**Technical Review Coversheet**

**Applicant:** Teachers College, Columbia University (U336S190033)

| Reader #1: | ******* |

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Technical Review Form

Panel #4 - Teacher Quality Partnership - 5: 84.336S

Reader #1: **********
Applicant: Teachers College, Columbia University (U336S190033)

Questions

Selection Criteria - Quality of Project Design

1. The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:

   (i) The extent to which the proposed project demonstrates a rationale (as defined in 34 CFR 77.1(c)).

   (ii) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.

   (iii) The extent to which the proposed project is designed to build capacity and yield results that will extend beyond the period of Federal financial assistance.

   (iv) The extent to which the proposed project represents an exceptional approach for meeting statutory purposes and requirements.

Strengths:

• The needs assessment that the proposal provides conveys the needs that the program is addressing, such as the need for Special Ed and STEM-C teachers (p. e70-e71). This need provides a rationale for developing teachers with expertise in these domains within the proposed project.

• The proposal clearly states the goals of the project on page e19-e20, such as to recruit, prepare, and graduate academically talented, diverse candidates from underrepresented groups.

• In addition, the objectives and measures of these objectives are aligned with the goals in the table on pages e288-291.

• The objectives are aligned with the goals of the project.

• The proposal demonstrates an exceptional approach to the grant program by engaging the participants in Co-Teaching and Co-Planning across STEM+C subjects. This special attention to computer science will enable community members to have multiple opportunities to enhance their STEM content knowledge and pedagogy (p. e20). This aligns to research support on the development of pedagogical content knowledge of teachers.

Weaknesses:

• The proposal does not make clear how capacity will be built within the program or the institution in a way that would suggest the potential of yielding results beyond the term of the grant.

• The performance measures that are listed on pages e288-e291 are not measurable in the way that they have been described. For example, on page e288, one performance measure is: “Robust recruitment of diverse persons to teaching. Recruitment and preparation of diverse candidates from under-represented groups (including racial/ethnic minorities, men, non-traditional students such as career changers, and in the sciences, women) each year.”

Reader’s Score: 32
Selection Criteria - Adequacy of Resources

1. The Secretary considers the adequacy of resources for the proposed project. In determining the adequacy of resources for the proposed project, the Secretary considers the following factors:

   (i) The adequacy of support, including facilities, equipment, supplies, and other resources, from the applicant organization or the lead applicant organization.

   (ii) The relevance and demonstrated commitment of each partner in the proposed project to the implementation and success of the project.

Strengths:

• The Science and Math Programs at Columbia University bring extensive experience in the recruitment and preparation of high-quality Science and Mathematics educators for the same high need NYC classrooms for which TRs are preparing. (p. e21).

• Institutional collaborators include Columbia University’s Fu Foundation School of Engineering and Applied Science, as well as the Bronx River Alliance, which provide some expertise resources as well as facility and equipment resources. (p. e22).

• The PI and the project are building upon previous TQP supported residency programs, which suggest that there is the capacity to carry out a federally-funded grant with respect to human resources, facilities, equipment and supplies. (p. e56).

• The project proposal provides letters of support, which suggest some level of commitment from the partners. (appendix)

Weaknesses:

• However, the letters of support all have similar, general language and therefore, does not make clear what are the project partners’ actual commitments.

Reader’s Score: 18

Selection Criteria - Quality of the Management Plan

1. The Secretary considers the quality of the management plan for the proposed project. In determining the quality of the management plan for the proposed project, the Secretary considers:

   (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.

Strengths:

• The proposal provides a project management plan (p. Appendix G2) which lists of some of the project activities, and when or how often those activities will take place (Appendix G2). This suggests when some of the activities will take place and the feasibility of the activities being accomplished.

• The project proposal provides a list of the key personnel as well as a description of their experience or a description of the position when a particular position needs to be hired. The key personnel have extensive experience in carrying out teacher development related projects (p. e56-e59).

• The project includes regular means for communication built into the project plan, such as weekly project meetings, to help support coordinated project efforts (p. e60-e61). This suggests that the project team’s responsibilities that are listed can be carried out in a coordinated and effective manner.
Weaknesses:

- The proposal does not make clear all of the project activities and align those activities with key personnel responsible for carrying them out.
- Moreover, the project does not include milestones for all project activities, which would support the monitoring of the project.

Reader's Score: 16

Selection Criteria - Quality of the Project Evaluation

1. The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:

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

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

Strengths:

- The project proposal identifies an independent evaluation group, CPRE, to carry out the evaluation (p. e45). The firm’s experience and expertise suggest that they are capable of carrying out the evaluation in a high-quality manner.
- The evaluation is aligned with the focus of the overall project; namely, educational/employment outcomes, program satisfaction and improved teaching practices (p. e45). This suggests that the focus of the evaluation will address what the project is aiming to accomplish.
- The evaluation plan includes different approaches to measuring these evaluation goals, including descriptive and comparative analyses (p. e45).
- The evaluation plan also provides a timeline for data collection, which increases confidence in its feasibility (p. e54-e55).
- The proposal lists the specific data sources they will draw from on p. e54-e55. The data and analytic approaches of the evaluation plan suggest that the methods are both thorough as well as providing valid and reliable data on the project outcomes.

Weaknesses:

- Although the project proposal contains a data collection timeline, the evaluation timeline, as a whole, is not clear. An evident evaluation timeline would suggest when analyses and reporting take place, which would further suggest that the activities in the plan are feasible.

Reader's Score: 18

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1
1. Projects designed to improve student achievement or other educational outcomes in computer science by increasing the number of educators adequately prepared to deliver rigorous instruction in STEM fields, including computer science, through recruitment, evidence-based professional development strategies for current STEM educators, or evidence-based retraining strategies for current educators seeking to transition from other subjects to STEM fields.

Strengths:

- One of the instructional pillars of the project aims at the integration of high-quality preparation and professional development in STEM+C subjects, with special attention to computer science (p. e20).
- The partnership with the School of Engineering at Columbia University is intended to emphasize and strengthen the engineering and computer science components of STEM+C (p. e22).
- One of the educational outcomes of the project will look at the percentage of teachers trained on integrating technology and computer science into classroom practice. A focus of the participants’ preparation will include Co-Teaching and Co-Planning across STEM+C subjects (p. e20). These elements indicate that the project aims to focus on both the content and the pedagogy related to computer STEM+C learning experiences, which suggests that the program is high-quality.

Weaknesses:

- No weaknesses noted.

Reader's Score: 5

Invitational Priority - Invitational Priority

1. An applicant may address one or both of the following priority areas:

Propose to serve children or students who reside, or attend TQP project schools, in a qualified opportunity zone as designated by the Secretary of the Treasury under section 1400Z-1 of the Internal Revenue Code, as amended by the Tax Cuts and Jobs Act (Pub. L. 115-97). In addressing this priority, an applicant must provide the census tract number of the qualified opportunity zone for which it proposes to serve children or students and describe the extent to which the applicant will serve individuals in the Qualified Opportunity Zone(s). OR

Demonstrate in its application that it has received or will receive financial assistance from a qualified opportunity fund under section 1400Z-2 of the Internal Revenue Code, as amended by the Tax Cuts and Jobs Act, for a purpose directly related to its proposed project. In addressing this priority, an applicant must identify the qualified opportunity fund from which it has received or will receive financial assistance and describe the extent to which the applicant will use the financial assistance for its proposed project.

Strengths:

- The proposal states that three districts (District 5, 6, and 9) in the partnering LEA are geographically organized and represent areas where students who live in Designated Opportunity Zones are served (p. e73). This suggests that the project would serve students in Opportunity Zones through the participating teachers.

Weaknesses:

- No weaknesses noted.

Reader's Score: 0
**Technical Review Coversheet**

**Applicant:** Teachers College, Columbia University (U336S190033)

**Reader #2:** **********

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Technical Review Form

Panel #4 - Teacher Quality Partnership - 5: 84.336S

Reader #2: **********
Applicant: Teachers College, Columbia University (U336S190033)

Questions

Selection Criteria - Quality of Project Design

1. The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:

   (i) The extent to which the proposed project demonstrates a rationale (as defined in 34 CFR 77.1(c)).

   (ii) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.

   (iii) The extent to which the proposed project is designed to build capacity and yield results that will extend beyond the period of Federal financial assistance.

   (iv) The extent to which the proposed project represents an exceptional approach for meeting statutory purposes and requirements.

Strengths:

• The applicant proposed to extend successful components of previous projects they have implemented as part of a 2009 and 2014 Teacher Quality Partnership Grant (p. e24).
• Demographic data for the partnering LEA districts is provided as evidence of a need to address the teacher shortage issue, particularly for students of high-need (p. e32). This evidence serves as a rationale for establishing the activities in the proposed project.
• Overall, the goals which are included provide a general direction for the proposed project (p. e25, e26). The more clearly stated the goals, the greater potential for the project to be successful.
• Opportunities to earn graduate coursework, a graduate degree, dual-certification, mentoring, and support, and a stipend demonstrate a multi-faceted approach to meet the need of recruiting and retaining high-quality teachers (p. e29). This combination of activities represents an exceptional approach for meeting a definite need established for the target participants.

Weaknesses:

• The applicant does not clearly specify all of the goals, objectives, and outcomes of the proposed project in measurable terms. The way in which the outcomes are presented do not appear measurable, which could present challenges in assessing progress toward accomplishing goals (p. e288-e291). For example, one of the performance measures is to design and implement innovative curricula (p. e289). The corresponding performance measure is to implement curricula, but there is no specific information about how it will be assessed as innovative curricula.

• A complete description of the way in which the proposed project will build capacity and yield results that will extend beyond the period of Federal financial assistance is not readily apparent.
Selection Criteria - Adequacy of Resources

1. The Secretary considers the adequacy of resources for the proposed project. In determining the adequacy of resources for the proposed project, the Secretary considers the following factors:

   (i) The adequacy of support, including facilities, equipment, supplies, and other resources, from the applicant organization or the lead applicant organization.

   (ii) The relevance and demonstrated commitment of each partner in the proposed project to the implementation and success of the project.

Strengths:

• Evidence of the commitment for each partner is demonstrated in the ongoing work from previous work with the partners in the teacher quality area and in the letters of commitment provided by the applicant.

• The applicant already has an alliance for collaboration in place from previous grants. As a result, there are already facilities, equipment, and supplies in place that can be utilized in the proposed project that will be adequate for implementing project activities (p. e33-e36).

Weaknesses:

• Some questions exist regarding the commitment of each partner as evidenced by the letters of support. For example, the letters are not detailed in terms of specifying what each partner would be providing to support the project activities. As a result, it is difficult to determine the extent of the commitment of each partner to the implementation and success of the proposed project.

Selection Criteria - Quality of the Management Plan

1. The Secretary considers the quality of the management plan for the proposed project. In determining the quality of the management plan for the proposed project, the Secretary considers:

   (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.

Strengths:

• A general timeline is provided, which includes a breakdown by semester of the major activities that will be implemented in year 1 (p. e37).

• Appendix G2 includes a project management plan, which is helpful in providing oversight and guidance for all of the proposed project components.

• The applicant provides a list of the key personnel and a description of their expertise in related areas (p. e56-e59). This information is important in showing that there is sufficient knowledge, expertise, and experience to achieve the objectives of the proposed project on time and within budget.
The applicant includes plans to hold weekly meetings in order to provide feedback and support effective facilitation of the proposed project (e60-e61).

Weaknesses:
- The management plan does not address all project activities. Additionally, there are no milestones included to guide the steps to completing each task. It is not clear which person is responsible for implementing each activity, so there are some questions about how each will be completed on time and within budget.

Reader's Score: 13

Selection Criteria - Quality of the Project Evaluation

1. The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:

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

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

Strengths:
- The applicant includes a variety of data sources to conduct a descriptive analysis of self-reported satisfaction outcomes, and a quasi-experimental analysis of teacher satisfaction as compared to student teachers in traditional Teachers College programs (p. e45).

- Educational outcomes, including graduation rates, scores and pass rates on state teacher certification exams, and employment outcomes will all be assessed as a quantitative component of the evaluation (p. e46-e47). This quantitative analysis combined with the qualitative evaluation components are highly likely to provide valid and reliable performance data on the outcomes established for the proposed project.

Weaknesses:
- The applicant does not thoroughly describe the sequence of data collection and analysis throughout the project, so it is not clear specifically which data will be collected and when it will be collected to inform the project team about the degree of effectiveness. More details regarding the evaluation process are necessary to assess whether the methods of evaluation are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed project.

Reader's Score: 18

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1

1. Projects designed to improve student achievement or other educational outcomes in computer science by increasing the number of educators adequately prepared to deliver rigorous instruction in STEM fields, including computer science, through recruitment, evidence-based professional development strategies for current STEM educators, or evidence-based retraining strategies for current educators seeking to transition from other subjects to STEM fields.
Strengths:

• The applicant includes a focus on four instructional pillars as a way of providing each Teaching Resident a foundational set of knowledge and skills (p. e20). Two of the four pillars address STEM and computer science content and pedagogy (p. e20).

• A partnership with the School of Engineering at Columbia University is included in the project to emphasize and strengthen the computer science and engineering components of STEM+C (p. e22).

• Teaching residents will receive coursework in instructional, digital, and assistive technologies, as well as work in co-teaching and co-planning in STEM+C which addresses the needs identified in computer science for the participating LEAs (p. e36).

Weaknesses:

• No weaknesses were noted.

Reader’s Score: 5

Invitational Priority - Invitational Priority

1. An applicant may address one or both of the following priority areas:

Propose to serve children or students who reside, or attend TQP project schools, in a qualified opportunity zone as designated by the Secretary of the Treasury under section 1400Z-1 of the Internal Revenue Code, as amended by the Tax Cuts and Jobs Act (Pub. L. 115-97). In addressing this priority, an applicant must provide the census tract number of the qualified opportunity zone for which it proposes to serve children or students and describe the extent to which the applicant will serve individuals in the Qualified Opportunity Zone(s). OR

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Strengths:

• The applicant provides evidence that three district in the LEA are geographically organized and represent areas where students who live in Designated Opportunity Zones are served (p. e23).

Weaknesses:

• No weaknesses were noted.

Reader’s Score: 0

Status: Submitted
Last Updated: 06/14/2019 08:50 AM
### Technical Review Coversheet

**Applicant:** Teachers College, Columbia University (U336S190033)  
**Reader #3:** **********

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**Total** 105 88
Technical Review Form

Panel #4 - Teacher Quality Partnership - 5: 84.336S

Reader #3: **********
Applicant: Teachers College, Columbia University (U336S190033)

Questions

Selection Criteria - Quality of Project Design

1. The Secretary considers the quality of the design of the proposed project. In determining the quality of the design of the proposed project, the Secretary considers the following factors:

   (i) The extent to which the proposed project demonstrates a rationale (as defined in 34 CFR 77.1(c)).

   (ii) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.

   (iii) The extent to which the proposed project is designed to build capacity and yield results that will extend beyond the period of Federal financial assistance.

   (iv) The extent to which the proposed project represents an exceptional approach for meeting statutory purposes and requirements.

Strengths:

- This application has many positive aspects when determining its quality. The applicant will train 75 graduate level new teachers who are from underrepresented populations using a residency model, induction, and continued professional development. At the conclusion of the program, candidates will qualify for State dual certification, one of five different combinations, and will have the necessary requirements to complete a master’s degree. (e16; e18-19)
- The design of the proposal builds upon the positive aspects of a previous TQP funded grant. Strengths of that project, that are also included in this proposal, include as goals in this project are high population of underrepresented teachers in each cohort, excellent retention rates, satisfaction among all stakeholders, targeted professional development, tailored induction with inclusion practices, and education rounds. (e24-26) Take-aways from that project include several appropriate and reasonable accommodations that will be made to the new project. An example of one such accommodation is the addition of an undergraduate teacher exploration program with John Jay College of Criminal Justice. (e27)
- A detailed recruitment schedule and process has been outlined that will ensure that qualified graduate level candidates are recruited from underrepresented groups and that a program that leads them to successful dual certification and a master’s degree is provided to the candidates. (e29-30)
- Partners include four NYC high-need districts and one school network serving grades 6-12, four colleges within Columbia University, John Jay College of Criminal Justice, and the Bronx River Alliance. Programs of education within the partner IHE include mathematics, science, special education and TESOL. These programs are essential stakeholders as much of the content of the coursework deals with these four areas, as well as computer sciences. (e16; e31-35) Letters of support are in place from each of the partnering entities. (e238-262)
- The applicant has provided a road-map of activities for the project over the span of the residency, including one year of teaching four days per week, and a 2-year induction.
- A rationale has been provided through a Needs Assessment that makes a strong case for the funding of the project. (e70-73) In addition to an overall shortage of qualified teachers, the LEAs have grave shortages of teachers in STEM-C fields as well as ESOL and Special Education. The stakeholders have high poverty rates (58-93%), high minority rates (90+%), and high FRL rates, (83-93%) High immigrant populations with English as a second language suggest a need for TESOL services. Three districts are in designated Opportunity Zones. (e70-73)
- Goals, objectives, and outcomes to be achieved by the proposed project are specified. A detailed Logic Model has been provided.
outlined that provides long- and short-term outcomes for areas of recruitment, professional development, residencies, and induction. (e76)

- The John Jay College pre-teaching program is an innovative way of recruiting applicants to the project pool. The teachers coming in through this path and having a criminal justice background should be an asset to building qualifications of new teachers. (e23; e27; e260) Additionally, the involvement of the Fu Foundation’s School of Engineering and Applied Science will help to expand the candidates’ content and technology knowledge and skills. (e35)

**Weaknesses:**

- Residents are expected to work on degree and certification requirements, take a full load of 5-6 courses, immerse themselves in the school’s culture and activities, and teach in a classroom four days per week. These expectations seem overwhelming considering that these are individuals taking on the job of teaching for the first time. (e36-37)

- There is also confusion in the span and design of the residency. It is unclear if the residency is carried out in two schools, one each semester, or in one school. Additionally, it appears that three of the days are in one school and one in a second school. It seems that it would be a hardship for the school if the resident was there only one semester of the school year and/or a few days per week. (e36) More explanation of the rationale behind this design would be beneficial.

- The applicant is not clear on the exact time that is spent in and the location of the induction, as well as the roles of the mentors. A clarification on the placement of the two-year induction is needed. There is uncertainty of which school the inductee will be teaching in and if the MenT will be the same as the IMen. (e42-43)

- The goals and objectives for this project are not always measurable. For instance, Project Objective and Performance 1. b mentions a “robust’ recruitment of diverse persons for teaching”. Determining if the objective has been met would be difficult considering the term “robust” may mean different things to different individuals. (e19-e20; e288-291)

- Overall, sustainability and the ability to build capacity and yield results that will extend beyond the period of Federal financial assistance has not been well-delineated. (e64) One area of concern is the lack of written commitments from partners which leads to a question of funding availability after the completion of the Federally funded portion of the project. (e238-262)

**Reader’s Score:** 32

**Selection Criteria - Adequacy of Resources**

1. The Secretary considers the adequacy of resources for the proposed project. In determining the adequacy of resources for the proposed project, the Secretary considers the following factors:

   (i) The adequacy of support, including facilities, equipment, supplies, and other resources, from the applicant organization or the lead applicant organization.

   (ii) The relevance and demonstrated commitment of each partner in the proposed project to the implementation and success of the project.

**Strengths:**

- The applicant has proven the adequacy of support by including provisions for facilities, technology, supplies, equipment, and other resources. University involvement by various offices, LEAs, agencies, etc. that offer coursework, financial, and certification information will support the teachers, mentors, and candidates during this project. (e33-36; e277-287) One example would be the Bronx River Alliance that will provide community venues to supplement the teaching of science. (e36) Additionally, through institutional collaborations, teacher residents will have access to digital tools for instruction in the classrooms. (e34)

- The partnerships for this project stem from a long-time commitment to the educational needs of these communities, including previous experiences with funded projects. This ongoing collaboration showcases the levels of commitments to student achievement for each of the partners. Letters of commitment are also included from leaders of Columbia University, support agencies, and the LEAs are provided. (e238-262)
Weaknesses:

- Many of the letters of support from legislators appear to be “boilerplate”. Detail on actual resource, personnel, and monetary commitments would be helpful in determining the applicant’s ability to sustain the program and to successfully reach fruition. (e238-262)
- Because of uncertainties about the time that residents and inductees will be spending in schools and classrooms; additional clarifications and commitments are needed. For example, it is uncertain if districts have committed to the possible need for multiple substitute teachers when the residents/inductees are away from their classrooms.

Reader's Score: 18

Selection Criteria - Quality of the Management Plan

1. The Secretary considers the quality of the management plan for the proposed project. In determining the quality of the management plan for the proposed project, the Secretary considers:

   (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.

Strengths:

- Because of the networking used prior to submitting the proposal and the successes of previous funded projects, it is highly likely that the applicant’s management plan is an effective plan and the qualified individuals and resources have been identified and employed to meet the responsibilities, timelines, and milestones of this project. (e56-61) A Program Management Timeline has been outlined that includes necessary components such as assignment of cohorts, stakeholder meetings and timing of some focus groups and surveys. (e78)
- Project staff have the credentials necessary to bring the project to fruition within budget and to meet the goals and objectives of the project. The Project Director and Co-Director appear to have the credentials and expertise necessary. (e56; e81-273; e277) For example, each has years of educational experiences at various levels and in relevant subject areas and have worked on previous TQP projects.
- The applicant has clearly outlined the credentials for several other key project staff. All appear well-qualified to work successfully toward meeting the project goals. Examples follow: A field coordinator will be hired to work as a liaison for the project between IHE and the LEAs. The individual for this position is not yet hired. A full-time Induction program coordinator and mentor is already in place with previous experience in this role. (e57; e277) Existing staff at the IHE will serve in assisting administration of budgeting, certification requirements and support services. The time allotted each individual is appropriate and the salaries are commensurate with their current employment. (e57; e81-273; e277) An evaluation team has been employed that has the credentials and experiences necessary to carry out a complex evaluation system. (e277) The IHE Research Scientist and a second research scientist will assist with data collection and other elements of the evaluation plan. (e58; e81-273)
- It is obvious that qualified content and special services faculty from the College of Arts and Sciences will be employed to fulfill the goals of the project. (e58; e81-273) Area support agencies will assist with elements of the project to strengthen content in engineering, ecology, and civics. (e59)
- The applicant has provided a logical plan to hold regular meetings of the project team, TC faculty representatives, a Steering Committee with representatives of all stakeholder groups, and Teacher Education Policy Committee will be held to plan, monitor, and evaluate the project. (e59-61) · Vitae of those in primary leadership roles are provided. (e80-237) All appear to be qualified with the necessary education, experience, and commitment to the project.

Weaknesses:

- The timeline is confusing and appears to have left off several of the activities of the project. More explanation and/or a more thorough legend would be helpful. (e78)
- A full-time field coordinator will be hired. This is an important position within the project. It would be helpful if a job description had been provided for the hiring of that position.
· Some activities are not aligned with the key personnel responsible for conducting the activities. Specific milestones are lacking, especially in relation to when certain activities and activities will be completed. (e54-55)

Reader's Score: 16

Selection Criteria - Quality of the Project Evaluation

1. The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:

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

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

Strengths:
· The evaluation system appears to be quite broad as multiple aspects of the project will be measured. Such aspects include observational data, satisfaction data, comparisons of the candidate’s ability to meet certification standards, a mixed methods design using both qualitative (teacher efficacy scale, observation protocol, interviews, etc.) and quantitative (GPRA) data will be used. A comparison group of matching traditional preparation new teachers will be utilized and will strengthen the evaluation system. Employment of a match-pair regression model appears to be an analysis that will strengthen evaluation. (e45-49)
· Some instruments have been proven reliable and valid, such as the Teacher Self-Efficacy Survey. (e51)
· The evaluation plan is quite complex and should serve to appropriately assess the value of the program and the intended goals and objectives. The evaluator appears to have the credentials and experiences necessary to fulfill this labor-intensive role. (e57-58; e213-217)
· The evaluators are internal and are housed in the Consortium for Policy Research in Education at Columbia University. However, assurances were made that the evaluation team will have no connection with the workings of the project other than the evaluation system. (e57-58)

Weaknesses:
· A considerable amount of data will be derived from an observation rubric of the new teachers. It would be beneficial for the applicant to explain why that protocol was adopted and whether or not the rubric has been validated or been checked for reliability. (e50-51)
· Table 4 requires a bit more explanation as to who is represented in each of the four cohorts. The make-up of each group is not delineated. (e54-55) Understanding the make-up of the cohorts will allow the evaluation team to produce clear results when the match-pair regression is conducted.
· Though the evaluation appears complex, the timeline for data collection is incomplete. For instance, time of formative and summative assessments, reporting opportunities, and who is responsible for each of these commitments is not clearly defined. (e57-58; e213-217)

Reader's Score: 17

Priority Questions

Competitive Preference Priority - Competitive Preference Priority 1

1. Projects designed to improve student achievement or other educational outcomes in computer science by increasing the number of educators adequately prepared to deliver rigorous instruction in STEM fields, including computer science, through recruitment, evidence-based
professional development strategies for current STEM educators, or evidence-based retraining strategies for current educators seeking to transition from other subjects to STEM fields.

**Strengths:**

- The applicant has provided a clear explanation that supports the inclusion of the Competitive Preference Priority for increasing STEM-C teachers who are highly-qualified. The proposal is designed to improve student achievement in STEM-C fields through successful completion of four pillars of the project. The pillars include: STEM+C Literacy and enrichment; Instructional, Digital, and Assessment Technologies; Universal Design for Learning and Inclusive Curriculum; and Co-Teaching and Co-Planning across STEM+C; Special Education and English as a Second Language. The integrated design of the program that leads to dual certification fits well with the needs of the student populations in the partnering districts. (e20)

- A rigorous program of instruction will be provided by the Science and Mathematics Educational Programs and the Teacher College, Columbia University, the collaboration of partnering institutions on coursework and experiences, multiple field experiences and practica in NYC schools. A partnership with the School of Engineering at Columbia University, and an intensive hands-on research project that is linked to community needs and resources are positive aspects of the proposal. Both will lead to the outcome of research-based training in STEM-C fields and help to make the new teachers more effective. (e20-23)

- The intent of the proposal is to recruit at least 48% of the cohort from underrepresented populations. Considering that three of the partnering districts are designated opportunity zones, the diverse pool of candidates will more closely match the population of students to be served. (e23-24)

**Weaknesses:**

- There are no apparent weaknesses in this application

**Reader's Score:** 5

**Invitational Priority - Invitational Priority**

1. An applicant may address one or both of the following priority areas:

   **Propose to serve children or students who reside, or attend TQP project schools, in a qualified opportunity zone as designated by the Secretary of the Treasury under section 1400Z-1 of the Internal Revenue Code, as amended by the Tax Cuts and Jobs Act (Pub. L. 115-97). In addressing this priority, an applicant must provide the census tract number of the qualified opportunity zone for which it proposes to serve children or students and describe the extent to which the applicant will serve individuals in the Qualified Opportunity Zone(s). OR**

   **Demonstrate in its application that it has received or will receive financial assistance from a qualified opportunity fund under section 1400Z-2 of the Internal Revenue Code, as amended by the Tax Cuts and Jobs Act, for a purpose directly related to its proposed project. In addressing this priority, an applicant must identify the qualified opportunity fund from which it has received or will receive financial assistance and describe the extent to which the applicant will use the financial assistance for its proposed project.**

**Strengths:**

**Weaknesses:**