

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

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Miami-Dade County Public Schools (M-DCPS), the University of Florida, and The Early Childhood Initiative Foundation, in partnership with the W. K. Kellogg Foundation, propose to enhance early learning instruction to high-need students by 1) developing an early childhood specialization within the existing job-embedded master’s program and offering the program to 100 early childhood teachers (grades pre-K-3), 2) replicating the successful Teacher Fellows model within the same schools to help 1,125 teachers across all grades improve their instruction through an inquiry-based approach by participating in learning communities led by the master’s students, 3) providing support to principals through the Principal Fellows model to enhance their ability to facilitate change within their schools, and 4) using an experimental design to rigorously evaluate the model and document quantitative and qualitative outcomes on school culture, teaching efficacy and effectiveness, and student achievement. The project will address Absolute Priority 1 (Innovations that Support Effective Teachers and Principals) and Competitive Preference Priority 5 (Innovations for Improving Early Learning Outcomes).

The work proposed in this grant is grounded in cutting edge research and grounded experience. Research shows teacher quality is the single most significant factor in children’s development and learning, and that high-quality early learning improves lifelong academic success and narrows achievement gaps (National Academy of Education [NAE] 2009; Schweinhart 2005). When examining student results in low-income communities, it is clear that the achievement gap begins in a child’s earliest years, resulting in students falling years behind grade level by the time they reach the end of primary school (National Scientific Council on the Developing Child 2007). Considering the critical need for high-quality educators in the early years, especially in low-income communities, it is of particular concern that teachers in such

important positions often feel overwhelmed, underprepared, and unsupported, leading to low-levels of academic success for high-need children, poor morale, and teacher turnover (National Commission on Teaching and America’s Future 2007). According to the National Center for Education Statistics, almost half of all teachers leave the profession in their first five years; the problem is particularly acute in urban and rural districts. A 2007 study by NCTAF found turnover negatively affects students’ achievement, especially for high-need students. Turnover drains dwindling budgets with per teacher turnover costs ranging from \$4,366 to \$17,872; in Chicago alone, the district loses over \$86 million a year (Barnes, Crowe & Schaefer 2007).

Studies like NCTAF’s recommend districts invest in teacher support and development, especially in high-risk schools where the educational benefits and cost reductions will be greatest. But most districts rely on traditional systems of professional development, which have little impact on classroom instruction and are not sustained long enough to be effective (Yoon et al. 2007). Garet and colleagues (2001) found that almost 80% of teachers reported that the professional development available to them is ineffective. After a review of the research on professional development Borko (2004) concluded, “The professional development currently available to teachers is woefully inadequate.” Yet there are few innovative professional development models that show results of reforming schools serving high-need children.

In 2006, a team of community leaders in Miami-Dade County formed the Ready Schools Miami partnership to systematically ensure all children, particularly high-need children at risk of school failure, have access to the highest quality teachers possible. Ready Schools Miami is an ambitious and comprehensive initiative focused on ensuring every child’s success by the end of third grade and works through piloting, refining and taking to scale policies and practices that improve the quality of health and education for children from birth on.

The key partners include: **Miami-Dade County Public Schools (M-DCPS)**, the fourth largest and most diverse school district in the country, serves 163,251 children at 255 elementary and K-8 schools. More than 60% of children in the school district qualify for free or reduced lunch and over 70% speak a language other than English at home. The District recognizes the critical importance of an appropriate early learning program and has developed partnerships with community leaders to strengthen early childhood and elementary education. **The University of Florida College of Education and University of Florida Lastinger Center for Learning** (both hereafter referred to as the University of Florida) have developed innovative approaches to school reform that are starting to be used throughout Florida. Within Ready Schools Miami they design and deliver a unique model of reform based on teacher quality improvement, described below. **The Early Childhood Initiative Foundation (ECIF)** facilitates the success of Ready Schools Miami and works closely with each of the partners to maximize effort and outcomes. ECIF maximizes the diverse and complicated community partnerships that comprise Ready Schools Miami and is recognized nationally as a highly effective foundation that is systematically improving outcomes for young children. ECIF is also committing up to \$500,000 in matching fund to this proposal. **The W. K. Kellogg Foundation**, a long-time investor in this work who is also dedicating an additional \$1 million in matching funds to this grant proposal.

These four grant partners are already working closely on the **Florida Master Teacher Initiative**, an approach to school reform that improves instruction, school culture and student achievement. The Initiative does this through creating “master-teachers” through a job-embedded master’s degree, creating community and shared leadership through the Teacher Fellows program, and improving administration and leadership strategies through the Principal

Fellows program, which initial data suggests collectively transforms entire schools and increases the achievement of children in high-need communities.

The graduate program, developed and administered by the University of Florida College of Education's School of Teaching and Learning (hereafter referred to as the University of Florida), blends online instruction with face-to-face pedagogy by a professor-in-residence who works alongside the teachers and administrators within the participating schools. The program is job-embedded and designed to help teachers immediately put to use their theories, objectives, and learning to solve challenges faced in their classrooms. The University of Florida works to leverage the impact of the graduate students through the Teacher Fellows and Principal Fellows programs: within the Teacher Fellows program teachers throughout the schools, regardless of their participation in the master's program, work together in on-site learning communities to examine newly learned theories and techniques with their peers, thus infusing new ideas and new processes for approaching student work throughout the school and transforming the overall school culture. Principals participate in the Principal Fellows program, which helps build principal's leadership skills, offers the opportunity to interact with principal colleagues from districts across Florida to examine how to support teacher leadership and helps principals implement instructional improvement for student learning. As part of this professional development the schools develop existing school-level instructional coaches to collect and analyze measures of school culture and instructional practice and track changes over time, build internal capacity to sustain professional learning communities that collectively examine teacher and student work, integrate effective transition practices and partnerships to help high-need children transition seamlessly and effectively into school, and provide other support as needed to peers. Together, these focused areas of work that build on what the research identifies as the

greatest needs within schools foster collective ownership throughout schools for creating and implementing new approaches to supporting and teaching high-need students.

While research shows traditional graduate programs do not have a marked impact on teacher quality or student outcomes (Rice 2003), this graduate program and the Teacher and Principal Fellows work are showing uniquely promising early results. The Florida Master Teacher Initiative approach is distinguished from other teacher development models in three ways. First, it is job-embedded, meaning Master's students and Fellows immediately put their theories, objectives, and learning to use in solving challenges faced by in their own classrooms. Second, the school-based learning communities provide a forum for the development of teacher leadership to encourage mutual support to address the complexities of teaching. Third, being school-based and no-cost, principals and teachers can easily participate in the program.

Since the first cohort started in January 2006, 48 teachers have graduated from the current two-year master's program and 240 more are pursuing degrees across Florida. Another 830 teachers are participating in the inquiry-based Teacher Fellows program and 85 principals are participating in the Principal Fellows network. Early results show that partner schools have demonstrated a statistically significant impact on student achievement and produced teachers who are more committed to the profession when compared to schools not participating in the initiative (Leite, Adams, Ross, Butler, & McInnes 2008). The model has produced such impressive early results that a growing number of large districts in Florida have hired the University of Florida to help design their professional development investments; the model was also a central part of the Race to the Top application that came in 4<sup>th</sup> in the nation.

Through this grant the partners will strengthen the model, rigorously evaluate its impact, and ensure this successful model can be adopted in other communities by:

- *Developing an Early Childhood Education (ECE) Specialization* within the Master’s degree that complements the Teacher and Principal Fellows work and specifically meets the needs of early childhood educators (grades pre-K - 3) working in high-need communities. The 36-credit graduate program will build from the existing, successful job-embedded master’s program through the University of Florida to include an early childhood specialization through coursework designed by the School of Special Education, School Psychology, and Early Childhood Studies in consultation with colleagues from the School of Teaching and Learning within the College of Education. It will consist of core courses, such as Guided Teacher Inquiry, Differentiated Instruction, and Culturally Responsive Classroom Management, as well as specialization courses, such as Developmentally Appropriate Practices and Policy and Transitions in Early Childhood. A focus of the learning community work within the schools will be on transitions from early childhood programs into school; this will build upon existing work that has identified feeder patterns from child care centers/home into schools and started to build relationships between early childhood program directors, principals, teachers, and families.
- *Conducting a rigorous evaluation* to measure the impact of the master’s and Teacher and Principal Fellows programs on student success; teacher commitment, efficacy, and quality; and school culture. This evaluation will be led by SRI International.
- *Codifying the Florida Master Teacher Initiative approach* of providing a job-embedded master’s, Teacher Fellows, and Principal Fellows and, through this work, collecting and analyzing measures of school culture and instructional practice, building internal capacity to sustain professional learning communities, and integrating effective transition practices and partnerships to help high-need children transition seamlessly and effectively into school.

- *Implementing an ambitious plan to scale these professional development innovations* by open-sourcing the resources developed as part of this initiative and actively sharing them with teachers, administrators, professional associations, higher education institutions, philanthropic foundations, and others so they can be adopted and embedded into new ways of providing more effective professional development to teachers and school administrators.

The proposed grant will have four key outcomes: 1) Provide 30,250 high-need children in elementary classrooms teachers with stronger teaching and leadership skills and schools with an overall improved school culture, resulting in improved academic outcomes for children;<sup>1</sup> 2) Document how a job-embedded, inquiry-based professional development model that increases early childhood teachers' knowledge and skills, forms learning communities throughout entire schools, and advances principal leadership and knowledge can reform schools and improve student achievement among high-need children; 3) Increase the educational skills, performance, morale, and commitment to the profession of at least 1,225 teachers across 25 Title I schools, and 4) Prepare this model for scaling to a much broader audience.

### **Strength of Research, Significance of Effect, and Magnitude of Effect**

Our model for improving early childhood education (pre-K-3<sup>rd</sup> grade) for high-need children is premised on the hypothesis that recruiting talented teachers, supporting their growth as master teachers and teacher leaders through job-embedded professional development, providing them with opportunities to influence and improve the instruction of their colleagues, and working with school leadership to leverage the enhanced human resources and capacity will lead to dramatic improvements in student outcomes and achievement. Through our work with

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<sup>1</sup> The first cohort of 50 teachers will instruct approximately 3,300 children over three years (average class size for an M-DCPS elementary school is 22 students). The remaining 50 teachers will have two classes of students while in the program for a total of an additional 2,200 children. There will be 375 Teacher Fellows annually (for a total of 1,125) improving their quality through the program impacting another 24,750 children. As documented through the initial evaluation, we anticipate additional spillover impacts throughout the schools involved; initial results show improved performance across participating schools even if every teacher is not formally participating in the Teacher Fellows or master's program.

districts and teachers, we have seen that this approach increases teacher knowledge, satisfaction and efficacy – within the context of an improved school culture and inquiry-based learning communities that build community across teachers – all of which contributes to improved teacher effectiveness, commitment and student achievement. The need for effective teaching and leadership is particularly crucial during the early years when brain development is greatest and the return on investment of high quality education is highest, especially for high-needs children.

A consensus indicates that the most influential variable affecting student outcomes is teacher quality. This conclusion dates back at least to 1996, when Sanders and Rivers’ seminal work claimed: “Research tells us the influence of teachers is the single most important factor in determining student achievement” (Sanders & Rivers 1996). Recent research has repeatedly confirmed this relationship, demonstrating a one-standard deviation increase in teacher quality produces significant improvements in reading and math test scores (by approximately .20 and .24 standard deviations, respectively) on a nationally standardized scale (Rockoff 2004).

In addition, school leadership has been shown to be second only to teaching quality as an influence on pupil learning (Leithwood, Harris, & Hopkins 2005). Recent theorizations of educational leadership suggest that it should be viewed as an organizational quality, practiced and shared among a variety of individuals within a school, rather than centered on individuals (Spillane Halverson & Diamond 2004). Further, the effects of school leadership on student achievement, which accounts for up to 20% of the variance in test scores across schools, are indirect and mediated through teacher motivation. In other words, the impact of leadership is evidenced through its impact on teaching (Leithwood & Mascall 2008).

Our approach has been carefully developed and refined based on this research to successfully address the two greatest influences on student achievement: teaching quality and

shared school leadership. Our job-embedded, inquiry-based approach to teacher and leadership development directly responds to evidence suggesting that achieving changes in instructional practice and student achievement requires professional development that is collaborative (Cordingley, Thomason & Firth 2005), coherent (Desimone, Porter, Garet, Yoon & Birman 2002), focused on instructional practice (Borko 2004), and sustained over time (Yoon, Duncan, Lee, Scarloss & Shapley 2007). Such professional development has been demonstrated to boost student achievement by up to 21% (Yoon et al 2007).

Since its inception in 2003, the University of Florida’s Lastinger Center has grown as a state leader in the design and provision of job-embedded teacher development. The outcomes produced by the Lastinger Center are impressive and are consistent regardless of location. Students in partner schools outperformed their matched peers in reading and math across a three-year study, with statistical significance in 5 of the 6 comparisons (Leite, Adams, Ross, Butler, & McInnes 2008); teachers in partner schools improved the instructional support provided to children, particularly in the development of students’ higher order thinking (Poekert, 2008); and a strong predictive relationship between collaborative school culture and positive student outcomes was established, including fewer suspensions and increased attendance (Ohlson, 2009). Such results recently led the Florida Department of Education to name the Lastinger Center as a “highly effective program” recommended for district investment of ARRA stimulus funding.

The current literature and this preliminary research demonstrate the potency of this proposal to create a job-embedded, inquiry-based approach to graduate education and professional development for highly talented early childhood educators and their school administrators. Building on previous success, this proposal hold great promise to:

- Establish a model for other higher education institutions and school districts of job-

embedded teacher development for early childhood (pre-K through third grade) that has a measurable impact on teaching and children’s learning.

- Improve the efficacy, effectiveness and job satisfaction of early childhood educators in low-income schools.
- Significantly increase student achievement in schools and close the achievement gap between students at high risk of school failure and their more privileged peers.

### **Experience of the Eligible Applicant**

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Miami-Dade County Public Schools (M-DCPS), the University of Florida, The Early Childhood Initiative Foundation and the W. K. Kellogg Foundation are core partners in Ready Schools Miami, an ambitious effort to improve Miami’s educational system serving children from birth to age eight. Ready Schools Miami was born from SPARK Florida, a pilot program in eight M-DCPS elementary schools which better connected early care and education providers with principals and teachers. Building on the successes of SPARK, the partner created a more inclusive model that is now being used with all 255 elementary and K-8 schools. Ready Schools Miami is improving early learning through quality improvement efforts; developing teachers and principals through learning communities and the job-embedded master’s degree; connecting schools, families and early care and education providers through effective transition and alignment initiatives; and connecting health and dental services to young children.

**The University of Florida’s Lastinger Center for Learning** spearheads the Florida Master Teacher Initiative and coordinates the school-based components of Ready Schools Miami, including creating principal and teacher learning communities, guiding teacher-fellows and providing job-embedded master’s degrees. The Lastinger Center is an endowed outreach center within the College of Education and is a leader in developing innovative models,

strategies and approaches to improve student learning and healthy child development. One recent study of the Center's work found that students in Lastinger-partner elementary schools scored significantly higher on the mathematics FCAT (Florida Comprehensive Assessment Test) for three straight years and on the reading FCAT during two of those three years compared to students in non-Lastinger control schools (Leite et al. 2008). In the last two years the Lastinger Center has created over \$8 million in contracts with school districts in Jacksonville, St. Petersburg/Clearwater, and Naples/Imokalee. The Lastinger Center also manages an endowment of over \$4 million and since 2006 has managed grants totally \$35 million from numerous foundations (including the Jim Moran Foundation, Wells Fargo Foundation, Mercantile Bank Foundation, Naples Children and Education Foundation and the Helios Education Foundation), as well as an annual appropriation of \$1.25 million from the Florida legislature.

**The Early Childhood Initiative Foundation** is a national leader in the early learning movement working to ensure universal schools readiness for all children. The Foundation is also a key partner in Ready Schools Miami, coordinating the extensive prenatal through elementary school partnerships that are improving children's readiness for and success in school. They have been instrumental in connecting foundation and community funding to early learning providers and elementary schools to scale the Ready Schools Miami model and are a leader in both Florida and across the nation in developing innovative initiatives, public-private partnerships, and generating new public investment for children. ECIF expends approximately \$2.5 million annually and has managed grants of over \$10 million from the W. K. Kellogg Foundation, \$5.5 million from the Katcher Family Foundation, \$2 million from the Dan and Jan Lewis Foundation, and grants of \$1 million each from the John S. and James L. Knight Foundation and the Emily Hall Tremaine Foundation.

**Miami-Dade County Public Schools** is the fourth largest school district in the nation and serves more than 340,000 children daily. Miami-Dade County Public Schools has a long history of successful grants administration. In the last 5 years the district has secured (either directly or as a lead partner) \$17.6 million in grants from the private sector and \$1.86 billion in grants from the state or federal government. The district has been in full compliance on each of these grants and has received ongoing awards from many of our public and private sector partners as a result of its stellar grants administration and meeting or exceeding the proposed targets. Many of the initiatives started through grants have been integrated into the district's ongoing work.

The district's efforts to develop innovative approaches to meet the educational needs of our children is paying off – recent data confirms that they have made significant gains in every sub-group, are closing achievement gaps, and showing improved graduation rates and decreased dropout rates. This progress is particularly significant because they are making forward progress on all fronts in an era marked by severe budget cuts (the District has incurred \$400 million of decreases in state total potential funds since 2007-2008) and disruptions around the Caribbean and Latin America (such as the recent earthquake in Haiti) which force families to move to our District under the hardest of circumstances. District achievements include:

***District and School Grades:*** M-DCPS earned 521 points on the Florida grading system in 2009 for an overall grade of “B,” only four points short of an “A.” We met the State's other requirements for an “A” (more than 95% of students were tested and the lowest scoring students made adequate progress in reading and mathematics). More than half (58%) of our schools received a 2009 performance grade of “A.”

***Broad Foundation Finalist:*** M-DCPS has been a three time finalist for the Broad

Foundation Prize for Urban Education, an annual \$2 million award honoring urban districts making the greatest progress nationwide in raising achievement. This nomination recognized:

- ***Overall Improvement:*** Miami-Dade showed greater overall improvement than other Florida districts serving similar income levels in reading at all grade levels over a three year period and was more successful than the state of Florida in increasing the percentage of all students who achieved proficiency in reading and math at all grade levels.
- ***Better Subgroup Improvement:*** Miami-Dade’s African-American students showed greater improvement than their peers in similar Florida districts in reading and math at all grade levels and Hispanic students showed greater improvement than their peers in similar Florida districts in reading at all grade levels and in middle and high school math. Rates for African-Americans and Hispanics taking the SAT, ACT, and Advanced Placement exams also rose.

**Student Performance on FCAT Reading.** The FCAT Reading is administered to all students in grades 3 - 10. Last year the percent scoring at Achievement Levels 3-5 (the highest levels) increased at all grade levels, except in grades 3 and 8. The majority of District students in grades 3 - 7 scored at the higher achievement levels. The chart below illustrates the improvement trends in FCAT Reading Levels in the higher performance levels from 2006 to 2009.

**Reducing the Achievement Gap.** Comparison of 2008 and 2009 FCAT data shows that the District continues to make progress in closing the reading, mathematics and science gap for minority students. African-American students closed the reading gap with White students in 5 grade levels; Hispanic students closed the reading gap with White students in 6 grade levels. African-Americans closed the math gap with Whites in five grade levels. Hispanics closed the math gap with Whites in seven of eight grade levels tested.

*2008 to 2009 Changes in the Achievement Gap FCAT Percent Levels 3-5*

	Black-White Reading	Hispanic-White Reading	Black-White Math	Hispanic-White Math
Grade 3	0%	-2%	0%	-1%
Grade 4	-4%	0%	-3%	-1%
Grade 5	-3%	-1%	-6%	-1%
Grade 6	-1%	-1%	-1%	-1%
Grade 7	3%	0%	2%	0%
Grade 8	3%	-1%	0%	-1%
Grade 9	-2%	-1%	-6%	-4%
Grade 10	-3%	-2%	-7%	-1%

The FCAT Science exam is administered to all students at grades 5, 8, and 11. African Americans closed the science gap with Whites by 2% at grade 5 and by 1% at grade 11. Hispanics closed the science gap with Whites by 1% at grades 8 and 11.

**Gains by Subgroups.** For *each* subgroup the percent scoring Level 3 and above in FCAT Reading increased from 2008 to 2009. The percentage of economically disadvantaged students scoring at Level 3 and above increased from 48% in 2008 to 51% in 2009, English Language Learners (ELL) increased from 40% to 45%, and students with disabilities increased from 29% to 31%. Similarly, the percent of students scoring at Achievement Levels 3 and above in FCAT Mathematics increased from 2008 to 2009 for each of three student subgroups: economically

disadvantaged scoring at Level 3 and above increased from 55% in 2008 to 58% in 2009, ELLs increased from 52% to 57%, and students with disabilities increased from 33% to 35%.

**Dropout Rate.** The cross-sectional dropout rate is expressed as a percentage of the membership for the entire school year. The dropout rate for 2008-2009 across grades 9-12 was 3.7%. The table below includes a breakdown of the rates by grade and across grades for 2007-2008 and 2008-2009. The dropout rates are considerably lower in 2008-2009.

<b>Grade</b>	<b>2008 All Year Membership</b>	<b>No. of Dropouts</b>	<b>Dropout Rate</b>	<b>2009 All Year Membership</b>	<b>No. of Dropouts</b>	<b>Dropout Rate</b>
9	31,995	1,581	4.9%	27,753	963	3.5%
10	30,667	1,743	5.7%	30,243	1,169	3.9%
11	25,458	1,141	4.5%	24,998	899	3.6%
12	25,211	1,094	4.3%	25,605	1,030	4.0%
9 - 12	113,331	5,559	4.9%	108,599	4,061	3.7%

**Long-Term Trends in Graduation Rates.** The graduation rate has improved by almost 10% since 2006. All of this improvement shows that M-DCPS is ready to lead this project and scale it up for the benefit of other communities who could utilize this model.

## **Project Evaluation**

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SRI International will conduct an independent evaluation of the Florida Master Teacher Initiative. The evaluation will include a formative component to provide feedback for improvement as well as a randomized control trial to determine the impact of the Initiative on teacher knowledge and performance, school culture, and student achievement. For the past two years, SRI has been evaluating the Ready Schools and the Lastinger Center model for school improvement and will build on the instrumentation and methodology already developed.

Through a *formative evaluation*, SRI will (1) identify problems or challenges in the implementation of program fidelity; (2) work collaboratively with University of Florida faculty to identify ways to make midcourse corrections or to enhance program quality; (3) assess progress (including the number of teachers participating in the job-embedded graduate program and the Teacher and Principal Fellows programs, their demographics, and the

extent of their participation in program components); and (4) document how the program works to support replication. SRI will gather formative data through interviews, participation data, and surveys.

- *Interviews.* SRI will conduct semistructured interviews in the spring of 2012 and 2013 with key stakeholders, including principals, teachers participating in the job-embedded graduate program and the Teacher Fellows Program, and professors-in-residence to learn about participation in the programs, inquiry projects, typical instructional strategies and changes made over time, teachers' sense of professional community, participation in and assessment of professional development, and perceived changes in student learning. Interviews also will cover aspects of the Initiative that seem to be going well, factors that supported teachers in continued participation, and suggestions for strengthening areas needing improvement.
- *Participation data.* SRI will collect and analyze data on levels of participation in the various programs, such as counts of Teacher Fellows who begin and complete inquiry projects, and participation and completion of coursework in the job-embedded graduate program.
- *Teacher surveys.* SRI will administer teacher surveys that will be used for formative and summative purposes. They are described in the summative evaluation below.

The *summative evaluation* will employ a randomized control trial to determine the impact of the Florida Master Teacher Initiative on teachers and students and test how teacher characteristics and participation levels influence outcomes. The evaluation will involve 50 Title 1 elementary schools. SRI will randomly assign schools to either the treatment or control condition, with 25 schools in each condition. The summative evaluation will include:

- **Teacher Outcome Measures.** SRI will survey the population of teachers in both treatment and control schools each fall. The survey will include questions about instructional practices, participation in inquiry practices and learning communities, teacher efficacy, school context, perceptions of growth in teaching skills, participation in professional development activities, and teacher demographics. Treatment participants will receive additional questions about participation in their respective programs, reasons for enrolling in those programs, types and frequency of supports received, and the perceived quality of those supports.

To assess changes in teaching skills, SRI will conduct repeated classroom observations using the Classroom Assessment Scoring System (CLASS) observation tool with the 50 pre K-3 teachers participating in the first cohort of the job-embedded graduate program and 50 matched teachers in the control schools (e.g., similar years of experience and grade-levels being taught). Observations will be conducted in the fall of each year (at baseline, after 1 year, and after 2 years of participation).

- **Impact of Job-Embedded Graduate Program on Student Outcomes.** SRI will compare performance on standardized tests (SAT10 in grades 1 and 2, FCAT in grades 3+) of students taught by job-embedded graduate program participants with students taught by teachers in the control schools. Although schools are randomly assigned to the treatment or control group, teachers attending the job-embedded graduate program in treatment schools may differ from other teachers in educational background, prior experience, or motivation to improve, which may be closely related to teacher outcomes. This selection bias makes it inappropriate to compare teachers attending the job-embedded graduate program with all teachers in the control schools for estimating the effect of the job-embedded graduate program. There are two possible methods to address this issue: an instrumental variable (IV) approach and a matching approach. The instrumental variable approach uses instrumental variables (i.e., being in a school randomly assigned to treatment) that are correlated with treatment attendance (attending the job-embedded graduate program) but are not otherwise related to the outcome to predict treatment attendance, and then estimates treatment effect on the outcome using the predicted treatment attendance. Propensity score matching, mahalanobis matching, or simple individual variable matching would be an alternative

method to reduce selection bias. We will explore the feasibility of these two approaches in the beginning of the evaluation period and decide on the most optimal method for this study.

- **Impact of Full Intervention Model on School-wide Student Outcomes.** Because the Florida Master Teacher Initiative is intended to raise the level of student achievement school-wide, SRI will track trends in school-level standardized mathematics and reading scores for both the treatment and control group schools using the SAT-10 in grades 1 and 2 and FCAT in grades 3-6. Finally, SRI will track teacher retention for both treatment and control schools, accounting for reasons teachers leave (e.g., reductions in force, non-renewal of contract).
- **Power Analysis.** SRI conducted a power analysis showing the minimum detectable effect (MDE). The MDE of the Florida Master Teacher Initiative on teacher outcomes comparing all teachers in treatment and all teachers in control schools is 0.27<sup>2</sup>. The MDE for effect on job-embedded graduate program teachers will be higher. The MDE of the intervention on school-wide student outcomes is 0.18<sup>3</sup> and the MDE for student outcomes of job-embedded graduate program teachers will be higher than 0.20.
- **Data Analysis.** SRI will examine the overall effect of the intervention each year as well as change across years by conducting a three-level hierarchical linear modeling (HLM) model with levels for student, teacher, and school to apportion variance appropriately. To improve the precision of the estimate of impact, the model will include covariates for students (e.g., gender, free or reduced lunch status, prior achievement scores), teachers (e.g., years of experience), and schools (e.g., school size) that are expected to correlate with change in

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<sup>2</sup> The calculation is based on a two-level HLM model (student and school levels) with treatment effect estimated at the school level with 80% power and 5% significance level, assuming 18 surveyed teachers in each of the 50 schools, 10% of the total variation at the school level, and 30% of the between-school variation explained by covariates.

<sup>3</sup> The calculation is based on a three-level HLM model (student, teacher, and school levels) with treatment effect estimated at the school level with 80% power and 5% significance level, assuming 25 tested students for each of the 18 teachers in each of the 50 schools, 10% of the total variation at the school level, and 60% of the between-school variation explained by covariates.

achievement. SRI also will create regression models to examine the individual contribution of participant’s background, experience, school context, and participation in job-embedded graduate program and Fellow Programs on student outcomes.

SRI will produce three annual reports that will be delivered by September 30 of 2012, 2013, and 2014, if the program officer approves of this schedule. Additionally, SRI will work with the applicant partners to identify appropriate venues to share findings with broader audiences (e.g., professional conferences, media releases, peer-refereed journals).

Finally, SRI has extensive experience with meeting FERPA guidelines and requires that all SRI research involving collection of data from adults and children be reviewed and approved by its federally approved institutional review board (IRB) before data collection can commence.

### **Strategy and Capacity to Further Develop and Bring to Scale**

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This proposal will provide a job-embedded master’s degree in curriculum and instruction with a specialization in early childhood education for a total of 100 teachers and engage 375 Teacher Fellows and 25 Teacher Fellow Facilitators annually (for a total of 1,125 Teacher Fellows and 75 Teacher Fellow Facilitators over the life of the project) to directly improve learning experiences for 30,250 children in high need schools. Demand for the existing job-embedded master’s has exploded in the last three years and local demand far exceeds available funding. The University of Florida has experienced tremendous growth over the last five years as their model has been successfully replicated in a growing number of Florida’s largest urban districts, demonstrating that this model scales successfully when implemented with rigor by credentialed professors who are committed to this cutting-edge model of professional development.

The cost of reaching 100 teachers and 1,125 Teacher Fellows over four years is \$6.4 million. Including indirect costs, the development cost will be \$453,786 across all four years to compensate the senior faculty involved in the development of the early childhood specialization

coursework and continuous evaluation and refinement of the model. The ongoing costs will average \$28,698 per teacher who receives a master's degree, \$584 per Teacher Fellow, and \$946.67 per Principal Fellow. On average, the approximate per student cost is \$211.57 (compared to \$916.51, the estimated cost of losing one teacher in an urban district [National Scientific Council on the Developing Child 2007]). If we were to serve 100,000 children the annual cost would be \$21.1 million, 250,000 children would be \$52.8 million, and 500,000 children would be \$105.7 million. These costs are only a snapshot since the teachers will continue to apply their skills year after year, providing significant savings and improved educational attainment for children for many years to come as a result of this upfront investment.

The partners are deeply committed to expanding access to this work and will provide information, technical assistance, and open access to the supporting materials to any school district that wants to replicate this work. They will document the results of this work and present the findings and processes that made them possible in professional journals, conferences, and to peers at national gatherings. Additionally, the partners are developing new models that maximize technology and transform the traditional provider/teacher training model. They will create an open-source platform that will allow providers/teachers to define their own learning by accessing a wide variety of training materials, class syllabi, readings, projects, and materials accessible to at any time for no fee. This platform will also include video clips of best practices, forums to share and problem solve with other teachers, and opportunities to share effective practice with peers. Providers/teachers who wish to may build on this experience and take full trainings, classes for credit, or pursue a degree on-line all while engaging with peers around the nation.

## **Sustainability**

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All of our core partners have the proven ability to fund or obtain the resources needed to scale programs. The M-DCPS is the fourth largest school district in the nation with a budget of over \$5.1 billion. The District leverages its funds through a number of vehicles including a private educational foundation, cost-sharing agreements with local governments, and partnerships with nonprofits and for-profits throughout Miami-Dade. The superintendent and senior leadership at the school district, principals throughout the community, and teachers themselves are highly engaged and excited about the work of the Lastinger Center. United Teachers of Dade, the union for teachers in Miami-Dade County, is very supportive and engaged with the work of Ready Schools.

Since its inception in 2006, the Lastinger Center's work has grown quickly as a result of strong local relationships, partnerships, and results; it is already spreading throughout Florida with significant professional development projects Miami-Dade County (2 years, \$1.2 million), Duval County (Jacksonville; 4 years, \$3.8 million), Pinellas County (St.Petersburg/Clearwater; 1 year, \$2 million), and Collier County (Naples/Immokalee; \$800,000).

The Early Childhood Initiative Foundation has helped create sustainable new public revenue for children in Miami-Dade by leading the effort to establish a county-wide property tax for children, The Children's Trust, that generates between \$100-160 million annually, and state-wide, through advocacy that resulted in a constitutional amendment that created a universal, voluntary state-funded voluntary pre-Kindergarten program for all 4 year olds in Florida. This policy expertise will be central to ensuring sustainability of this work.

The goal of sustainability has been a priority since the inception of this work. In 2009 the Lastinger Center secured an ongoing, annual appropriation of \$1,250,000 from the Florida

Legislature for its work and was a key partner in Florida’s Race to the Top application that came in 4<sup>th</sup> in the national competition. The relationships built and planning required to complete the this proposal strongly positioned the Lastinger Center throughout the state. The Lastinger Center is in conversations with numerous school districts that are interested in partnership to replicate the successful professional development and job-embedded master’s work in their communities.

We are clear, however, that ongoing public funding is the best way to ensure the sustainability of this work. We are pursuing this in three ways. First, we are working with district leaders to re-allocate existing funding, such as existing professional development funding, Title I funding, and other existing resources. Miami-Dade County Public Schools leaders are actively working to embed this work in these funding streams and anticipate a growing share of this funding will go toward job-embedded professional development. There are examples from other districts that will be used to support this reallocation. Second, we already work closely with The Children’s Trust, a local property tax for children that generates between \$100-160 million annually, on the overall work of Ready Schools and have helped embed 130 health clinics in schools throughout the community and improve the quality of child care programs in over 450 facilities through our local quality rating improvement system. The Children’s Trust just completed strategic planning that resulted in a decision to invest more resources in early childhood. We will work closely with them to develop ways for some of this ongoing, annual funding to be dedicated to job-embedded teacher development. Third, we will work closely with our partners in the Legislature to continue to educate them about the outcomes of the Florida Master Teacher Initiative and the ways in which it is improving achievement and reforming low-performing schools. We have also strategically developed relationships with political, business, civic, and philanthropic leaders across the political spectrum and will deploy these partnerships

to work for increased public investment and expansion of this work. The results of the experimental evaluation will be central to these efforts. These sustainability strategies will be open-sourced and part of the information and support provided to others to scale this work.

### **Quality of the Management Plan and Personnel**

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The project will be implemented collaboratively and each organization will have different lead responsibilities: 1) M-DCPS will coordinate district resources and leadership, identify and recruit teachers serving high-need students, provide fiscal management, and steward the project overall; 2) The University of Florida will lead the implementation and codification of the Florida Master Teacher Initiative, including the master’s program and professional development for teachers and principals; 3) The Early Childhood Initiative Foundation will contribute to the development of the early childhood concentration and manage private and community support.

The project director will be **Dr. Magaly C. Abrahante**, Assistant Superintendent, Title I Administration, Early Childhood Programs and Summer Services. For the past six years, Dr. Abrahante has directed the \$240 million Title I Program in Miami-Dade’s 357 public schools (serving approximately 260,402 students), 57 participating private schools, and 14 centers that serve Delinquent, Neglected and Homeless children. She started her career as a math teacher in 1983 and has held numerous positions in the District including being a high school assistant principal, directing a dropout prevention program, managing the District’s relations with charter schools, and being the Chief Personnel Officer. Other key program personnel include:

- **Dr. Marisel Elías-Miranda**, Administrative Director, Early Childhood Programs, leads all the District’s early learning programs. She has been in elementary schools as a principal, assistant principal, and teacher, has coordinated numerous district-wide projects and served on the American Hispanic Educators’ Association Board, the Mayor’s Champion Our Children Early

Childhood Initiative, and the National Black Child Development Institute’s Task Force on Building Collaborative Partnerships in African-American and Latino Communities.

- **Dr. Donald P. Pemberton**, Director, University of Florida Lastinger Center for Learning, has founded and led three of Florida’s most innovative education initiatives: the Pinellas County Education Foundation (one of the earliest and most effective public/private urban education partnerships); Take Stock in Children (a statewide organization providing mentors starting in 6<sup>th</sup> grade through college scholarships to low income children); and the Lastinger Center for Learning, dedicated to improving the quality of teaching and learning in high-need schools.
- **Dr. Patricia Snyder**, David Lawrence, Jr. Endowed Chair in Early Childhood Studies at the University of Florida, came to the University in Fall of 2007 after being a Professor of Pediatrics and Director of Research, Center for Child Development (CCD) at Vanderbilt University Medical Center. Dr. Snyder is principal investigator for the embedded instruction project funded by the Institute of Education Sciences (IES), co-principal investigator for TEIDS Plus and for an IES-funded project examining the potential efficacy of a classroom-wide model for promoting social emotional development and addressing challenging behavior in preschool children.
- **Dr. Philip Poekert**, Professor-in-Residence, University of Florida College of Education, acts as the district manager for the Lastinger Center for Learning’s partnership in Miami-Dade. He teaches courses within the Teacher Leadership for School Improvement graduate program and designs and facilitates teacher and principal professional development. Dr. Poekert is recognized as National Facilitator by the National School Reform Faculty.
- **David Lawrence Jr.**, President, The Early Childhood Initiative Foundation, retired in 1999 as publisher of The Miami Herald to dedicate his life to improving early childhood development

and readiness. His achievements include: the successful campaigns for the creation of The Children’s Trust and a constitutional amendment to provide voluntary pre-K for all 4 year olds.

- **Ana Sejeck**, Chief Operations Officer, The Early Childhood Initiative Foundation, has been the program director for two Kellogg Foundation-funded programs and is a board member of the Lastinger Center, the Sant La: Haitian Center and is a trustee of local United Way.
- **Dr. Marjorie Wechsler**, Senior Policy Analyst, SRI International’s Center for Education Policy, is currently the principal investigator for the evaluation of the University of Florida’s comprehensive school reform model and the co-principal investigator for the evaluation of the broader Ready Schools initiative. Dr. Wechsler is the co-principal investigator of an evaluation design of Erikson Institute’s New Schools Project, principal investigator of the evaluation of College Bound, and a senior researcher on the Teaching and California’s Future project, a study of teacher preparation, induction, and professional development in California.

The partners are ready to begin implementation upon awarding of this grant and will complete the project in 48 months. The chart in Appendix H shows implementation dates for all the project tasks.