Educators:

The *Position Statement on Culturally Responsive Education* passed by the Connecticut State Board of Education on May 4, 2011 addresses "the incorporation of culturally responsive education as a critical component of all current curriculum, activities and services." Professional development to operationalize this statement will be a key focus of grant activities.

Culturally Responsive Teaching (CRT) is not new. Research suggests that several key features describe a culturally responsive teacher, including: learning environments; instructional practices; curriculum; interactions among all stakeholders within schools (intergroup relationships); family engagement practices; and assessment practices that are responsive to the needs of diverse student populations.

The research on culturally responsive pedagogy affirms that culture, teaching, and learning are interconnected and that school achievement increases to the extent that teaching employs the cultural referents of the students to whom it is directed (Gay, 2002). CRT calls for educators to align teaching practices with the resources that learners from diverse backgrounds bring to their schools. The research on CRT recommends educators tap into the experiences of their students by using students' cultural and linguistic knowledge, prior experiences, frames of reference, and performance styles to make learning encounters more relevant and effective for them.

Ladson-Billings (1995) outlined three criteria necessary in the implementation of culturally relevant pedagogy. First, culturally relevant teaching must result in the academic success of its students. Second, culturally relevant teaching maintains a child's cultural identity while simultaneously promoting academic success. Third, culturally relevant teaching creates a social consciousness among students, allowing them to challenge the structure of society and view education as a tool for social change. Specific classroom practices and behaviors can lead to positive interactions and improved student success for all students. For example, when an instructor makes the effort to use examples that feature successful women scientists, or by describing tests as a measure of students' problem-solving skills (rather than as a measure of innate ability), the learning environment improves for all students.

Culturally relevant pedagogy encompasses the development of cultural competence among educators. Educators who are culturally competent recognize the differences among students and families from different cultural groups, respond to differences positively, and are comfortable and able to interact effectively in a range of cultural environments (Lindsey, Robins, & Terrell, 2009). Researchers Villegas and Lucas (2002), describe teachers who are socio-

culturally conscious as being able to “maintain affirming views of students from diverse backgrounds in their classroom and capable of making schools more equitable for all learners.” Culturally competent educators understand how learners construct knowledge, engage learners in knowledge construction, design instruction that builds on students’ ways of knowing, promote positive intergroup relations, and facilitate a positive learning environment for all learners.

Despite research pointing to the importance of culturally responsive teaching, school resources are often directed towards academic interventions and content-focused professional development, overlooking the opportunity to identify and capitalize on the strengths and resiliency of diverse learners. To counter a deficit-approach to instruction, the following principles and beliefs regarding CRT will guide this component of the project’s work: educators’ and students’ reflections on their perspectives and experiences of their culture and identity affect productive learning; historical and institutional inequities in schools have to be confronted and addressed; preparing ALL students in the 21st century requires embracing multiple perspectives; and innovation and creativity in the 21st century are strengthened through diverse perspectives and involvement.

Administrators and teachers will engage in embedded professional development for culturally responsive pedagogy in all areas of curriculum, assessment, instruction, and family engagement; be supported to recognize their own culture, both surface and deep, and their identity (i.e. gender, race, SES, etc.); and be prepared to apply policies and practices for culturally responsive systems in their schools. The following modules will form the basis of the training: Introduction to Social Justice and Equity in Schools; Evaluating and Responding to Discipline and Assessment (Audit); Culturally Responsive Pedagogy/Instruction; Evaluating Curricula for Inclusion and Bias; Examining Systems and Policies for Equitable Practices; and

Creating a Safe Haven in Schools for All Students. In addition, ongoing consultation and training will be provided in the development of processes and the implementation of practices that address issues of disproportionality among diverse learner groups. Diverse learner groups include students with special needs, EL students, and LGBTQ students. Schools will be supported in developing a focus on self-exploration of culture and its diversity and applying CRT practices for addressing under and over representation in their systems. Adults with different perspectives about race, gender, ethnicity, sexual identity, socio-economic status, religion, and disabilities will be mediated and led to understand how perspective impacts relationships with students and families. The intention of this work is to assist schools in developing comprehensive, equitable programs that recognize the learning assets and meet the educational needs of students for whom disparities in achievement persist.

Engaging Diverse Families and Communities: Family engagement is critical to successful school integration. Effective family engagement practices require ongoing, reciprocal, strengths-based partnerships between families and their children's schools and educational programs. The Family-School Partnerships approach emphasizes the importance of intentionally providing opportunities for school staff and families to build the capacity for partnerships, with the ideal outcomes being: 1) school and program staff who can: honor and recognize families' funds of knowledge; connect family engagement and student learning; and create welcoming, inviting cultures, and 2) families who can negotiate multiple roles: supporters; encouragers; monitors; advocates; decision makers; and collaborators. (High Impact Strategies, n.d.).

In order to create systemic, sustained initiatives in family engagement that promote and improve student achievement, there is a need to provide professional development that prepares

educators to recognize the strengths as well as identify the needs of linguistically, culturally and racially diverse students and families.

When parents, teachers, and schools work together to support learning, students tend to have better academic performance, fewer behavioral problems, and are more likely to complete high school (Henderson & Mapp, 2002). Byrk, et al. (2009) also found that the relationships among the home, school, and community settings are critical to student performance. When these three areas in a student's life converge and provide academic and personal support, student motivation and participation in school increases. The Consortium's work with families will focus on building trusting, collaborative relationships among teachers, families, and community members and engaging families in conversations around student achievement and growth. Guided by the U.S. Department of Education Institute of Education Sciences' *Toolkit of Resources for Engaging Families and the Community as Partners in Education*, administrators and educators will interact with families in meaningful ways by building an understanding of family and community engagement; building a cultural bridge; building trusting relationships with families and community through effective communication; and engaging family and community members in data conversations.

Due to differences in race, ethnicity, immigration status, socioeconomic status, level of education and different levels of English proficiency, families are often perceived as "outsiders" to those who work in schools. Schools participating in this MSAP project will focus on recognizing, respecting, and addressing families' funds of knowledge as well as their needs as they relate to issues of power differential, and access to information about educational opportunities. Many schools find it a challenge to increase family involvement, particularly those serving lower socioeconomic and limited English proficient families. Without the

knowledge to address build authentic partnerships, schools may inhibit or limit the contributions that families can make. School communities in this project will develop capacity to assess and monitor family engagement in programs and services; develop strategies and processes that address families identified assets, needs and staff perception; and identify community resources that support family values, languages, cultures and beliefs.

Educators will also be trained in culturally responsive family and community involvement strategies. The training will address the real and perceived barriers to culturally and linguistically diverse parental involvement in the areas of cross-cultural communication, school/parent perceptions, and educational practices. Educators will be engaged in activities to develop concrete skills in cross-cultural communication such as speaking to parents through an interpreter, understanding children's identity development, respecting different personal values, developing common learning goals, establishing mutual expectations and agreeing on contact mechanisms. Educators will develop understanding of their own cultural lenses and perceptual styles and learn to employ culturally responsive strategies to facilitate family advocacy.

Developing and sustaining relationships will be a focus of the entire school communities including principals, MRTs, and the project director. Schools will hire Family and Community Engagement Specialists (ES), responsible for coordinating family and community involvement. The ES will act as a point of contact for families and partners, and will be primarily responsible for carrying out activities to promote family and community engagement.

Examples of activities to enhance family engagement include:

- *Welcoming Walkthrough process for schools.* Welcoming Walkthrough is a way to assess and address the experience of a family or community member when they visit the school. A team of family members, community partners and school staff tour the school, and look for specific

positive, welcoming practices. The team then creates and implements a plan to address any elements not found to be applied in the school.

- *New Ways to Engage Families.* Family and Community Engagement Specialists will participate in a facilitated book study of Patricia Edward’s book, New Ways to Engage Families: Strategies and Tools for Teachers and Leaders, K-12. The Specialists will work with their school teams to update the family and community engagement strategies included in their school improvement plans to align with Edward’s focus, which is grounded in equity, emphasizes the need to learn about students’ communities, and promotes a personalized approach to connecting with families.
- *Ready access to information.* A web-based parent portal has been developed to provide families with information including curriculum guides, district family activities, State Standards, and an opportunity to submit questions to the superintendent of schools. Schools also use PowerSchool and Schoology to communicate regarding children’s academic progress.
- *CT Coalition for Magnet Schools.* Guided by magnet school families through regional Parent Advisory Committees, CREC coordinates the statewide CT Coalition for Magnet Schools. Through the work of the Coalition, families speak out and write letters and emails in support of magnet schools at the local and state levels. Through Coalition activities, parents are empowered to become advocates for students in their schools and communities.

The effectiveness of the strategies and supports outlined in this section will be examined by the project’s external evaluators, through magnet school surveys, the Comprehensive School Climate Inventory, and student achievement. The design of our project evaluation includes frequent reporting back to the district, to allow for change in course or supplementing efforts if strategies are found not to be impactful.

SELECTION CRITERIA (b): QUALITY OF PROJECT DESIGN

(1) The manner and extent to which the magnet school program will improve student academic achievement for all students attending the magnet school programs, including the manner and extent to which each magnet school program will increase student academic achievement in the instructional area or areas offered by the school, including any evidence, or if such evidence is not available, a rationale based on current research findings, to support such description.

School choice is an important factor in all magnet projects. Each magnet has a distinctive program, and families and students select these schools because they believe that their unique education programs meet the needs of their children better than their neighborhood schools. To maximize the effect of parental choice of specific and distinctive magnet programs, all schools in this project will be dedicated magnets with all seats filled through the Regional School Choice Office (RSCO) lottery. As described in *Priority 4*, using a random interdistrict lottery to admit students to a magnet school, like the RSCO lottery, has proven to improve the academic achievement of students who ultimately are selected for and enroll in the magnet school. (Bifulco et al, 2009)

Magnet Theme Instruction: Students and families have chosen specific magnet programs to address the students' needs and interests, so exposure to the theme is essential. Students receive instruction related to the theme as part of their regular course work. The theme is both integrated into lessons and presented as separate classes. Students in three of the four schools will receive magnet theme instruction for a minimum of 3 hours per week in Year 1, increasing to 12 hours per week in Year 5. The Public Safety Academy will be planning in Year 1, so students in that school will receive 3 hours of magnet instruction per week in Year 2, increasing to 10 hours per week by Year 5. All students, including English Learners and students with special needs, will receive magnet theme instruction.

Data Teams and Data Wise©: The process of tailoring learning to student needs will be strongly supported by the presence of data teams at each magnet school. The data teams are the marriage between professional collaboration and data-driven decision making (Besser 2010). These collaborative teams will be designed to improve teaching, learning, and leadership. The work of the data teams will be a deliberate, frequent, and systematic practice with the intended outcome of having dramatic impact on student achievement. Data teams will implement the Data Wise© process to use disaggregated data to identify student achievement gaps, and target instruction and interventions to address needs.

Data Wise© was developed by a group of faculty and doctoral students at the Harvard Graduate School of Education and school leaders from Boston Public Schools. It is a process that helps educators use student assessment results to ensure that the information is used to improve student learning. Data Wise© organizes the work of instructional improvement around a process that has eight specific, manageable steps to help educators build confidence and skill in using data. The steps are organized into three distinct phases: Prepare, Inquire, Act. The process is explicitly inquiry-based and collaborative, and is a tool that brings coherence to improvement efforts.

Differentiated Instruction: Teachers skilled in Differentiated Instruction (DI) continually modify instruction to help diverse learners attain high standards. Professional development will prepare teachers to modify instruction to match student instructional needs, learning preferences, and academic interests; and use systematic pre-assessment and ongoing assessment to distinguish among the students who need opportunities to build required competencies, receive additional instruction or coaching, or develop advanced knowledge (Tomlinson & McTighe, 2006). Differentiation begins by varying the content, processes or product for each group in the class.

As the teacher becomes more proficient using these techniques, differentiation can occur at any or all three stages of the process. The essential curricular concepts will be the same for all students, but the complexity of the content, learning activities and/or products will vary so that all students are challenged and no students are frustrated. DI is only one facet of an overall magnet approach that values learner differences. MSAP magnet resource teachers (MRTs), master teachers with experience with literacy and mathematics programs and differentiated instruction, will coach classroom teachers, model lessons and help design new units and lessons that will use differentiation in order to better serve the magnet schools' heterogeneously grouped classes.

Improving the Academic Achievement of Struggling Learners: The magnet schools will assist students in need of greater academic support through data driven, research-based strategies that will be customized to each school's population.

Early Intervention Process (EIP) services: The magnet schools will provide targeted students with EIP services in language arts, math, and science—modified and/or expanded as needed so they can gain the knowledge and skills needed to meet or exceed designated performance levels on state assessments. Students at greater risk of not meeting criteria for promotion to the next grade will receive a greater intensity of services. School-based academic intervention teams will identify and evaluate individual student strengths and needs and target appropriate resources to ensure progress towards standards for all students, including students with disabilities and English language learners. EIP will be made available to students with disabilities on the same basis as students without disabilities.

Students who are not on track to achieve in line with their peers will be given additional support, using a Response to Intervention (RtI) model. To ensure that all students receive a high-

quality education instructional program (Tier I of RtI), the magnet schools will align curricula with CT Core standards. In Tier 1, the classroom teacher provides the intervention in the classroom (e.g., differentiated instructional techniques). Tier 2 includes intensive, individual or small group targeted instruction that, through push-in or pull-out services, reduces teacher-to-student ratios, with the student receiving services that supplement the core curriculum and provides more time for focused instruction in either ELA or Mathematics. Tier 3 interventions are provided for students who are not making adequate progress in Tier 2 interventions and/or are assessed to be 2 or more years behind their grade level. Tier 3 involves groups of one to three students, increased time per week, with instruction broken into more discrete instructional skills. Consistent and timely assessments guide grouping decisions and determine instructional pacing and individualizing instruction. Groups are flexible, with mobility depending on student needs and progress.

Key to interventions is an understanding by all teachers of each student's strengths and weaknesses. Ongoing professional development supports the teachers in using data from STAR Assessments of Math and Reading, student work, and other targeted assessments to differentiate instruction and make timely modifications. Students not succeeding on unit assessments are identified at the end of each unit for remediation and re-teaching.

Schools will provide such research-based literacy interventions as System 44, which combines technology and systematic teacher-directed instruction for grade 6-12 students who score significantly below grade level. Schools will also use computer-based research-based programs, for example, Read 180, a grade 6-12 program focused on building fluency and comprehension (White et al, 2005) and Lexia Reading, a PreK to 12th grade computerized reading program that provides phonics instruction and gives students independent practice in

basic reading skills. Additionally, Leveled Literacy Intervention is used with students in grades 6-12. This involves systematic assessment and homogenous grouping of three children for a 30-minute session (Fountas & Pinnell, 2003).

Besides the general RtI strategies identified above, the magnet schools will also meet student needs in mathematics by implementing strategies that have shown to have a high or moderate level of research evidence to support them. Specifically, this includes having explicit and systematic instruction that will provide students with models of proficient problem solving, verbalization of thought processes, guided practice, corrective feedback and frequent cumulative review. Instruction will also focus on solving word problems based on common underlying structures (Gersten et al, 2009). To implement these recommendations the schools will utilize intervention materials from the online, standards based program, TenMarks as well as other online resources such as Achieve the Core.

Students will also be required to devote time to develop fluent retrieval of arithmetic math facts and use visual representations of mathematical ideas (Gersten et al, 2009). Through the development and use of the “Number Talk” protocol, students will have the opportunity to apply both the graphical representation of number facts and allow them time to practice arithmetic fact retrieval. There will also be an effort to ensure that students are using visual representations of mathematical ideas using manipulatives such as algebra tiles and the online math program STMath.

Improving the Academic Achievement of English Learners (EL): English Learners will participate in the full range of challenging magnet classes and other school activities, and they will experience the same high expectations from school staff as do other students. ELs have the same potential as native speakers of English to engage in cognitively complex tasks. Regardless

of English Language Proficiency level, all ELs need access to challenging, grade appropriate curriculum, instruction and assessment and benefit from activities requiring them to create linguistic output (Ellis, 2008; Ellis et al, 2008).

English Learners in general education classrooms will receive the differentiated instruction and ongoing support that will enable them to acquire content, academic vocabulary and English language skills simultaneously. A student's level of English language proficiency will be taken into consideration and, when necessary, students will be given extended learning time. EL services will be provided by skilled certified teachers and associate instructors. Students at language proficiency levels 1 and 2 will receive at a minimum, 135 minutes per week of direct English for Speakers of Other Languages (ESOL) instruction to develop listening, speaking, reading and writing skills in Standard English. This instruction will address students' needs in both Basic Interpersonal Communication Skills and Cognitive Academic Language Proficiency. Students at language proficiency levels 3 and 4 will receive ESOL support according to students' needs. Under the guidance of the EL Coordinator, EL teachers will work with general education teachers to determine appropriate support and will meet regularly to develop modified content area strategies to help ensure the linguistic and academic success of EL students. Curriculum will be strongly focused on the Connecticut English Language Proficiency Standards (CELP) and will be flexible to accommodate the needs of each student as the year progresses.

Teachers of ELs will receive professional development that is related to implementing appropriate classroom strategies as, for example: the use of visual cues, scaffolding (Gibbons, 2009), sheltering (Echevarria, Vogt, & Short, 2010), and other techniques that provide critical linguistic modifications and contextual clues to support the learning of challenging content;

vocabulary and technical terms associated with content areas; language functions needed for academic communication (Goldenberg, 2008); supporting student assimilation of new information and application of language skills related to various content areas (Echevarria, Powers, & Short, 2006); and increasing opportunities for oral language development (August & Shanahan, 2006).

Improving the Academic Achievement of Special Education Students: Students attending project schools will learn in least restrictive environments, participating along with general education students to the greatest extent possible as outlined in their Individualized Education Plans (IEPs). The students' IEPs consist of goals and objectives that are in line with the Connecticut Core Standards as well as curriculum and learning expectations. Within the general education classrooms, students with disabilities will have access to their learning specialist and other supports necessary to participate in and benefit from magnet theme-based learning and other activities. Special education teachers will, for instance, use a co-teaching or push-in model with the regular education teacher. Special education students with various types of disabilities will benefit from the use of assistive technology, as needed, and learning technology that can help teachers differentiate curriculum to meet their needs. Students needing specialized instruction to access the general education curriculum or meet specific IEP goals and objectives are able to receive services in a small group or individually outside of the classroom.

The magnet schools will utilize multiple resources, including the resources of the State Education Resource Center (SERC), primarily funded by the Connecticut State Department of Education, to provide professional development and information dissemination in the latest research and best practices, as well as job-embedded technical assistance and training. Teachers and who work with special education students across all settings will participate fully in the

professional development offerings available to all magnet school teachers: for example, implementing core curriculum, writing goals and objectives in line with the Connecticut Core Standards, differentiated instruction, assessments, and the various reading and math interventions that the magnet schools will use with struggling learners, as well as professional development regarding social-emotional learning and more specialized training such as impacts of trauma and Behavior Intervention Plan writing. Paraprofessionals supporting students with special needs will receive specialized training related to their roles.

Supporting Early Learners: Realizing the importance of early childhood development, in 2013 the State of Connecticut established the Office of Early Childhood (OEC) to coordinate and improve the various early childhood programs and components in the state to create a cohesive, high-quality early childhood system. All prekindergarten schools and programs in the state, including the Enfield Public Schools Prekindergarten STEAM Academy, operate under the auspices of the OEC's Early Care and Education Division. The Prekindergarten STEAM Academy's curriculum is aligned with the CT Early Learning and Development Standards and its Guiding Principles (Appendix C). The school is seeking the National Association for the Education of Young Children's (NAEYC) accreditation, and its practices are informed by NAEYC's *Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8*.

Research-based practices that will support the development of all students including family involvement, purposeful play, social-emotional learning, and inquiry (Caprara et al, 2000; Drew et al, 2008; Henderson & Berla, 1994; Raver, 2002) will be implemented. The school will use The Creative Curriculum to guide instruction, and the accompanying Gold Assessment to monitor students' progress aligned with developmental benchmarks and to identify areas where

children may need supports. Teachers will also use both informal and authentic assessment to gauge students' understanding and development towards both academic and social-emotional standards. This information will be used to deliver developmentally appropriate, targeted interventions to all students.

Improving the Academic Achievement of Middle and High School Students: CREC will serve middle and high school students through this MSAP project. The district will continue to meet the needs of adolescents through strategic initiatives that are designed to prepare students for college readiness and 21st century careers. The schools are designed to be safe, engaging, and personalized, in order to promote school engagement (Voelkl, 2012). By providing an educational environment that recognizes the importance of school connectedness, these magnet schools will mitigate or prevent the frequent ninth-grade decline in grades and other achievement indicators for students as they transition to high school. The proposed enrollment of the magnet schools translates to small, safe communities where every student is known, rather than anonymous. Large-scale comparisons of student achievement in large and small schools indicate that students learn less in large schools than in small schools, and low-income students, minority students and ELs at small schools are far more likely than those who attend large schools to succeed academically (Cotton, 2001).

All of the schools will offer increasingly interesting and relevant activities designed to prepare students for postsecondary education and careers. Research on successful schools for adolescents has found that working in teams, smaller focus groups, or project-oriented groups allows for increased attention to the individual learning needs of students. Specialized groupings based on needs and interests also increase opportunities for independent learning and individual responsibility.

Providing Enrichment Activities to Improve All Students' Academic Achievement: The MSAP schools will consistently use challenging, engaging instructional methodologies with all students. Historically, “higher order,” more rigorous pedagogical practices have been reserved for use with students who are classified as “gifted and talented.” Too often, a broad group of students—particularly those who are minority group members, ELs, and/or poor—have limited exposure to these teaching practices. The proposed magnet programs will nurture and develop all children’s multiple gifts, talents, and interests. Professional development and curriculum design will support magnet school teachers in providing both “enrichment” and “remediation” as part of regular classroom activities. The magnet schools will build upon each student’s unique strengths and emphasize differentiated instruction to address student needs. Ongoing assessment will help teachers identify those students who need opportunities to build required competencies, receive additional instruction or coaching, or develop advanced knowledge.

Language Arts: Students learn to read, write, and speak by interacting with a balance of fiction and nonfiction texts in both large and small group settings. The district’s curriculum design facilitates selection of materials that are both culturally diverse and related to magnet themes, and student selection of reading materials and writing topics is encouraged. At the middle school level, the reading and writing workshop model will be employed, with dedicated reading and writing teachers. Across all grades, language arts skills in reading and writing will be aligned to Connecticut Core Standards and will support students in becoming literate, critical, and analytic readers as well as good writers. The district’s ELA curriculum is developed with teacher input and uses the Understanding by Design framework. Writing instruction will include various genres, along with mastery of the English grammar structures and spelling. Oral communication,

listening, and vocabulary development will be integrated into the daily curriculum. The use of expository, leveled texts on topics related to each school's magnet theme will be incorporated into all ELA classes, and literacy skills will be integrated within all content areas. Secondary school students will have 90-120 minutes per day of instructional time for literacy across the content areas. They will learn strategies to employ when reading difficult texts and/or when writing high level reports and analysis documents, regardless of the content or discipline. In addition to the use of formative and summative assessments to assess student progress, there will be performance-based projects or presentations embedded in each unit.

The instructional model described above is based on shared, core beliefs about student-centered literacy instruction:

- Readers require authentic, independent opportunities to practice reading with appropriately leveled texts.
- Writers require authentic, independent opportunities to practice writing in a variety of genres.
- Texts are vehicles through which students practice and apply literacy skills of comprehension, analysis, and critique.
- Students benefit from gradual release of responsibility instruction in which they receive modeled instruction and engage in practice opportunities with peers and summatively demonstrate their individual knowledge of learned concepts.
- The essential skills of communication and collaboration, creativity and innovation, critical thinking and problem solving are incorporated into student products and presentations.

Social Studies: Social studies programming reflects the ideals set forth in the Connecticut Board of Education's Position Statement on Comprehensive Social Studies Education for All Students K-12 and Beyond (2014). Social studies across the K-12 spectrum seeks to provide "a meaningful and relevant social studies education." At its core, social studies "integrates the study of civics, economics, geography, history, and other social sciences through an inquiry-based

instructional approach that is grounded in rich local, state, national, and global historical content.” As interdistrict magnets, the schools bring students together from multiple racial, ethnic, and socioeconomic backgrounds. The integration of social studies across the grade-levels supports a meaningful learning experience for all students; curriculum guides, content, and instructional practices are developed through a culturally responsive approach. Additionally, social studies offers opportunities to integrate theme-based learning for students across the various magnet themed schools.

The social studies program also aligns with the state Board’s belief that “a challenging and comprehensive social studies education provides students with the knowledge and skills necessary to close the achievement gap in our schools and provides all students with the educational foundation necessary to become active and responsible citizens in our communities, state, nation and world.” To achieve these goals, rigorous standards-based Understanding by Design district social studies curriculum documents were developed across elementary, middle, and high school grades. The Connecticut State Social Studies Frameworks and National Council for the Social Studies, College, Career and Civic Life (C3) were used as guides during this process. The instructional approach to social studies follows the four dimensions of the Inquiry Arc as defined by the CT Social Studies Frameworks and the Connecticut Common Core. The Inquiry Arc provides the context, methodology, and appropriate skills necessary for students to achieve the goals set forth in the social studies programming. The inquiry approach in social studies aligns with 21st century expectations for student learning. This approach calls on students to ask questions about the world in which they live; investigate issues through research and the use of evidence; and communicate their findings about real-world issues through written and verbal expression as well as through digital forms of communication.

The scope and sequence of the social studies program follows the content progression outlined in the CT SS Frameworks document. Middle School students expand their worldview in grades 6-7, as they investigate the world through a two-year World Regional studies curriculum. This content focus provides students with a global perspective as they enter their secondary educational experience. Grade 8 shifts back to a focus on American History from the American Revolution to the post-Civil War Reconstruction era. Infused throughout the social studies programming is an emphasis on student research and writing using multiple points of source evidence to support conclusions. This methodology continues into high school as students complete a minimum of three courses in social studies for graduation: Civics, Modern US History, and World History. It is expected that all students gain valuable knowledge and skills through a comprehensive social studies program. With this, students can achieve the vision set forth by the State Board of Education that social studies is “critical for our students’ futures as active and engaged citizens and promotes their ability to succeed in a globally competitive economy.”

Vocational and Professional Skills and Competencies: All magnet schools will focus on 21st century skills and competencies, referred to as the CREC Essential Skills for Deeper Learning (*Critical Thinking and Problem Solving; Communication and Collaboration; Creativity and Innovation; and Self-Direction and Resourcefulness*), to prepare students for college, careers and civic participation. Theme-based courses are specifically designed to provide students with college level course work or initial training in specific career fields (e.g. engineering, law and government, research). Internships, job shadowing, and mentoring opportunities in the sciences, as well as strong magnet themes will help to prepare students to be engineers, research scientists, entrepreneurs and public service professionals. At the high school level, students will complete

a Capstone Experience, a culminating credit-bearing activity and a graduation requirement. The Capstone Experience is designed to engage students in a project/experience that focuses on an interest, career path or academic pursuit and that synthesizes classroom study with real world applications. The Capstone experience is built on the philosophy of providing students the opportunity for meaningful personalized learning. Building off the knowledge and skills students have acquired throughout their high school career, their journey through Capstone will be tailored to meet their needs and interests. Capstone is an opportunity for students to complete a project highlighting their connection to the school's magnet theme and personal interests. Ultimately, through inquiry and research, the Capstone project challenges students to develop and demonstrate proficiency in the CREC Essential Skills for Deeper Learning.

Math: The core math program for secondary students will be aligned with the Connecticut Core Standards and will implement the instructional shifts required by the Common Core State Standards and the recommendations of “Principles to Actions” by the National Council of Teachers of Mathematics (NCTM). At the high school level, graduation will require the completion of at least 4 math credits as well as one STEM elective. At all grades, the math program will provide a rigorous curriculum that offers students the opportunity to focus on fewer topics but learn in greater depth (NGA & CCSSO, 2010). To do this, the math program will continue to develop and communicate clear math goals and success criteria in the form of learning targets (NCTM, 2014). This work will provide a guaranteed and viable curriculum for the math program.

These goals and success criteria will be supported with specific tasks that promote reasoning and problem solving and that allow students to have meaningful discourse and connect mathematical concepts and representations (NCTM, 2014). The tasks and corresponding

assessments will shift traditional assessments to project based performance tasks, which will be connected to the magnet theme of each school where possible and will provide an opportunity for instructional strategies that are in the “zone of desired effects” (Hattie, 2017). These changes make it possible for students to use the clear learning targets along with the success criteria to apply metacognitive strategies to evaluate their own learning. Also, these tasks allow for teachers to have meaningful classroom discussions and feedback in a problem solving teaching environment (Hattie, 2017). To implement these shifts, it is essential to provide professional development using the MSAP funds that will provide teachers with the tools needed to work towards this less traditional model of math instruction.

Science: With the recent adoption of the Next Generation Science Standards (NGSS), project schools will develop and implement new science curriculum focused on a 3-dimensional learning process. The three dimensions prescribed by the NGSS are Crosscutting Concepts, Disciplinary Core Ideas, and Science and Engineering Practices. MSAP schools will be involved in writing, implementing, and revising NGSS-aligned curriculum; with implementation in grades 6 and 9 in the 2017-2018 school year, grades 7 and 10 in 2018-2019, grades 8 and 11 in 2019-2020, with ongoing annual revisions, to align with the Connecticut NGSS implementation and assessment plan (CT SDE, 2016). Moreover, all MSAP schools will implement a project-based learning instructional model in Science, following the 5E Instructional Model to promote student discovery through engaging in inquiry and critical thinking to develop understanding of science concepts (Bybee, Taylor, Gardner, VanScotter, Powell, Westbrook, & Landes, 2006). The project’s secondary STEM-themed school- the Academy of Science and Innovation- will offer students the choice of engaging science pathways toward graduation. Pathway options will

consist of scaffolded sequences of courses designed to provide each student with an individualized science learning experience.

Additionally, all magnet schools, including the Prekindergarten STEAM Academy, will take an inquiry approach to science learning that reflects the Connecticut State Board of Education Position Paper on Science Education's (2008) support for "an inquiry-based approach to science education, which includes hands-on laboratory experiences for all students." The core science program will include a strong literacy component, as well as opportunities for discovery and inquiry through projects and experiments. For graduation from high school, students must minimally complete at least 3 credits in science (Biological/Life Science, Chemistry/Physical Science, other science) as well as a STEM elective.

Faculty members at MSAP schools will engage in ongoing professional learning on three-dimensional and phenomenon-based instruction that develops scientific thinking, explanation, argumentation, and reasoning outlined in the National Research Council's *A Framework for K-12 Science Education* (2012). Focus on professional learning will be in advancing the scientific reasoning skills of all students, as teaching shifts from learning facts to explaining phenomena (Riser, 2013). Additionally, teachers will engage in opportunities to improve their skills in leading scientific discourse in their classes, as a key component of effectively leading three dimensional learning through eliciting student ideas, helping students make sense of phenomena, and pressing students for evidence-based reasoning (Windschitl, Thompson, & Stroupe, 2012).

Technology and Engineering: Project schools incorporate engineering skills and concepts across the disciplines. Each school's curriculum is grounded in the knowledge that students of the 21st century live in an environment marked by access to an abundance of information, rapid

changes in technology tools, and the ability to collaborate and make individual contributions on an unprecedented scale. New Computer Science courses will be designed to provide students with a continuum of learning that encompasses the history and foundations of computer science, logic and reasoning, programming and coding, and ethical considerations and problem solving. At ASI, a unique progression of Computer Science coursework will provide the foundation for a specific graduation pathway available to the growing number of students who choose to focus their studies on computer science.

The belief of the Consortium is that all students must be provided the opportunity to pursue their interests, develop fluency in STEM fields, and have equal opportunities to build the required knowledge and confidence to succeed in further STEM studies and future work opportunities. The Consortium is committed to developing STEM-literate students: innovative and critical thinkers who are able to make meaningful connections between school, community, work and global issues.

Addressing Social Emotional Learning and Mental Health Needs to Improve Student

Outcomes: A growing body of research confirms what many teachers have always known, a student's life experiences can affect his/her availability to learn. The CDC-Kaiser Permanente Adverse Childhood Experiences (ACE) Study revealed a relationship between ACEs and negative health and wellbeing outcomes, including poor academic performance, early pregnancy and drug use (Centers for Disease Control and Prevention, 2016). Among the approximately 17,000 adults surveyed, just over 50% reported having experienced at least one form of childhood adversity (Felitti, et al., 1998). The study found that the intensity of the dose or number of stressors increased the intensity of the negative outcomes. In addition, The 2011 National Survey of Children's Exposure to Violence found that nearly 60% of the sample had

been exposed to violence in the past year, and more than 1 in 10 reported 5 or more exposures. This exposure occurred across all age ranges of childhood and for both genders. The 2011-12 National Survey of Children's Health further suggests a relationship between adverse childhood experiences and school outcomes. On the school engagement indicator for children ages 6-17, 87.7% of children with no adverse family experiences were consistently engaged in school as compared to 67.7% of students who had experienced two or more adverse family experiences. The National Child Traumatic Stress Network reports that as many as 1 in 3 students who experience a traumatic event may exhibit symptoms of post-traumatic stress disorder (PTSD), depression, or anxiety. The growing body of research connecting trauma and negative outcomes across multiple domains (Hillis, et al., 2001; Kelly-Irving, et al., 2013; Miller, et al., 2011; Porche, Fortuna, Lin & Algria, 2011) clearly illustrates a need for trauma-informed school environments as well as interventions to support students who have experienced trauma. Addressing school climate and providing tiered supports will ensure equal access to those students who have experienced or are experiencing adversity, chronic stress, and other forms of trauma.

Magnet schools bring together students from different socioeconomic backgrounds. Approximately half of the students served by this project are poor, as defined by eligibility for free or reduced lunch. Students who live in poverty experience higher rates of trauma than students whose families enjoy a higher socioeconomic status. The 2011-12 National Survey of Children's Health found that children from families with incomes between 0-99% Federal Poverty Level (FPL) were over three times as likely to experience two or more adverse child and family experiences compared to children from families with incomes 400% FPL or more (Child and Adolescent Health Measurement Initiative, 2013). Traumatic experiences influence how

students understand and interact with the world around them, often with negative consequences including higher rates of dropout (Porche, Fortuna, Lin, & Alegria, 2011; Iacini, Petiwala, & DeHart, 2016) and lower academic achievement (Duplechain, Reigner, & Packard, 2008; Cook, et al., 2005; Schwartz & Gorman, 2003).

The MSAP schools will implement curriculum and interventions to teach students social-emotional skills, as described in *Selection Criteria (a) Desegregation*, and to mitigate the impacts of trauma faced by many of the consortium's students . The consortium has also adopted Positive Behavioral Intervention and Supports (PBIS) to improve student behavior and academic outcomes. PBIS provides a decision making framework that guides selection, integration and implementation of the best evidence-based behavioral and academic practices for improving important academic and behavior outcomes for all students. The new trauma-sensitive schools work, an important component of the MSAP schools' significant revisions, will be integrated with PBIS. The Wisconsin Department of Public Instruction, which has led the way nationally in developing trauma-sensitive schools, has published a guide titled *Using Positive Behavior Interventions & Supports (PBIS) to Help Schools Become More Trauma-Sensitive* that will inform the consortium's efforts. The consortium schools receive on-going training and coaching in PBIS, and we anticipate that leveraging this existing framework will ease and improve the adoption of trauma-sensitive practices, particularly at the Tier 1 classroom level.

To ensure that students have the healthy mindset needed to more fully engage in educational offerings provided by the magnet schools and experience success, and to minimize the risk of secondary trauma to other students and staff (Motta, 2012), the CREC/Enfield MSAP project will implement a tiered approach to addressing trauma in the MSAP schools. Along with developing trauma sensitive schools and implementing an effective intervention to minimize

trauma symptoms with students, social emotional learning and pro-social strategies will be explicitly taught to all students.

The first step to rolling out the trauma sensitive schools approach is to assess and inventory the efforts already in place at the schools. For example, all schools have implemented social emotional strategies or interventions, PBIS, restorative justice (secondary schools), and collaborative problem solving using the Think:Kids approach, but it is important to assess the depth and breadth of implementation. Questions that will be addressed during this brief assessment phase include: Are strategies used in all classrooms, and with fidelity? Are the practices ingrained or do staff need more professional development? How have existing efforts positively impacted students? Discipline and classroom management policies and practices will also be reviewed for alignment with a trauma sensitive approach. Where misalignment exists, technical assistance will be provided to revise or develop supportive policies and practices.

Tiered supports related to trauma include:

- Tier I: Within the context of the PBIS framework, teachers will be trained in basics of trauma prevalence and impact; neurobiological impact of trauma; teacher self-care and secondary trauma; de-escalation strategies; trauma sensitive practices; and safe environment and relationships.
- Tier II: School social workers and psychologist will be trained in a framework for intervention with youth and families who have experienced multiple and/or prolonged traumatic stress. Students in need of extra support will be provided additional opportunities to build self-regulation skills and participate in a social support system.
- Tier III: Based on the results of a trauma screen, students will have access to Cognitive Behavior Intervention for Trauma in Schools (CBITS). This evidence-based clinical intervention will be provided through the school health centers. Community based services and wrap around care will be identified as needed.

Schools will focus on their readiness to support students who have been impacted by trauma. To increase the likelihood of success for CBITS, schools must be aware of trauma and its impacts. Building administrators will be trained on trauma sensitive practices and discipline. Teachers, paraprofessionals and other selected schools staff will receive “Trauma 101” training to gain a foundation level understanding of trauma, along with training designed to impart skills such as teacher self-care and awareness of secondary trauma, de-escalation, trauma sensitive practices. School counselors and social workers will receive training that will help them to become building experts in trauma. Aligned with the staff coaching and support model implemented by the consortium, the counselors and social workers will be the “go-to” staff for teachers who need strategies for non-confrontational interaction with traumatized students or other related support.

With training and ongoing support from the Clifford Beers Clinic, a trauma-informed community-based mental health provider in New Haven, CT, CBITS will be implemented by the certified mental health clinicians located in the school-based health centers in each of the project’s secondary schools. CBITS is an intervention including individual and group therapy for students in grades 5 - 12, intended to “reduce symptoms of post-traumatic stress disorder (PTSD), depression, and behavioral problems, and to improve functioning, grades and attendance, peer and parent support, and coping skills.” (www.cbitsprogram.org)

CBITS was selected because there is evidence of its effectiveness in decreasing trauma symptoms and increasing academic achievement for participating students. Stein et al. conducted a study of effectiveness of CBITS in lowering symptoms of PTSD and depression in middle schools students in Los Angeles. Using a randomized controlled trial, researchers assessed symptoms before and after participation in the intervention, and found that students who

participated in CBITS demonstrated significantly less symptoms than the students who were placed on the waitlist. Once the waitlisted students received CBITS, the difference in symptoms between the two populations no longer existed. Also using a delayed intervention method, Kataoka et al. found that early intervention students (first group of participants) in a Los Angeles middle school who participated in CBITS achieved higher grades in math than students who were in the delayed participation group, and that the rates of students with passing grades in both math and language arts were higher for students who participated in the early intervention group.

The effectiveness of CBITS to mitigate symptoms of PTSD in adolescents, particularly low-income students of color, suggests potential for success in the Consortium's secondary schools. In addition, CBITS has been designated an Exemplary Program by the Office for Juvenile Justice and Delinquency Prevention; a Proven Program by the Promising Practices Network; a Best Practice model by that National Child Traumatic Stress Network; and a promising program by the Substance Abuse and Mental Health Services Agency. UCLA CRESST will study the impacts of the intervention on participating students in the project's schools, and add to the body of available research on the effectiveness of CBITS.

(2) The extent to which the applicant demonstrates that it has the resources to operate the project beyond the length of the grant, including a multi-year financial and operating model and accompanying plan; the demonstrated commitment of any partners; evidence of broad support from stakeholders critical to the project's long-term success; or more than one of these types of evidence.

Because of the ongoing *Sheff v. O'Neill* agreement, the State will continue to provide operating funds to maintain the magnet schools in this proposal. The State will spend approximately \$313 million for magnet schools throughout the state this year and \$40 million for Open Choice. The three schools in this grant operated by CREC receive an operating grant from the state of \$10,056 per pupil per year plus funds for transportation, including late buses for

sports and other afterschool activities. Resident districts also pay per pupil tuition to CREC in the amount of \$5,300 for ASI and PSA and \$4,125 for MLC. These schools also receive Title I funds. Enfield receives \$4,500 for each Hartford prekindergarten student enrolled in their district, and \$6,000 per pupil for Hartford students enrolled in kindergarten-Grade 12. The state also funds transportation of Open Choice students, provided by CREC. This funding, though not sufficient to provide support for a successful transition to the revised/new school themes, will be adequate to maintain operation of the schools.

To operate as a magnet school in Connecticut, each school must submit an Operations Plan to the CT State Department of Education (SDE) for approval. The SDE reviews these plans for quality and sustainability, and provides extensive feedback through a rigorous revision process prior to approval. Plans must include the following components:

- **School Vision and Design:** *school mission and vision; educational philosophy, including cultural relevance; academic program, including curriculum aligned with state standards; instruction, including data driven practices; and student assessment.*
- **Strength of the Organization:** *school governance/management, including voice of teachers, families and students; evidence of support and approval from the community; partnerships with community, business and/or higher education;*
- **Student Composition, Services and Policies:** *school demographics, including recruitment strategies; meeting students' needs per special education and section 504 of the Rehabilitation Act of 1973; supporting English Learners; admission policy and criteria, including the lottery and preferences or pathways; school climate and student discipline, including a safe school environment and equitable discipline; family and community engagement policies; talent management, including recruiting diverse staff*

- **School Viability:** *facilities plan; financial plan*, including a 5-year cost projection; *self-evaluation and accountability*, including monitoring academic progress for students, and maintaining an integrated school; *transportation*

See Appendix D for the operations plan for the CREC Public Safety Academy. The other schools' revised plans are in progress.

The activities described in this proposal are supported by the staff, students and parents of the project schools as well as the larger community. See attached for letters of support from the teachers' union, legislators, and community partners (Appendix E). The Consortium districts will continue to conduct comprehensive searches of Federal, state and private funding sources using the U.S. Department of Education website, the National Science Foundation website, the Foundation Directory and other funding sources. For example, CREC currently participates in the NSF-funded Computer Science for All grant through a partnership with Trinity College in Hartford, and Enfield successfully applied for early childhood Smart Start funds for the STEAM Academy. CREC is also in the process of writing a grant for programming for disengaged high school students through the Barr Foundation.

CREC and Enfield Public Schools are fully committed to interdistrict magnet schools. Both LEAs have an on-going commitment to what is inarguably a highly effective model for providing high quality educational opportunities to a diverse population of students and will continue to implement the high quality programming supported through MSAP after the federal funds are no longer available. Interdistrict magnet schools combine rigorous curricula that meet state standards, appropriate interventions for struggling students, highly motivating magnet themes and public school choice to create higher performing schools that are also racially

diverse. The schools enable thousands of Hartford students to attend racially diverse, higher performing schools.

(3) The extent to which the training or professional development services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients of those services.

Professional Development: Teachers in MSAP schools will receive significant professional support so they can effectively implement the strategies outlined by the project’s logic models and theory of action (as described below). Each teacher in the project’s schools will receive 60 hours of professional development annually: 30 hours to support theme implementation, and 30 hours to support systemic reforms. To support the design of highly effective development opportunities, the consortium’s professional development plan is grounded in the Connecticut Standards for Professional Learning, which define how educator practice and outcomes for each and every student can be facilitated through Cultural Competence; Learning Communities; Leadership; Resources; Data; Learning Designs; Implementation; and Outcomes.

In concert with the standards, the project will utilize a continuum of professional learning that promotes teacher leadership and professional growth:

Developing Awareness: faculty and staff gain knowledge of new, research-based instructional strategies and techniques.

Building Knowledge: faculty and staff engage in discussions, collaborations, and/or presentations regarding new, research-based strategies and techniques as they apply to specific grades and/or content areas.

Translating into Practice: faculty and staff give classroom demonstrations and collect data and evidence related to strategy/technique implementation.

Reflecting: faculty and staff practice self-evaluation and/or peer feedback sessions regarding strategy/technique implementation; practice is refined according to self-reflection, feedback, and data collection.

Building Capacity: faculty and staff engage in a collaborative, collegial process to educate peers about the strategy/technique while looking for opportunities to expand and evolve the strategy/technique.

Professional development will be data-driven, planned and sustained, and embedded in practice. Sufficient resources will be dedicated to teacher learning and support. To support grant activities, extensive professional development will be provided in areas including the following:

Project Based Learning (PBL) - Schools will work with the Buck Institute for Education (BIE) on Project Based Learning. BIE is a “mission-driven nonprofit organization [that] creates, gathers, and shares high-quality PBL instructional practices and products and provides highly effective services to teachers, schools, and districts.” (www.bie.org) BIE is nationally recognized for high quality professional development in PBL. Teachers will participate in the PBL 101 workshop, and schools will receive sustained support visits. Teachers have the opportunity to join online communities of PBL implementers for ongoing professional discussion and guidance from peers and certified trainers. The main platform is Google+, but PBL online communities are active on nine platforms, including Edmodo, Pinterest, and Facebook. BIE’s website is also rich with resources, including articles, videos, and a project database.

Mastery Based Education - Schools will work with Great Schools Partnership (GSP) for the three years of the project to implement a mastery learning environment. GSP will work with schools to develop strategic action plans, train a school-based facilitator to guide

implementation, conduct classroom observations and instructional audits, and work with schools to embed research-based strategies like RtI, personalized learning, and project-based learning into their implementation of mastery based education.

Positive Behavioral Interventions and Supports (PBIS) - Teachers will be trained in PBIS as a framework to intervene with students who need behavioral support. Similar to Response to Intervention (RtI), PBIS emphasizes the use of evidence-based practices, a tiered system of behavioral support, and establishing an overall positive school climate. PBIS will be implemented through a trauma-sensitive lens, integrated with the work the schools will do on supporting students who have experienced trauma.

Next Generation Science Standards – Through The Education Partners, an innovative international education service provider, teachers will participate in a STEM learning experience known as *The STEM Collaborative: Teachers as Change Agents*. Teachers engage in Professional Learning Communities (PLCs) as they learn together and transfer their learning to their practice. PLCs create commonalities – shared experiences that build bridges for teachers from different levels of experience, course assignments, grade levels and science knowledge expertise. The development of Professional Learning Communities supports teachers as they transition from science teachers to STEM leaders - "change agents" for STEM education. Teachers will also receive an immersive introduction to the concept of inquiry and problem-based pedagogy. Through professional development that balances information sessions, experiential learning activities, problem-solving and work sessions, teachers will reflect on their own practice to identify opportunities to engage students in STEM learning.

Restorative Practices - Schools will work with the International Institute for Restorative Practices through a train-the-trainer model to understand how to replace punitive measures with

restorative practices. Trainers will receive four days of training and follow-up support, including visits to schools that have implemented the model.

Trauma Informed Schools - The Clifford Beers Clinic will provide support for CBITS, the clinical component of the project, serving students with mental health needs resulting from trauma. Clifford Beers specializes in child trauma and adversity, and the organization is certified as a trainer of CBITS. They have worked with other diverse districts in Connecticut, including Stamford and New Haven. As part of their training, clinical staff from the MSAP schools will participate in a community of practice with other schools around the state that are implementing CBITS. In addition to CBITS training and support, Clifford Beers will provide consultation and professional development related to the development of trauma sensitive schools. Their recommended model of implementation includes a whole-school approach, which will be adopted by the participating schools, with training provided to administrators, teachers and other school staff.

Magnet resource teachers (MRTs) at each school will work with teachers and administrators to identify and address emerging professional development needs. These master teachers will also provide coaching to teachers, particularly in the areas of embedding theme into core instruction, differentiation, and using innovative approaches.

(4) The extent to which the proposed project is supported by strong theory.

The logic models provided at the end of this section demonstrate the CREC/Enfield Consortium's theory of action for the MSAP project.

Project Level Resources: To adequately support project activities, the project will require Federal, State, District, Community, and Expert Resources. **Federal** resources are MSAP funds that will support project administration; marketing of revised and new schools to students and

families; magnet resources teachers; family and community engagement specialists; professional development related to theme and systemic reform; and equipment and supplies to implement school themes and provide academic supports. **State** resources are the Regional School Choice Office, which conducts the magnet school and Open Choice application and lottery processes; and provides state per-pupil grants for magnet schools and Open Choice. **District** resources are central office and principal leadership to guide implementation of activities, develop and implement supportive policies and practices at the school and district levels, make connections to community partners and assist in the development of relationships, and enable the purchase of needed materials and services; existing district policies that support non-discrimination and inclusiveness for both students and staff; teachers in the schools, and their time and efforts related to implementing new school themes and research based practices to improve student outcomes; and the Family Resource Center to facilitate connections with families who may find it difficult to interact with the school because of transportation, work or family schedules or other barriers, to provide workshops and family sessions in the Hartford community and referrals to community agencies as needed. **Community** resources are students and their interests, skills, abilities, and diverse identities; families and their strengths, knowledge of their children's needs and strengths, and their desire to see their children succeed; the business community and their understanding of workforce needs, content knowledge to provide professional development to teachers, and opportunities for internships, research, and other authentic experiences for students; non-profit organizations that provide supports to families that schools are unable to provide and access to families to educate them about school choice options; and local institutions of higher education that provide early college access to students, content area expertise, research facilities and opportunities, and theme-related programming and activities. **Expert** resources are

nationally- or regionally-recognized professional development and technical assistance providers with content area expertise and skills to deliver training and support to school staff in the implementation of research based practices and strategies that will lead to improved student outcomes; professional marketing expertise; and the project's external evaluator, who will provide the project with timely and useful information about the progress of the project to inform improvements to the process of implementation, and a rigorous evaluation that will evaluate the effectiveness of one of the project's interventions.

Activities, Outputs, and Impacts: A plan of high quality **professional development** that is comprehensive, sustained, intensive, and collaborative (Slabine, 2011) will be developed and implemented, with the measurable output of teachers receiving 30 hours of theme-related professional development and 30 hours related to systemic reform annually. As a result of their professional learning, teachers will develop the skills to implement culturally competent and trauma sensitive learning environments, and to teach in heterogeneous classrooms. Professional development will also inform the revision of core curriculum units and academic supports based on research and best practices, as well as the integration of magnet themes.

The Activity's Impact: Research indicates that high quality professional development, given sufficient dosage and follow-up supports, can increase teacher knowledge, change teacher practice, and positively impact student achievement. (Blank et al, 2008; Capraro, et al, 2016; Desimone, et al, 2002; Johnson, et al 2006). The project's theory contends that professional development provided through MSAP will lead to an increase in teacher knowledge and skills, and an increase in high quality instructional practices and interventions, resulting in increased student achievement. Professional development in areas relating to social emotional learning, trauma informed approaches, and cultural competence will lead to improvements and changes in

teachers' perspectives and understanding of student behavior, along with increased skills in understanding and addressing behaviors within the classroom. This will lead to increased student engagement and reductions in student behaviors that lead to disciplinary action or behavior plans.

Schools will carry out **recruitment campaigns** to attract Hartford resident students and suburban students to apply to the magnet schools. Activities will be varied and frequent, with different strategies for different populations. Schools and the consortium districts will, in collaboration with the Regional School Choice Office (RSCO), track application data on an ongoing basis to determine which strategies have been most effective. Eight years of prior experience with the RSCO application process, which has yielded thousands of applications to magnet schools from both Hartford and suburban applicants annually, has provided the consortium with information on effective strategies. Because the schools in this project have had some challenges in recruiting students and need to effectively communicate their revised themes, a professional marketing firm will provide support in the development of new and creative recruitment strategies and messages.

The Activity's Impact: The recruitment campaign will result in sufficient numbers of Hartford resident and suburban resident families and students who have submitted an application to the RSCO lottery. The pool will be diverse, reflecting the racial, ethnic and socioeconomic populations of the greater Hartford region.

Open magnet school seats will be filled through the **RSCO application and lottery**. Bifulco, Cobb, and Bell (2009) found that a lottery system for magnet schools reduced racial and socioeconomic isolation for urban students. All new enrollees for all schools in the project will be placed through the RSCO lottery annually.

The Activity's Impact: Research (Bifulco et al, 2009) indicates that interdistrict magnet schools that admit students through a lottery result in desegregated educational settings. The Hartford students attending the project's interdistrict magnet schools would have otherwise attended highly segregated local schools. The RSCO lottery has been largely successful in providing reduced racial and socioeconomic isolation environments for urban students. Combined with recruitment efforts and attractive new themes, the expectation is that the project schools will provide an integrated educational environment for their students. Research indicates that urban students who attended integrated interdistrict magnet schools outperformed their peers in non-magnet schools in reading, science, social studies and mathematics (Bifulco et al, 2009; Gamoran, 1996). Therefore, the project anticipates an increase in standardized scores in reading and mathematics for participating students.

Through the course of the project, teachers will **develop engaging theme units and courses, infuse authentic theme experiences, implement core curriculum aligned with standards, and provide academic interventions and supports.** The CT Core Standards are research- and evidence-based and outline what students need to know and be able to do, by grade level, in order to be prepared for college and career. Through this project, teachers will be provided with time, professional development, and peer support to write and revise curriculum in alignment with standards and infuse the theme into units and courses. They will learn to utilize strategies like PBL, and connect students to authentic opportunities to deepen their learning. Because some students will need academic supports to achieve at high levels, interventions and supports will be provided to all students in need of support, using the RtI framework and interventions including those described earlier in this section.

The Activity's Impact: The high quality professional development provided through the grant (as described above) will inform the revision of curriculum, resulting in theme-infused, standards-aligned units and courses, informed by the cultural perspectives and social contexts of magnet school students. Magnet schools are intended to attract students who are interested in the schools' themes; students will be more interested in and engaged with content that is culturally relevant, rigorous and highly reflective of the theme. Students learn more when they are highly engaged which leads to greater academic success, fewer disciplinary referrals, reductions in dropout rates and higher rates of graduation (Christenson et al, 2012).

Schools will implement effective interventions to help students become ready to learn and take full advantage of the opportunities offered by the magnet schools. The secondary schools will **implement Cognitive Behavioral Intervention for Trauma in Schools (CBITS)**, a school-based intervention designed to reduce symptoms of post-traumatic stress disorder and related problem behaviors for students in grades 5 - 12. Licensed mental health professionals located in the school-based health centers will be trained and supported by Clifford Beers Clinic, a certified trauma center based in New Haven, CT. Research has shown that students who participate in CBITS demonstrate reduced symptoms of trauma (Stein et al, 2003) and improved academic achievement (Kataoka et al, 2011) following treatment. The Enfield STEAM Prekindergarten Academy will **implement Second Step Early Learning**, a program that teaches students positive behavior and social emotional skills. Students who participate in the program have demonstrated improvements in social interaction, social independence, and cooperation. (Ocasio et al, 2015) To support these interventions, teachers will be trained on how their interactions with students impact student behavior, particularly for students who have experienced trauma, and strategies to minimize conflict and elicit engagement. Social emotional

learning strategies, such as collaborative problem-solving, restorative justice, and student agency will be implemented schoolwide to support a positive overall environment in the schools.

The Activity's Impact: Addressing students' social emotional and mental health needs can lead to better academic outcomes and a better school climate, improving the school experience for all learners and school staff. (Domitrovich et al, 2017) Building students' intrapersonal skills, such as self-regulation, coping, and positive mindset, and interpersonal skills, such as listening, communicating and social problem-solving, will support student engagement and the development of academic and 21st century skills. The project's theory of action contends that this will result in better attendance and academic achievement, and increased rates of graduation for the secondary schools.

Family and Community Engagement Specialists (ES) will collaborate with families, teachers, administrators, and the Family Resource Center to **create family and community involvement plans informed by family and community needs and interests.** Sustained and meaningful family engagement contributes to student achievement and school improvement. (Henderson & Mapp, 2002) For young children, family engagement is particularly important because family activities at home contribute to children's attainment of skills. At the Prekindergarten STEAM Academy, family engagement will include a focus on family learning, and how parents and caregivers can promote their children's academic and social emotional learning with storytelling, games, and other activities. Family engagement at the secondary level will be informed by what works with families of older students, focused on parenting adolescents, home-school relationships and responsibility for learning outcomes, while acknowledging the development needs of youth who are becoming more independent (Kreider et al, 2007). Community engagement strategies are also vital to the success of the schools:

community partners can help recruit students and families to consider the schools and apply through the RSCO lottery; provide needed services to children and families, and provide opportunities for real-world professional development for teachers and authentic activities for students.

The Activity's Impact: The project's theory of action contends that families will be more involved, and as a result will experience social-emotional security with respect to their relationship to the schools, will be engaged with/connected to the school, and will feel that the school respects diversity. This will, in turn, sustain positive relationships and engagement. High levels of family engagement will contribute to student academic achievement, including higher standardized test scores and graduation rates.

The schools involved in this MSAP project will **evaluate progress on an ongoing basis**. This will occur at the project level, through the external program evaluation, including site visits and discussions between the project director, principals, magnet resource teachers (MRTs), and central office. At the student level, schools data teams will monitor progress on academic and behavioral indicators. Schools will utilize the Data Wise© process, developed by the Harvard Graduate School of Education, as a framework for gathering, discussing, and acting on student data.

The Activity's Impact: An explicit focus on monitoring progress will provide information needed to revise or enhance project strategies and revisit the logic model and its assumptions.

The combined impact of all of these strategies is that the magnet schools funded through the project will be successful in providing a high-quality education to diverse populations of students, with positive academic and social outcomes. They will contribute to the *Sheff v. O'Neill* remedy in Connecticut, and therefore be sustained because of high demand for enrollment in the

schools by Hartford and suburban families and because they contribute to the state's required remedy.

Each school's approach to project implementation is based on theme, grade levels served, and student and staff needs, strengths, and interests.

► ***CREC Academy of Science and Innovation***: The project includes a revision of the Medical Professions and Teacher Preparation Academy in order to boost student engagement, increase learning and student achievement and fill identified STEM career needs in the region. A lack of the highest levels of student engagement in the original theme of this school was identified. This led to a lower than desired level of student learning and observable lack of achievement in the STEM areas. In advisement with the State Department of Education, CREC has taken extensive steps to solicit the perspectives of students, teachers and community with regards to this school, and their input was incorporated into the school's new design: opportunities for student choice, rigorous scientific research opportunities, hands-on engineering opportunities, and computer coding opportunities. The three resulting pathway options are provided below along with the unique course topics offered for each:

- **Scientific Research**: Genetics, Biochemistry, Cellular Biology, Anatomy and Physiology, Molecular Biology, Physics.
- **Engineering**: Engineering Principles, Design and Manufacturing Principles, Engineering Applications, Physics, Advanced Manufacturing.
- **Computer Sciences**: Computer Science Theory, Logic, Programming Languages, Coding, Advanced Coding, Ethics in Computer Science, Independent Design and Production.

In addition to these differentiated core offerings, all students will also take Physical Science, Biology, Chemistry, Computer Science, and at least four courses in Mathematics. These new

opportunities will significantly bolster students' hands on exposure, instruction, and learning in the STEM fields. Students will graduate with an in depth knowledge of STEM content and practical applied experiences supported by at least 8 Science, Computer Science, or Engineering credits.

Research indicates that postsecondary students who participate in STEM activities during out of school time while in high school are more likely to demonstrate an interest in STEM careers (*STEM Learning in Afterschool*, 2011). To provide students with such opportunities for enrichment based on student interests related to the school theme, ASI will offer an extended day program. Transportation will be provided, so that all students can participate. Offerings will include Electrathon, working on an electric vehicle that will be competitively raced in a closed-circuit track; VEX Robotics; Flight Academy; and the Green Leaf Club, focused on implementing community-based environmental conservation projects.

The school's logic model describes the resources required and activities implemented by the school as it undergoes this significant revision.

Resources: See project level logic model.

Professional Development: *Project-Based Learning* - to incorporate projects so that students can demonstrate and deepen their content knowledge, *Next Generation Science Standards*- to ensure that courses and teaching are aligned with standards, *Mastery Learning*- to shift from a focus on seat time to understanding of content, *Positive Behavioral Interventions and Supports (PBIS)*- to support a positive school climate in alignment with restorative practices, *Reading* - adolescent literacy, and reading across the disciplines, *Cultural Competence* - to promote culturally responsive teaching, and family engagement, *Restorative Practices* - social emotional learning strategy, to shift from punitive to restorative discipline practices, *Real World STEM* -

engage with partners to provide teachers with STEM content and material for authentic units and lessons, *Blended Learning* - to support the inclusion of digital and online instruction, aligned with the school's shift to a mastery learning environment, *Trauma-Informed Schools* - to develop a supportive school environment for students who have experienced trauma

Recruitment: The school is located in New Britain, CT, and the school will work with community organizations and elementary schools in New Britain, Hartford and the surrounding suburbs for family outreach. Recruitment materials will be updated to reflect the school's new name and theme.

RSCO application and lottery: See project level logic model.

Theme integration: The school will offer three pathways: Scientific Research, Engineering, and Computer Sciences. In addition to pathways courses, teachers in non-STEM core and specialty areas will integrate STEM into units. As the project progresses, teachers will also develop multi-disciplinary integrated STEM units.

Alignment with CT Core Standards; Family and Community Engagement; Assess and

Monitor: See project level logic model.

► ***Metropolitan Learning Center for Global and International Studies:*** The current theme of the CREC Metropolitan Learning Center (MLC), established in 1998, is global and international studies. By 2015, it became clear to the school community that the school theme and its focus needed an upgrade to be relevant to stakeholders and students. In response, the magnet theme will emphasize global leadership and citizenship – with student agency and empowerment as the heart of the new theme. The school will also expand its International Baccalaureate Program to include the Diploma Programme. As one of the few schools in the world that will offer the IB Middle Years and Diploma Programmes to all of its students, MLC will be leading the way as a

community of learners. All students deserve a world-class education that will prepare them to be engaged global citizens, and the IB's expectations support MLC's vision for global leadership and empowerment.

As an IB World School, MLC will implement the IB Learner Profile and Approaches to Learning, connected to the school theme. The Learner Profile is a set of ten traits that students develop as IB learners (inquirers, knowledgeable, thinkers, communicators, principled, open-minded, caring, risk-takers, balanced, and reflective). Approaches to Learning are skills areas that IB learners develop as they "learn how to learn" (communication, collaboration, reflection, research, thinking, and affective skills).

Since global citizenship requires facility in more than one language, an overarching goal of MLC's revised theme will be excellence in language learning. The school is developing plans to work with Robotel's Interactive Languages programs to provide world-class language acquisition experiences to MLC students. By adding a state-of-the-art digital language lab, training, and materials to its language acquisition program, MLC will provide its students with opportunities to engage with teenage-friendly electronics, allowing them to get more language listening and speaking practice, and, most importantly, to block out distractions.

For MLC, educating future global leaders and citizens involves three key outcomes: civic, social, and professional engagement:

Civic engagement includes taking an active part in improving one's communities, from local to global. As stated in IB's "Civic Participation" Global Engagement Good Practice Guide, "[c]ivic participation means seeing oneself as part of a larger social fabric and trying to improve the communities to which one belongs – whether that community is a classroom, a school, a city, a nation state, an international organization or the global ecosystem." MLC will

reinvigorate its student government structures, including developing more places for student voice in school-wide decision-making, so that students feel that their voices are being heard and that they are represented in the growth of the school. In addition, the school will implement restorative justice practices as a way to increase student ownership of their own choices. This will ensure that peers are working with each other to regulate behaviors, support meaningful change, and improve the culture and climate of the learning community.

Social engagement is undergirded by tenets of multicultural education and social justice. Banks and Banks (1995) explain that one important goal of multicultural education is, “to help all students to acquire the knowledge, attitudes, and skills needed to function effectively in a pluralistic democratic society and to interact, negotiate, and communicate with peoples from diverse groups in order to create a civic and moral community that works for the common good.” MLC will clarify school culture and content learning through this lens, so that learning at MLC will lay a foundation for social justice and equity. Teachers and students will recognize the value of every individual, acknowledge and confront their own (and others’) biases, recognize the injustice that exists in their communities, and advocate and act for change. A partnership with the Ashoka Foundation will provide an “Everyone a Changemaker” framework for teachers and students to incorporate social change into the curriculum. A focus group was conducted with upper elementary parents during the development of MLC’s theme change, and the response to “changemaking” was overwhelmingly positive.

Additional resources and guides will be utilized for social justice programming at MLC. Through the Global Oneness Project, Map Your World, iEARN, Peace Corps’ World Wise Schools, and the Wonderment, students can make authentic connections through projects that are at once creative and solution-oriented. Implementing best practices from the Asia Society’s

Educating for Global Competence: Preparing Our Youth to Engage the World, Oxfam’s global education and citizenship resources, and the “Get Global!” teacher’s guide, MLC will refocus units of study to incorporate student engagement in issues of social justice.

Professional engagement will be based on the principles of social enterprise. Every MLC student will be empowered to take action for meaningful change, and will understand that professional success can coexist with ethical action and responsible choices. Through course-embedded projects, extracurricular activities and clubs, capstone projects, and the Diploma Program Business Management course, students will develop a sense of responsibility and gain the tools to act for change through researching and developing solutions to local and global issues. With IDEO’s “human-centered design” principles and tool kit, and partnerships with Wesleyan University’s Patricelli Center for Social Entrepreneurship and reSET, the Connecticut Social Enterprise Trust, students will learn business principles and how to lead through ethical problem-solving and decision-making. MLC students will learn that they can be change-makers and mission-driven leaders while succeeding in their professional lives.

The school’s logic model describes the resources required and activities implemented by the school as it undergoes this significant revision.

Resources: See project level logic model.

Professional Development: *Next Generation Science Standards*- to ensure that courses and teaching are aligned with standards, *IB Middle Years and Diploma Programme/IB for All* - for implementation of IB, with particular attention to accessibility and success for all students, *Language Instruction* - to support a new model, focused on fluency, *Cultural Competence* - to promote culturally responsive teaching, and family engagement, *Interdisciplinary Teaching* - to develop and teach interdisciplinary thematic units, *Mastery Learning*- to shift from a focus on

seat time to understanding of content, *Project-Based Learning* - to incorporate projects so that students can demonstrate and deepen their content knowledge, *Changemaking* - social entrepreneurship strategy, to support teachers in their roles as facilitators of learning, empowering students to make positive change in their communities, *Restorative Practices* - social emotional learning strategy, to shift from punitive to restorative discipline practices, *Trauma-Informed Schools* - to develop a supportive school environment for students who have experienced trauma

Recruitment: The school is located in Bloomfield, CT, a suburb of Hartford. The school will work with community organizations and elementary schools in Hartford, Bloomfield and other surrounding suburbs for family outreach. The school is exploring a new name to reflect the change in theme, and will work with a marketing vendor on “re-branding” the school.

RSCO application and lottery: See project level logic model.

Theme integration: All students will participate in the IB Middle Years and Diploma Programmes. The school will promote global citizenry and leadership through integrated and interdisciplinary units, and social entrepreneurship/Changemaking opportunities.

Alignment with CT Core Standards; Family and Community Engagement; Assess and Monitor: See project level logic model.

► **CREC Public Safety Academy:** The CREC Public Safety Academy is a grade 6-12 magnet school whose purpose was to prepare students for careers in law enforcement, the fire service, and emergency medical services (EMS). By 2018-19, the school will become a 9-12 magnet high school. Along with the change in grade span, the school will change its theme to incorporate early college programming and a focus on leadership. The school will spend the first year of the

grant planning for this major shift and cementing the partnerships required to fulfill the school's vision of higher education opportunities for all students.

The school is incorrectly perceived by many prospective applicants in the community to be a "boot camp" school, and is not perceived as preparing students to enter postsecondary education. PSA will work with a marketing vendor on a name change and "rebranding" of the school. PSA will continue to offer public service-themed focus areas of fire science and emergency medicine, and law enforcement, but will also add the areas of law and government, military careers, and public health. In grade 9, all students will take a series of exposure courses - Crime & Justice, You and the Law, Introduction to Fire & EMS, and Leadership in Public Service. After the 9th grade exploratory year, students will develop an individualized high school path and follow their own personal calling to meet their college and career aspirations, whether in a specific Public Service career or a broader college trajectory, with the overarching goal of students becoming engaged citizens. Leadership skills and leadership opportunities, including through service learning and Student Senate, will be infused throughout coursework and extracurricular activities.

To build community in the school and provide students with leadership experiences, PSA will design a summer program called Enhanced Leadership Implemented through Experience (ELITE). Students will be grouped by grade level, with the ninth grade experience similar to a college orientation with team- and school-culture building exercises, along with the development and review of class schedules and communication of school expectations. In grades 10 - 12, programming would be off-site, developed in collaboration with school partners such as the CT Police Academy, CT Fire Academy, the Coast Guard Academy, and higher education partners. Students may also participate in the Leadership Corps, designed for those with an interest in

leadership or a military career. Leadership Corps will meet throughout the school year as part of the student's class schedule. A leadership and character development curriculum will be identified and adapted to fit the theme, or developed by the school.

With the change in theme, the school seeks to change its image from a career preparatory school to a college and career preparatory school, with the goal of every student graduating from high school with college credit. Through cooperative agreements with area community colleges, such as Asnuntuck Community College; private colleges, including the University of New Haven; and the state's flagship and land-grant university, the University of Connecticut, all students will take courses bearing both high school and college credit. Students will enter college with both experience in college-level rigor and advanced standing, with the possibility of completing more than a semester's worth of college credit while still in high school. Advanced Placement courses, including AP World History and AP US Government and Politics, will also be available. A strong system of academic supports will be in place so that college credit will be attainable for all students.

Through extensive service learning opportunities, the PSA students will engage in authentic community-based learning with purpose. They will develop civic engagement, along with 21st century skills of collaboration and effective communication. To carry out this component of the school's magnet program, the school will implement Project-Based Learning (PBL) to facilitate the incorporation of the theme into the core curriculum through interdisciplinary projects, and will partner with the Ashoka Foundation to add the Changemaker perspective to PBL, in alignment with the public service and safety theme.

Because many public safety and public service careers rely heavily on science, technology, engineering and mathematics, increased rigor and opportunity in STEM will

accompany the theme revision. STEM-related theme courses and units will be incorporated into the curriculum, such as a Forensics course, where students will apply science, technology and mathematics; and a course on Technology in Public Safety, where students will experience hands-on learning regarding the use of technology devices such as drones, robots, and body cameras that enable law enforcement to perform aspects of their responsibilities in a safer, more effective manner.

Currently and historically, PSA has struggled profoundly with student achievement, more so than any other secondary school in the consortium. After reviewing many instructional and school reform models, including Expeditionary Learning, BARR, and the Institute for Student Achievement, PSA leadership and staff felt strongly that the school should develop their own new instructional model, with guidance and outside expertise along with district support. The school will work with Focused Schools, a professional development organization that has worked with many SIG schools, and that emphasizes development of the instructional leadership team to “create a systemic approach around a framework for school improvement.”

(www.focusedschools.com)

The school’s logic model describes the resources required and activities implemented by the school as it undergoes this significant revision.

Resources: See project level logic model.

Professional Development: *Project-Based Learning* - to incorporate projects so that students can demonstrate and deepen their content knowledge, *Service Learning/Youth Venture* - to train teachers and youth in change-making, social emotional learning strategy, *Early College* - PSA teachers will offer college courses for credit on the high school campus, *Cultural Competence* - to promote culturally responsive teaching, and family engagement, *Leadership Course*

Development - to create units that incorporate leadership skills and opportunities, *Response to Intervention* - tiered system of academic and behavioral supports, *UConn Writing Center*- enhance writing skills to prepare students for college, train PSA students to be peer teachers, an effective social emotional learning strategy, *Next Generation Science Standards*- to ensure that courses and teaching are aligned with standards, *Positive Behavioral Interventions and Supports (PBIS)*- to support a positive school climate in alignment with restorative practices, *Trauma-Informed Schools* - to develop a supportive school environment for students who have experienced trauma

Recruitment: PSA is located in Enfield, CT. The school will work with community organizations, public safety organizations and elementary schools in Hartford, Enfield and other surrounding suburbs for family outreach. Recruitment materials will be updated to reflect the school's new name (once determined) and theme. The school will also offer a public service and leadership theme-based summer program to give newly admitted students early exposure to the theme, and to engage them in the school community and encourage them to accept their lottery offers.

RSCO application and lottery: See project level logic model.

Theme integration: Public service theme courses will be offered, including the exploratory courses described above, and advanced courses such as International Terrorism, Military History, Natural Disasters, and Victim Advocacy, and college courses such as Fire Science and Criminal Justice. Both the public service theme and leadership will be integrated into core curriculum units. College preparedness, beginning with skill development at the earlier grades and courses for college credit in the upper grades will be supported through a developmental guidance program.

Alignment with CT Core Standards; Family and Community Engagement; Assess and Monitor: See project level logic model.

► ***Enfield Public Schools Prekindergarten STEAM Academy:*** Young children are naturally curious and ready to explore. Best practices in early childhood education support creating environments for students to investigate and be involved in purposeful play. The Enfield Public Schools Prekindergarten STEAM Academy will encourage its prekindergarten students to be active and engaged, and to take initiative in their own learning. These qualities lend themselves naturally to a STEAM-themed classroom. Classroom environments will be based on exploration, inquiry, process-based art, building, purposeful play scenarios, literacy, numeracy, music and movement--all of the cornerstones of STEAM. Because one of the simplest and most powerful ways to teach young children STEAM concepts is to take them outside to explore nature and their surroundings, the school will have three designated outdoor areas, two of which will be STEAM-themed outdoor classrooms.

Though this program is small, its impact for Hartford students is exponential. Because the STEAM Academy is an Open Choice magnet school, students who attend will remain in Enfield Public Schools until they graduate from high school. Once the program is fully enrolled, and students continue their educational careers with the district, more than 300 Hartford resident students will be educated in a racially and socioeconomically diverse setting annually. This program, if successful, could become a model for other school districts enrolling students through Open Choice, to support an increase in the numbers of Hartford resident students that they enroll and successfully serve.

The school's logic model describes the resources required and activities to be implemented by the preschool school as it transitions to a themed-magnet program.

Resources: See project level logic model.

Professional Development: *Early Childhood STEAM* - to support implementing the theme aligned with the Connecticut Early Learning and Development Standards, *Literacy and Numeracy* - developmentally appropriate activities and instruction to support early learning aligned to the standards, *Purposeful Play* - using play to deepen learning, *Social Emotional Learning* - training in the use of the research-based Second Step program, *PK CT Science Standards* - to align theme and other learning with state standards, *Project-Based Learning* - to incorporate projects so that students can demonstrate and deepen their content knowledge, *Inquiry*- to support inquiry-based experiences in the classroom, *Cultural Competence* - to promote culturally responsive teaching, and family engagement, *Trauma-Informed Schools* - to develop a supportive school environment for students who have experienced trauma

Recruitment: The school is located in Enfield, CT. The school will work with the Open Choice program staff, community organizations and the Family Resource Center in Hartford to recruit Hartford students, and with community organizations and the Family Resource Center in Enfield to recruit Enfield students.

RSCO application and lottery: See project level logic model. Hartford students are enrolled via the RSCO lottery, and Enfield students will be enrolled via a random lottery conducted by Enfield Public Schools.

Theme integration: STEAM will be implemented through purposeful play, inquiry, and the use of outdoor classrooms.

Alignment with CT Core Standards; Family and Community Engagement; Assess and

Monitor: See project level logic model. The STEAM Academy will align with the Connecticut Early Learning and Development Standards.

MAGNET SCHOOLS ASSISTANCE PROGRAM **PROJECT LEVEL** LOGIC MODEL

Resources	Activities	Outputs	Short-term Outcomes	Medium-term Outcomes	Long-term Outcomes
<p><u>Federal</u>: MSAP funds for project administration, marketing, magnet staff, professional development, equipment/supplies</p> <p><u>State</u>: Regional School Choice Office (RSCO), magnet school and Open Choice funding</p> <p><u>District</u>: central office and principal leadership, district policies, teachers, Family Resource Center</p> <p><u>Community</u>: students, families, business community, local nonprofit organizations, IHEs</p> <p><u>Experts</u>: professional development, technical assistance providers, evaluators</p>	<p>Provide PD to teachers to support high quality instruction in core curriculum, magnet theme integration, systemic reforms and trauma-informed schools strategies</p> <p>Recruitment campaign designed to enroll Hartford students and promote desegregation by attracting a racially, ethnically & socio-economically diverse applicant pool</p> <p>RSCO application and random lottery</p> <p>Develop engaging magnet units and courses, infuse authentic theme experiences, implement core curriculum aligned with standards, provide academic interventions and supports</p> <p>Implement CBITS (secondary) and Second Step (PK)</p> <p>Create family and community involvement plan informed by family and community needs and interests</p> <p>Assess school strengths and needs, and evaluate progress on an ongoing basis</p>	<p>Teachers receive 60 hours of professional development annually</p> <p>Magnet schools have large, diverse applicant pools and enroll Hartford and suburban students through a lottery</p> <p>Revised curriculum, including infusion of magnet theme and alignment with standards</p> <p>Core curriculum and academic supports are grounded in evidence-based strategies to increase student achievement.</p> <p>Families participate in a variety of engagement activities that reflect the diversity of the school community</p> <p>School personnel utilize data to inform instruction and other practices</p> <p>Schools implement culturally competent and trauma sensitive practices</p>	<p>Increase in teacher knowledge and skills: core curriculum, magnet integration, cultural competence, social-emotional learning</p> <p>Students receive engaging theme instruction and experiences through discrete classes and integrated units, dosage increasing annually</p> <p>Decrease in trauma symptoms (secondary)/increase in pro-social behaviors (PK)</p> <p>More diverse school population and heterogeneous classes</p>	<p>Increase in evidence of high quality instruction and interventions informed by research and best practices</p> <p>Increase in family, student and staff sense of social-emotional security, school engagement /connectedness, and experience of the school’s respect for diversity</p> <p>Decrease school suspensions and increase in attendance (secondary) and behavior plans (preK)</p>	<p>Increase in standardized test scores in reading and math</p> <p>Reduction in minority group isolation</p> <p>Increased 4 year graduation rates</p> <p>MSAP funded magnet schools sustained*</p>

Activities, outputs and outcomes in **bold** are supported by evidence (see Priority 2)

*Outcome to be achieved beyond the grant period

Context

- Ongoing Sheff v. O’Neill agreement
- Changing demographics in region – higher minority and higher poverty in suburbs
- Shifts in Connecticut’s accountability system
- State economy resulting in a decrease in state financial support for schools and districts
- Decreasing suburban enrollments in traditional schools
- Expanded state support for preschool and establishment of the Office of Early Childhood
- District emphasis on 21st Century skills
- District emphasis on social emotional learning

MAGNET SCHOOLS ASSISTANCE PROGRAM **CREC ACADEMY OF SCIENCE AND INNOVATION** LOGIC MODEL (School 1)

Resources	Activities	Outputs	Short-term Outcomes	Medium-term Outcomes	Long-term Outcomes
<p><u>Federal</u>: MSAP funds for marketing, 2 MRTs, 1 Family and Community Engagement Specialist professional development, equipment/supplies</p> <p><u>State</u>: Regional School Choice Office (RSCO), magnet school funding</p> <p><u>District</u>: central office and principal leadership, district policies, teachers, Family Resource Center</p> <p><u>Community</u>: students, families, business community, local nonprofit organizations, IHEs</p> <p><u>Experts</u>: professional development, technical assistance providers, evaluators</p>	<p>PD: Project-Based Learning, mastery learning, NGSS, PBIS, Reading, cultural competence, restorative practices, real-world STEM, blended learning, trauma-informed schools</p> <p>Recruitment to promote desegregation and Hartford enrollment: FRC activities, print materials, radio and TV spots, collaboration community organizations in Hartford, New Britain and surrounding towns; choice fairs</p> <p>RSCO application and random lottery</p> <p>Theme integration: new theme courses; theme integrated into core; scientific research; computer science/coding; engineering; partnerships; extended day</p> <p>Implement CBITS</p> <p>Implement core curriculum aligned with standards, provide academic interventions and supports</p> <p>Create family and community involvement plan informed by family and community needs and interests</p> <p>Annual school climate survey; MSAP evaluation; UCLA evaluation of CBITS; Data Wise Improvement Process</p>	<p>Teachers receive 60 hours of professional development annually</p> <p>Magnet school has a large, diverse applicant pool and enrolls Hartford and suburban students through a lottery</p> <p>Revised curriculum, including infusion of magnet theme and alignment with standards</p> <p>Core curriculum and academic supports are grounded in evidence-based strategies to increase student achievement</p> <p>School implements culturally competent and trauma sensitive practices</p> <p>Families participate in a variety of engagement activities that reflect the diversity of the school community.</p> <p>School personnel utilize data to inform instruction and other practices</p>	<p>Increase in teacher knowledge and skills: core curriculum, magnet integration, cultural competence, restorative practices</p> <p>Students receive engaging theme instruction and experiences through discrete classes and integrated units, dosage increasing annually</p> <p>Decrease in trauma symptoms in CBITS participants</p> <p>More diverse school population and heterogeneous classes</p>	<p>Increase in evidence of high quality instruction informed by research and best practices</p> <p>Increase in family, student and staff sense of social-emotional security, school engagement /connectedness, and experience of the school's respect for diversity</p> <p>Decrease in school suspensions and increase in school attendance</p>	<p>Increase in standardized test scores in reading and math</p> <p>Reduction in minority group isolation</p> <p>Increased 4 year graduation rates</p> <p>Increase in graduates who major in STEM fields</p> <p>Magnet school sustained*</p>

Activities, outputs and outcomes in **bold** are supported by evidence (see Priority 2)

*Outcome to be achieved beyond the grant period

Context

- Ongoing Sheff v. O’Neill agreement
- New, attractive building
- Struggled to attract prospective students with prior theme
- Perceived distance from Hartford
- District emphasis on 21st Century skills
- District emphasis on social emotional learning
- Few other magnet schools nearby

MAGNET SCHOOLS ASSISTANCE PROGRAM **METROPOLITAN LEARNING CENTER** LOGIC MODEL (School 2)

Resources	Activities	Outputs	Short-term Outcomes	Medium-term Outcomes	Long-term Outcomes
<p><u>Federal</u>: MSAP funds for marketing, 2 MRTs, 1 Family and Community Engagement Specialist professional development, equipment/supplies</p> <p><u>State</u>: Regional School Choice Office (RSCO), magnet school funding</p> <p><u>District</u>: central office and principal leadership, district policies, teachers, Family Resource Center</p> <p><u>Community</u>: students, families, business community, local nonprofit organizations, IHEs</p> <p><u>Experts</u>: professional development, technical assistance providers, evaluators</p>	<p>PD: NGSS, IB Middle Years and Diploma Programme/IB for All; language instruction; cultural competence, interdisciplinary teaching, project-based learning, developing student agency, restorative practices, trauma-informed schools</p> <p>Recruitment to promote desegregation and Hartford enrollment: FRC activities, print materials, radio and TV spots, collaboration community organizations in Hartford and surrounding towns; choice fairs</p> <p>RSCO application and random lottery</p> <p>Theme integration: new theme courses; theme integrated into core; social entrepreneurship; language lab; IB; makerspace; partnerships</p> <p>Implement core curriculum aligned with standards, provide academic interventions and supports</p> <p>Implement CBITS</p> <p>Create family and community involvement plan informed by family and community needs and interests</p> <p>A school climate survey; MSAP evaluation; UCLA evaluation of CBITS; Data Wise Improvement Process</p>	<p>Teachers receive 60 hours of professional development annually.</p> <p>Magnet school has a large, diverse applicant pool and enrolls Hartford and suburban students through a lottery</p> <p>Revised curriculum, including infusion of magnet theme and alignment with standards</p> <p>Core curriculum and academic supports are grounded in evidence-based strategies to increase student achievement</p> <p>School implements culturally competent and trauma sensitive practices</p> <p>Families participate in a variety of engagement activities that reflect the diversity of the school community</p> <p>School personnel utilize data to inform instruction and other practices</p>	<p>Increase in teacher knowledge and skills: core curriculum, magnet integration, cultural competence</p> <p>Students receive engaging theme instruction and experiences through discrete classes and integrated units, dosage increasing annually</p> <p>Decrease in trauma symptoms in CBITS participants</p> <p>More diverse school population and heterogeneous classes</p>	<p>Increase in evidence of high quality instruction informed by research and best practices</p> <p>Increase in family, student and staff sense of social-emotional security, school engagement /connectedness, and experience of the school's respect for diversity</p> <p>Decrease in school suspensions and increase in school attendance</p> <p>All students participate in IB</p>	<p>Increase in standardized test scores in reading and math</p> <p>Reduction in minority group isolation</p> <p>Increased 4 year graduation rates</p> <p>Increase in the number of students receiving an IB Diploma</p> <p>Magnet school sustained*</p>

Activities, outputs and outcomes in **bold** are supported by evidence (see Priority 2)

*Outcome to be achieved beyond the grant period

Context

- Ongoing Sheff v. O'Neill agreement
- One of the oldest magnet schools in the region
- Decrease in academic achievement
- Higher number of experienced teachers than most CREC magnet schools
- District emphasis on 21st Century skills
- District emphasis on social emotional learning
- Relationships with entities focused on social entrepreneurship
- Suburban location

MAGNET SCHOOLS ASSISTANCE PROGRAM **CREC PUBLIC SAFETY ACADEMY** LOGIC MODEL (School 3)

Resources	Activities	Outputs	Short-term Outcomes	Medium-term Outcomes	Long-term Outcomes
<p><u>Federal</u>: MSAP funds for marketing, 2 MRTs, 1 Family and Community Engagement Specialist Professional development, equipment/supplies</p> <p><u>State</u>: Regional School Choice Office (RSCO), magnet school funding</p> <p><u>District</u>: central office and principal leadership, district policies, teachers, Family Resource Center</p> <p><u>Community</u>: students, families, business community, local nonprofit organizations, IHEs</p> <p><u>Experts</u>: professional development, technical assistance providers, evaluators</p>	<p>PD: Project-Based Learning, Service Learning/Youth Venture, early college, cultural competence, leadership course development, RtI, UCONN writing center, NGSS, PBIS, trauma-informed schools</p> <p>Eliminate grades 6-8 and increase number of students in grades 9-12</p> <p>Recruitment to promote desegregation and Hartford enrollment: FRC activities, print materials, radio and TV spots, collaboration with public safety agencies and community organizations in Hartford and Enfield; choice fairs; ELITE summer program; Leadership Corps</p> <p>RSCO application and random lottery</p> <p>Theme integration: new theme courses related to public safety and service; theme units in core subject areas; leadership and 21st century skills infused throughout curriculum; courses for college credit</p> <p>Implement core curriculum aligned with standards, provide academic interventions and supports</p> <p>Implement CBITS</p> <p>Create family and community involvement plan informed by family and community needs and interests</p> <p>Annual school climate survey; MSAP evaluation; UCLA evaluation of CBITS; Data Wise Improvement Process</p>	<p>Teachers receive 60 hours of professional development annually.</p> <p>Magnet school has a large, diverse applicant pool and enrolls Hartford and suburban students through a lottery</p> <p>Revised curriculum, including infusion of magnet theme and alignment with standards</p> <p>Core curriculum and academic supports are grounded in evidence-based strategies to increase student achievement</p> <p>School implements culturally competent and trauma sensitive practices</p> <p>Families participate in a variety of engagement activities that reflect the diversity of the school community.</p> <p>School personnel utilize data to inform instruction and other practices</p>	<p>Increase in teacher knowledge and skills: core curriculum, magnet integration, cultural competence, social-emotional learning</p> <p>Students receive engaging theme instruction and experiences through discrete classes and integrated units</p> <p>Decrease in trauma symptoms in CBITS participants</p> <p>More diverse school population and heterogeneous classes</p>	<p>Increase in evidence of high quality instruction informed by research and best practices</p> <p>Increase in family, student and staff sense of social-emotional security, school engagement /connectedness, and experience of the school's respect for diversity</p> <p>Increase in number of students receiving college credit while in high school</p> <p>Decrease in school suspensions and increase in school attendance</p>	<p>Increase in standardized test scores in reading and math</p> <p>Reduction in minority group isolation</p> <p>Increased 4 year graduation rate</p> <p>Magnet school sustained*</p>

Activities, outputs and outcomes in **bold** are supported by evidence (see Priority 2)

*Outcome to be achieved beyond the grant period

Context

- Ongoing Sheff v. O'Neill agreement
- Perception of school as "boot camp"
- Attractive new facility
- History of low academic achievement
- Suburban location
- Frequent teacher and administrator turnover
- District emphasis on 21st Century skills
- District emphasis on social emotional learning
- Existing relationships with local public safety agencies

MAGNET SCHOOLS ASSISTANCE PROGRAM **ENFIELD PREKINDERGARTEN STEAM ACADEMY** LOGIC MODEL (School 5)

Resources	Activities	Outputs	Short-term Outcomes	Medium-term Outcomes	Long-term Outcomes
<p><u>Federal</u>: MSAP funds for project administration, marketing, magnet staff, professional development, equipment/supplies</p> <p><u>State</u>: Regional School Choice Office (RSCO), Open Choice funding</p> <p><u>District</u>: central office leadership, district policies, teachers, Family Resource Center</p> <p><u>Community</u>: students, families, business community, local nonprofit organizations, IHEs</p> <p><u>Experts</u>: professional development, technical assistance providers, evaluators</p>	<p>PD: Early childhood STEAM, literacy, and numeracy; purposeful play; social-emotional learning; PK CT Science Standards; inquiry; cultural competence, trauma-informed schools</p> <p>Recruitment to promote desegregation and Hartford enrollment: FRC activities; print materials, radio and TV spots; collaboration community organizations in Hartford; choice fairs</p> <p>RSCO application and random lottery</p> <p>Theme integration: STEAM integrated into early childhood learning and play; museum learning; inquiry, exploration and movement; outdoor classrooms</p> <p>Implement core curriculum aligned with standards, provide academic interventions and supports</p> <p>Implement Second Step Early Learning</p> <p>Create family and community involvement plan informed by family and community needs and interests</p> <p>Annual school climate survey; MSAP evaluation; data team</p>	<p>Teachers receive 60 hours of professional development annually.</p> <p>School implements culturally competent practices and social emotional learning strategies</p> <p>Revised curriculum, including infusion of magnet theme and alignment with standards</p> <p>Magnet school has a large, diverse applicant pool and enrolls Hartford and Enfield (suburban) students through a lottery</p> <p>Families participate in a variety of engagement activities that reflect the diversity of the school community.</p> <p>Core curriculum and academic and behavioral supports are grounded in evidence-based strategies to increase student achievement</p>	<p>Increase in teacher knowledge and skills: core curriculum, magnet integration, cultural competence, social-emotional learning</p> <p>Students receive engaging theme instruction and experiences delivered in a developmentally appropriate manner</p> <p>Increase in pro-social behaviors</p> <p>More diverse school population and heterogeneous classes</p>	<p>Increase in family, student and staff sense of social-emotional security, school engagement /connectedness, and experience of the school’s respect for diversity</p> <p>Increase in evidence of high quality instruction informed by research and best practices</p> <p>Increase in oral language proficiency</p> <p>Decrease in use of behavior plans</p>	<p>Increase in standardized test scores in reading and math</p> <p>Reduction in minority group isolation</p> <p>Magnet school sustained</p>

Activities, outputs and outcomes in **bold** are supported by evidence (see Priority 2)

*Outcome to be achieved beyond the grant period

Context

- | | |
|--|---|
| <ul style="list-style-type: none"> • Ongoing Sheff v. O’Neill agreement • Perceived distance from Hartford • Whole-district emphasis on STEAM • Support from CREC Early Beginnings | <ul style="list-style-type: none"> • Expanded state support for preschool and establishment of the Office of Early Childhood • Emphasis on social emotional learning in early childhood |
|--|---|

SELECTION CRITERIA (c): QUALITY OF MANAGEMENT PLAN

(1) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.

This project will be managed by the Capitol Region Education Council (CREC), an LEA and Regional Educational Service Center (RESC), that has developed and implemented magnet schools for the last twenty years. In addition, CREC has vast experience successfully managing federal and state-funded programs, including Title I, II-A & D, III and IV as well as several competitive federal and state grants. The Grants Management Office staff is headed by Ms. Peggy Sampson who has over thirty years of experience managing federal, state, and private grants. The staff is highly experienced in all aspects of grant management and will manage this grant to ensure fiscal compliance with federal requirements as they have done with all other federal grants. In 2015-16, CREC managed \$210 million in federal and state grants, of which \$88 million were from the State's Interdistrict Magnet Schools Operating Grant. Under the leadership of CREC's Deputy Executive Director for Finance & Operations, Ms. Sandra Cruz-Serrano, and the CREC Comptroller, Mr. Jeffrey Ivory, CREC also manages funding for educational programs and services, school construction projects, and regional services.

The Project Director, Christine Ruman, will be housed at CREC's central office and will report directly to Dina Crowl, CREC's Superintendent of Magnet Schools. Ms. Crowl has worked with students, families, and school staff in the Hartford region for more than 30 years, first as a teacher and administrator for Hartford Public Schools, and then as a Director, Assistant Superintendent and Superintendent with CREC. Ms. Crowl reports directly to Dr. Greg Florio, Executive Director of CREC. This reporting structure will ensure accountability and guarantee that all resources will be properly and efficiently coordinated to assist in the implementation of

the MSAP grant. See Appendix F for the overall management structure of the grant, within the context of the *Sheff* efforts.

The **Project Director** has primary responsibility for the successful implementation of the project, including all goals and objectives relating to the purposes of the Magnet Schools Assistance Program. Project management will be framed by a servant leadership project management model. Research indicates that such a model leads to successful project outcomes, such as: the project being completed on schedule and within budget; scope effectively managed; stakeholders' objectives accomplished; positive impact on finished product/service; and satisfied stakeholders (Thompson, 2011). In the servant-leadership model, the leader engages in shared decision making; puts the needs of others first; and prioritizes helping people develop and perform as highly as possible. The servant leadership model also aligns to the practices of successful district offices. School districts that effectively manage change and achieve results operate under a consultant model in which the central office prioritizes support over compliance, with a focus on communication and coherence (Hanover Research 2013).

Christine Ruman, the Project Director, will be in regular, frequent contact with the principals of each magnet school to provide support and guidance, and monitor all magnet activities, and will confer regularly with Ms. Michelle Middleton, Chief Academic Officer of Enfield Public Schools, to ensure effective collaboration between the consortium districts. Ms. Ruman is a member of CREC's central office Magnet Leadership team, along with Tim Sullivan, Assistant Superintendent for Operations, who is responsible for lotteries and budgets; Marlene Lovanio, Assistant Superintendent for Teaching and Learning, who is responsible for curriculum and professional development for the district; and Laurie Gonzalez, Assistant Superintendent for Special Education and Pupil Services, who is responsible for support personnel in the magnet

schools, and will assure collaboration with the school-based health centers in support of the successful implementation of social-emotional learning and trauma sensitive school practices. They will provide guidance and support to the building principals and ensure that MSAP is implemented in alignment with the district's overall strategic goals. The **Project Coordinator** reports to the Project Director, and will oversee the collection of evaluation data, develop grant expenditure reports for the Project Director's review on a monthly basis, and coordinate professional development for the Family and Community Engagement Specialists. The project coordinator will also provide support to schools related to marketing and recruitment. **School principals** are primarily responsible for the implementation of MSAP in their buildings. The **Magnet Resource Teachers** will serve on the schools' leadership teams, and are responsible for day to day grant-related activities, coordination, and support.

The Project Director will meet with principals quarterly as a group, and more frequently on a one-to-one basis to discuss progress and address school-based implementation challenges. She will hold monthly collaborative learning sessions with the MRTs to share best practices and provide common professional development, and work with MRTs on school-specific implementation needs. Principals and MRTs will be surveyed after each group meeting to determine whether sessions are meeting their most pressing needs and to solicit recommendations for future sessions. Depending on the meeting topic, some meetings and trainings will be held remotely, via Skype for Business or a similar program. A Google Drive site will be utilized to facilitate documentation submission and sharing of resources between schools. Frequent contact will allow for ongoing progress monitoring, and, more importantly, offer opportunities for the provision of timely technical assistance. Formative evaluation reports will

provide information on areas where the Project Director and Coordinator should focus additional support.

The tables below describe the CREC/Enfield Consortium’s objectives for the proposed MSAP project (Table B), and timelines and milestone for completing tasks that support those objectives.

Table B. CREC/Enfield Consortium Project Objectives

Objective 1	Minority group and socioeconomic isolation will be reduced at the proposed magnet schools.
Objective 2	All students will receive high quality instruction that includes their school's systemic reforms and magnet themes in units and courses aligned with CCSS, NGSS and State standards.
Objective 3	All students, at each magnet school, will receive magnet theme instruction.
Objectives 4a and 4b	(a) Student academic achievement will increase each year in ELA/literacy and math and science (for STEM schools) for all students. (b) The percentage of students from major ethnic and racial subgroups attaining level 3 or 4 on state assessments, or demonstrating significant gains in oral language skills as measured by the Peabody Picture Vocabulary Test (for PreK) will increase.
Objective 5	Provide professional development related to Improvement of curriculum, instruction and magnet theme development and implementation.
Objectives 6a and 6b	(a) All students will have equitable access to high quality education. (b) Families, students, and staff will experience an increase in their sense of social-emotional security, the school’s respect for diversity, and school connectedness/engagement at each magnet school.

Table C. Responsibilities, Timelines and Milestones

<i>Milestone</i>	<i>Timeline</i>	<i>Person(s) Responsible</i>	<i>Aligned Objective</i>
MSAP Consortium Development	March 2017	<ul style="list-style-type: none"> • CREC Executive Director • CREC Deputy Executive Director • CREC Superintendent • Enfield Superintendent 	Obj. 1 - 6
MSAP Project stakeholder kickoff	October 2017	Project Director	Obj. 1 - 6
Establish MSAP budgets	October 2017	Director of Business Services	Obj. 1 - 6
Consortium Meeting	October 2017, monthly	<ul style="list-style-type: none"> • Project Director • Chief Academic Officer 	Obj. 1 - 6
Magnet School Recruitment	October 2017 - March 2018, annually	<ul style="list-style-type: none"> • Project Coordinator • Asst. Superintendent for Operations • Chief Academic Officer • Family & Community Engagement Specialists (ES) • Magnet Resource Teachers • Principals • RSCO 	Obj. 1, 4(a), 4(b), 6(a)

Disseminate school-based budgets	November 2017	<ul style="list-style-type: none"> • Project Director • Director of Business Services 	Obj. 1 - 6
Share data collection and documentation protocols	November 2017	<ul style="list-style-type: none"> • Project Director • Evaluator 	Obj. 1 - 6
Engage major PD and technical assistance providers	December 2017	Project Director	Obj. 2, 3, 4 (a), 4(b), 5, 6(b)
Hire MSAP Staff	December 2017	<ul style="list-style-type: none"> • Project Director • Chief Academic Officer • CREC Principals 	Obj. 2, 3, 4 (a), 4(b), 6(a)
Magnet Resource Teacher Collaborative Learning sessions	December 2017, monthly	<ul style="list-style-type: none"> • Project Director • Project Coordinator 	Obj. 1 - 6
School Advisory Council meetings	January 2018, quarterly	Principals	Obj. 3, 5, 6(a), 6(b)
MSAP Building Administrator meetings	January 2018, quarterly	Project Director	Obj. 1 - 6
Implementation plans, including professional development and family and community engagement plans	January 2018, updated in August, annually	<ul style="list-style-type: none"> • Project Director • Magnet Resource Teachers • Family & Community ES • Project Coordinator 	Obj. 1 - 6

Magnet Curriculum Development	January 2018, ongoing	<ul style="list-style-type: none"> Asst. Superintendent for Teaching and Learning Chief Academic Officer Magnet Resource Teachers Teachers 	Obj. 2, 3, 5
Strategic School Plans including MSAP strategies	March 2018, annually	<ul style="list-style-type: none"> Principals Project Director 	Obj. 1 - 6
First CBITS Cohort at each school	March 2018	<ul style="list-style-type: none"> Project Director Director of Educational and Clinical Programs School-based Clinicians 	Obj. 4(a), 4(b), 6(b)
RSCO lottery	April 2018, annually	RSCO	Obj. 1
School Partnership meetings	April 2018, annually	<ul style="list-style-type: none"> Principals Magnet Resource Teachers Family & Community ES Project Coordinator 	Obj. 2, 5, 6(b)
Magnet school placements and family outreach	May 2018 - August 2018, annually	<ul style="list-style-type: none"> Family & Community ES Magnet Resource Teachers Principals Asst. Superintendent for Operations 	Obj. 1, 6(b)

Magnet Standards development	June 2018 - October 2018	<ul style="list-style-type: none"> • Magnet Resource Teachers • Teachers • Asst. Superintendent for Teaching and Learning 	Obj. 2, 3, 5
Unit Reviews	August 2018, annually	<ul style="list-style-type: none"> • Magnet Resource Teachers • Teachers • Asst. Superintendent for Teaching and Learning 	Obj. 2, 3, 4(a), 4(b), 5
Begin full implementation of CBITS	October 2018	<ul style="list-style-type: none"> • Director of Educational and Clinical Programs • School-based Clinicians 	Obj. 4(a), 4(b), 6(b)
Annual Performance Reports	Annually, as established by Project Office	<ul style="list-style-type: none"> • Project Director • Director of Business Services • Evaluator 	Obj. 1 - 6

(2) How the applicant will ensure that a diversity of perspectives are brought to bear in the operation of the proposed project, including those of parents, teachers, the business community, a variety of disciplinary and professional fields, recipients or beneficiaries of services, or others, as appropriate.

The CREC/Enfield consortium has adopted a three-pronged approach to diverse stakeholder engagement, ensuring all stakeholders have a voice in school development and management.

Community Voice: Each magnet school in this application has an advisory council, which will be updated and refreshed to support the new school themes. The Federation of Community Schools' Advisory Board Development Toolkit (Appendix G) will be adapted and utilized to re-visit the composition of the advisory councils and guide their meetings. The Project Director will

guide the schools through the process of selecting advisory council members and train administrators, magnet resource teachers and family and community engagement specialists on working with the councils to support school goals and student success.

Schools have engaged community and business partners, some of which will be represented on the advisory councils along with parents, teachers and other school staff, and students as age-appropriate. Representatives will reflect the diversity of the school population in terms of race, ethnicity, and socioeconomic status. As a component of the schools' leadership infrastructures, the advisory councils will act as a platform for shared ownership.

Providing stakeholders with accurate and timely information can facilitate increased levels of engagement and promote student achievement (Baldwin & Wade, 2012). Advisory councils will meet quarterly; meetings will be convened by the building administrators and staffed by the magnet resource teachers. To focus the advisory councils on the strengths and needs of the schools, the councils will utilize the Data Wise © process as described above in Selection Criteria (b). Councils will examine student and/or school data to identify areas that can be impacted through community involvement then determine the actions that they will take, supported by the magnet resource teachers, to realize positive outcomes. These actions will be incorporated into the school improvement plans and monitored. The administrators will communicate progress to council members monthly through emails that include progress data compiled by the magnet resource teachers.

Schools will develop and disseminate electronic annual reports to support maintained commitment and ensure that stakeholders, including those who are not advisory council members, have the information that they need about the schools. Annual reports will be disseminated to students, families and community-based partners including the following:

□ *CREC Academy of Science and Innovation*: UCONN Health Career Opportunities Programs; Biomedical Engineering Alliance and Consortium (BEACON), Hartford.Health.Works, Central Connecticut State University, Hanger Clinic Prosthetics and Orthotics, Saint Francis Hospital

□ *CREC Public Safety Academy*: CT State Police, Hartford Police and Fire Departments, Enfield Fire Department, Aetna Ambulance, Wethersfield EMS, University of Connecticut, University of New Haven, Asnuntuck Community College, U.S. Army

□ *Metropolitan Learning Center*: National Conference for Community and Justice, reSET Social Enterprise Trust, Wesleyan University Patricelli Center for Social Entrepreneurship, Guild of IB Schools, MetroHartford Alliance, Connecticut Association of Schools, CT Youth Forum

□ *Enfield Public Schools Pre-kindergarten STEAM Academy*: Enfield Family Resource Center, Key Initiatives to Early Education (KITE), CREC Early Beginnings, Enfield Child Development Center, Asnuntuck Community College, LEGO Education

Parent Voice: Each magnet school has existing policies and systems to elicit parental feedback and provide opportunities for shared decision-making. As described in Selection Criteria a (4), the family engagement work is guided by the National Family and Community Engagement Framework and the U.S. Department of Education’s (ED) Dual Capacity-Building Framework for Family-School Partnerships. To achieve Outcome 2, “families who can negotiate multiple roles: supporters; encouragers, **monitors; advocates; decision makers; and collaborators,**” each school will implement strategies aligned to best practices compiled by the Southwest Educational Development Laboratory in *A Toolkit for Title I Parental Involvement* (Ferguson 2009). These strategies include co-development of a School-Parent Compact; parental representation on the School Improvement Planning Team; and timely, consistent sharing of

information about the use of grant funds, which will include MSAP funding. Through a variety of communication methods such as phone, email, and web-based platforms; through meetings held at various times to accommodate different works schedules; and through meetings hosted at the school and in Hartford as well as streamed online, all parents are provided numerous opportunities to engage with the school, stay informed about school policies, and receive information about their child’s learning. For an interdistrict magnet school, family involvement is vital to the sustainability of the school. If families do not feel that a magnet school is meeting the needs of their children, they will simply elect to send them to another school.

Student Voice: To empower students and capture student voice, CREC employs a Student Senate structure. Representatives from each of the secondary schools’ student governments meet at least quarterly to provide recommendations to the Superintendent of Schools. In between quarterly meetings, the group meets virtually to discuss initiatives and maintains ongoing communication through the Student Senate Schoology group. CREC’s Coordinator of College and Career Readiness advises the group and serves as the district-liaison for Student Senate activities. A current Student Senate initiative involves the creation of an online life skills course for high school students. CREC teachers are developing the module, and Student Senate members are providing guidance and feedback regarding course content and structure. The Student Senate process will be used to elicit feedback on project goals, guide magnet development, and share best practices.

SELECTION CRITERIA (d): QUALITY OF PERSONNEL

Qualifications of personnel and (2) Experience and training in fields related to the objectives of the project, including curriculum development and desegregation

(a) **The project director:** Christine Ruman served as the Project Director of the 2010 CREC-Hartford Consortium MSAP grant. Ms. Ruman has sixteen years of experience in evaluating,

managing, and monitoring federal, state, and private grants, including eleven years of experience with public school choice programming and desegregation efforts. Following her tenure as Project Director, she served as the district's business manager, responsible for a \$135 million magnet school operating budget. She led the district in transitioning its schools from targeted assistance to schoolwide Title I programs, enabling a more flexible approach to the use of federal entitlement funds focused on whole school improvement. Prior to serving as Project Director at CREC, Ms. Ruman served as an Education Consultant in the Sheff Office at the Connecticut State Department of Education (SDE). In that capacity, she was a member of the team charged with developing and implementing the Comprehensive Management Plan (CMP), which outlined the strategies designed to meet the Sheff v. O'Neill Phase II stipulated agreement. Ms. Ruman expanded the Hartford region Open Choice program, managed the RSCO lottery, and developed and managed the Academic and Social Supports grant to suburban school districts enrolling Hartford resident students. While at the SDE, Ms. Ruman approved and monitored federal entitlements grants, and acted as the program manager for supplemental educational services and public school choice under NCLB. Prior to her tenure with SDE she worked for Waterbury Public Schools, an urban district in Connecticut, where she successfully managed federal competitive grants including Safe Schools/Healthy Students (ED/DOJ/SAMHSA), Middle School Coordinators (ED), and Prevention and Early Intervention (SAMHSA), all of which focused on the implementation of prevention programs with evidence of effectiveness.

(b) Other key personnel: This magnet school grant program will be implemented by a team of experts with significant experience in planning, developing, and operating successful magnet schools. Dina Cowl, CREC's Superintendent of Schools, has over 30 years of experience in public education. She has a strong history of engaging state and school leaders in high level

conversations regarding school management, instructional leadership, and overall school improvement. Prior to her time at CREC, Ms. Crowl had a long, decorated history with Hartford Public Schools as a teacher, reading consultant, and the Director of the Early Childhood, PreK-8 Language Arts, and K-12 Professional Development programs. She joined CREC in early 2006 as a Senior Education Specialist, and within a month became Director of the Institute of Teaching and Learning. In 2008, Ms. Crowl assumed a concurrent leadership role, becoming Assistant Superintendent for CREC Magnet Schools. In 2012, district growth required Ms. Crowl to assume her duties as Assistant Superintendent for Teaching and Learning full time, allowing her to focus more exclusively on providing support to CREC's thriving magnet schools. In 2013, Ms. Crowl took over the role of Superintendent of CREC Schools. Through her leadership, CREC schools have received significant commendation in the education community, including federal and state recognition for their best practices and notable results.

Dr. Jeffrey Schumann, Superintendent of Schools for the Enfield Public Schools, began his tenure in 2012. Prior to becoming Superintendent Dr. Schumann was an administrator in the Newington Public Schools for fourteen and a half years, serving as a high school assistant principal, middle school principal and for the last six years as Deputy Superintendent. Dr. Schumann was a teacher in Wethersfield for seventeen and a half years, seven in physical education followed by eleven in secondary science.

Ms. Marlene Lovanio is CREC's Assistant Superintendent for Teaching & Learning. Since 2013, she has provided leadership and direction in the development, implementation, and evaluation of the PK-12 curriculum for CREC's magnet schools. Ms. Lovanio has a wealth of experience from the school, district, and state level. She served as the Secondary Mathematics Consultant for the Connecticut State Department of Education, as a Supervisor of Mathematics

for Bristol, CT Public Schools and Shelton, CT Public Schools, and as a high school math teacher.

Mr. Tim Sullivan is the Assistant Superintendent for Operations at CREC. He provides leadership and overall direction for school operations, while facilitating effective communication between CREC's schools and service divisions. He supervises the lottery and placement process for the magnet schools, as well as budget development and human resources. He joined CREC as Assistant Superintendent in 2012, after 23 years with Hartford Public Schools where he served as a teacher, master scheduler, and magnet school principal.

Ms. Laurie Gonzalez serves as CREC's Assistant Superintendent of Special Education and Pupil Services. She has 25 years of experience in education, including in special education, bilingual special education, alternative education, and both building and central office administration. She worked in Hartford Public Schools for sixteen years, then for Meriden (small urban) and East Hampton (rural/suburban) before joining CREC. Ms. Gonzalez is responsible for the social workers, psychologists, and guidance counselors in the schools, who will lead the tier 1 trauma sensitivity work to be accomplished in the schools through MSAP.

Ms. Michelle Middleton is Enfield Public Schools' (EPS) Chief Academic Officer. Ms. Middleton has worked with EPS since 2013, serving as Chief Academic Officer since 2014. She is responsible for curriculum, professional development, and partnerships for the district, and the proposed Enfield Public Schools Prekindergarten STEAM Academy is the result of her planning and vision. Prior to joining EPS, Ms. Middleton worked for CREC as the Secondary Literacy Curriculum Specialist and as a literacy intervention teacher for one of CREC's magnet middle/high schools.

Ms. Heather Cymbala is the Assistant Director of Student Services for CREC. In her role, she plans and coordinates agency efforts to serve students with mental health issues and students exposed to trauma. She is also engaged in work to create a framework for implementation of trauma informed practices statewide. Ms. Cymbal is both a licensed clinical social worker and school administrator. She will provide guidance, support, and technical assistance in the implementation of the Cognitive Behavioral Intervention for Trauma in Schools.

Mr. Timothy Carroll is the Director of Educational and Clinical Programs for CREC, and has been with CREC since 2009. In this role, he directs programs administered by CREC for the Hartford region including the Polaris Center, a local option for students adolescents who are in need of placement in a treatment center setting due to learning disabilities, and emotional, behavioral, and/or psychiatric problems, as well as the Outpatient Mental Health Clinic for Children and Families. Both a licensed clinical social worker and a certified school administrator, Mr. Carroll also oversees the school-based health clinics in CREC magnet schools and will supervise the school-based mental health clinicians who will implement CBITS in the project's secondary schools.

Along with the project director described above, the following staff will implement the vision of the Consortium for the MSAP project. Those with an indicated FTE will be supported with MSAP funds.

Magnet School Principals: The magnet school principals who will participate in this project are Sasha Douglas, Principal of the Metropolitan Learning Center for Global and International Studies; Jeffrey Larson, Principal of the CREC Public Safety Academy; and Robert McCain, Principal of the CREC Academy of Science and Innovation.

As the educational leaders of their schools, the principals will have overall responsibility for meeting the project's desegregation, instructional, systemic reform, and student academic achievement objectives in their schools. These skilled Connecticut-licensed building administrators will bring decades of educational experience and expertise to the project. They all have: advanced degrees; at least 5 years of experience in curriculum development and/or experience as a staff developer/teacher trainer; extensive experience working with parents of different races, ethnic, social and economic backgrounds; experience working with community-based organizations, cultural institutions, agencies and other groups in initiatives related to systemic reform and innovative educational methods and practices; and demonstrated leadership in the development of programs and courses of instruction that substantially strengthen students' knowledge of academic subjects and marketable vocational skills.

Prekindergarten Theme Administrator: (100% FTE) The Theme Administrator for the Enfield Public Schools Prekindergarten STEAM Academy will possess both Early Childhood and Intermediate Administration or Supervision Connecticut certifications. A minimum of five years of early childhood experience is required, along with expertise in a STEAM area. The administrator will also have at least five years of experience in curriculum development and/or experience as a staff developer/teacher trainer.

Project Coordinator: (100% FTE) The Project Coordinator will be required to have demonstrated knowledge and ability to develop procedures and systems to enable the collection of data, facilitate recordkeeping, and coordinate reporting. The Project Coordinator will be responsible for working with the Magnet Resource Teachers to ensure the day to day implementation of the grant requirements at each school and monitor project budgets. The

Project Coordinator will also support the Project Director and participating schools in the coordination of MSAP professional development.

School-based Health Center Clinicians: (25% FTE) All clinicians will hold a Connecticut license, either as a clinical social worker or professional counselor. The position also requires a master's degree and at least two years of experience working in a clinical setting. The clinicians will be supervised by the Health Services Director and work in close collaboration with the school-based student support team. The clinicians will also receive clinical supervision from experts at the Clifford Beers Clinic in the implementation of CBITS.

Family and Community Engagement Specialists: (3 @ 100% FTE; 1 @ 50% FTE) The Family Engagement Specialists role is a non-certified position. Candidates must possess an Associate's Degree or higher in a related field and 3 – 5 years of experience with similar responsibilities working with diverse populations. Preference will be given to candidates bilingual in English and Spanish. Primary responsibilities of the position include: working with families to develop a home-school compact that will identify ways in which families, students, and the school contribute to the mission of the school; providing families with training in areas of interest and need; and identifying local organizations who can support students, families, and the school through services and/or learning opportunities.

Résumés and job descriptions are attached in Appendices H and I.

Project Evaluator: (contract) American Education Solutions (AES) will be the external evaluator for this project, in collaboration with the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) at UCLA. Since 1995, AES has evaluated 61 Magnet Schools Assistance Program grants. The AES team includes highly experienced magnet practitioners and university partners. AES practitioner teams include site visitors who have many

years of experience as teachers and as magnet school principals as well as administrators of magnet projects and other equity programs. For the past seven years, AES has partnered with CRESST on rigorous evaluations and on survey development and analysis for Magnet Schools Assistance Program projects. For the 2010-2013 cycle AES partnered with CRESST on 5 rigorous MSAP evaluations; for the 2013-2016 cycle, 5 rigorous MSAP evaluations; and for the 2016 – 2019 cycle, another 3 rigorous MSAP evaluations. Prior to 2010, AES worked with Education Alliance at Brown University and the SERVE Center at the University of North Carolina on 10 rigorous MSAP evaluations. CRESST will perform the quasi-experimental design study as well as survey design, analysis, and reporting described in the evaluation section of this proposal. CRESST has done hundreds of high quality education studies. The Principal Investigator (PI), Dr. Joan Herman, and the Co-PI, Dr. Jia Wang, have done well received, high quality research for many years. (Please see the description of CRESST and the researchers in Appendix J.) The duties and responsibilities of the evaluators are described in this proposal's evaluation section.

(c) Teachers in participating magnet schools:

Magnet School Resource Teachers (6 at 100% FTE) There will be two magnet resource teachers (MRTs) assigned to each of the secondary schools. All magnet resource teachers will be school based. Their daily activities will be supervised by the principal of each magnet school. These master teachers will support all of the school based activities described in this proposal.

Minimum requirements for Magnet Resource Teachers include: a highly qualified classroom teacher with proven ability in the subject area to be taught; demonstrated proficiency in the teaching of heterogeneously grouped classes; extensive expertise with curriculum development in the magnet theme and/or the school's systemic reforms area; experience in

desegregation related programs and/or magnet schools; ability to coordinate staff training; experience in the evaluation of student academic performance; experience in using technology as a learning tool; college level courses, including graduate level courses, in curriculum development, and/or the magnet theme to be developed and taught; a minimum of five years of successful teaching experience; and an understanding of the academic needs of diverse populations and appropriate methodology to improve their academic performance.

Duties and Responsibilities: The specific role of each of the MRTs will vary according to the theme of each school. Each will have special training in the theme area and/or identified systemic reforms that will complement the expertise of outside consultants. All of the MRTs will be part of the school-based management teams. They will also assist the Principal and district curriculum specialists in creating special, theme-based curriculum resources for each magnet school and will play a key role in providing training for other school staff.

The following is a short list of their responsibilities and duties: teach magnet theme demonstration lessons to classroom teachers that include strategies for meeting the needs of all students in heterogeneous classes; participate in and facilitate the writing of the curriculum materials that will be prepared for this project; implement the new magnet curricula by training school staff; support and facilitate the Curriculum Alignment Process; assist in the development and implementation of improvement plans for magnet schools; and assist in the development and implementation of a school recruitment plan. Because of the relatively small size of the program, the Theme Administrator described above will perform the responsibilities of a magnet resource teacher at the Prekindergarten STEAM Academy.

Classroom Teachers: All teachers will hold CT certification for the appropriate level and/or content area. In addition, CREC's hiring process includes a focus on thematic learning and

experience working with racially and socioeconomically diverse populations. The ideal candidate will demonstrate a thorough knowledge of the theme, an understanding of how it will be integrated across curriculum, and the skills to ensure that learners with a variety of backgrounds and learning styles will access all that the magnet school offers. The teacher description includes the following:

Essential Functions: The primary function of a CREC teacher is the planning for and effective delivery of instruction and assessment of student learning, in alignment with the Danielson Framework, with the incorporation of the CREC Essential Skills. In addition, a CREC teacher:

- Develops and administers curriculum consistent with school district goals and objectives.
- Promotes a classroom environment that is conducive to student success.
- Designs and effectively implements personalized instruction.
- Develops lesson plans and instructional materials, and translates lesson plans into learning experiences that are innovative and promote deeper learning.
- Conducts ongoing assessment of student learning and progress, and modifies instructional methods to fit individual student's needs, including students special needs.
- Maintains familiarity with district, state and national standardized assessments.
- Continues to acquire professional knowledge and learn of current developments in the educational field.
- Facilitates families as co-educators in students' education and ensures effective communication with students, parents and stakeholders.
- Establishes and maintains standards of student behavior in accordance with school and district policies.
- Communicates and collaborates effectively with other staff members.
- Participates in student planning and placement meetings as required.

Knowledge, Skills and Abilities: Knowledge of: ●Connecticut Core Standards; ●current teaching methods and educational pedagogy; ●personalized instruction based upon student learning needs and styles; ●applicable federal and state laws regarding education and students. Skill in: ●data information systems, data analysis and the formulation of action plans; ●meeting the educational needs of racially, ethnically, socioeconomically and linguistically diverse groups

of learners; ●effective communication and collaboration with all members of the school community including families and colleagues; ●identifying and building upon the unique talents and strengths of each student. Ability to: ●use computer network system and software applications as needed; ●organize and coordinate work; ●engage in self-evaluation with regard to performance and professional growth; ●establish and maintain collaborative working relationships with others contacted in the course of work.

To support teachers' growth and the sustainability of best practices related to thematic revisions and systemic reforms, the project plan emphasizes ongoing professional development. Professional development activities are described in Selection Criteria (b) Quality of Project Design.

SELECTION CRITERIA (e): QUALITY OF PROJECT EVALUATION

The evaluation, spanning the five years of this project, is designed to produce evidence of promise (rigorous evaluation with two sets of quasi-experimental studies) as well as provide feedback to help school and district staffs improve project performance and attain high levels of fidelity of implementation. The evaluation will also produce information needed by the US Department of Education (ED) to properly evaluate project effectiveness, determine if all project activities are implemented as designed and on time, and to ensure that adequate progress is made toward the attainment of project outcomes (two annual summative reports).

Data Collection: This evaluation will draw on a wide variety of data to provide substance and context for formative and summative reports and the quasi-experimental study. The evaluation contractor will develop a complete set of data collection instruments (including surveys, data and document requests, and observation and interview protocols) designed to collect sufficient information to address performance measures, perform the quasi-experimental analysis and

supplement extant data. Extant data will be used whenever possible to lessen the burden on school and project staff. The data to be collected will include:

Student academic achievement, demographic, enrollment and other data: The contractor will collect standardized test score data needed to address performance measures related to student academic achievement and perform the quasi-experimental study. School enrollment, applicant pool, and student selection data disaggregated by race/ethnicity and socioeconomic status data will indicate the extent to which the schools succeed in meeting desegregation related performance measures.

Document requests: The contractor will request documentation from magnet school teachers and MSAP staff to help determine the quality and extent of MSAP implementation. Examples include: ► descriptions of and dosage (amount of program delivered) for units and courses that present the magnet theme to students; and student recruitment, and teacher professional development; ► schedules of school based magnet staff; ► school improvement plans. **Observation and interview data** will be collected during site visits to each school (see schedule at end of section), by trained evaluators with extensive experience in magnet schools. During site visits, the evaluator will conduct walkthroughs, observe lessons, and interview teachers, administrators, students and parents to help assess progress towards performance measures.

Surveys will be administered annually to all teachers and a sample of students (one complete grade) at each magnet and comparison school. Comparison schools will be selected based on school size, grade span, and school-level student achievement and demographics. Drawing on its 20-year history of MSAP and regular and rigorous evaluations, American Education Solutions developed survey items and scales with its survey consultants, Dr. David Silver, a senior

researcher at UCLA's CRESST Center, and Dr. Jia Wang, a senior research scientist at CRESST. *These survey items are directly related to the purposes of the MSAP and the logic model, objectives and performance measures of this proposal.* Validated survey items and scales measure constructs including school climate, instructional leadership, professional development hours (formal, collaborative and coaching) and effectiveness, student academic commitment and expectations, student engagement and motivation, student and teacher perceptions of intergroup relations and magnet theme implementation, standards based instruction, systemic reform implementation, parent involvement, and magnet-specific professional development dosage.

(1) The extent to which the methods of evaluation will, if well-implemented, produce evidence of promise;

CRESST's Rigorous Evaluation of the CREC/Enfield Consortium's Magnet Schools Assistance Program The rigorous evaluation design proposed below will be carried out by researchers at University of California Los Angeles (UCLA), Center for Research on Evaluation, Standards, and Student Testing (CRESST). Dr. Joan Herman will be the principal investigator (PI), and Dr. Jia Wang will be the co-principal investigator (co-PI) and project director. The UCLA team has many years of experience conducting similar studies, including evaluations of magnet schools (e.g., Los Angeles, New Haven), charter schools (e.g., Green Dot), and i3 validation grants (e.g., Literacy Design Collaborative). Both the PI and co-PI have peer-reviewed publications based on prior magnet schools work (Wang & Herman, 2017; Wang & Schweig, 2014 & 2017).

UCLA CRESST's rigorous evaluation of the impact of the Capitol Region Education Council (CREC) Magnet Schools Assistance Program (MSAP) grant on student learning will be comprised of two sets of quasi-experimental studies. These quasi-experimental studies are designed to meet the "What Works Clearinghouse Evidence Standards with reservations" by

comparing MSAP outcomes with an identified comparison group that is similar to the treatment group at the baseline. If the interventions are well implemented, we expect the quasi-experimental studies to produce evidence of promise on the relationship between program implementation and objective performance outcomes.

The first set of quasi-experimental studies will examine how implementation of the Cognitive Behavioral Intervention for Trauma in Schools (CBITS) program in the three CREC MSAP schools impacts a wide variety of student behavioral, academic attainment, and academic achievement outcomes. The second set of quasi-experimental studies will explore how students in each of the three CREC schools funded through this proposal perform relative to demographically similar peers in other CREC magnet high schools. The following sections will describe these studies in detail.

Studies will be conducted with the statistical rigor of a high-quality quasi-experimental design, but with keen attention to limitations of available data and sample sizes, and on a scale that is reasonable within the current funding structure. This evaluation strives to bolster the current body of research with instrumentation and analytic methodology aligned directly with the priorities and selection criteria of the Magnet Schools Assistance Program, and it is intended to contribute to the evidence base on magnet schools the Department of Education is building.

While we will administer annual surveys to students and teachers to get their perspectives on their magnet schools and provide context for our student outcome analysis, the evaluation focuses on measuring the impact of the CBITS program and MSAP implementation on student outcomes using statistically rigorous, high-quality quasi-experimental designs. We examine the following broad evaluation questions:

Evaluation Question 1: What was the impact of the CBITS program on student behavioral and educational outcomes, including attendance, persistence, course taking and completion, student achievement, and graduation rate?

Evaluation Question 2: How did students attending each of the three target MSAP schools funded in the 2017 cycle perform on state tests in relation to matched students at comparison CREC magnet high schools?

Evaluation Question 3: How is the fidelity of implementation of the CBITS program model at the school level related to differences in outcomes across the three schools? How does variation in student level interaction with the CBITS program (attendance, attitudes toward the program measured via satisfaction survey) relate differences in student outcomes?

Evaluation Question 4: How did the level of magnet implementation vary across the three target MSAP schools funded in the 2017 cycle?

The following sections will describe how we address each of these four evaluation questions in detail.

Evaluation Question 1—*Quasi-Experimental Studies of CBITS:* As noted earlier, CREC will be implementing the CBITS program in each of the three funded schools: Public Safety Academy, Metropolitan Learning Center, and the Academy of Science and Innovation. CREC plans to enroll 96 students per year in the CBITS program, starting in Year 2 of the MSAP grant. In each of the three schools, there would be two groups of eight students completing the program per semester. CREC will be targeting ninth graders initially for the program, and if necessary will screen and enroll 10th graders and 8th graders to reach program targets.

The initial screening will target ninth graders and involve having students complete a two-part survey. The first part is a life events checklist and asks the student to report whether she

has experienced a variety of traumatic life events. The second part of the screener identifies whether the student is experiencing symptoms of PTSD related to identified traumatic life events. If the student tests positive for having experienced a traumatic life event and scores at 14 or above on the symptoms scale, that student may be eligible for CBITS. A one-on-one interview between a school social worker or clinician and the student will be used to confirm eligibility.

CBITS is a one-time program that students will complete in a semester, but our evaluation will track students over time to examine the long-term impacts of the program. We hypothesize that the program will have positive effects on a range of behavioral and educational outcomes. Table D displays the three cohorts of ninth grade students our evaluation will be following. We will examine student attendance rate, standardized test scores, grade level progression, and graduation rate for the graduating students.

Table D. Timeline for 3 Cohorts of CBITS Participants

	Year 1 (2017-18)	Year 2 (2018-19)	Year 3 (2019-20)	Year 4 (2020-21)	Year 5 (2021-22)
Student Cohort 1	N/A	Grade 9	Grade 10	Grade 11	Grade 12
Student Cohort 2	N/A	N/A	Grade 9	Grade 10	Grade 11
Student Cohort 3	N/A	N/A	N/A	Grade 9	Grade 10

Analysis Approach: Our rigorous analysis will employ the most appropriate analysis approach given the nature of the data. We speculate that we will adopt one of the three following approaches to estimating the impact of CBITS on student outcomes. All three approaches meet the Department of Education’s standard for producing evidence of promise. The first approach would compare those students who screened as eligible for CBITS and opted to participate to those students who screened as eligible but opted not to participate. Because students in both

groups screened positive for experiencing PTSD, the groups are comparable in some ways. This approach, however, would depend on a sufficient number of students opting out of the program to form a control group. Another potential weakness of this approach is that the opt in and opt out groups may be systematically different in important ways that we cannot measure.

A second approach is called Regression Discontinuity (RD). This type of study takes advantage of the natural experiment that occurs when programs use a cut point for eligibility. The UCLA CRESST team would use statistical techniques to compare students just above the cut point to those just below the cut point. For example, we might compare students who scored between 13 and 15 on the PTSD symptoms scale. The key to an effective RD study is to keep the range around the cut point narrow enough so that the treatment and comparison groups are very similar. RD studies can be quite effective, but we may not have a sufficient sample of students close to the cut point score to successfully implement this approach. Additionally, an RD design would focus on a narrow range on the PTSD distribution, and therefore the results may not be generalizable to students with more severe PTSD.

A third approach is to employ a correlational study by running a regression model on the full population of students screened for the program whether they screened as eligible or not. Students who received the CBITS program would be compared to students who did not, and the model would control for score on the PTSD screening tool, prior student achievement, and demographic variables such as gender, race/ethnicity, eligibility for the National School Lunch program, and/or English Learner (EL) status.

All three approaches would pool students across the three schools and where possible across timed cohorts. All approaches would also control for results on the screening tool, prior student achievement, and demographic variables at the regression stage. As noted, the viability

of the first two approaches depends on availability of data. Sample size permitting, we plan to employ multiple approaches to test the sensitivity of the results. Outcome variables will include attendance; progression from ninth to tenth grade and tenth to eleventh grade; course taking and completion; graduation; and test scores on the SAT English Language Arts, SAT Math, and CMT Science in grade 11. We will employ Ordinary Least Squares (OLS) regressions to estimate the impact of CBITS on attendance and test scores, and logistic regressions to test the impact on binary variables such as whether students progressed to the next grade, graduated, or whether students completed core classes within a specified range of time.

Evaluation Question 2—Quasi-Experimental Studies of Magnet School Student

Achievement: To answer Evaluation Question 2, we will conduct individual school analyses for each of the three magnet schools in this grant application. For each of these analyses, comparison students will be selected from CREC high schools not currently funded through the MSAP program. Assuming we have sufficient sample, we plan to utilize a radius matching approach to select students in the comparison schools who are similar to treatment students across a broad range of variables (Huber, Lechner, & Wunsch, 2010). The radius matching approach will compute a distance measure comprised of both a propensity score and a Mahalanobis distance score for all eligible comparison students. Any comparison student whose distance measure falls within a defined distance (radius) of a treatment student in the same grade will be matched to that student.

If the propensity scores of multiple comparison students are sufficiently close to a single treatment student, each comparison student will receive a weight inversely proportional to her difference measure. For example, two comparison students who have identical difference measures within the defined radius distance would each receive a weight of 0.5. Treatment

students will be removed from the analyses when they cannot be matched to any comparison student within the defined radius. The approach will also apply a trimming technique to ensure that no single control case is weighted too heavily in the analysis (Huber et al., 2010). We intend to use the following variables in the matching process: grade, gender, race/ethnicity, English Language Learner (ELL) status, National School Lunch Program (NSLP) status, and special education status.

Along with our evaluation partner AES and the school district, we also plan to work with our existing contact at the Connecticut Department of Education to explore the possibility of requesting student testing data for the whole State and therefore expand our pool of possible control schools.

To examine the effect of MSAP implementation on student achievement outcomes we will use a regression-based approach with bias adjustment, which performed well in a recent simulation study as detailed in Huber, Lechner, & Steinmayr (2012). Specifically, we will first use a Weighted Ordinary Least Square (WOLS) regression equation on the comparison student population to produce the coefficient estimates.

A counterfactual estimate will then be obtained by adding a bias adjustment from the regression results to the average observed score of the comparison population in an outcome year. This counterfactual represents an estimate of how these students may have fared if they had not been at an MSAP school and had instead attended a comparison school. The average treatment effect on the treated (ATT) (Ho, Imai, King, & Stuart, 2007) is determined by subtracting the counterfactual estimate from the actual average observed score of the students under teachers receiving the professional development in MSAP schools. This approach is known as a double-robust regression as the estimator is said to be consistent if either one of the

two models (propensity score or regression) is correctly specified (Huber et al., 2010). In other words, controlling for prior indicators relevant to treatment status and achievement in both the matching model and the analysis model increases the robustness of the estimates.

Evaluation Question 3—Relationship between Fidelity to CBITS program and Student

Outcomes: In our fidelity of implementation analysis, we will also explore how differences across students in their level of engagement and satisfaction with the CBITS program are associated with differences in student learning outcomes. This within treatment study will take advantage of two main data sources: attendance records capturing students' exposure to the CBITS program and surveys capturing students' satisfaction with the program.

The UCLA team will construct a number of measures based on these data sources, including variables capturing the dosage of CBITS programming that a student received, and how helpful the student perceived the program to be. Regression analysis will then be conducted to explore the relationship between these variables and various student outcomes. Statistical power is likely to be limited, so we stress that these analyses will be exploratory in nature.

Evaluation Question 4—Variation in Magnet Implementation across Target MSAP

Schools: As described earlier, our evaluation will collect and analyze data on magnet implementation via surveys, site visits, and analysis of artifacts. These instruments will be used to construct variables such as magnet theme implementation and professional development usage, and thresholds for adequate fidelity of implementation will be set for each measure. Based on collaboration with AES and the school district, the CRESST research team will create a fidelity index incorporating the various variables which we will use to measure quality of implementation at the school level. We will determine different levels of fidelity for each construct, including a threshold for adequate implementation. The fidelity index will indicate

whether a particular school performed adequately across the different constructs, such magnet theme implementation and quality of professional development.

UCLA CRESST has been developing a database of individual school MSAP effects based on our prior evaluations, and has published a multi-site study based on this database. Individual school effect estimates and fidelity measures from the current study could potentially be used in future analyses that would take advantage of this growing database of magnet studies. **UCLA CRESST Capacity:** UCLA's Center for Research on Evaluation, Standards and Student Testing (CRESST) proposes to conduct the rigorous evaluation for the CREC/Enfield Consortium MSAP grant application. CRESST brings to the effort strong capacity in rigorous qualitative and quantitative methodologies and wide experience in evaluating and supporting the improvement of state, district, and local programs. CRESST is at the forefront of discussions in assessment and evaluation design, implementation, and evidence of high-quality measures and their constructive applications to students of various backgrounds across diverse educational settings.

Dr. Joan Herman, PI, CRESST Co-Director Emeritus, a nationally known expert on educational assessment and evaluation, will provide intellectual leadership and overall direction. Dr. Herman will provide overall conceptual and methodological leadership and direction to the project. She has wide experience as an evaluator of school reform and has shared her expertise in this area through a number of practical guidebooks, including the recently published Turnaround Toolkit.

Co-PI and Project Director, Dr. Jia Wang, with over a decade of experience in educational evaluation and specializing in research design and methodology, has led multiple statewide evaluation projects and evaluation projects that involve multiple school districts. Dr.

Wang has day to day responsibility for project operations, including evaluation design and analysis, data collection and analysis, reporting and monitoring, and assuring the quality, timeliness, and cost effectiveness of project operation.

The same CRESST team has been engaged in the evaluation of magnet schools on student learning and teacher effectiveness since June 2010, using both qualitative and quantitative methods. The team worked with 11 MSAP grant awardees in the 2010 cycle and 9 MSAP grant awardees in the 2013 cycle. Among these, they conducted rigorous student outcome analysis for 5 awardees in each of the 2010 and 2013 cycles.

Examples of other recent relevant school projects the PI and co-PI have completed include:

- The evaluation of the implementation and impact of Literacy Design Collaborative (LDC) tools on student learning and teacher effectiveness (funded by the Gates Foundation). Results are available in two technical reports (Herman, et al. 2015a and Herman, et al. 2015b) and a journal article (Herman, Epstein, & Leon 2016).
- Two four-year, statewide after-school evaluation projects in California: Statewide Evaluation of ASES and 21st CCLC After School Programs and Statewide Evaluation of High School After School Program. The reports (Huang & Wang, 2012; Huang, Wang, & the CRESST Team, 2012) can be found at the California Department of Education website (cde.ca.gov/ls/ba/cp/uclaeval.asp).
- Five-year Evaluation Project of Green Dot's Locke High School, funded by the Gates Foundation. The three associated reports (Rickles, Wang, & Herman, 2013; Herman, Wang, Rickles, Hsu, Monroe, Leon, & Straubhaar, 2013; Herman, Wang, Ong, Straubhaar, Schwig,

& Hsu, 2013) can be found at the CRESST website

(<http://www.cse.ucla.edu/products/reports.php>).

More details about CRESST's qualifications and capacity can be found in Appendix J.

(2) The extent to which the methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data to the extent possible;

Project performance measures follow the description of the formative evaluation.

Formative Evaluation: The evaluation contractor will aid in the continual improvement of the project through formative evaluation, an examination of implementation that returns information to project, school, and district staff to help them improve program performance. Formative evaluation includes the study of program fidelity (the degree to which a program is implemented as designed) and reach (the proportion of the target group that participates). Components of fidelity include: ► adherence – the degree to which the program adheres to its goals, plans, activities, timeline; ► dosage – the amount of program delivered; ► quality – the quality of program activities and services; ► responsiveness of participants to program activities; ► program differentiation – unique features when compared to non-magnets.

Formative Evaluation Reporting: Data will be collected, as available, and analyzed, and findings will be discussed with the project director, the school evaluation team, and school staff throughout the year. The following five formative evaluation reports will be written by evaluators each year.

Reduction of Minority Group Isolation (MGI) Report: Enrollment data will be compared with applicant pool and student placement data (all disaggregated by race/ethnicity), benchmarks and data from previous school years to determine why performance measures were or were not attained and if previous recommendations were implemented. The October site visits will focus

on desegregation activities including recruitment, student selection, and placement procedures and on the final results of the process. During this visit, the MGI report and all related data will be discussed with the project director, each school's recruitment and evaluation teams, and MSAP project staff. If minority group isolation performance measures were not attained, the data supporting the findings will be discussed and will inform modifications to recruitment or selection procedures and the collection of additional information (e.g., parent focus group results) if needed. Recommendations for improvement will be jointly formulated by the evaluator, the project director, and the school evaluation teams.

Site Visit Reports provide feedback based on data related to project implementation. After each site visit (2 for year 1; 3 for years 2-4; 1 for year 5), a report will be written by the site visitor and submitted within ten days. It will summarize the findings of the visit, help school staff understand if they are on track to attaining performance measures and benchmarks, discuss reasons they may not be attained, and highlight project successes. Recommendations for improvement, jointly arrived at by the staff (school evaluation team), the project director and the evaluator, will be included. Documentation Reviews, included in site visit reports, will summarize descriptive and quantitative data related to magnet curricula and instruction, systemic reforms, parent activities and professional development, and report on: adherence (e.g., activities implemented on time), dosage (e.g., the amount of time students, teachers and parents are exposed to grant activities), quality (e.g., peer reviews of units). Note: Because of the time involved in project start-up (e.g., hiring staff) there will be 2 visits for year 1. Because of the schools' increased capacity to implement program activities, there will be 1 visit during year 5.

Survey Reports will include item by item results for each school and summaries of survey construct results for each school. Relationships between variables (e.g, magnet implementation

and student engagement, professional development dosage and impact) are explored as is change over time. Other formative evaluation strategies include: Short Term Outcomes. Benchmarks are short term outcomes that indicate whether adequate progress is being made towards the attainment of annual performance measures. Most are derived from site visit and documentation review reports, survey items, or the MGI report. Examples of critical benchmarks are included in the performance measure section which follows. The project director, evaluator, and the school evaluation teams can decide on additional benchmarks that could help guide one or more schools. The degree to which benchmarks are attained will be reported in the site visit, documentation review, survey, and MGI reports or during Skype or Google Hangout sessions when needed (e.g., at critical points during the recruitment period).

Continuous Cycle of Improvement. This evaluation uses a four-part iterative cycle that will lead to better understanding of the components of this project's logic model and theory of action as well as improved outcomes for students: **1) Planning or Modifying Activities.** The logic model and the activities described in this proposal will form the basis of the implementation plans that will be developed at the beginning of each project year. **2) Implementation.** Activities described in the MSAP proposal will be implemented by school and project staffs with fidelity. **3) Formative Evaluation Feedback** includes the five reports listed above, three site visits (most years, please see schedule at the end of this evaluation), two annual summative reports, and ongoing telephone, Skype and e-mail discussions with the evaluators about the reports and data. **4) Reflection/Discussion.** This part of the cycle ensures that formative and summative data are discussed and used for project improvement. A school evaluation team, composed of the magnet resource teachers, teacher representatives, and the principal review all formative and summative reports and data, discuss report findings and recommendations with

teachers during faculty and grade conferences, get teachers' feedback and monitor the implementation of recommendations. The team will meet at least five times per year within a few days of the receipt of each report. PLC's for magnet resource teachers. Magnet resource teachers and the project director will meet once per month to discuss project implementation, examine benchmark and short term outcome data, and discuss barriers to implementation and how to solve them. Successes (best practices) will be identified, shared, and duplicated in other schools. The results of **Reflection and Discussion** will be used for **Planning or Modifying Activities** as the cycle repeats throughout each project year.

Summative Evaluation and Reporting: The evaluator will determine the extent to which performance measures (medium term outcomes on the logic model) are attained. The evaluator will collect and analyze the data, prepare two semi-annual summative performance reports (mid-May and end of September) summarizing findings, and discuss the results with district and magnet school staffs. The data and findings in the semi-annual summative reports can be used in the Annual Performance and Ad Hoc Reports submitted to the U.S. Department of Education. The following section describes the annual performance measures, their relationship to each MSAP program purpose and to this project's logic model, and how the evaluators will assess their attainment (e.g., indicators, measures of change, data collection methods, data sources and frequency of data collection). Some of the most important benchmarks associated with each performance measure are also described. Long term outcomes on the logic model are the year 5 performance measures and represent the outcomes for the entire project period. They will be reported on in the final report.

Note that the CREC Public Safety Academy will be planning in year 1 of the grant, and therefore progress for that school (school 3) will begin in year 2.

Program Purpose 1: The elimination, reduction, or prevention of minority group isolation in ... schools with substantial portions of minority students....

Logic Model Activity: Desegregation – Student recruitment, application and selection activities;

Benchmarks: for applicant pool - proportion of isolated students (race/ethnicity and socioeconomic status [SES]) is 10 percentage points less than actual enrollments for each

school. All proposed magnet schools will reduce minority group isolation and increase socioeconomic integration by decreasing the percentage of black or Hispanic students and increasing the percentage of white students and students not living in poverty. The percentage of black students (School 2) or Hispanic students (Schools 1, 3 and 4) are greater than the district-wide average of black students (30.7% at CREC) and Hispanic students (35.6% at CREC and 19.1% at Enfield). The proportion of low income students at schools 1, 3, and 4 is greater than the district averages of 52.2% at CREC and 40.1% at Enfield.

Objective 1. Minority group and socioeconomic isolation will be reduced at the proposed magnet schools. (This objective addresses MSAP Performance Measure a.)

Performance Measures 1.1-1.4: By October 1 of each project year, for the following magnet schools, enrollment targets (see Table 3: Enrollment Data-Magnet Schools) will be attained by reducing the isolation of black or Hispanic students (using 2016-17 as the baseline for Schools 1, 2, and 4; 2017-18 as baseline for School 3) by at least 2 percentage points per year (10 percentage points or more over 5 years). The schools and their 2016-17 enrollments (isolated groups in bold) are: 1.1 ► **School 1 (gr. 6-12)** (30.0% black, 45.3% Hispanic, 16.3% white, 2 or more races 2.8%, Asian, 5.4%, other groups < 1%. Low Income: 53.1%); 1.2 **School 2 (gr. 6-12)** (51.7% black, 19.3% Hispanic, 19.3% white, 4.2% Asian, 4.7% 2 or more races, other groups <1%). Low Income: 50.9%; 1.3 ► **School 3 (gr. 9-12)** (24.1% black, 47.9% Hispanic, 21.1%

white, 2 or more races 4.0%, other groups < 2% each. Low Income: 70.3 %); ► 1.4 School 4 (PreK) (18.0% black, 30% Hispanic, 6% Asian, 42.0% white, 2 or more races 4.0%. Low Income: 42.0%).

1.5 By October 1 of each project year, the proportion of low income students will be reduced by at least 3 percentage points at each magnet school, therefore reaching the district SES goal of 35% ±5 percentage points for interdistrict magnet schools by the end of the project.

1.6 For each project year, each magnet school will receive at least 150 Hartford and 150 suburban applications.

Assessment: School enrollment data, disaggregated by race/ethnicity and socioeconomic status, as defined in Competitive Preference Priority (CPP4), collected by the district, will help determine the degree of attainment of 1.1-1.5. Each year (October 1), the percentage of students in the isolated racial/ethnic group and low income students enrolled in each school will decrease. Baselines are 2016-17 school enrollments. School census data is collected at each school and aggregated and confirmed by the district. Applicant pool (applications for magnet school seats) and student selection data (students who applied and were selected), collected by RSCO each spring will determine if 1.6 was attained. If objectives are not achieved, project staff will explore how outcomes can be improved for all measures.

Purpose 2: *To develop, implement and expand magnet school programs that will assist LEAs achieve systemic reforms, and provide all students the opportunity to meet challenging State academic standards. **Logic Model Activity:** Improve Curriculum, Instruction & Student Academic Supports; **Benchmark:** 90% of each school's teachers agree that a great deal of emphasis was placed on (a) alignment of curriculum content and assessments with CCSS, NGSS and state standards; (b) data based decision making; (c) RtI; d) Inquiry or PBL; (e) Unit quality*

reviews. (Survey results.) **Objective 2:** All students will receive high quality instruction that includes their school's systemic reforms and magnet themes in units and courses aligned with CCSS, NGSS and State standards. **Performance Measure 2.1** By the end of each project year (September 30), at each magnet school, at least 15% (year 1), 40% (year 2), 65% (year 3) and 90% (year 4) and 100% (year 5) of all core academic subject units will meet district and project quality criteria determined by peer reviews using a unit quality rubric. **Assessment:** Unit quality rubrics will be designed, and passing scores established, by each school under the guidance of the Assistant Superintendent for Teaching and Learning, the project director and the evaluator. Reviews will occur 2-4 times. Teachers will review each other's units facilitated by curriculum specialists and magnet resource teachers who will monitor the process and maintain a database of review results. Teachers will be trained in rubric use to insure inter-reader reliability, and evaluators will review a sample of units to check for inter-reader reliability. Baseline is zero for 2016-17. The percent of units meeting quality criteria increases each year.

Purpose 3: The development, design and expansion of innovative educational methods and practices.... **Logic Model Activity:** Magnet Theme Integration; **Benchmark:** (a) Unit dosage attains the target number of hours. (Checked 3 times/year.) (b) See Benchmark for Project Purpose 2. (c) Student surveys indicate that engagement and motivation increase each year (year 1 is baseline). (d) 90% of students are interested in magnet theme and find it challenging.

Objective 3. All students, at each magnet school, will receive magnet theme instruction.

Performance Measures: **3.1** By the end of each project year, all students, at all magnet schools, will receive magnet theme instruction coordinated with or including systemic reforms for at least 3 (year 1), 6 (year 2) and 8 (year 3), 10 (year 4) and 12 (year 5) hours per week.

Assessment: Success will be determined, by the evaluators, through unit analysis and confirmed with surveys, interviews, and walkthroughs. Unit summaries for each teacher (including teacher dosage logs) are submitted to evaluators by each school 3 times per year. Entire units are made available by schools (magnet resource teachers) to evaluators (on-line access) on a continuous basis. The dosage is the average number of hours per week each teacher presents magnet theme related instruction (integrated units and separate magnet theme classes) to students. The baseline is zero for 2016-17. The number of hours will increase each year to meet the target.

Program Purpose 4: Courses of instruction in magnet schools that will substantially strengthen the knowledge of academic subjects... Logic Model Activities: All activities. Benchmarks: See Benchmark for Project Purposes 2, 3, 5 and 6. Connecticut's Accountability System includes academic performance indices for all students and for High Needs Students (an aggregate of economically disadvantaged, English learners, students with disabilities). Performance Indices in English Language Arts/Literacy (ELA) and Mathematics are based on the Smarter Balanced Assessment Consortium (SBAC) tests for grades 3-8 and the Standardized Achievement Test (SAT), administered to 11th grade students. Performance index scores in Science are based on the Connecticut Mastery Test (CMT) for students in grades 5 and 8 and the Connecticut Academic Performance Test (CAPT) for grade 10. The maximum index is 100. The target is 75 for all schools. Because the new ESSA discontinued the requirement for annual measurable outcomes, Connecticut is considering long term goals. However, targets, and the allowable time period to reach them, have not yet been established.

Students below Grade 3 do not participate in the State's standardized assessments. The SDE requires that Open Choice students be assessed for progress along with an equal number of their peers in the same classrooms. The SDE has approved the Peabody Picture Vocabulary Test

(PPVT-4) as a measure of progress. For this project, teachers will administer the PPVT-4 to all students attending the Open Choice magnet school (Enfield Public Schools PreK STEAM Academy).

Objective 4 (a) Student academic achievement will increase each year in ELA/literacy and math and science (for STEM schools) for all students. (b) The percentage of students from major ethnic and racial subgroups attaining level 3 or 4 on the state assessments, or demonstrating significant gains in oral language as measured by the PPVT (for PreK) will increase.

Performance Measures: 4.1-4.2: By the end of each project year, for the schools that serve students in grades 6-8, the percentage of "All Students," students from each major racial and ethnic subgroup, and low income students at CREC Academy of Science and Innovation; and Metropolitan Learning Center who score at level 3 or above on the SBAC will increase when compared with the previous year in: **4.1:** ELA/Literacy. **4.2:** Mathematics.

4.3-4.4: By the end of each project year, for the schools that serve students in grade 11, the percentage of "All Students," students from each major racial and ethnic subgroup, and low income students at CREC Academy of Science and Innovation; Metropolitan Learning Center, and CREC Public Safety Academy who score at level 3 or above on the SAT will increase when compared with the previous year in **4.3:** ELA. **4.4:** Mathematics.

4.5: By the end of each project year, the percentage of "All Students," students from each major racial and ethnic subgroup, and low income students, in the Open Choice prekindergarten magnet school, who achieve significant gains (an increase of 4 or more points between pre-and post-test) on the PPVT-4 will increase when compared with the previous year.

These performance measures address MSAP Performance Measures b and c: *The percentage of students from major racial and ethnic groups ... who score proficient or above on State assessments in reading/language arts and math.*

4.6-4.8: By the end of each project year, each magnet school will increase its School Performance Index (SPI) for All Students in: **4.5:** ELA. **4.6:** Mathematics. **4.7:** Science.

4.9-4.11: By the end of each project year, each magnet school will increase its SPI for High Needs Students in: **4.8:** ELA. **4.9:** Mathematics. **4.10:** Science.

4.12: By the end of the project period, 75% of students at each school will develop mastery of the magnet curriculum, as determined by project based assessments scored by rubrics.

4.13: By the end of the fourth year of the grant (September 30, 2021 for Schools 1, 2, and 4/September 30, 2022 for School 3), for each project school, students in two or more of the tested groups/subgroups (e.g., total tested population, each racial/ethnic group, low income students, English Learners) will have higher test scores than carefully matched students attending non-MSAP schools in at least one subject area tested by the State (ELA/literacy, mathematics, science). These results will be statistically significant.

Assessment: All students are tested in April of each school year. Data is analyzed by the State Education Department and made available to school districts. This data (4.1-4.11) will be presented in the Annual Summative Performance Reports in tabular form, highlighting the performance targets and how each magnet school – both in aggregate and by subgroups – performed in relation to these targets. Baselines are 2016 scores and indexes.

Project based assessments (4.12) will be developed in year 1 for each grade by the magnet resource and classroom teachers with the support of the curriculum and instruction department, and in year 2 at the CREC Public Safety Academy, which is planning in year 1.

Rubrics will be used in years 2 through 5 by teachers at least twice per year (frequency to be determined by each school's planning and management team) and be approved by the magnet project director and the assistant superintendent for curriculum and instruction. The baseline is zero for 2016-17 and will increase each year. PM 4.13 will be determined through the quasi-experimental analysis of SBAC, SAT (ELA/Literacy and math) and CMT (science) scores in project years 3 and 4. (Please see the quasi-experimental design section of this evaluation.)

Purpose 5: Improvement of the capacity of LEAs, including through professional development, to continue operating magnet schools at a high performance level after Federal funding...is terminated. Logic Model Activities: Professional Development (PD); Benchmarks: (a) PD is implemented as designed. (Checked during site visits.) (b) At least 85% of teachers will agree with survey items related to PD: (i) helped me integrate the magnet theme into lessons; (ii) deepened my content knowledge; (iii) helped me better maintain student engagement; (iv) I use what I learned from PD in my classroom; Objective 5. Provide professional development related to improvement of curriculum, instruction, and magnet theme development and implementation. Performance Measure 5: By the end of each project year, at each magnet school, teachers will receive at least 30 hours of professional development (e.g., workshops, courses, coaching) in each of the following areas: 5.1 directly related to the improvement of curriculum and instruction including the development and implementation of the systemic reforms listed in the school improvement plan; 5.2 directly related to the development and integration of the magnet theme. Other performance measures related to capacity building include: (2.1, 3.1) development and implementation of systemic reforms and magnet theme units and courses.

Assessment: Magnet resource teachers (MRTs) will collect professional development (PD) data including the type of training, the number of hours provided, and which teachers are involved

and summarize it. This information will be entered into a database at each school under the supervision of the MRTs. Attendance sheets and data, agendas, workshop materials, and magnet resource teacher logs and schedules will be available at each school and checked by the evaluator and project director. The 2016-17 baseline is zero. As depicted in the logic model, the effects of professional development on student achievement are mediated by classroom instruction related to the PD. Therefore, the evaluation of PD effectiveness will include measures of classroom teaching practices and student achievement. These include teacher surveys, teacher logs (self-reports) of teaching strategies developed by the evaluators and district staff, units created by teachers, and student testing data. Individual student test scores will be linked to their teachers' implementation data. This data will be analyzed by the evaluators and used for the quasi-experimental study. Please see the quasi-experimental study design.

Purpose 6: Ensuring that all students ... have equitable access to high quality education that will enable the students to succeed academically ***Logic Model Activities: Family Involvement and all other logic model activities; Benchmarks: The degree to which: (a) family involvement as described in the proposal is being implemented; (b) all classes reflect the racial/ethnic composition of the school. (Items a and b be determined during each site visit.)*** **Objective 6a:**

All students will have equitable access to high quality education. **Performance Measure 6.1** By the end each project year, for each magnet school, at least 70% (yr. 1), 75% (yr. 2), 80% (yr. 3), 85% (yrs. 4 and 5) of classes (prekindergarten) and STEM classes (middle or HS grades), will reflect their grade's enrollment for each racial/ethnic group (and gender for STEM classes) by ± 15 percentage points. **Assessment:** Success will be determined by analysis of class enrollments disaggregated by race/ethnicity and gender. Please see the assessment for measures 1.1-1.6.

Baselines are 2016-17 enrollments. The percentage of classes meeting the criteria increases each year.

Family involvement, student engagement, and staff satisfaction promote equitable access to high quality education for all students. **Objective 6b:** Families, students and staff will experience an increase in their sense of social-emotional security, the school's respect for diversity, and school connectedness/engagement at each magnet school.

Performance Measure 6.2 For each project year, for each school, there will be an increase (compared with the previous year) in family, staff and student ratings of sense of social-emotional security, the school's respect for diversity, and school connectedness/engagement. **Assessment:** Annual responses to the National School Climate Center's Comprehensive School Climate Inventory will demonstrate a 3% increase in the percentage of responses in the positive range for social-emotional security, respect for diversity, and school connectedness/engagement. The baseline year will be 2016-17 for the CREC schools, and 2017-18 for the Enfield prekindergarten staff and families. There will be an increase in the percentage of responses in the positive range in Years 1 - 5 for the CREC schools, and Years 2 - 5 for the Enfield school.

Annual Evaluation Schedule: ► Initial meeting with project and district staff (Week 1); ► Refine data collection instruments and plan; refine analysis plan; (Weeks 1-3); ► Collect data (Throughout year): Enrollment data (Week 1); Documents collected (e.g. units integrated with magnet theme - Weeks 17, 29, 2 in next school year); Site visits including interviews, observations, implementation data collection for quasi-experimental study, etc. (Weeks 18, 30, 3 in next school year); Site Visit-Documents Review Reports (Weeks 19, 33, 3 in next school year); applicant pool data (Week 31); Dosage data (ongoing); Surveys administered (Week 33-35);

State test data (Week 49); Survey results reported (Week 40); ► Formative evaluation including discussion of recommendations (Weeks 1-52); MGI Report (Week 3); ► Analyze and process summative data (Weeks 30-32 and 50-52); ► Prepare Summative Evaluation Reports (Weeks 29-30 and 50-52); ► Summative Evaluation Reports (Weeks 31 and 52); Quasi-experimental Evaluation Report (Week 3). Week 1 is the week the project begins each year. The site visits and related activity dates denote two visits for year 1, three visits in years 2 through 4, and one for year 5.

(3) The extent to which the costs are reasonable in relationship to the objectives, design, and potential significance of the proposed project.

This evaluation will be cost effective and, at the same time, provide appropriate levels of service. It contains the most important activities that will provide the support and feedback that schools need to modify and improve project activities and produce evidence of promise, while keeping an eye on level of service in relation to cost. The frequency of major evaluation activities is summarized in Table E below.

Table E: Frequency of Evaluation Activities

Activity	Year 1	Year 2	Year 3	Year 4	Year 5
Quasi-experimental Analyses 1 and 2	No	No	Yes	Yes	No
Site visits and Site Visit Reports	2	3	3	3	1
Surveys	Yes	Yes	Yes	Yes	No
MGI Reports	No	Yes	Yes	Yes	Yes
Summative Reports	2	2	2	2	2

Project year 1 will most likely start on October 1, 2017. Project staff need to be selected/assigned following district guidelines and procedures, and project activities are just beginning. Therefore, there will be two, rather than three, site visits during project year 1 to allow time for startup. Also, MGI reports will start in year 2 after the first recruitment, application, and selection cycle during the year 1. For years 2 through 4, there will be three site visits. By year 5, project activities will be completed or nearly completed, Therefore, there will probably be a need for only one visit. Site visit reports and documentation reviews will be written after each site visit. Two summative evaluation reports will be written each year (May and October). Surveys will be given for years 1-4. The quasi-experimental design (QED) analysis will be performed for project years 3 and 4 (see rigorous evaluation section). Experience has shown that there may not be enough time during project year 5 for an analysis of test scores before the end of the project period.

Part 1 of the QED analysis is significant, because it looks at the impact of using an effective in-school intervention to treat students for post-traumatic stress disorder. Research has shown that Cognitive Behavior Intervention for Trauma in Schools (CBITS) is effective in reducing symptoms of trauma, and there are preliminary studies that indicate a positive impact on academic achievement. The question of impact on school performance is an important one, and there is no rigorous study on the impact of CBITS on high schools students' school outcomes as the result of their participation. The QED study will examine attendance, discipline, achievement, and graduation. Considered alongside the low cost of CBITS relative to the cost of some other interventions, evidence of effectiveness of CBITS could inform school and district decision-making around how to best allocate resources - both money and time - in ways that are most likely to positively impact the students that they serve.

Quasi-experimental analysis 2 is significant because it compares the test scores of students in this project's schools with those of similar students in comparison schools. There are few high quality studies of magnet schools that show significant and positive results. Ballou (2009) examined 14 studies and found four that met high design quality criteria. Of those four, two, Crain, Heebner and Sim (1992 and 1999); Ballou, (2007) had statistically significant positive results. The What Works Clearinghouse has only one study (Bifulco et al., 2009) that meets its design standards and has positive, statistically significant results. A recent multi-site study (Wang, et al. 2016) of 24 MSAP magnet schools in five districts found no effect on test scores, on average across all schools, but wide outcome variability. Using local implementation data to differentiate among schools, Dr. Wang found that the variability in student achievement was due to the degree of fidelity of implementation, which included magnet theme implementation (e.g., curriculum and professional development dosage, quality and reach) and support of classroom teachers (e.g., time with coaches). The two study-level covariates, explained about 60% of the variance between school sites for the magnet effect on math and about 40% of the variance on reading. The effect of both factors was statistically significant. Wang, et al., indicates the importance of fidelity of implementation of key grant components and of coaching, part of the professional development activities of this grant.

If the magnet schools in this project are well implemented, as determined by the evaluation described in this section, we believe that test scores of students attending project schools will be higher than those of similar students attending comparison schools, and that the differences will be statistically significant, an important result. This result would support the findings of Wang, et al., that the degree of fidelity of implementation of a magnet program is

related to student achievement and that attending a magnet school contributed to improved student achievement, supporting the findings of Bifulco (2009).

The total 5 year cost of this evaluation is \$565,000 or 3.8% of the total 5 year budget of \$14,777,760. This is much less than evaluation budgets for grants such as i3, which can cost as much as 10% to 15% of a budget's total. The 3.8% is also reasonable considering the research focus of part of the evaluation as well as the formative and summative evaluation components for four project schools.

It is difficult to separate this exactly into the categories of rigorous evaluation, summative evaluation, and formative evaluation as described in the evaluation section because of the close working relationship between UCLA CRESST and American Education Solutions. That said, however, the cost of the "rigorous evaluation," including the QED design, analysis, reporting, collection of test score data, survey design, and analysis and reporting, is \$265,000 for the five years of the grant. The cost of the formative and summative parts of the evaluation (\$300,000 for the five years of the grant) includes the site visits, site visit reports and documentation reviews, the MGI Report, the summative reports, the collection of all data except for test scores including all data related to desegregation (e.g., enrollments, applicant pool, placements) and teacher level implementation data related to the QEDs. Clearly, there is some overlap in that. For example, teacher level implementation data collection and monitoring, including logs, interviews, and unit quality rubrics will occur in schools, and their collection cost is included in the formative/summative component.

The average cost of the evaluation per year is \$113,000 for all evaluation activities. That is \$53,000 per year, on average, for the "rigorous component" and \$60,000 per year, on average

for the formative and summative evaluations as described in this section. The average cost per school per year for the formative and summative evaluations is \$15,000.

The Consortium had determined these costs to be reasonable for the following reasons:

- (1) two sets of quasi-experimental studies are being performed to answer questions that the district feels are important;
- (2) the QED analysis is being done twice, during years 3 and 4, rather than four or five times. The results obtained from adding years 1 and 2 would not be worth the expense;
- (3) the formative evaluations include site visits to all four schools, and, most years, five formative evaluation reports;
- (4) during site visits to all four magnet schools evaluators will collect data related to the implementation of the CBITS Program, units related to the magnet theme, and other implementation data needed for either the quasi-experimental study or the formative and summative evaluation;
- (5) the evaluation will look at the quality of the magnet curriculum, including rigor. Using validated survey scales and items, the evaluation will look at school climate, instructional leadership, student engagement and motivation, magnet theme implementation, etc. (please see survey descriptions); and
- (6) the evaluators have many years of experience, particularly with magnet schools. The CRESST at UCLA has done hundreds of high quality education studies. The researchers, Drs. Wang and Herman, have done well received, high quality research for many years. American Education Solutions (AES) has been doing magnet evaluation work for over 20 years. AES has performed 61 MSAP evaluations since 1995 working in partnership with CRESST and also with the Education Alliance at Brown University;
- (7) the formative and summative evaluations include only those activities that are necessary as described above. Because of these factors, the Consortium believes the cost of the evaluation to be reasonable.

See Appendix K for References.

CONTENTS

PRIORITY 1-NEED FOR ASSISTANCE.....	1
(a) <i>The costs of fully implementing the magnet schools project as proposed</i>	1
(b) <i>The resources available to the applicant to carry out the project</i>	7
(c) <i>The extent to which the costs of the project exceed the applicant’s resources</i>	7
(d) <i>The difficulty of carrying out the project</i>	9
PRIORITY 2-NEW OR REVISED MAGNET SCHOOL PROJECTS and STRENGTH OF EVIDENCE TO SUPPORT NEW PROJECTS	12
PRIORITY 3-SELECTION OF STUDENTS	17
PRIORITY 4-INCREASING RACIAL INTEGRATION AND SOCIOECONOMIC INTEGRATION	17
SELECTION CRITERIA (a): DESEGREGATION.....	22
(1) <i>The effectiveness of the plan to recruit students from different social, economic, ethnic, and racial backgrounds into the magnet schools</i>	22
(2) <i>How it will foster interaction among students of different social, economic, ethnic, and racial backgrounds</i>	29
(3) <i>How it will ensure equal access and treatment for eligible project participants who have been traditionally underrepresented</i>	36
(4) <i>The effectiveness of all other desegregation strategies</i>	41
SELECTION CRITERIA (b): QUALITY OF PROJECT DESIGN	48
(1) <i>The manner and extent to which the magnet school program will improve student academic achievement for all students</i>	48
(2) <i>The extent to which the applicant demonstrates that it has the resources to operate the project beyond the length of the grant</i>	69
(3) <i>The extent to which the training or professional development services to be provided by the proposed project are of sufficient</i>	72
(4) <i>The extent to which the proposed project is supported by strong theory.</i>	75
SELECTION CRITERIA (c): QUALITY OF MANAGEMENT PLAN.....	101
(1) <i>The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget</i>	101

(2) *How the applicant will ensure that a diversity of perspectives are brought to bear in the operation of the proposed project.* 108

SELECTION CRITERIA (d): QUALITY OF PERSONNEL.....111

Qualifications of personnel and experience and training in fields related to the objectives of the project, including curriculum development and desegregation 111

SELECTION CRITERIA (e): QUALITY OF PROJECT EVALUATION121

(1) *The extent to which the methods of evaluation will, if well-implemented, produce evidence of promise*..... 123

(2) *The extent to which the methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data to the extent possible*..... 133

(3) *The extent to which the costs are reasonable in relationship to the objectives, design, and potential significance of the proposed project* 146