U.S. Department of Education - EDCAPS
G5-Technical Review Form (New)
Technical Review Coversheet

Applicant: Public Education & Business Coalition (U336S140022)

Questions

Selection Criteria

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Priority Questions

Competitive Preference Priority 1

Promoting STEM Education

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Competitive Preference Priority 2

Implementing Academic Standards

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Technical Review Form

Panel #7 - 2014 TQP Grant Review - 7: 84.336S

Reader #1: **********
Applicant: Public Education & Business Coalition (U336S140022)

Questions

Selection Criteria - Significance

1. 1) The Secretary considers the significance of the proposed project.

   2) In determining the significance of the proposed project, the Secretary considers the following factors:

      i) The extent to which the proposed project is likely to build local capacity to provide, improve, or expand services that address the needs of the target population.

      ii) The likelihood that the proposed project will result in system change or improvement.

      iii) The extent to which the proposed project will prepare personnel for fields in which shortages have been demonstrated.

Strengths:

Applicant provides information from a needs assessment indicating the need of the students and teachers in the rural school district reflecting the need for more well-qualified and well-prepared teachers to close the persistent student achievement gap in their high-poverty schools, with district needing a way to build local capacity for recruiting, training and retaining highly-qualified new teachers. School Districts also need support to develop Professional Learning Communities. Applicant gives data on students to include the level of persistent poverty in southern Colorado rural schools with 71% of student eligible for FRPL, 62% of those being minorities. The target population serves more than 11,8900 students, 834 teachers, and 54 schools. There is documentation low academic achievement at these schools with latest state assessment data showing proficiency scores in Math and Writing for grades 3, 5, and 10 to be 43%/37%, 37%/37%, 23%/41% respectively. Teachers are insufficiently prepared to meet challenges of working with high-poverty students, and new teachers do not receive induction support necessary for the teaching profession. The proposed Teacher Preparation project will train, prepare, and provide highly effective teachers to provide, improve, and expand services that are much needed by the Applicant’s target population.

The likelihood that the proposed project will result in system change or improvement.

Applicant’s project goals include training 195 rural teachers who have potential to become Mentor Teachers who will be able to train other teachers, and help alleviate the shortage of teachers in the STEM areas. This reduction in STEM teacher deficit will bring about system change and improvement.

The proposed project will prepare teachers in the content areas of Science, Engineering and Mathematics for elementary and secondary school levels. Through rigorous graduate-level coursework and hands-on classroom practice for the Teacher Residents under the guidance of skilled Mentor Teachers, residents will received shared learning through collaborative cohorts and receive up to 4 years of induction support. Teachers will be prepared to create coursework around STEM content knowledge and best-practice pedagogy in these content areas where there are demonstrated shortages of teachers.

Weaknesses:

N/A
Selection Criteria - Quality of Project Design

1. 1) The Secretary considers the quality of the design of the proposed project.

2) In determining the quality of the design of the proposed project, the Secretary considers the extent to which the proposed project consists of a comprehensive plan that includes a description of:

i) The extent to which the proposed project is supported by strong theory (as defined in this notice).

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

iii) The extent to which the proposed activities constitute a coherent, sustained program of training in the field.

iv) The extent to which the services to be provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of project services.

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

Note: In order to address this criterion, applicants are encouraged to develop logic models to demonstrate their projects theory of action. Applicants should connect available evidence of past history of successful outcomes to their logic models. Applicants may use resources such as the Pacific Education Laboratory's Education Logic Model Application (www.relpacific.mcrel.org/PERR.html) or the Northeast and Islands REL Skill Builder Workshops (www.relnei.org/events/skill-builder-archive.html) to help design their logic models. In addressing this criterion, applicants are also encouraged to connect the project design to the intended impact of the project, including an explanation of how the project will affect the preparation, placement, retention, induction, and professional development of teachers, and ultimately student achievement. Finally, applicants are encouraged to discuss the role and commitment of each partner and how the IHE and LEA(s) plan to sustain their partnership beyond the life of the grant.

Strengths:

Applicant evidences that the proposed project is supported by strong theory based on an asset and systems approach to elevate student achievement by training teachers, departments, teams, entire schools and districts. Applicant submits a Logic Model along with theory of action, where description is given of content that covers teachers' receiving instruction and coaching in authentic application of research-based practices of planning for understanding, building a community of learners, implementing Workshop Model instruction, cultivating learner's independently by gradual release into responsibility for learning, applying Thinking Strategies across content to deepen understanding, engaging students in classroom discourse to cultivate understanding and using multiple data sources to assess learning, to include student self-assessment. Applicant cites various sources of research that indicate the teachers’ need for both content knowledge and pedagogy in order to be effective classroom teachers; research cited also supports evidence that well-qualified teachers with strong pedagogical skills can close the achievement gap for at-risk students. Other research Applicant mentions in this area is the work demonstrating the value of Professional Learning Communities in improving teacher learning and raising student achievement.

Applicant mentions several elements which demonstrate that proposed project provides high-quality, duration and intensity needed to lead to improvement in teacher practice and that the program is a coherent and sustained approach to
training. These elements are; (1) integration of pedagogy, classroom practice and mentoring, (2) providing rigorous graduate-level coursework for teachers, leading to a Masters degree, (3) providing experience and learning opportunities alongside a mentor, (4) providing stringent mentor selection criteria, (5) facilitating better cohort collaboration, (6) adhering to admissions goals and priorities that ensure high probably of residents being hired by a partner after their training, and (7) including induction, professional development and networking in order to reach project projected goal of 90% of newly placed Resident teachers remaining teaching for a least five years.

Applicant’s proposed project provides Teacher Residents coherent, sustained training in the field, providing foundational skills through an intensive Summer Institute over several weeks before the school year, continuing through a 4 day work week in classroom co-teaching along their Mentor, utilizing a gradual release model that allow the teacher to take on greater responsibility role as the year progresses. Teacher residents attend weekly seminars as part of a collaborative cohort, with coursework grounded in established curriculum strands (Classroom Environment/Management Facilitating student Understanding, Standards and Assessment, Teaching/learning/Planning cycle, Contemplative Practice and Wellness, Reflective and Responsive Practice and Professionalism. These development teachings help Resident Teachers bring about connections between theory and practice.

Applicant has the support and active involvement of it’s Partners, collaborating to maximize the effectiveness of the project services as demonstrated, for example, through providing a Teacher Residency where candidates take a year-long classroom apprenticeship with a highly effective mentor Teacher. With Partner Boettcher Foundation this residence culminates in awarding of a state teacher’s license and a Master Degree in Education, with an endorsement for working with culturally linguistically diverse learners. The high education Partner Adams State University Applicant launched its first rural residence cohort and placed 10 Residents in 3 State school districts.

Applicant documents occurrences of broad support for foundational teacher resident program and for proposed project through letters of support for program by Partners and others stakeholders, to include the State’s Congressman, the State Governor, and State Board of Education. Applicant provides a Budget Narrative showing financial support for project through 5-year grant period.

Weaknesses:
Although Applicant includes letters of support from Partners and other Stakeholders showing their support of the program as well as showing good prospects of receiving help in the future, Applicant does not include documentation for financial support for this project beyond grant period.

Reader's Score: 41

Selection Criteria - Quality of the Management Plan

1. 1) The Secretary considers the quality of the management plan for the proposed project.

2) In determining the quality of the management plan for the proposed project, the Secretary considers the following factors:

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

ii) The qualifications, including relevant training and experience, of key project personnel.

iii) The extent to which performance feedback and continuous improvement are integral to the design of the proposed project.

Note: In order to address this criterion, applicants are encouraged to include in the application narrative a clear, well thought-out implementation plan that includes annual timelines, key project milestones,
and a schedule of activities with sufficient time for developing an adequate implementation plan, as well as a description and qualifications of the personnel who would be responsible for each activity and the level of effort each activity entails. Applicants may also describe how the partnering organizations will communicate and coordinate in order to achieve project goals.

**Strengths:**

Applicant provides an overview of the implementation plan with goals tied to measurable objectives, to include activities, milestones, and timelines for accomplishing the tasks of the project. Applicant gives five project goals, with objectives and activities linked to specific milestones and timelines. Timing of completion for milestones is given in terms of months during specific years; milestones are clear and articulated in a definitive manner with specific activities listed to achieve each main objective.

Applicant provides key personnel: Applicant is Lead Partner with primary management, administrative and fiscal responsibility; Executive Director and the TQP Rural Expansion Project Director is a PhD. who oversees and manages the entire Residence Program; Project Recruitment Manager oversees all recruiting efforts, Project CFO will set up and manage all financial and grant tracking accounts to separately manage the funds from the TQP Grant; Director of development and Communications who will oversee marketing and PR efforts; Manager of Development and Communications, who will implement all marketing and PR efforts, and Assist Manager of Communications, who will assist with implementing all marketing and PR efforts to drive recruitment. Project utilizes an External Evaluator to conduct evaluation activities. External Evaluator is highly experienced in evaluation metrics and systems, educator preparation policy and practice, student-classroom teacher data linkages, teacher retention models, and defining of impact on educators and students of educator effectiveness system reform.

Applicant states that it has a Rural Residency Advisory Board that meets on an annual basis. There are also weekly and monthly partner conference calls with key stakeholders. These are the primary communication and coordination vehicles for the project goals. All partners have committed to participation in the decision-making process and are all involved in analyzing evaluation results to make continuous program improvements.

**Weaknesses:**

Designation of specific personnel and their responsibilities in carrying out activities listed in the plan are not addressed. There are no specific times mentioned for carrying out the project activities – most times given on timeline cover a span of years (e.g., years 1-5 or years 2-5).

**Selection Criteria - Quality of the Project Evaluation**

1. **The Secretary considers the quality of the evaluation to be conducted of the proposed project.**

2. **In determining the quality of the evaluation, the Secretary considers:**

   i) The extent to which the methods of evaluation provide valid and reliable performance data on relevant outcomes.

   **Note:** In response to this selection factor, applicants are encouraged to include data on student learning.

   ii) The extent to which the methods of evaluation are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed project.

   iii) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.

   **Note:** In addressing this criterion, applicants are encouraged to include a plan for how the projects evaluation will address the TQP Grant Program performance measures established by the Department.
under the Government Performance and Results Act of 1993 (GPRA), as well as the measures established in section 204(a) of the HEA. (The specific performance measures established for the overall TQP Grant Program are discussed under Performance Measures in section VI of this notice.) Further, applicants are encouraged to describe how the applicants evaluation plan will be designed to collect both output data and outcome data, including benchmarks, to monitor progress. Finally, each applicant is encouraged to select an independent, objective evaluator who has experience in evaluating educational programs and who will play an active role in the design and implementation of the projects evaluation.

Strengths:
The proposed project will utilize an External Evaluator (American Institutes for Research – AIR) to conduct project evaluation. Evaluator will conduct rigorous formative and summative evaluations activities. Applicant provides a table specifying research questions and data sources to address the questions. Evaluator will conduct a mixed-methods evaluation to provide Applicant with formative and summative feedback about the implementation and impact of the proposed expansion of the current residency program.

Applicant lists site visits, interviews of residents and mentors, a post-program resident survey, a hiring principal survey, along with extant data as instruments to be used in obtaining data to be used in evaluating project. Applicant includes a Table addressing Objectives and Correlated Performance Measures with definitions and relevant outcomes.

Evaluator will conduct a mixed-methods evaluation to provide Applicant with formative and summative feedback about the implementation and impact of the proposed expansion of the current residency program. Evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes as outlined in Objectives and Correlated Performance Measures table included by Applicant.

Weaknesses:
No specific times for collecting information for formative assessments or for disseminating feedback on the results of the formative assessments to project participations is given.

Reader’s Score: 19

Priority Questions

Competitive Preference Priority 1 - Promoting STEM Education

1. Projects that are designed to address one or both of the following priority areas:

   a) Increasing the opportunities for high-quality preparation of, or professional development for, teachers or other educators of STEM subjects.

   b) Increasing the number of individuals from groups traditionally underrepresented in STEM, including minorities, individuals with disabilities, and women, who are teachers or educators of STEM subjects and have increased opportunities for high-quality preparation or professional development.

Note: Applicants that respond to Competitive Preference Priority 1 and Absolute Priority 1 are still required to implement the required reforms within the whole teacher preparation program, as reflected in sections (a) and (b) of Absolute Priority 1.

In responding to this competitive preference priority, applicants are encouraged to include the following elements in their proposed projects:

   1) Institutional collaboration to ensure that students in a college of education who intend to teach STEM courses have access to courses that build appropriate content knowledge. Such students should have access to course sequencing that is equal to the course sequencing for other STEM majors outside the college of education.
2) Emphasis on hands-on and inquiry-based STEM experiences for prospective teachers, including dedicated research or laboratory experiences, STEM discipline-specific pedagogical instruction, and explicit instruction in the interdisciplinary connections between learning sciences and STEM instruction; and

3) Early and multiple field-based instructional experiences for prospective teachers that are structured to provide exposure to a variety of teaching and learning environments, and that are coordinated and aligned with the teacher preparation curriculum.

Strengths:
The Applicant collaborates in partnership with Adams State University and fifteen rural Colorado school districts in operating a teacher residency program. The Applicant and its Partners will collaboratively work to enhance and expand the current teacher resident program that produces highly qualified teachers focused on improving academic achievement of students. The proposed project will expand the number of well-qualified and diverse teachers, to include STEM teachers, enhancing the residency program to better prepare teachers for their work in high-needs schools. The project’s five key goals which are tied to grant priorities are to expand the number of project graduates to serve in high-needs rural schools, to expand recruiting to attract more highly-qualified and diverse residence candidates, to expand recruiting to attract more STEM-oriented residency candidates for high-need subjects are such as Math and Science, to create coursework around STEM content knowledge and best-practice pedagogy for training Residents and Mentors, and to use student growth and achievement data to build teacher effectiveness and enhance teacher preparation. Applicant includes a Teacher Development Rubric Chart which specifies in what areas and how teachers will be rigorously trained and developed for the program with that builds appropriate knowledge in content areas.

Proposed project Resident teachers will have widespread professional development and job-embedded instructional coaching by Mentors. Hands-on learning and development will occur for Resident Teachers and for the Mentors. Applicants will participate in learning panels and school-based professional learning communities.

Proposed project will include field-based instructional experiences for prospective teachers through residencies at a school, through rigorous graduate-level coursework with the IHE, with the programs activities, objectives and expected outcomes aligned with the proven teacher preparation curriculum.

Weaknesses:
N/A

Reader's Score: 5

Competitive Preference Priority 2 - Implementing Academic Standards

Projects that are designed to support the implementation of internationally benchmarked, college- and career-ready academic standards held in common by multiple States and to improve instruction and learning, including projects in the following priority areas:

a) The development or implementation of professional development or preparation programs aligned with those standards.

b) Strategies that translate the standards into classroom practice.

Strengths:
N/A
Weaknesses:
Applicant did not address CPP2

Reader's Score: 0

Status: Submitted
Last Updated: 08/15/2014 07:47 PM
**Technical Review Coversheet**

**Applicant:** Public Education & Business Coalition (U336S140022)

### Questions

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#### Priority Questions

**Competitive Preference Priority 1**

**Promoting STEM Education**

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**Competitive Preference Priority 2**

**Implementing Academic Standards**

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Panel #7 - 2014 TQP Grant Review - 7: 84.336S

Reader #2: **********
Applicant: Public Education & Business Coalition (U336S140022)

Questions

Selection Criteria - Significance

1. The Secretary considers the significance of the proposed project.

2) In determining the significance of the proposed project, the Secretary considers the following factors:

i) The extent to which the proposed project is likely to build local capacity to provide, improve, or expand services that address the needs of the target population.

ii) The likelihood that the proposed project will result in system change or improvement.

iii) The extent to which the proposed project will prepare personnel for fields in which shortages have been demonstrated.

Strengths:

The applicant appropriately identified the needs of the target population by identifying 15 high-needs local education agencies or rural southern Colorado school districts to be served by the project. These were documented as schools with high poverty rates by descriptive statistics demonstrating that 62% are minority students and 71% are eligible for free or reduced price lunch and by U.S. Census data indicating high poverty areas. (p. 5; Appendix e69). Low student achievement was documented by providing state assessment data indicating that less than 50% of the students in third, fifth, and tenth grade score at the proficient level or above in math and writing and less than 63% score proficient or above in reading. The districts were documented as having high rates of teacher turnover ranging from 31.82%-15.6%. (Appendix, p. e70).

In addition, the pre-service teachers or university students to be served are typically local residents of Colorado with 54% eligible for low income designation based on federal Pell grants (p. 3). In addition, the university is designated as a Hispanic serving institution (p. 2). The project is intended to recruit more underrepresented groups and improve the rigor of teacher preparation to retain highly qualified Resident Teachers who reflect the local population in terms of diversity and culture. (p. 7).

The applicant clearly identified how the project will focus on system change and improvement by identifying common themes or factors that influence student achievement, including teachers who are not sufficiently prepared to work with high-poverty students and new teachers who do not receive needed induction support, as well as the need for finding well prepared teachers to work in high poverty schools. (p. 6). The applicant will partner with the local state university to create a residence program to create a cohort of peers to attend classes together to address the high teacher turnover rate that is greater than 15.5% (p. 7). The applicant will create an evaluation feedback loop to link teacher preparation and instructional practice to instruction with student achievement and align measures of teacher practice to coursework and to Mentors’ approaches. (p. 9). In addition, the applicant has identified the need to provide professional development during a planning year for Mentor teachers to guide Residents; create a collaborative learning culture focused on continuous improvement; cluster Residents together in schools; work with the university partner to develop integrated curriculum for residency-based teacher preparation; and integrate assessment and data literacy into the residency and post-residency.

The applicant has appropriate plans to develop recruitment and admission processes to attract teachers in science and math in rural, high-needs areas. The applicant also has focused plans to develop a more robust curriculum in STEM content knowledge and pedagogy for elementary teachers (p. 8).
Selection Criteria - Quality of Project Design

1. 1) The Secretary considers the quality of the design of the proposed project.

2) In determining the quality of the design of the proposed project, the Secretary considers the extent to which the proposed project consists of a comprehensive plan that includes a description of:

i) The extent to which the proposed project is supported by strong theory (as defined in this notice).

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

iii) The extent to which the proposed activities constitute a coherent, sustained program of training in the field.

iv) The extent to which the services to be provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of project services.

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

Note: In order to address this criterion, applicants are encouraged to develop logic models to demonstrate their projects theory of action. Applicants should connect available evidence of past history of successful outcomes to their logic models. Applicants may use resources such as the Pacific Education Laboratorys Education Logic Model Application (www.relpacific.mcrel.org/PERR.html) or the Northeast and Islands REL Skill Builder Workshops (www.relnei.org/events/skill-builder-archive.html) to help design their logic models. In addressing this criterion, applicants are also encouraged to connect the project design to the intended impact of the project, including an explanation of how the project will affect the preparation, placement, retention, induction, and professional development of teachers, and ultimately student achievement. Finally, applicants are encouraged to discuss the role and commitment of each partner and how the IHE and LEA(s) plan to sustain their partnership beyond the life of the grant.

Strengths:

The applicant appropriately provided a logic model that presents a theory of action and links the needs for teachers in high-needs schools to a year-long residency model, research-based curriculum, and culturally responsive pedagogy with resulting impact on student success and teacher preparation. (p. 10). In addition, the applicant provided descriptive statistics documenting the impact on student achievement of their prior CBTR Resident Teachers program indicating significant improvement in students’ writing and math achievement as compared to other students. (p. 11). Research support was provided by citations to the literature for establishing professional learning communities to improve teacher learning and raise student achievement. (p. 12).

The professional development model for Residents is extensive and provides sufficient duration and intensity by including...
a planning year and a year-long classroom apprenticeship for 23 Residents with a Mentor Teacher, culminating in a teaching license and a Master’s degree in education, as well as extensive induction support through professional development. (p. 13). Residents will be selected by teacher nomination self-nomination and an interview process. Selected Residents will participate in a summer institute over several weeks before the school year begins and then work four days a week co-teaching with their Mentor in a gradual release model. Residents attend weekly seminars in the seven curriculum strands and are observed and coached by Field Directors, as well as their Mentors. (p. 14). They are further supported by a two-year induction program, including instructional coaching and professional development and participating in professional learning communities. Residents commit to teaching in high-need partner schools for an additional four years after graduating. Professional development appropriately includes developing Residents as reflective practitioners by using data to inform instruction for teacher research. (p. 12). Residents will be trained to conduct action research during their teaching apprenticeship. (p. 16). Residents will be assessed by the Colorado Model State Rubric reflecting state teacher quality standards incorporating the characteristics of successful teachers and will receive a stipend, and tuition discount with a repayment prorating if the Resident does not complete the five year commitment. (p. 23-24).

The training for mentors is also extensive. Mentors are provided with a planning year and receive instructional coaching. (p 17). Mentors’ professional development includes an Effective Mentoring Institute to learn coaching skills and a Math Institute focusing on inquiry, thinking strategies, and discourse. Mentors will also participate in the professional learning groups. (p. 19).

The applicant, together with their partner, has developed a five-year financial model and operational plan and has commitments from all partners and school districts to implement the project. (p 13). Participating school districts are asked to contribute toward the program and do so based on their ability to pay. (p 12). Evidence of support from stakeholders such as the Colorado State Board of Education was documented by letters of support and agreements were documented from seven participating school districts. (Appendix).

Weaknesses:

The logic model did not include clearly labeled needs, inputs and short and long-term outcomes. No citations or references were provided as research support for the seven practices that the applicant will incorporate that are claimed to be “research based” (p. 11-12).

The content of the professional development was not clearly explained, but was described in only general ways. For example, it is unclear how an emphasis on understanding deep and surface structure in the reading process translates to providing instructional approaches or strategies for Mentor Teachers and Residents to use with striving readers who are low-achieving literacy learners. (p. 18). The content of the training during the summer institute was not identified. (p. 14). It is unclear what is meant by a “holistic method of training and supporting teachers.” (p. 17).

The Master’s degree curriculum provided by the supporting partner of Adams State University was not clearly described. It is unclear how the curriculum will support creating teacher researchers/action researchers or teachers who can serve at-risk students and increase their literacy and math achievement.

Although 15 school districts are identified in estimating the projected number of trained rural Residents not all of these districts have indicated their willingness to participate in the project.(p. 27)

Reader’s Score: 42

Selection Criteria - Quality of the Management Plan
1. The Secretary considers the quality of the management plan for the proposed project.

2) In determining the quality of the management plan for the proposed project, the Secretary considers the following factors:

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

ii) The qualifications, including relevant training and experience, of key project personnel.

iii) The extent to which performance feedback and continuous improvement are integral to the design of the proposed project.

Note: In order to address this criterion, applicants are encouraged to include in the application narrative a clear, well thought-out implementation plan that includes annual timelines, key project milestones, and a schedule of activities with sufficient time for developing an adequate implementation plan, as well as a description and qualifications of the personnel who would be responsible for each activity and the level of effort each activity entails. Applicants may also describe how the partnering organizations will communicate and coordinate in order to achieve project goals.

Strengths:
The management plan includes a project overview with clear annual timelines, goals, objectives, activities, and appropriate milestones. (p. 33-35). Staff responsibilities on the project are described as general areas of oversight.

The Executive Director who will oversee the project and the work of the Residency has relevant expertise and a doctorate in research methods. (p. 32). Two other key PEBC staff have relevant areas of expertise and backgrounds for overseeing professional development and developing project resources with Masters degrees in relevant areas. An organizational chart outlines lines of reporting responsibility for oversight. (p. 31). The project will be overseen by an advisory board comprised of key stakeholders, including administrative personnel from participating school districts. (p. 30).

A continuous feedback loop will be established through the mechanism of monthly student data review sessions that will be held to tie feedback to curriculum and Resident trainings. (p. 34). Residents will participate in collecting sharing and analyzing student achievement data and new protocols will be developed for linking student data to teacher effectiveness. (p. 35). In addition, the evaluator will hold monthly updates with key project staff and provide continuous progress monitoring through formative feedback. (p. 47).

Weaknesses:
The management plan did not allocate specific project personnel to be responsible for accomplishing and overseeing specific tasks/activities identified on the timeline and work plan. (p. 33-35). The role responsibilities of the Advisory Board members were not described.

Some staff do not seem qualified for their role responsibilities. For example, it is unclear how the Associate Chair of the Teacher Education Department can review evaluation outcomes without a doctorate. (p. 31). His vita in the Appendix does not list his education/degrees. Another faculty member at the state university also lacks a doctorate and her expertise in literacy is not clearly described in terms of her relevant education or experience. The Teacher on Special Assignment’s qualifications are not described in terms of prior experience or training in observing and coaching Mentors and Residents. (p. 32).
Selection Criteria - Quality of the Project Evaluation

1. 1) The Secretary considers the quality of the evaluation to be conducted of the proposed project.

2) In determining the quality of the evaluation, the Secretary considers:

   i) The extent to which the methods of evaluation provide valid and reliable performance data on relevant outcomes.

   Note: In response to this selection factor, applicants are encouraged to include data on student learning.

   ii) The extent to which the methods of evaluation are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed project.

   iii) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.

   Note: In addressing this criterion, applicants are encouraged to include a plan for how the projects evaluation will address the TQP Grant Program performance measures established by the Department under the Government Performance and Results Act of 1993 (GPRA), as well as the measures established in section 204(a) of the HEA. (The specific performance measures established for the overall TQP Grant Program are discussed under Performance Measures in section VI of this notice.) Further, applicants are encouraged to describe how the applicants evaluation plan will be designed to collect both output data and outcome data, including benchmarks, to monitor progress. Finally, each applicant is encouraged to select an independent, objective evaluator who has experience in evaluating educational programs and who will play an active role in the design and implementation of the projects evaluation.

Strengths:
The evaluation will be conducted by an objective external evaluation team, AIR, with staff with relevant expertise and prior experience in conducting evaluations of large federally funded projects, including prior TQP grants and knowledge of teacher effectiveness reform efforts. (p. 35). The evaluation will include both formative and summative components and employ multiple mixed methods, including electronic questionnaires, on-site interviews, and collecting students’ achievement test scores on state standardized measures. The evaluation focuses on two research questions and seven sub-questions that address program implementation and impact and identify the data to be collected and analyzed to address those questions. (p. 37, 38-39). The evaluation plan appropriately provides for addressing the GRPA Measures, including addressing them in the evaluation questions. (p. 47, 48-49) and include both output data, such as human resource data analyzing the Mentor and Resident teachers’ demographic characteristics compared to other district teachers and outcome data, such as student achievement.(p. 41)
The methods are carefully constructed, such as offering principals incentives to return their electronic questionnaires and increase response rate; an analysis to determine if the teacher Resident participants are systematically different than other novice teachers (p. 40-41); Rasch analysis for construct reliability and estimates of latent traits; and a falsification test to examine program impact on students’ test scores in the year before they were taught by CBTR teachers (p. 46). Qualitative data will be analyzed by thematic analysis to identify common themes and quantitative data will be analyzed by regression analysis.

Weaknesses:
The evaluation plan did not provide for observations during the spring site visits that would supplement less reliable self-report data of questionnaires and interviews.
Priority Questions

Competitive Preference Priority 1 - Promoting STEM Education

1. Projects that are designed to address one or both of the following priority areas:

   a) Increasing the opportunities for high-quality preparation of, or professional development for, teachers or other educators of STEM subjects.

   b) Increasing the number of individuals from groups traditionally underrepresented in STEM, including minorities, individuals with disabilities, and women, who are teachers or educators of STEM subjects and have increased opportunities for high-quality preparation or professional development.

Note: Applicants that respond to Competitive Preference Priority 1 and Absolute Priority 1 are still required to implement the required reforms within the whole teacher preparation program, as reflected in sections (a) and (b) of Absolute Priority 1.

In responding to this competitive preference priority, applicants are encouraged to include the following elements in their proposed projects:

1) Institutional collaboration to ensure that students in a college of education who intend to teach STEM courses have access to courses that build appropriate content knowledge. Such students should have access to course sequencing that is equal to the course sequencing for other STEM majors outside the college of education.

2) Emphasis on hands-on and inquiry-based STEM experiences for prospective teachers, including dedicated research or laboratory experiences, STEM discipline-specific pedagogical instruction, and explicit instruction in the interdisciplinary connections between learning sciences and STEM instruction; and

3) Early and multiple field-based instructional experiences for prospective teachers that are structured to provide exposure to a variety of teaching and learning environments, and that are coordinated and aligned with the teacher preparation curriculum.

Strengths:

Two project goals address Competitive Preference Priority 1: to create coursework around best practice STEM content and pedagogy and to expand recruiting to attract more STEM residency candidates for high-needs subject areas of math and science (p. 25, 28-29). Recruitment efforts will target Residency candidates who have a degree in a STEM field or professional experience and will support teachers’ development of their own identities as mathematicians and scientists to result in influencing students’ identities and futures. The project partner will collaborate to create appropriate STEM content knowledge and pedagogy courses for elementary teachers with inquiry-based STEM experiences for the classroom and in the field. (p. 29).

Weaknesses:

No weaknesses were noted.

Competitive Preference Priority 2 - Implementing Academic Standards

1. Projects that are designed to support the implementation of internationally benchmarked, college- and career-ready academic standards held in common by multiple States and to improve instruction and learning, including projects in the following priority areas:
a) The development or implementation of professional development or preparation programs aligned with those standards.

b) Strategies that translate the standards into classroom practice.

Strengths:
N/A

Weaknesses:

Reader’s Score: 0

Status: Submitted
Last Updated: 08/15/2014 02:25 PM
## Technical Review Coversheet

**Applicant:** Public Education & Business Coalition (U336S140022)  
**Reader #3:** **********

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## Priority Questions

**Competitive Preference Priority 1**

**Promoting STEM Education**

| 1. CPP 1                                      | 5               | 4             |

**Competitive Preference Priority 2**

**Implementing Academic Standards**

| 1. CPP 2                                      | 2               | 0             |

**Total**

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Questions

Selection Criteria - Significance

1. The Secretary considers the significance of the proposed project.

2) In determining the significance of the proposed project, the Secretary considers the following factors:

i) The extent to which the proposed project is likely to build local capacity to provide, improve, or expand services that address the needs of the target population.

ii) The likelihood that the proposed project will result in system change or improvement.

iii) The extent to which the proposed project will prepare personnel for fields in which shortages have been demonstrated.

Strengths:

The number of targeted school districts, 15, with 195 rural residency teachers being trained and mentors receiving rigorous professional development. These high numbers support system change. e16

The partners that support this effort—Adams State, PEBC, CBTR, 15 school districts—will accomplish its goals of “significantly improving the recruitment, selection, preparation and retention of highly qualified Resident Teachers” by using innovations in recruitment and rigorous teacher preparation. There will be a STEM emphasis that includes a strong curriculum in pedagogy and content knowledge. This is solid approach and will prepare teachers in shortage areas in rural areas of the state. pp3, 7-8

Geographic clustering of districts and Residency Teachers will support program success and in program expansion because it will develop a close cohort of new teachers who will attend classes together and work together in 15 districts. p6

Weaknesses:

None

Reader’s Score: 15

Selection Criteria - Quality of Project Design

1) The Secretary considers the quality of the design of the proposed project.

2) In determining the quality of the design of the proposed project, the Secretary considers the extent to which the proposed project consists of a comprehensive plan that includes a description of:

i) The extent to which the proposed project is supported by strong theory (as defined in this notice).
ii) The extent to which the training or professional development services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients of those services.

iii) The extent to which the proposed activities constitute a coherent, sustained program of training in the field.

iv) The extent to which the services to be provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of project services.

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

Note: In order to address this criterion, applicants are encouraged to develop logic models to demonstrate their projects theory of action. Applicants should connect available evidence of past history of successful outcomes to their logic models. Applicants may use resources such as the Pacific Education Laboratorys Education Logic Model Application (www.relpacific.mcrel.org/PERR.html) or the Northeast and Islands REL Skill Builder Workshops (www.relnei.org/events/skill-builder-archive.html) to help design their logic models. In addressing this criterion, applicants are also encouraged to connect the project design to the intended impact of the project, including an explanation of how the project will affect the preparation, placement, retention, induction, and professional development of teachers, and ultimately student achievement. Finally, applicants are encouraged to discuss the role and commitment of each partner and how the IHE and LEA(s) plan to sustain their partnership beyond the life of the grant.

Strengths:
Internal research results regarding successful outcomes (reading, math reading) student achievement from previous cohorts are offered in the description to support the theory of change. This supports the success of the approach. p11

The CBTR teacher residency program is comprehensive. It is the integration of pedagogy, classroom practice, and guided mentoring that leads to a master’s degree. In addition, students study educational theory and are in classrooms. A 2-year induction program that includes coaching, professional development and participation in professional learning communities follows. The sustainability of this program has already been established. p15

Cohort collaboration is apparent is this residency model. New class teacher residents will come together weekly in a seminar to continue their learning; they take classes, have field experiences in the community, and go on retreats together. p18 These are all activities that support collaboration— common experiences.

CBTR is an arm of PEBC and a member of Urban Teacher Residency United. Representatives of teacher residency programs are able to talk about best practices and lessons learned. Lessons learned include stronger PD for mentors in year one and the school leadership providing a collaborative, continuous learning culture for teachers. p9

Weaknesses:
The logic model that accompanies the theory of action provided does not include the typical components of resources, activities, outputs, outcomes and impacts. Rather it includes a series of needs, activities, and outcomes. This makes it difficult to fully understand the program design. p10
The intensity of PD is unclear. For example, there is no mention of the number of hours for PD activities provided.

Selection Criteria - Quality of the Management Plan

1. 1) The Secretary considers the quality of the management plan for the proposed project.

2) In determining the quality of the management plan for the proposed project, the Secretary considers the following factors:

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

ii) The qualifications, including relevant training and experience, of key project personnel.

iii) The extent to which performance feedback and continuous improvement are integral to the design of the proposed project.

Note: In order to address this criterion, applicants are encouraged to include in the application narrative a clear, well thought-out implementation plan that includes annual timelines, key project milestones, and a schedule of activities with sufficient time for developing an adequate implementation plan, as well as a description and qualifications of the personnel who would be responsible for each activity and the level of effort each activity entails. Applicants may also describe how the partnering organizations will communicate and coordinate in order to achieve project goals.

Strengths:
The qualifications of the key personnel are fully described in proposal. These qualifications include previous job titles and work experiences, academic credentials, and what their grant work assignments will be. pp31-32

The term “continuous improvement” is used in this section of the proposal. It refers to analyzing evaluation results to make ongoing program improvements. p30 In addition, the phrase “continuous inquiry” is used to denote the same purpose. The continuous improvement plan is a strong one because of regular review of outcomes.

The project timelines and milestones are located in the management section are detailed and comprehensive in scope and support the accomplishment of tasks. pp33-34 They also include clear objectives and program goals.

The personnel visual found on p. 31 is highly effective. It shows show staff roles, responsibilities and how staff interacts with one another.

Weaknesses:
None

Reader's Score: 38

Selection Criteria - Quality of the Project Evaluation
1. The Secretary considers the quality of the evaluation to be conducted of the proposed project.

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i) The extent to which the methods of evaluation provide valid and reliable performance data on relevant outcomes.

Note: In response to this selection factor, applicants are encouraged to include data on student learning.

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iii) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.

Note: In addressing this criterion, applicants are encouraged to include a plan for how the projects evaluation will address the TQP Grant Program performance measures established by the Department under the Government Performance and Results Act of 1993 (GPRA), as well as the measures established in section 204(a) of the HEA. (The specific performance measures established for the overall TQP Grant Program are discussed under Performance Measures in section VI of this notice.) Further, applicants are encouraged to describe how the applicants evaluation plan will be designed to collect both output data and outcome data, including benchmarks, to monitor progress. Finally, each applicant is encouraged to select an independent, objective evaluator who has experience in evaluating educational programs and who will play an active role in the design and implementation of the projects evaluation.

Strengths:

AIR is one of the premier research and evaluation groups in the country. They have an excellent professional reputation and have conducted other TQP evaluations successfully. Previous AIR studies have been found to be methodologically sound. p35

This evaluation will be mixed methods and both formative and summative in nature. The questions will focus on program implementation and impact. These are appropriate approaches given the goals of the program. p37 In addition to new data being collected, extant data from the program and districts will be gathered. This will only add to value to what is found. p41 Regression analysis to estimate program impact will be used and comparison of outcomes with teachers with the same number of years of experience will be conducted. AIR may use hierarchical generalized linear modeling if the districts and schools are large enough and can be considered a random sample. pp46-47

The evaluation plan chart that includes the performance measures, objectives, definitions, outcomes and data sources is organized clearly and offers valuable information. 48

There is continuous progress monitoring in place via formative and summative feedback. Formative feedback will be ready each summer for summer planning purposes. 47

AIR will help PEBC in developing the GPRA and HEA report. AIR will be a valuable source of support in this endeavor.

The additional funding from this grant will support a stronger evaluation feedback loop. p9

Weaknesses:

None

Reader's Score: 20
Priority Questions

Competitive Preference Priority 1 - Promoting STEM Education

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2) Emphasis on hands-on and inquiry-based STEM experiences for prospective teachers, including dedicated research or laboratory experiences, STEM discipline-specific pedagogical instruction, and explicit instruction in the interdisciplinary connections between learning sciences and STEM instruction; and

3) Early and multiple field-based instructional experiences for prospective teachers that are structured to provide exposure to a variety of teaching and learning environments, and that are coordinated and aligned with the teacher preparation curriculum.

Strengths:
Inquiry-based STEM experiences and math hands on activities will be offered as a part of teacher residency coursework and professional development for mentors.

A more robust curriculum element will be developed in STEM content knowledge and pedagogy for elementary teachers.

Weaknesses:
There was no mention of explicit instruction interdisciplinary connections between learning sciences and STEM instruction.
Competitive Preference Priority 2 - Implementing Academic Standards

1. Projects that are designed to support the implementation of internationally benchmarked, college- and career-ready academic standards held in common by multiple States and to improve instruction and learning, including projects in the following priority areas:

   a) The development or implementation of professional development or preparation programs aligned with those standards.

   b) Strategies that translate the standards into classroom practice.

Strengths:

None

Weaknesses:

None

Reader's Score: 0

Status: Submitted
Last Updated: 08/15/2014 02:52 PM