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Absolute Priority and Competitive Preference Priorities of the Project

Absolute Priority 4 – Innovations that Turn Around Persistently Low-Performing Schools

All schools proposed for the implementation of intervention services and for the evaluation meet the definition for Title I schools that are in corrective action (CA), Restructuring 1 (R-1) or Restructuring 2 (R-2) under section 1116 of the ESEA. Some of the schools also meet the definition for persistently lowest-achieving schools (see Table H-1 in Appendix H). The proposed intervention is a targeted approach to reform and provides significantly more time for students in kindergarten to third grade to learn core academic content by expanding the school year. Specific strategies for addressing this priority are described in Sections A-G of the Project Narrative.

Competitive Preference Priority 5 – Innovations for Improving Early Learning Outcomes

The K-3 Plus intervention provides services to students pre-kindergarten to pre-third grade and the project evaluation focuses on the effects of ESY in helping to prepare young children for kindergarten and thus close the achievement gap for high-need early childhood students. The intervention design is described in Section A and the literature to support early childhood ESY services.

Competitive Preference Priority 7 – Innovations to Address the Unique Learning Needs of Students with Disabilities and Limited English Proficient Students

It is estimated that 114 students with disabilities will be served in the experimental K-3 Plus ESY classrooms, providing great opportunities for inclusive summer services in Years 1 and 5, doubling that number in Years 2, 3 and 4. We estimate that at least 17% of the 570 students per year per cohort will be limited English proficient students. Outcome data for these students will be collected and analyzed to determine whether K-3 Plus has a positive effect on academic and social skills for these students (see Section D and Appendix H).

Competitive Preference Priority 8 – Innovations that Serve Schools in Rural LEAs

Gallup-McKinley school district also meets the 2009 rural low-income school program eligibility and K-3 Plus ESY services will be implemented for 150 students in Gallup-McKinley schools in Years 1 and 5 of the project and 300 students in Years 2, 3, and 4. The same number of students will be enrolled in the control group and students in both groups in all 5 years will be a part of the evaluation. We will examine whether there are differential summer activities for students in rural areas that increase summer learning loss that is remediated by K-3 Plus and we will evaluate cost differences for implementing K-3 Plus in rural versus urban schools and LEAs.

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

This proposal is for a randomized control trial (RCT) to conduct a cost-effectiveness analysis (CEA) of an Extended School Year (ESY) intervention known as the K-3 Plus Program which is currently being piloted with high-need students in New Mexico (NM). It applies rigorous scientific methods to an intervention at the forefront of President Obama's school reform effort in a state where more than 50% of children are Hispanic, 11% are Native American, and 24% lived in poverty in 2008 (Kids Count data book). In 2009, the percentage of New Mexico schools failing to meet Adequate Yearly Progress (AYP) jumped from 58.5% to 68.3%. The number of schools in restructuring doubled from 84 to 171 (NEA, 2009). This validation study is exceptional in the methods, the intervention to be evaluated and the population that will be served. New Mexico's K-3 Plus is the first state pilot project that extends the school year to 205 days for high-risk early childhood students—a significant increase to the 180 days that are provided to the majority of students in the U.S. (Bickford, 2009).

Applicant and Partners

The applicant for this award is Utah State University (USU), and official partners include New Mexico Local Education Agencies (LEAs) Gallup-McKinley, Albuquerque, Las Cruces,

and Gadsden,; and New Mexico State University (NMSU). These official partners will receive subgrants to provide services and assist with research activities for this award. New Mexico State Public Education Department (NM PED) and the New Mexico Office of Educational Accountability (NM OEA) are unofficial partners to help to disseminate and take to scale the effective K-3 Plus practices and strategies identified as a result of this validation study.

Intervention Design

The purpose of New Mexico K-3 Plus is to narrow the achievement gap for disadvantaged students by increasing academic skills. K-3 Plus is designed to improve early literacy and numeracy achievement, minimize summer learning loss, and provide safe, alternate opportunities for disadvantaged students. Schools and school districts apply to the state's Public Education Department (NM PED) for K-3 Plus funding. The 2007 K-3 Plus New Mexico state legislation specifies the target population which is kindergarten to third grade, the intensity of the program and the school funding process. The main components of K-3 Plus legislation includes:

1. A minimum of 25 additional full days in smaller class sizes
2. Instruction focused on literacy, math, social skills, arts, and physical education.
3. Provision of transportation, breakfast and lunch
4. Professional development training in literacy
5. Teachers certified in Elementary Education, with a minimum of a Bachelor's degree
6. A parental involvement component

This study will measure the impact of increased instructional time on costs and resources as well as literacy, numeracy, and social skills of students. The K-3 Plus intervention began in the summer of 2007. The New Mexico legislature is seeking evidence that it makes a difference for high-need students served by their public schools. Without that evidence, the K-3 Plus program may not be continued or scaled-up. It is time to find out whether high quality summer school

programs can significantly improve academic achievement and other outcomes—such as reduced special education services and increased employment—for high-need students and their families.

Validation Study All of the schools that will implement the K-3 Plus ESY intervention as part of this project are low-performing schools as described in the beginning of the proposal narrative. The intervention funding provided through this validation grant to support K-3 Plus services for experimental group students will supplement (and not supplant) existing state K-3 Plus funds and will pay for ESY services for students who otherwise would not receive them. These services will be implemented consistent with the New Mexico K-3 Plus statute and NM PED policies and regulations. The study sample includes schools and students that are the focus of the state legislation (85% or more Free or Reduced Lunch [FRL]) and a broader sample of students and schools that qualify under AYP status as low performing schools and may have fewer than 85% FRL eligible students.

LEA staff in the four partner LEAs will recruit families and students in the spring prior to kindergarten in AYP status-eligible schools to participate in the RCT. LEAs will receive \$2,000 per student from this grant to provide K-3 Plus intervention services for students in the experimental group. LEAs will also receive \$100 per experimental group student and \$25 per control student for research-related costs. In Spring 2011, USU staff will randomly assign the first cohort of pre-kindergarten students to K-3 Plus ESY services or to the control group. The same process will be repeated for a second pre-kindergarten cohort in Spring 2012. Parents of all students in the study will be paid \$100 at the time of enrollment and first assessment and \$50 per subsequent assessment. A subsample of families in each group will be invited to participate in focus groups.

The state of New Mexico currently funds K-3 Plus intervention for approximately 7,000 students throughout the state in eligible schools. Rigorous comparisons of the costs and

outcomes of K-3 Plus compared with the alternative summer break are essential to replication and scale-up. The 2008 average K-3 Plus expenditure per student for services, including transportation, was \$1,622 (Goetze & Price, 2009). The intervention is intensive and relatively inexpensive to implement.

High-Need Students

New Mexico serves some of the most diverse students in the nation. K-3 Plus is being implemented in small, remote, rural schools and in large urban schools with broad representation of minority students. In 2008-09, K-3 Plus enrollment consisted of 6.8% Caucasian, 1.5% Black, 72.5% Hispanic, 0.4% Asian or Pacific Islander, and 18.8% American Indian students (Goetze & Price, 2009).

K-3 Plus dual language classrooms are common. Teacher surveys showed that 41% of K-3 Plus teachers held a license in Teaching English to Speakers in Other Languages (Goetze & Price, 2009). In 2007-08, 57,000 students in New Mexico (about 17% of New Mexico's student population) were served in bilingual programs and 9,300 of those were in dual language immersion classes (Garcia, 2009). Approximately 17% of students served in K-3 Plus classrooms have an Individualized Education Plan (IEP). Teachers and administrators reported that K-3 Plus is a great opportunity to deliver inclusive ESY services to students with disabilities. This diversity, of the ESY services, schools, teachers, families and students will be captured by the measures proposed for the study, as shown in Table H-2 in Appendix H.

Goals and Objectives

The goals and objectives of the proposed validation study directly address Absolute Priority 4, and will provide evidence to support wider implementation of this targeted approach to educational reform. The project goals and objectives are presented in Table 1 and specific strategies, milestones and outcomes for accomplishing the objectives are provided in Section G –

Management and Personnel.

Table 1: Goals and Objectives of K-3 Plus Validation Study

Goal #	Description/Objectives
1	<p>Determine the cost-effectiveness of K-3 Plus in reducing the student achievement gap for students in low performing schools in Kindergarten through Grade 3.</p> <p><i>Objective 1:</i> Rigorously evaluate and measure the short and long-term outcomes associated with K-3 Plus.</p> <p><i>Objective 2:</i> Evaluate the mediating and moderating variables that impact the outcomes achieved with the K-3 Plus intervention.</p> <p><i>Objective 3:</i> Identify the resources and costs used to support effective extended school year intervention services in diverse rural and urban schools and LEAs.</p> <p><i>Objective 4:</i> Analyze cost-effectiveness of the K-3 Plus intervention for high need diverse students in low performing rural and urban schools.</p>
2	<p>Use the cost-effectiveness findings as a basis for replication and scale-up of the K-3 Plus intervention in New Mexico and to support, implement and tailor the extended school year intervention to meet the needs of diverse students and schools in other regions of the United States.</p> <p><i>Objective 5:</i> Disseminate K-3 Plus cost-effectiveness evidence to New Mexico constituents to support scale-up.</p> <p><i>Objective 6:</i> Develop national ESY program recommendations based on study findings to support broader replication and scale up.</p> <p><i>Objective 7:</i> Disseminate the cost-effectiveness analysis findings to support sustainability, replication and scale-up at a national level.</p>

Moderate Evidence Supports an Early Childhood ESY Services Validation Study

There is compelling evidence to support a more rigorous evaluation of ESY services for high-risk students, particularly during early childhood. President Obama and Secretary Duncan have called for an expansion of the school calendar to increase the competitive advantage for U.S. students relative to those in other countries (Pauslson, 2009; Thomma, 2009). Many argue for ESY based on data that show U.S. students' average school year is 180 days and these students have lower test scores than students in other countries whose average school year is 200 days.(Bickford, 2009). These international comparisons raise interest in ESY as a strategy to

increase the U.S. competitive advantage at home. However these are simple correlations and do not provide causal evidence to link more school days to higher test scores.

Table in Appendix H shows moderate evidence—studies with high internal and moderate external validity—to support the proposed validation study to evaluate the effectiveness of ESY services on student outcomes. This table summarizes the most relevant evidence by author and title and describes the internal and external validity level for each study. It also includes differences and similarities in context between those studies and the proposed project—such as student age or grade, intervention quality and quantity, and student socio-economic or demographic variables that may increase or decrease the generalizability of the study findings to New Mexico’s K-3 Plus intervention. The studies in Table 2 are described in Section B.

In addition, the recommendations made by (Cooper,2000) in an ESY meta-analysis underscore the need for this project and are consistent with the intervention, methods and target population proposed in this study: that the intervention should be based on a curriculum that includes reading and math; that it include a rigorous evaluation and that it allow local control over curricula and delivery systems. He strongly recommends that future research include cost and cost-effectiveness analysis of the intervention which has been largely absent in past research.

This study will provide strong evidence—using a rigorous experimental design—about the cost-effectiveness of early childhood ESY services for high-need students. This validation project will take the evidence base for ESY to the next level—the level needed to validate the effects of ESY to support its replication and scale-up in New Mexico and elsewhere in the U.S.

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

Strength of Research

In examining supporting evidence for extending New Mexico’s K-3 school year by 25 days, it is important to consider the type of extension being studied. According to the National

Center on Time and Learning database of 655 schools, expanded-time schools typically chose to extend the length of the *day* (e.g., longer hours or after-school programming) rather than the length of the *school year* (Farbman, 2009, 2010). Studies too numerous to list here reported results of ESY interventions for children with disabilities. Whenever possible, research cited in this section excludes studies on extended length of school day and includes studies dealing with days added to the school year—programs typically labeled as “summer school.”

Several relevant research studies which rise to the level of moderate-strength evidence for the potential success of K-3 Plus are shown in Table 2. For example, results from the quasi-experimental, randomized placement study reported by Angrist and colleagues (2010) show significantly greater gains in both reading and math for the treatment group. This study of the Knowledge Is Power Program (KIPP) with 457 matched students in grades 5-8 extended both the school days and the number of days in the school year. Teachers were specially trained and class sizes were small with student-teacher ratios of about 14:1. The student population, while older than the proposed study, was similar to the proposed K-3 Plus Validation Study in that students were mostly Hispanic, almost 80% qualified for FRL, and about one fifth were limited in English proficiency. Effect sizes of 0.35 for math and 0.12 for English language arts were reported. As with other studies in Table 2, this study has high internal validity and moderate external validity for the proposed K-3 Plus Validation study.

Significance of Effect

Notably, studies shown in Table 2 lend credence to the likelihood of finding significant effects in improving student achievement with a proposed sample size of 1,140 students per cohort year in the K-3 Plus Validation Study. Using Cohen’s (1988) *d* metric, these studies found effect sizes ranged from about .12 to nearly .6. To ensure that we can capture even small effects, we conducted a power analysis (Appendix H: Detailed Evaluation Plan) which shows that for an

Table 2: Selected Studies Providing Moderate Evidence of Potential Effectiveness for K-3 Plus Validation Study

First Author, Year	Sample Size	Selected Findings	Internal Validity		External Validity		
			Level of Evidence	Design Issues	Level of Evidence	Design Similarities	Design Difference Examples
Roderick, 2004	<i>N</i> = 8, 585 to 6,824 3 rd graders (6 th & 8 th graders not applicable here)	3 rd graders' adjusted reading gains 2 months; math gains were about 3 months; positive effects for gender, racial and ethnic groups.	High	ESY gain estimates via HLM models, statistical controls-demographics, & prior achievement level; no control or comparison groups; Maturation threat to int. validity	Moderate	High-stakes testing; 3 rd graders	Mandatory for low test scorers; 3 rd , 6 th , and 8 th grade; 3 rd graders had 90 hours instruction over 6 weeks; required same curriculum that was aligned with test; smaller avg. class size
Borman, 2004; Borman, 2006	<i>N</i> = 475	No significant program effect for 1-year program; 2-year treatment effect minimal for 2000 cohort. Statistically significant treatment effect, after covariate adjustment, after third program year (effect size 0.24).	High	Randomized assignment with no serious internal validity threats; statistical adjustments address attrition and non-compliance.	Moderate	Emphasis on reading and math; low income students; parent involvement encouraged; kindergartners	2004: Collegiate volunteers instructors; 7 weeks instruction; 8 students per teacher; 2006: African American. Participants had higher regular school-year attendance than non-applicants.
Angrist, 2010	<i>N</i> = 457 matched students	Gains: .35 <i>SD</i> 's math & .12 <i>SD</i> 's reading each year in KIPP, gains largest for special education and students with limited English proficiency.	High	Quasi-experimental research design: randomized placement	Moderate	Most students nonwhite, many Hispanic; almost 80% qualify for FRL; about one-fifth ELP	Intervention in 5 th - 8 th grades & includes longer school days and more days; student-teacher ratios 14; Charter school
Autrey, 2007	Treatment <i>N</i> = 206; Control <i>N</i> = 84	Posttest scores adjusted for pretest achievement significantly favored treatment group; Reading effect size = .49; Math effect size = .59.	High	Quasi experimental design	Moderate	4 week program; students in 1 st , 2 nd , 3rd grades with average to below-average grades; certified teachers	Not high-stakes assessment: Brigance; Northeast Louisiana; groups of 10 or less; student characteristics not described or controlled

effect size of .2, a single cohort of 1140 students in multiple sites can detect a significant effect with a power level of .8 (assuming a 95% level of confidence and a two-tailed test). By combining our two cohorts, thus doubling our sample size, we can detect effects smaller than .2.

Magnitude of Effect

Research by Alexander and Entwisle (1996) demonstrates that achievement gaps grow larger each year as students continue their school careers without structured, intentional summer learning opportunities. Borman's (1996) model of seasonal learning differences shows that, hypothetically, repeated summer school effects should prevent a widened reading achievement gap for disadvantaged students. Notably, there is now moderate evidence to support this thesis. In an experimental study with high internal and moderate external validity, researchers found a statistically significant treatment effect after student's third program year, after covariate adjustment with a sample of 475 students in the Teach Baltimore summer school program (Borman, 2004).

Borman and Dowling (2006) conducted a randomized control trial of ESY in high-poverty schools in Baltimore; that study provides evidence to support this validation study. It has high internal validity and moderate external validity due to differences in context. Although results are not generalizable in all respects to the K-3 Plus Validation Study, they do show potential of substantial impact in a high-poverty kindergarten and first grade students after multiple years of extended schooling, which the proposed study will investigate. The Teach Baltimore program studied students at 10 Baltimore public schools while K-3 Plus is provided in a variety of rural, urban, and medium-sized schools. Student age was similar, sample size was relatively large, and focus was with high-risk students. Staffing differs for Teach Baltimore and K-3 Plus. Highly qualified student volunteers taught ESY in Baltimore while regular school year licensed teachers provide K-3 Plus intervention, In Borman and colleagues (2004) analysis of the

effects of 3 years of summer school for elementary students in Baltimore, the effect size was 0.24. Further analysis of this high-poverty sample revealed students who attended more than the average amount of time for two or more of the three summers had 40-50% higher grade level scores in vocabulary, comprehension, and total reading compared to the control group (Borman & Dowling, 2006).

In the Summer Bridge summer school program from Chicago Public Schools, third-graders' adjusted reading gains were about 2 months, adjusted math gains were about 3 months, and all adjusted gains for all grades studied were statistically significant after extensive statistical controls for demographic characteristics and prior achievement levels (Roderick, Jacob, & Bryk, 2004). This study also found positive program effects for all gender, racial and ethnic groups

Similar to K-3 Plus, the school year was extended by 4 weeks in a northeast Louisiana study (Autrey, 2007). After controlling for pretest achievement, this study found substantial and significant gains in reading ($ES = .49$) and math ($ES = .59$) for first, second, and third graders in the treatment group. The generalizability of this study to the proposed study is not fully known because student characteristics such as socioeconomic status, ethnicity, or English proficiency were not described.

Two significant meta-analyses summarize a set of models, although these models have varying degrees of both internal and external validity. Cooper et al. (1996) highlighted the significance of summer learning losses. Reading skill levels for low-income students dropped about 3 months over the summer compared to their more advantaged peers in their 13 study meta-analysis; math-related subject areas showed learning loss for all students. In a second meta-analysis, Cooper et al. based a meta-analysis on evidence from 93 reports in which the average remedial summer school effect was almost one-fifth of a standard deviation. This moderate evidence base combined with the K-3 Plus intervention that mirrors recommendations in the

literature for how extended school year services should be implemented (Cooper et al., 2000) make a compelling case for a K-3 Plus randomized control trial. The proposed intervention and evaluation include: a curricula that includes reading and math; that it allow for local control over curricula and delivery systems; that it include a parent involvement component; that it be done during the early school years, and that it include a rigorous design with a cost and cost-effectiveness analysis. These are all ESY intervention components recommended for future services and evaluation (Cooper et al, 2000).

The literature in this review suggests that students in the U.S. may very well benefit by moving to a different academic calendar. As President Obama stated in his call for extended school year services, “We can no longer afford an academic calendar designed when America was a nation of farmers who needed their children at home plowing the land at the end of each day.”(<http://www.eduinreview.com/blog/2009/03/obama-proposes-longer-school-days-extended-school-year>). It is time for the decades of national debate about ESY services to be addressed by a methodologically rigorous experimental study with diverse students, in rural and urban schools, implemented in early childhood. This study will significantly inform an intervention that is at the center of a national debate.

C. Experience of the Eligible Applicant

Applicant Past Performance in Implementing Complex Projects

The focus of this section is the applicant’s experience implementing complex projects similar to that proposed. The New Mexico K-3 Plus Validation project is complex in that it requires recruitment of a large sample of students into a randomized control trial that will provide services over 5 years. Methodological rigor requires comprehensive, reliable and valid measures of child outcome, intervention fidelity, and accounting for mediating and moderating variables. It also requires minimizing attrition and appropriate methodological and statistical

procedures to account for attrition bias over time. The proposed project requires collaboration between diverse stakeholders—families, school districts, state agency staff, and policymakers. A diverse team is necessary to implement the intervention, collect and analyze data and ultimately work with policymakers to use the project findings to sustain and scale up education services that are evidence based. Our experience showing successful collaborations implementing complex projects is highlighted below.

National Longitudinal RCT Experience

This study is housed in Utah State University's College of Education's Institute for Extended School Year Validation jointly located at the Emma Eccles Jones Center for Early Childhood Education and the Center for Persons with Disabilities. A past project that provided a wealth of experience in working with multiple sites was the applicant's Early Intervention Effectiveness Longitudinal Study that examined the costs and effects of alternative types of early intervention programs for children with disabilities. In each of 16 sites, children were randomly assigned to one of two treatment alternatives that varied in the intensity of intervention; the age at which intervention begins, and other program components such as the way that parents are involved in the intervention. Over 90% of families who were invited to participate agreed to the random assignment of their child to the experimental or comparison group. In addition, average attrition at the sites over 9 years of the study was only 15% (White, 1993).

This longitudinal study evaluated the costs and effects of early childhood services for high needs children using a variety of child and family assessment measures that were collected onsite, by phone, and by mail. This required intensive coordination and management of data and close contact with site staff and participating families. Rigorous data collection, entry and analysis procedures were developed and implemented for all of the sites. The study resulted in cost-effectiveness comparison data similar to that proposed for the current project—with the cost

and student developmental outcomes carefully measured for children in both the treatment and control group, analyzed and compared to determine the various treatment effects.

In many ways, the EI Longitudinal study was more difficult than the proposed K-3 Plus project as it involved coordination over multiple states and implemented a wide variety of interventions. Children and families at 9 of the 16 sites were followed from 1985 until 2004 – a 19-year period. The institutional knowledge from these longitudinal studies remains at USU—Dr. Goetze began her career as the site coordinator and economist for several of the studies in 1989 and continued longitudinal studies of the sample for over 10 years. The assessment supervisor for the longitudinal study was Diane Behl, who will oversee the assessor training and data collection for the proposed K-3 Plus study.

State Evaluation Experience

A number of other complex early childhood projects have been successfully completed by the applicant including statewide projects in Indiana, Wyoming, Utah, and New Mexico. The applicant's work in Wyoming, for example, required site visits to all 14 regions of the state to collect quantitative and qualitative data to describe student outcomes, cost and funding for services for 540 children birth to age 5 (Goetze & Behl, 2005). This child outcomes and cost study, funded and directed by the Wyoming legislature and completed by USU staff, resulted in a new funding formula unanimously supported by the Wyoming Legislature. The result was an expansion of services for Wyoming's Birth to 5 Program for children with disabilities.

New Mexico Evaluation Experience

The applicant partnership members—USU, NMSU and the New Mexico LEAs—have collaborated together in the state of New Mexico since 2006 on the state-funded PreK initiative and evaluation project. This project includes rigorous evaluation and assessment similar to that proposed in this project. USU and NMSU staff members have helped train and recruit assessors

and coordinate scheduling and completion of student assessments and classroom observations in New Mexico to measure the positive effects of PreK services on student outcomes using a Regression Discontinuity Design. USU evaluated the cost and funding for New Mexico's state funded PreK and conducted focus groups with families and teachers (Goetze & Behl, 2006). USU staff completed an economic impact analysis that measured the long-term benefits of state funded PreK services for children, families, taxpayers and to society as a whole. This study measured the effects of PreK services for 4-year-old children with varying risk levels on outcomes such as special education, grade retention, and delinquency. The economic impact analysis concluded that the state receives over \$5 in benefits for every dollar invested in PreK (Goetze, Li, & Hustedt, 2008).

The PreK evaluation is a complex project that involves 1000 student assessments in approximately 90 PreK sites and 180 kindergarten classrooms each year and 110 classroom observations and 10 focus groups. NMSU is a partner on the New Mexico PreK project and will play a similar role to that proposed in the current project—recruiting assessors and classroom observers and assisting with scheduling the assessments and collecting the data through coordination with the LEAs. The LEAs are partners in the PreK evaluation and service delivery—PreK students have been assessed in each LEA every year since 2005-06. LEA teachers, staff and administrators have collaborated in this evaluation by assisting with the student assessments and classroom observations. Teachers and parents have participated in focus groups and administrators have provided cost and funding data for the PreK evaluation.

The USU staff has completed a K-3 Plus implementation evaluation to collect baseline data to describe K-3 Plus teacher, student, intervention characteristics and costs (Goetze & Price, 2009). This study includes DIBELS analysis from data in the Wireless Generation database and data from the New Mexico Public Education Department's statewide database known as STARS.

The experience, knowledge and relationships that developed in these New Mexico evaluations lay a solid foundation for the proposed project.

This work in New Mexico requires collaboratively working with school district staff, families, state staff and policymakers and includes disseminating evaluation findings to key legislative bodies to effect positive early childhood public policy changes. The applicant has extensive experience managing projects that have complex data and complex education partnerships. This experience also includes presenting findings in a way that a variety of stakeholders can understand the data, methods and results. These national, state and local projects have resulted in positive public policy changes including expanded funding for early childhood services and programs and the scaling up of services in a variety of state early childhood programs. The partnership LEAs participated in the K-3 Plus evaluation as well—by participating in the focus groups, providing DIBELS and other data for the implementation evaluation and providing feedback about the strengths and challenges they have experienced implementing K-3 Plus.

Applicant Demonstration of Improved Student Achievement

USU has been intensively involved in projects that have positively and significantly improved student achievement, attainment and retention in Utah LEAs and other states. USU staff and faculty recently worked diligently with seven Utah LEAs to provide assistance and/or professional development and feedback to teachers, principals and administrators for the Early Reading First (ERF) program (Reutzell, 2005). The results of the applicant efforts in regard to Utah's ERF effects on teachers and student academic achievement were called "astounding" by Utah's Education Specialist for Title I school and district improvement. Student outcomes for all cohort schools across grades 1-3 and for high need students showed significant gains.

USU, NMSU and LEA partner staff have collaborated with the National Institute for

Early Education Research (NIEER) and key stakeholders at the district and state level in New Mexico for nearly five years. The team has implemented PreK services and evaluated student outcomes for high needs children who are age 4. Regression discontinuity design (RDD) results show significant improvements on literacy development, math and literacy skills. USU staff completed an economic impact analysis of PreK that showed a high rate of return for New Mexico's state funded PreK investment—over \$5.00 in benefits is generated back to the state for every \$1.00 invested in PreK through reductions in special education services and costs, delinquency and other improvements for PreK participants (Goetze, Li, & Hustedt, 2008).

These PreK findings were presented to key legislative committees and staff including members of the Legislative Education Study Committee (LESC) and Legislative Finance Committee (LFC) and New Mexico PED Secretary Garcia and have bolstered legislative and public support for New Mexico's PreK initiative. The New Mexico legislature has scaled-up the PreK program as a result of this effort increasing funding for PreK from \$5 million serving 5.8% of 4-year olds in New Mexico in 2005-06 to over \$19 million in 2008-09 to serve 16.5% of 4-year olds (Hustedt, Barnett, Jung, & Goetze, 2009). NM PED and OEA are critical other partners to the sustainability and scale up of this project. This team has a proven track record of implementing, evaluating and scaling up early childhood initiatives in New Mexico in the past and is ideally situated to successfully complete the goals set for this project.

All partner LEAs have participated in the New Mexico state-funded PreK Initiative. They implement PreK services to children age 4 and students in schools in all of these districts have participated in statewide child and classroom assessments. Results show students participating in New Mexico state-funded PreK initiative scored significantly higher than kindergarten students who did not receive the PreK services. These LEAs deliver high quality PreK services that have significant positive effects on student scores including measures of language, literacy and math.

D. Quality of the Project Evaluation

Experimental Design

As described in Section A, the evaluation design is based on a multi-site randomized experiment. Random assignment to treatment or control group ensures that differences between the treatment and control groups are not attributable to factors such as parental motivation or student ambition. While conditions are similar across treatment sites, site-based factors (which may include teacher quality, classroom accommodations, etc.) may result in fluctuations in the estimated treatment effect. Multi-site trials allow us to estimate the average treatment effect across sites and the variance of that effect; we may also model factors that mediate or moderate program effects (Raudenbush & Liu 2000). Students with an Individual Education Program (IEP) will be admitted to the K-3 Plus intervention based on parent preference and teacher recommendation and will not be randomly assigned. This project will fund 38 classrooms to serve the 570 non-IEP students in the treatment group and the approximately 114 IEP students who are expected to participate in the K-3 Plus program (Goetze & Price, 2009).

Students will be encouraged to participate in the ESY intervention and in the longitudinal evaluation in subsequent years. Schools that currently offer the K-3 Plus program in New Mexico report very high levels of participant satisfaction and high rates of re-enrollment in the program, which will make student retention easier (Goetze & Price, 2009). Experimental group students who move out of the school where they were enrolled will be offered the opportunity to attend the ESY program at the site nearest their home. The availability of K-3 Plus outside the study enrollment district opens the possibility that students in the control group who move to other school districts could receive the intervention; this can be tracked through PED STARS data base and we will apply a statistical strategy to address assignment non-compliance and attrition (as outlined in Appendix H). Using the same patterns of recruitment, randomization to

treatment or control group, and follow-ups, we will recruit a second cohort in the spring of 2012.

Methods of Analysis

Basic Hierarchical Framework

We will analyze the data for the non-IEP students using hierarchical linear modeling (HLM) techniques for multi-site randomized controlled designs. In a sense, these models treat each site (classroom) as an individual experiment, from which one can derive an average treatment effect of program enrollment across all of the sites. HLM is well suited for analyzing data like ours where one has units of observation (students) nested within higher-level units (classrooms or schools); the specific application of models for a multi-site RCT is explicated in Raudenbush and Liu (2000). In Appendix H equations 1-3, we provide the technical details of the basic hierarchical model for multi-site RCT designs. Members of our team have extensive experience with these techniques.

Subanalyses

Within this basic HLM framework, we will test a number of hypotheses. The first regards the ability of the K-3 Plus extended school year program to ameliorate the pattern of summer regression. We hypothesize that K-3 Plus will reduce summer learning loss, that it will prepare students for Kindergarten—academically and socially—and that it may have stronger effects for students living in rural areas where access to quality summer programs is more limited. We additionally hypothesize that small gains mount over multiple years, leading to substantively meaningful gains in student achievement. The technical details of these subanalyses are included in the detailed evaluation plan in Appendix H.

Other Analyses

Students who have disabilities and students not enrolled in our four partner districts provide data on state-mandated assessments. Strategies for analyzing these data include

regression discontinuity designs (RDD) and treatment effects regressions; details are provided in Appendix H.

Measures

This study proposes comprehensive measures to answer key research questions, focusing on the three major categories identified below.

Child outcome measures to assess student progress

The timeframe for child assessments is shown in Appendix H Table H-3. In general, all subjects will be assessed in Spring prior to the start of the ESY intervention and then in Fall; this 6-month period is adequate, given the availability of different versions of the standardized assessments designed for this purpose. Trained and certified external assessors will administer the assessments. The exceptions are the NMSBA data and the DIBELS, two progress monitoring tools administered by New Mexico State Department of Education; PED will provide these data to the evaluator. Table H3 (Appendix H) provides detailed information about the constructs measured, psychometric properties of the tools and provides full citations. Child outcome measures include: (1) *Woodcock-Johnson III Tests of Achievement*, broad reading, broad math, basic writing, and oral expression subscales; (2) *Batteria III Woodcock-Munoz* for use with bilingual students; (3) *Peabody Picture Vocabulary Test, Fourth Edition*, measuring receptive vocabulary, and (4) *Social Skills Improvement System Rating Scales* to measure social skills, problem behaviors and academic competence.

Implementation-specific measures: Fidelity of implementation and monitoring of ESY performance

The following constructs will be assessed to provide high-quality periodic implementation information regarding treatment (see detailed description of measures in Appendix H, p. 18, (1) *Adherence*, documenting delivery of 25 additional days, hours of each

day, provision of meals/transportation; (2) *Dose*, individual student attendance data and years of participation in K-3 Plus via state STARS data base, (3) *Control group fidelity* will be captured to verify primary difference in summer services between the treatment and control groups. Family interviews will occur the Fall of each school year to obtain detailed descriptions of educational/supplemental services that children received during summer.

Cost data

Extensive cost and funding data describing K-3 Plus and other summer programs, services, and activities will be collected and analyzed for students and families in both groups. Economic outcomes such as parent employment, as influenced by summer services, will also be evaluated.

Sufficient Resources for an Effective Evaluation

The evaluation plan delineates resources needed for completion. The evaluation team at USU, NMSU and University of Wisconsin bring high quality staff to this project. Combined they bring experience and training in early childhood education, special education, bilingual education, economics, and the substantive knowledge of ESY services and challenges unique to rural schools. The human and financial resources for this project are targeted to the methods, measures, and deliverables proposed. Staff has extensive experience with randomized control trials, designing, collecting, analyzing and reporting child and classroom assessment data for large samples. They also bring specialized expertise in cost and financing critical to replication and scale up. As evidenced by the Letters of Support obtained for this project, the applicant has a strong history of successful educational evaluation in New Mexico and critical knowledge of the state school system.

The budget for the evaluation is necessary and sufficient to complete a high quality randomized trial. The number of students for the sample is a key factor in the cost of the

evaluation. Sample size was carefully evaluated and power analysis was completed and compared with the ESY moderate evidence base to insure a sufficient sample size to address the goals and objectives proposed. Reimbursement for intervention services for students in the experimental group resulted from extensive cost analysis of the K-3 Plus program in the LEAs that will provide those services. Assessor travel and reimbursements amounts were carefully estimated based on the number of assessments and time and travel costs of administration. Significant funding to induce maximum parental participation for both groups is included. Modern technological innovations are incorporated into the budget and work plan to improve partners' efficiency to achieve project goals and objectives including a project website, social networking and a real time shared drive to track evaluation data between partners.

Independent, Rigorous Project Evaluation

The New Mexico legislature developed the K-3 Plus Program specifying the target population, the intensity of the program and the process by which schools will be selected for funding. Specifically, the enacting legislation states that -"K-3 Plus shall be *administered by the department (NM PED)*, which shall determine application requirements, procedures and criteria for evaluating the applications."

K-3 Plus implementation was described in Goetze and Price (2009) as a combination of legislation specifications with *authority to NM PED to implement* through a grant process with priority given to high poverty schools where the application process is overseen by NM PED. The four LEAs that participate in the K-3 Plus Validation Study will implement the intervention consistent with the K-3 Plus legislation and the requirements established by the NM PED. This is stated in the partner LEA letters of commitment for the project. This provides independence between the evaluator and the implementer and it means the results of the intervention evaluation will be generalizable to K-3 Plus as implemented statewide. Experimental intervention service

funding is provided from USU to the LEAs via subcontracts from USU’s Office of Sponsored Programs. Intervention funding is based on the number of students who are provided K-3 Plus services. Research funding is provided separately so that the districts provide high quality data for the research project to the evaluator. USU/NMSU guidelines to the LEAs will be for research protocols that describe recruitment and data collection procedures. Neither the legislature that developed K-3 Plus nor the NM PED or LEAs that implement it will evaluate the impact of the intervention—that is solely the responsibility of USU and NMSU staff.

E. Strategy and Capacity to Bring to Scale

Number of Students Proposed for the Project

Table 3 shows the total number of Kindergarten students currently enrolled in partner LEA schools and the number of students needed to meet the 2011 Cohort 1 target of 1140 students. The target sample size for Cohort 2, to be recruited in 2011, is also 1140 students. To date, over 50% of students in K-3 Plus-eligible and participating schools have enrolled in the program. It is anticipated that parent interest in study participation, combined with LEA recruitment and support efforts, will ensure the needed number of subjects for the study.

Applicant’s Capacity to Bring the Project to Scale

Table 4 summarizes resources, personnel, financial and management capacity project partners will use to effectively bring the K-3 Plus program to scale following the validation study. A key factor in success will be the expertise of USU and NMSU project leaders in bringing

Table 3: Kindergarten Students Available for K-3 Plus Validation Study

LEA/District	Est. Number of Kindergarteners 2009-10	Number of Kindergarteners Needed 2011 Cohort
Gallup	894	150
Las Cruces	1,949	180
Albuquerque	7,542	630
Gadsden	1,060	180

Table 4: Capacity and Expertise of Project Partners

Utah State University	
<ul style="list-style-type: none"> • Evaluation expertise with large sample sizes • Experience w/qualitative and quantitative evaluation methods • Multi-site random experimental design studies • Child outcome measurement • Early childhood best practices • Special education best practices 	<ul style="list-style-type: none"> • English Language Learners Extended school year evidence base • K-3 Plus pilot evaluation • Cost and financing for education • NM legislative experience • History of successful partnerships in NM with key players including legislature and OEA, PED and LEA's
New Mexico State University	
<ul style="list-style-type: none"> • Key to measuring student achievement and classroom quality • Knowledge of socio-political factors in the state to facilitate communication and scheduling 	<ul style="list-style-type: none"> • Strong education training college • Access to qualified assessors • Expertise in rural school issues • ELL students • Special education best practices
Local Education Agencies (LEAs)	
<ul style="list-style-type: none"> • Access to families, eligible students and qualified teachers • Committed to ESY • K-3 Plus expertise • Human/capital resources to deliver culturally/linguistically appropriate services 	<ul style="list-style-type: none"> • Rural/urban diversity • Dual language classrooms • IDEA funded ESY
New Mexico Office of Educational Accountability (NM OEA)	
<ul style="list-style-type: none"> • Legislated to bring education evidence to Legislature for public policy development • Strong facilitation with NM PED, school districts and legislature 	<ul style="list-style-type: none"> • Specialize in disseminating evidence-based education findings for sustainability and scale up
New Mexico Public Education Department (NM PED)	
<ul style="list-style-type: none"> • Implements education legislative statues, policies and procedures statewide 	<ul style="list-style-type: none"> • Maintains statewide STARS database • CSSO member • leadership in K-3 Plus workgroup
Legislative Education Study Committee (LESC)	
<ul style="list-style-type: none"> • Education and Finance Subcommittees of the NM Legislature • LESC developed K-3 Plus pilot project • K-3 Plus scheduled to expire in 2013 	<ul style="list-style-type: none"> • Support critical to sustain current effort • History of support and scale up for evidence based early childhood legislation/interventions.
Legislative Finance Committee (LFC)	
<ul style="list-style-type: none"> • Staff seeking evidence to support scale up of K-3 Plus to 4th and 5th grade • Legislative recommendations for state education funding 	<ul style="list-style-type: none"> • Cost data to inform future legislation and funding formula decision-making for budget decisions.
New Mexico American Federation of Teachers (AFT) and New Mexico National Educational Association (NEA)	

- | | |
|---|---|
| <ul style="list-style-type: none"> • Support from qualified certified teachers to deliver quality ESY services | <ul style="list-style-type: none"> • K-3 Plus funds extra compensation for additional days worked including one year toward retirement for every 3 years of K-3 Plus taught. |
|---|---|

together diverse stakeholders to collaborate on the intervention and rigorous evaluation and then to disseminate findings statewide and nationally.

Evidence-Based Replication

Expanding to students in Low Performing Schools

K-3 Plus efficacy data for high-need students and for students in low performing schools will support scale-up. Replication has the capacity to reach approximately 6400 students per year in each grade in low performing NM schools. Across four grades, replication could serve 25,600 students per year and across six grades this would expand to 38,000 students.

Expanding to serve students in rural areas, those with disabilities, and English Language Learners (ELL).

The K-3 Plus program serves students that attend rural and urban schools. In a previous K-3 Plus evaluation, families in focus groups reported that there were few opportunities for summer learning in their communities and that many of the students would be “playing in the streets” if not for the services offered by K-3 Plus. This study will provide cost-effectiveness evidence that can be used to scale up the K-3 Plus intervention to serve moderate income students, students with diverse ethnic and language backgrounds, students with disabilities and those living in very rural areas.

Ensuring Project Fidelity, User Satisfaction and Ease of Use

The letters of commitment established with partner LEAs state that the funding from this project will provide K-3 Plus services consistent with state legislation and the standards and recommendations of the NM K-3 Plus workgroup which are being adopted by NM PED. This

provides generalizability to students served in the state program. Study measures used to assess fidelity of implementation were described in Section D–Appendix H. As shown in Table 4 above and later in Section G, project partners possess the experience, resources, and expertise needed to reliably implement and evaluate the project and bring it to scale.

With regard to user satisfaction and ease of use, most families who participated in the K-3 Plus focus groups reported that K-3 Plus was easy to use, that transportation worked well and it fit their schedules. This is reflected by doubling of parent demand for the K-3 Plus program from 2007- 2008 (Goetze & Price, 2009). In the proposed study, focus group and survey data will be collected from families and teachers to measure satisfaction and ease of use.

Cost Estimates for Scale-Up

An analysis of the K-3 Plus program expenditures in the 2008-09 fiscal year (Goetze & Price, 2009) showed K-3 Plus average statewide total expenditure was \$1,622 per student, with urban costs at \$1,100 per student and \$1800 for rural students. Twenty-five thousand students are enrolled in each grade in New Mexico. K-3 Plus expansion across all students in grades K-5 would result in services to 150,000 students statewide. The true cost of extending the program will depend on the rural/urban mix. Based on average figures, the program would cost \$162,200,000 to reach 100,000 students, \$405,500,000 for 250,000 students and \$811,000,000 for 500,000 students. Regional cost of living adjustments will be estimated so that policymakers in other states can use these data to replicate the program in their regions. Economies of scale in the delivery of services to more students will decrease the average cost per student.

Mechanisms for Dissemination

Key personnel have the capacity, experience and motivation to broadly disseminate study findings and the budget provides financial support for these activities. In addition to the mechanisms described below, the project's website will regularly update key project activities,

findings, reports and papers so that others interested in ESY evidence can easily access them.

Dissemination across New Mexico: The applicant will disseminate to New Mexico policymakers including LESC and LFC staff and members to obtain support for scale up. Specific recommendations for the intervention and funding will be made. This will include efficient and equitable funding formula to support service delivery for children in diverse schools and districts. This combination of cost, funding and outcome data provides the evidence needed to scale up the K-3 Plus in NM—to potentially reach 150,000 students in K-5th grade.

National dissemination. Key personnel will disseminate study findings to a variety of national audiences via conference presentations and publications in scholarly journals and to other state agencies and legislatures. Examples of national organizations and conferences that will be used to reach policymakers, researchers, teachers, and families include, but are not limited to, the American Association of School Administrators, American Educational Research Association, Council of Chief State School Officers, Education Week on the Web, International Reading Association, National Association of State Boards of Education, The National Association for the Education of Young Children, National Education Association, National Parent Teachers Association, and the National Rural Education Association.

F. Sustainability

Support from Stakeholders

A description of support from key stakeholders is provided, reflecting the ability of this project to be sustained beyond the length of this Validation grant. Letters of support from key stakeholders are included in Appendix D.

Teacher Support

The presidents of the NM American Federation of Teachers (AFT) and NM National

Education Association (NEA) support this project as critical to better serve high need early childhood students. Focus group results (Goetze & Price, 2009) revealed that teachers became strong supporters of the program as they observed the differences in the K-3 Plus student skills compared with those that did not attend the program.

Governor Richardson

Governor Richardson has stated that this study is essential for the state to move forward to make evidenced-based decisions regarding K-3 Plus. This confirms that it is essential to K-3 Plus sustainability and scale up in New Mexico.

New Mexico Legislative Finance Committee (LFC) and the Legislative Education Study Committee (LESC)

The directors of two key legislative committees state that rigorous evidence of the effects of K-3 Plus on student outcomes is essential to New Mexico's efforts to sustain and scale up K-3 Plus. The directors of the LFC and LESC are critical links to the New Mexico legislature that can determine the future of K-3 Plus in New Mexico.

The New Mexico Office of Educational Accountability (OEA)

OEA has the legislative authority to ensure that educational services are thoroughly evaluated and school administrative personnel fully cooperate. OEA will ensure that the findings of this study are given recognition by those with authority to improve and sustain K-3 Plus services and bring them to scale.

New Mexico Public Education Department

Cabinet Secretary Garcia supports this project and commits the time and resources necessary for its success. Dr. Goetze met with Secretary Garcia to discuss findings and implications of the K-3 Plus 2009 implementation study. The result was a K-3 Plus collaborative workgroup to implement report recommendations including improvements in K-3 Plus fidelity

data. The workgroup includes representatives from NM PED, the LEAs, the LESC, OEA and Representative Mimi Stewart K-3 Plus legislation author. This process will be repeated in a collaborative, iterative process that supports evidence based intervention and data improvements, replication and scale up.

New Mexico policymakers have a history of seeking empirically validated early childhood interventions that improve the lives of children and families that they serve. NM PreK was rigorously evaluated by NIEER, USU and NMSU staff and PreK was sustained and scaled up from 1,500 students and \$3.5 million in funding in 2006 to 4,745 students and \$15.9 million in funding in 2009.

Sustainability in New Mexico

New Mexico has shown that early childhood education and quality of life improvements are legislative and funding priorities. Efficacy data related to the effects of K-3 Plus on student outcomes is essential to K-3 Plus sustainability and scale-up.

Sustainability within other regions and at a National Level

High-quality experimental trials have a lasting impact in the field of education and in the literature because they provide high internal validity that can be generalized to schools, students and teachers that have similar characteristics to those evaluated. This K-3 Plus validation study will have a lasting effect on public policy and on future research.

If ESY is to succeed it may depend on how much the intervention costs, resources required to implement, sustain and scale-up services in rural and urban school districts. Small class sizes and transportation costs in rural areas will increase the per student cost. This study will provide information about the impact of rural and urban school issues on student outcomes and cost and funding needed to sustain K-3 Plus.

G. Quality of Management Plan and Personnel

Key Personnel

Highlights of the expertise of key personnel are provided below. Additional information about each person's experience, accomplishments and role on the project is provided in Appendix C (Biographical Sketches) and the Budget Narrative.

Principal Investigator: Linda D. Goetze, Ph.D. Dr. Goetze has extensive experience with national randomized control trials, cost-effectiveness studies and RDD serving as PI for large longitudinal projects and statewide early childhood evaluations including the New Mexico State funded Pre-K cost evaluation and the New Mexico's K-3 Plus Pilot Evaluation. She will be responsible for oversight of the project, including reports and other dissemination.

Co-Investigator: Diane D. Behl, M. Ed. Ms. Behl has over 23 years of experience in research, evaluation, and training through a variety of EIRI projects. She will train and monitor assessors in collaboration with NMSU, coauthor reports, presentations, and publications.

Statistician: Damon M. Cann, Ph.D. Dr. has wide-ranging statistical expertise in randomized control trial design and power analysis for this study. He teaches graduate-level courses in advanced research methods. He will be responsible for the analysis, reporting, and dissemination of findings.

Data Coordinator: Cora L. Price, B.A.+ served as the Project Data Coordinator for Evaluation of New Mexico's K-3 Plus Pilot. Ms. Price has 15 years' experience in database design and management as well as analysis skills.

Eduardo Ortiz, Ph.D. has 10 years of research experience related to early education, particularly literacy studies involving English Language Learners. His experience includes working directly with teachers, families and assessors, developing surveys, collecting qualitative and quantitative data. He will assist the principal investigators and the statistician.

Consultant, Geoffrey Borman, Ph.D. is a Professor of Education at the University of Wisconsin. His focus is on educational innovations, RCTs, and the specification of school-effects models. He will assist with study design, analysis and dissemination.

NMSU Principal Site Investigator: Eric Lopez, Ph.D. is a Nationally Certified School Psychologist (NASP) and National Certified Educational Diagnostician (NCED) and holds the NMSU Chair for the Improvement of border and rural schools, Dr. Lopez coordinates a collaborative of 17 school districts organized to contribute to the success of children throughout New Mexico. He will be responsible to ensure qualified assessors are identified and assessments are completed on schedule.

Timeline of Project Activities

Table 5 presents a detailed listing of key activities required for accomplishment of the project goals and objectives. Persons responsible, time frames, and milestones in the form of deliverables are provided. Appendix H Table H-2 provides detailed timelines for services and data collection for the sample. Adequate financial resources have been allocated for these activities, as reflected in the budget request submitted with this application.

Conclusion

This project will continue beyond the funding period because New Mexico's resources, whatever the outcome and findings of the K-3 Plus validation study, will be invested in the early childhood services that are most beneficial for young children. Early childhood services can and do make a difference in literacy, vocabulary, math and social skills for diverse students in diverse schools. New Mexico's policymakers need the information that this study will generate to direct limited early childhood resources to students, schools and services that make the most difference for student learning. The same is true for other communities and states that are working hard to reform schools—to raise schools beyond corrective action and restructuring—

knowing that they can do it if given the information and support they need to focus limited resources into programs that have the greatest positive impact for student learning. The recession has hit New Mexico and the rest of the country hard. New Mexico cannot afford to do a rigorous evaluation of K-3 Plus during this time of budget deficits and cuts. This is a unique opportunity to keep state school reform efforts, so evident in New Mexico's K-3 Plus and state-funded PreK legislation, moving forward. Extended school year services may be a great investment—for students, teachers and families—and this K-3 Plus validation study is the perfect opportunity to find out.

Table 5. Management Timeline

Goal and Objectives	Start Date	End Date	Key Personnel
Goal 1: Determine the cost-effectiveness of K-3 Plus in reducing the student achievement gap for students in low performing schools in Kindergarten through Grade 3.	11/1/2010-10/31/2011	11/1/2014-10/31/2015	LEAs, LG, DC, DB, CP, EO, EL, KE
Milestones/deliverables: protocols for evaluating ESY; annual reports			
Project start up activities: revise work plan and contracts; finalize schools and key LEA staff; develop, research protocols; IRB; hire GAs and clerks; contract CLASS trainer; initiate STARS and Wireless Generations data procedures; website start-up.	11/1/2010	5/1/2011	LG, DB, EL, LEAs, GB
Obj. 1. Rigorously evaluate and measure the short and long-term outcomes associated with K-3 Plus.	1/1/2011	10/31/2015	LG, DC, DB, GB, EL, KE, LEAs
1.1 Recruit, train & certify assessors; retrain annually.	2/1/2011	3/31/2015	DB, EO, EL, KE
1.2 Recruit students for RCT; obtain consents; recruit/refresh sample every spring cohorts 1 and 2	1/1/2011	4/30/2012	LEAs, LG, DB, CP, EL, KE
1.3 Collect spring pre-kindergarten data; repeat every spring.	4/1/2011	5/30/2012	EO, CP, EL, KE
1.4 Implement ESY intervention; repeat every summer	6/1/2011	8/31/2015	LEAs
1.5 Collect, analyze and report outcome data annually for cohort 1; repeat starting Year 2 with cohort 2	8/25/2011	10/1/2015	DC, EO, CP, EL, KE, DB, EO, GA
1.7 Download statewide NMSBA data for K-3 Plus students served prior to study: 2008-09; conduct RDD analysis	6/01/2011	10/31/2015	DC, CP, LG, GB
Obj. 2 Evaluate the mediating and moderating variables that impact the outcomes achieved with the K-3 Plus intervention.	10/1/2010	10/31/2015	LG, DB, DC, EO, CP, EL, KE, GA

Goal and Objectives	Start Date	End Date	Key Personnel
2.1 Train & certify CLASS assessors; finalize other mediating, moderating, & fidelity measures, recertify and refresh training annually	11/1/2010	9/15/2015	DB, EL, KE, EO
2.2 Collect and analyze K3-Plus CLASS observations beginning prior to Kindergarten w/ cohort 1; Repeat annually	6/1/2011	8/31/2015	DB, EL, KE, CP, GA
2.3 Collect and analyze Family Surveys, STARS, Educator Surveys, School Surveys; conduct focus groups; school year CLASS observations; repeat annually through Grade 3.	8/15/2011	10/31/2015	LG, DB, DC, EO, CP, EL, KE, GA
Obj. 3 Identify the resources and costs used to support effective extended school year intervention services in diverse rural and urban schools and LEAs.	6/1/2011	3/15/2015	LG, CP, EL, GA
3.1 Obtain student K-3 Plus resources/cost cost data: experimental group and 5 non partner K-3 Plus programs annually.	6/1/2011	9/15/2015	LG, CP, EL, GA, LEAs, KE
3.2 Obtain services and cost data for summer services/activities for families of students in the both groups annually.	8/1/2011	9/15/2015	LG, CP, GA, EL, KE
3.3 Compare cost of summer services for experimental group students in K-3 Plus to those in control group and determine cost differential.	10/1/2011	10/15/2015	LG, CP, GA, EL, DC
Obj. 4 Analyze cost-effectiveness of the K-3 Plus intervention for high need diverse students in low performing rural and urban schools.	10/1/2011	3/15/2015	LG, DC, DB, CP, GA
4.1 Analyze K-3 Plus costs and effects using the outcome and cost data for cohort 1, then cohort 2; Repeat annually	10/1/2011	9/15/2015	LG, DC, DB, CP, GA
4.2 Analyze cost-effectiveness differences for rural/urban schools; K-3 Plus intensity; diverse students.	12/1/2011	9/15/2015	LG, DC, DB, CP, GA

Goal and Objectives	Start Date	End Date	Key Personnel
Goal 2: Use the cost-effectiveness findings as a basis for replication and scale-up of the K-3 Plus intervention in New Mexico and to support, implement and tailor the extended school year intervention to meet the needs of diverse students and schools in other regions of the United States.	1/1/2012	10/31/2015	LG, DC, DB
Milestones/deliverables: In-person presentations, web-based reports, national model with protocols; refereed publications, social media reports			
Obj. 5: Disseminate K-3 Plus cost-effectiveness evidence to New Mexico constituents to support scale-up.	1/1/2012	10/31/2015	LG, DC, DB, EL
5.1 Share preliminary findings w/state level policy makers: other communities/states; obtain feedback; revise as needed.	1/1/2012	9/15/2014	LG, DB, DC, EO, GB
5.2 Present findings to OEA, PED, LESC, LFC, and broader legislature	1/1/2014	10/31/2015	LG, DB, DC, EO, GB
5.3 Post key findings on website; targeted mailings to other ELT/ESY communities and stakeholders;	7/1/2012	10/31/2015	LG, DC, DB, BF, GA
Obj. 6: Develop national ESY program recommendations based on study findings to support broader replication and scale up.	10/1/2013	10/31/2015	LG, DC, DB, GB, EL, EO
6.1 Disseminate findings and ESY program recommendations at state, regional, national conferences, begin social marketing of study findings	10/1/2013	9/30/2015	LG, DC, DB, GB, EL, EO, BF, GA
6.2 Disseminate findings via study website, social media, and other organizational websites.	7/1/2012	10/31/2015	BF, LG, DB, DC, GB
6.3 Disseminate to other state and national education stakeholders; present to other legislatures or state and local education programs upon request.	1/1/2014	10/31/2015	LG, DB, DC, EL, EO

Goal and Objectives	Start Date	End Date	Key Personnel
Obj. 7: Disseminate the cost-effectiveness analysis (CEA) findings to support sustainability, replication and scale-up at a national level.	10/1/2012	10/31/2015	LG, DC, DB, EL, KE, EO, CP, BF
7.1 Adjust & disseminate CEA findings and recommendations to meet needs of different state/geo-political & cost differences across the U.S.	5/1/2012	10/31/2015	LG, DC, DB, EL, KE, EO, CP, GB
7.2 Disseminate findings via study website, social media, and other organizational websites.	7/1/2012	10/31/2015	BF, LG, DB, DC, GB
7.3 Publish results in relevant refereed - journals and other publications	11/1/2014	10/31/2015	LG, DB, DC, EL, EO
7.4 Disseminate to other state and national education stakeholders; present to other legislatures or state and local education programs upon request	1/1/2014	10/31/2015	LG, DB, DC, EL, EO

Key for Project Staff: Linda Goetze (LG); Diane Behl (DB); Damon Cann (DC); Cora Price (CP); Eric Lopez (EL); Katrinka Espinosa (KE); Eduardo Ortiz (EO); Ben Fore (BF); Graduate Assistant (GA); LEAs (Local Education Agencies); Geoffrey Borman (GB)

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