

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

Status: Submitted

Last Updated: 07/10/2018 12:49 PM

Technical Review Coversheet

Applicant: Jobs For the Future Inc. (U411B180040)

Reader #1: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	13
Strategy to Scale		
1. Strategy to Scale	30	27
Quality of the Project Design and Management Plan		
1. Project Design/Management	35	25
Quality of the Project Evaluation		
1. Project Evaluation	20	0
Total	100	65

Technical Review Form

Panel #3 - EIR Mid-Phase - 4: 84.411B

Reader #1: *****

Applicant: Jobs For the Future Inc. (U411B180040)

Questions

Selection Criteria - Significance

1. In determining the significance of the project, the Secretary considers the following factors:

- (1) The magnitude or severity of the problem to be addressed by the proposed project.
- (2) The national significance of the proposed project.
- (3) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.

Strengths:

The magnitude and severity of the problem is related to three facts as cited by the applicant utilizing statistics from reliable sources. First, the number of STEM-related careers is expected to increase significantly over the next decade. Secondly, the number of qualified STEM applicants who are Americans citizens are low. Thirdly, the proportion of STEM qualified blacks and Hispanics is low in comparison to whites (page, 3). The national significance of the proposed project is also related to these same statistics, and if the project is implemented with fidelity, can serve as a model for other states in the United States of America. The model is to incorporate dual enrollment with institutions of higher learning with a specific focus on computer science for 9th – 12th graders. These students will be able to take college-level STEM related courses (page, Appendix G).

Weaknesses:

The proposal would have been an exceptional approach if more details on the STEM-related courses students would be required to take had been provided related to the specifics for the institutions of higher learning articulation agreements with the districts. Although the applicant included the T-STEM Blueprint and the P-TECH/ICIA Blueprint and a mention of MOUs/articulation agreements, the specifics of the STEM-related courses were not provided. Therefore, it was difficult to determine the extent to which these courses would focus on computer science. In addition, there were no strategies related to how to encourage students to take these STEM-related courses.

Reader's Score: 13

Selection Criteria - Strategy to Scale

1. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:

- (1) The extent to which the applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.
- (2) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.
- (3) The feasibility of successful replication of the proposed project, if favorable results are obtained, in a variety of settings and with a variety of populations.

Strengths:

The applicant cited research, which purports that families want more and better STEM and computer science choices for their children (page, 10). As noted by the applicant, 90% of parents want their children to learn computer science, but only 40% of the schools teach computer programming. One barrier noted by the applicant was a shortage of qualified STEM teachers, especially in computer science (page, 10). The strategy identified by the applicant is working with a partner to offer a program specific to training teachers in computer science. The program more than tripled the number of teachers in the state that are certified in high school computer science. The applicant's dissemination plan is feasible for the purpose of replication of the proposed project. There are specific blueprints which describes the dual enrollment program. The applicant is already a known leader in the national movement for dual enrollment. The applicant is already supporting other states related to their program to train teachers as related to computer science (page, 13-14).

Weaknesses:

Although the applicant indicates that their program to train teachers in computer science has been successful as measured by the number of certified CS teachers, the specifics of this program were not provided. Without these details, it is difficult to determine the extent to which this program is appropriate to train teachers who are not STEM-degree majors, to have the appropriate skills to lead STEM within their classrooms.

Reader's Score: 27

Selection Criteria - Quality of the Project Design and Management Plan

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

- (1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.
- (2) 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.
- (3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.
- (4) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the applicant beyond the end of the grant.

Strengths:

The applicant on (page, 14-17) in Table 1 provided clearly specified goals, objectives and measurable outcomes. As an example of a measureable outcome, increase 10% annually schools statewide offering STEM, CS, or cybersecurity coursework. This outcome can be objectively assessed by the evaluator to determine if it was met. The other outcomes were similarly defined. The applicant's timeline was detailed enough which provided defined responsibilities and milestones for accomplishing the project tasks (page, 19-22, Table 2). The applicant provided the qualifications and experience of the project lead and key personnel assigned to this grant (see résumés in the Appendix). The qualifications and experiences of these key personnel are appropriate based on the number of years cited and previous work experience cited by the applicant. The applicant included some details related to the procedures for ensuring feedback for continuous improvement purposes (page, 22).

Weaknesses:

It was not clear how the applicant will ensure objectives will be met on time and within budget. Another area of concern was the amount of time the key personnel will be assigned to this grant. The FTE for these key positions was not provided, without this information it is difficult to determine if the time will be sufficient and provide the needed reasonable resources for this grant. Although the applicant has a continuous process improvement plan, there are aspects of the plan which lacks specificity (page, 12). It was not clear what type of formative data will be used for the purpose of evaluating implementation fidelity, and for the purposes of iteratively improving the project throughout the grant period. Finally, in addressing criterion C.4, the applicant indicated that they will continue to fund this initiative (page, 23) yet, this does not

fully address sustainability. It would have been helpful if the applicant would have addressed why no more funds will be needed, hence, benefits into the ongoing work of the applicant beyond the end of this grant. For instance, if additional funds are needed to support the technology and professional development, it is not clear how these funds will be secured.

Reader's Score: 25

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation, the Secretary considers the following factors:

(1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards without reservations as described in the What Works Clearinghouse Handbook (as defined in this notice).

(2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.

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

(4) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation.

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

Status: Submitted

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Last Updated: 07/10/2018 01:47 PM

Technical Review Coversheet

Applicant: Jobs For the Future Inc. (U411B180040)

Reader #2: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	0
Strategy to Scale		
1. Strategy to Scale	30	0
Quality of the Project Design and Management Plan		
1. Project Design/Management	35	0
Quality of the Project Evaluation		
1. Project Evaluation	20	18
Total	100	18

Technical Review Form

Panel #3 - EIR Mid-Phase - 4: 84.411B

Reader #2: *****

Applicant: Jobs For the Future Inc. (U411B180040)

Questions

Selection Criteria - Significance

1. In determining the significance of the project, the Secretary considers the following factors:

- (1) The magnitude or severity of the problem to be addressed by the proposed project.
- (2) The national significance of the proposed project.
- (3) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

Selection Criteria - Strategy to Scale

1. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:

- (1) The extent to which the applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.
- (2) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.
- (3) The feasibility of successful replication of the proposed project, if favorable results are obtained, in a variety of settings and with a variety of populations.

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

Selection Criteria - Quality of the Project Design and Management Plan

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

- (1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.
- (2) 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.
- (3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.
- (4) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the applicant beyond the end of the grant.

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation, the Secretary considers the following factors:

- (1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards without reservations as described in the What Works Clearinghouse Handbook (as defined in this notice).
- (2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.
- (3) The extent to which the methods of evaluation will provide valid and reliable performance data on relevant outcomes.
- (4) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation.

Strengths:

The application proposes a cluster randomized control trial with the schools randomized. If done well it should be able to qualify for WWC Standards without reservations.

The six research questions (pg 25) are appropriate to determine the extent of the success of the intervention and the answers to these questions when analyzed for student characteristics (moderators) should be able to provide guidance on the appropriateness of replication for other states or regions. The cost-benefit analysis should provide possible future intervention adopters with valuable information to help guide their decision.

The data set will consist of many variables assessing achievement, college and career readiness, and retention and graduation providing a rich data set. The intended outcome measures have face validity and likely acceptable reliability.

A plan has been developed for establishing regular feedback mechanisms/meetings to monitor the fidelity of program implementation.

The project components, mediators, and measurable are identified and are appropriate. Possible measurable thresholds

for acceptable implementation have been suggested.

Weaknesses:

Most of the content knowledge testing is from Texas state academic assessments (STAAR Algebra I, STAAR English I & II, STAAR Biology, TSI Reading, and TSI Math). The application would have been strengthened by providing the internal reliabilities of these instruments.

Insufficient information is provided on the formative data to be collected and analyzed.

Reader's Score: 18

Status: Submitted

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Technical Review Coversheet

Applicant: Jobs For the Future Inc. (U411B180040)

Reader #3: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	15
Strategy to Scale		
1. Strategy to Scale	30	26
Quality of the Project Design and Management Plan		
1. Project Design/Management	35	30
Quality of the Project Evaluation		
1. Project Evaluation	20	0
Total	100	71

Technical Review Form

Panel #3 - EIR Mid-Phase - 4: 84.411B

Reader #3: *****

Applicant: Jobs For the Future Inc. (U411B180040)

Questions

Selection Criteria - Significance

1. In determining the significance of the project, the Secretary considers the following factors:

- (1) The magnitude or severity of the problem to be addressed by the proposed project.
- (2) The national significance of the proposed project.
- (3) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.

Strengths:

- 1) The applicant did a thorough job of describing an overall emphasis on computer science and STEM. This project will scale College Career Readiness Model throughout Texas by indicating the importance of dual enrollment that blends high school and college coursework (pg.1). The Lone Star STEM project addresses the severity of high quality STEM opportunities for high-need students focusing on the necessary skills to embark in the emerging field of cybersecurity.
- 2) The applicant stressed the importance of underrepresented students increasing postsecondary access and attainment in rural areas (pg.4). Specifically indicating Texas has the second-largest economy of any state in the U.S. yet inequity and poverty abound. The three poorest U.S. counties are all located in Texas and more than 3 million youth of the state's public-school students are economically disadvantaged.
- 3) The project supports STEM education via scaling leading-edge, dual enrollment based CCRMs. The project provides an immense opportunity to scale innovation that particularly promises to benefit high needs students across the state (pg.6).

Weaknesses:

No weaknesses noted.

Reader's Score: 15

Selection Criteria - Strategy to Scale

1. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:

- (1) The extent to which the applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.
- (2) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.

(3) The feasibility of successful replication of the proposed project, if favorable results are obtained, in a variety of settings and with a variety of populations.

Strengths:

- 1) The applicant demonstrates an unmet demand to improve high-need students' by focusing on computer skills and high-quality STEM education. This project incorporates several scaling up strategies, such as a shortage of qualified STEM teachers, limited access to STEM coursework and dual enrollments in rural regions (pg.10). Furthermore, the project identifies disparities that create a need for innovative strategies to prepare existing teachers to teach cybersecurity and coding.
- 2) The applicant provides effective strategies that address barriers to improve students' computer programming outcomes. This project will design, implement, and codify solutions for overcoming the barriers. Through this project teachers will receive 100 hours of professional development each year and will provide technical assistance that directly addresses rural challenges. The project identifies specific gaps in building school capacity and will provide guidance to schools implementing CCRMs to design school-level structures and programs aligned with the blueprint objectives (pg. 13).
- 3) The sustainability of the project is well designed to secure the continuation of the key elements of CCRMs in STEM lessons after the end of the grant period. The applicant states the project will convene a Lone Star STEM school peer-learning network which surface common challenges and best practices. The project partners will document the challenges and successes in publications such as case studies and briefings. The project has indicated an evaluation from American Institutes for Research that will provide rigorous research on how CCRMs create better outcomes needed for success.

Weaknesses:

- 3) The project has strong connections to the project partners and data will be reported on the peer-learning network. However, the reports and blogs will be documented but more appropriate data and information on how data will be obtained.

Reader's Score: 26

Selection Criteria - Quality of the Project Design and Management Plan

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

- (1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.**
- (2) 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.**
- (3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.**
- (4) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the applicant beyond the end of the grant.**

Strengths:

- 1) The goals and objectives are clearly stated on page 14 indicating the understanding of improving the educational outcomes of high-need students in STEM emphasizing on CS and cybersecurity. The timeline (pgs. 14-16) stipulates the overall measures over the five-year grant process. The management team has delineated clear roles and responsibilities aligned to clear measurable objectives.

2) The applicant has a well-planned structured to manage the project. Lone Star STEM will create a partnership with JFF, TEA, and UTCSE in scaling STEM-focused throughout Texas using dual enrollment as a key lever for improving student outcomes. The management plan indicates several measures to monitor the effectiveness of the program by ensuring the accountability within the clear roles and responsibilities identified in the project (pgs.19-21).

3) The applicant states a strong system that will track the implementation of the project goals and objectives. Several indicators such as formal and informal inquiry processes with all Lone Star STEM schools and partner meetings will ensure the sustainability of the proposed program. The chart on page 21 creates a good visual representing the structure of meeting the continuous improvement.

4) The applicant indicates an independent evaluation of the Lone Star STEM Project to address six research questions regarding the impact and implementation on student achievement, college readiness, retention, and graduation rates. The ongoing activities will analyze implementation data from school sites and measure the level attrition and the STEM domains for success.

Weaknesses:

3) As the goals and objectives are clearly stated (pg.21) the specifics on how they will be measured are insufficient. Such as, monitor with fidelity, conduct independent evaluations, track, and retain samples.

Reader's Score: 30

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation, the Secretary considers the following factors:

(1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards without reservations as described in the What Works Clearinghouse Handbook (as defined in this notice).

(2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.

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

(4) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation.

Strengths:

n/a

Weaknesses:

n/a

Reader's Score: 0

Status: Submitted

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Status: Submitted

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Technical Review Coversheet

Applicant: Jobs For the Future Inc. (U411B180040)

Reader #4: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	0
Strategy to Scale		
1. Strategy to Scale	30	0
Quality of the Project Design and Management Plan		
1. Project Design/Management	35	0
Quality of the Project Evaluation		
1. Project Evaluation	20	18
Total	100	18

Technical Review Form

Panel #3 - EIR Mid-Phase - 4: 84.411B

Reader #4: *****

Applicant: Jobs For the Future Inc. (U411B180040)

Questions

Selection Criteria - Significance

1. In determining the significance of the project, the Secretary considers the following factors:

- (1) The magnitude or severity of the problem to be addressed by the proposed project.
- (2) The national significance of the proposed project.
- (3) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Selection Criteria - Strategy to Scale

1. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:

- (1) The extent to which the applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.
- (2) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.
- (3) The feasibility of successful replication of the proposed project, if favorable results are obtained, in a variety of settings and with a variety of populations.

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Selection Criteria - Quality of the Project Design and Management Plan

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

- (1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.
- (2) 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.
- (3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.
- (4) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the applicant beyond the end of the grant.

Strengths:

NA

Weaknesses:

NA

Reader's Score: 0

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation, the Secretary considers the following factors:

- (1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards without reservations as described in the What Works Clearinghouse Handbook (as defined in this notice).
- (2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.
- (3) The extent to which the methods of evaluation will provide valid and reliable performance data on relevant outcomes.
- (4) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation.

Strengths:

The project evaluation proposes a rigorous research design (randomized control trial) along with the random assignment of 50 schools (25 of which will be randomly assigned to implement the Lone Star STEM Project and 25 of which will continue to conduct business as usual to be assigned the control group) meeting the WWC standards without reservations requirements (p. 25).

The project evaluation provides clearly articulated evaluation questions addressing project impact on student outcomes and fidelity of project implementation (p. 24-25).

The project evaluation provides the detailed results of the power analysis assessing for minimum sample sizes and detectable effect sizes to adequately assess program impact and expected attrition (Appendix G, #3).

The project evaluation provides a comprehensive list of the project's student outcomes aligned with grade level and school year (Table 7, p. 27). Texas Education Agency (TEA), state dept. of education, will be providing the project with valid and reliable student outcome data (p. 25, 27).

The project evaluation proposes to identify a measurable threshold for acceptable implementation prior to data collection (p. 30).

The project evaluation proposes to conduct a cost analysis for scale-up and sustainability of the project (p. 28-29).

The project evaluation proposes a detailed plan for guiding the future replication of Lone Star STEM in other schools with high needs students (p. 13-14, 29) and sustainability of the project (p. 23-24).

The project evaluation proposes to conduct a formative evaluation to provide the Project Leadership Team with extant data analysis to be used to determine whether the project is meeting its quantitative performance measures regarding to student participation and outcomes, as well as information regarding how schools are implementing the program (p. 23). Multiple methods of data quantitative and qualitative data collection (surveys, attendance logs, interaction logs, observations, focus groups, interviews) will be used throughout to assess the fidelity of implementation of the project (p. 29-30).

Weaknesses:

Although the project evaluation states that all outcome measures meet the What Works Clearinghouse face validity and reliability requirements (p. 27), the evaluation does not provide information on the psychometrics of the instrumentation to be used to collect survey data rendering it impossible to assess whether they will provide valid and reliable data on relevant outcomes to the project (p. 29-30).

Although the project evaluation proposes to include a cost effectiveness of the interventions, it does not provide a detailed plan as to “how” the evaluators will address the cost effectiveness analysis for scale-up and sustainability of the project (p. 28-29).

Reader's Score: 18

Status: Submitted
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Status: Submitted

Last Updated: 07/11/2018 10:30 AM

Technical Review Coversheet

Applicant: Jobs For the Future Inc. (U411B180040)

Reader #5: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Significance		
1. Significance	15	13
Strategy to Scale		
1. Strategy to Scale	30	30
Quality of the Project Design and Management Plan		
1. Project Design/Management	35	30
Quality of the Project Evaluation		
1. Project Evaluation	20	0
Total	100	73

Technical Review Form

Panel #3 - EIR Mid-Phase - 4: 84.411B

Reader #5: *****

Applicant: Jobs For the Future Inc. (U411B180040)

Questions

Selection Criteria - Significance

1. In determining the significance of the project, the Secretary considers the following factors:

- (1) The magnitude or severity of the problem to be addressed by the proposed project.
- (2) The national significance of the proposed project.
- (3) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.

Strengths:

1. The proposal describes the need to increase postsecondary attainment in STEM fields: STEM-related jobs are growing and pay a higher-than-average salary (p. 3). Yet at the same time, interest in STEM majors is declining, particularly for women, underrepresented students of color, and economically disadvantaged students (p. 3). Thus, it is of critical importance to support students in entering postsecondary education in STEM fields, particularly computer science, and particularly for underrepresented groups.
2. Demographically and geographically, Texas is a microcosm representing the U.S. as a whole (p. 4). This project addresses the need for college and career readiness in STEM and computer science, and will scale and expand existing programs to the entire state (p. 4). The diverse contexts in which the program will be implemented will make lessons learned from the project generalizable across the country (p. 5). The partners have worked together for over 15 years and have a successful track record of scaling early college high schools (pp. 5-6).
3. The project will expand College and Career Readiness Models (CCRMs) in Texas schools by creating new pathways in STEM, computer science, and cybersecurity (p. 2). The research cited on CCRMs and dual enrollment suggests that these interventions have positive outcomes for diverse groups of students (p. 6). The project will leverage state legislation that requires districts to define course sequences and establishes computer science and cybersecurity as top priorities for education (p. 7).

Weaknesses:

3. The proposal does not describe the STEM or computer science content that will be addressed in the college and career readiness models. It's not clear how well the project aligns with Absolute Priority 3, as the project description focuses primarily on the school design rather than the coursework (pp. 7-8).

Reader's Score: 13

Selection Criteria - Strategy to Scale

1. In determining the applicant's capacity to scale the proposed project, the Secretary considers the following factors:

- (1) The extent to which the applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.
- (2) The extent to which the applicant identifies a specific strategy or strategies that address a particular

barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.

(3) The feasibility of successful replication of the proposed project, if favorable results are obtained, in a variety of settings and with a variety of populations.

Strengths:

1. The state context is ripe for this project. In general, there is a need for increased STEM education, particularly for students to be prepared to fill STEM jobs (p. 8). The Texas legislature has taken steps to encourage schools to offer STEM and CS coursework, and recently created a STEM high school diploma endorsement (p. 9). Recent legislation has focused on the need to build a talent pipeline for CS and cybersecurity, and changed the state education code to make it easier for schools to offer cybersecurity courses (p. 9). Yet along with an overall teacher shortage, only 71 teachers were certified to teach CS four years ago, and demand for professional development in CS has exceeded available slots (pp. 9-10). Student enrollment in CS and STEM courses has rapidly increased, but this growth has been in mostly affluent schools, and female students and Black and Hispanic students are still underrepresented (p. 10). The project will address the teachers' demand for professional learning in CS and STEM, and as a result, will enable more students to take these courses.

2. The applicant clearly describes three barriers they have encountered in the past and the way that this funding will help to mitigate these barriers. They have found it difficult to scale CCRMs due to a lack of qualified teachers in CS, a limited access to advanced coursework and dual enrollment in rural regions of the state, and an inadequate school capacity to design STEM and CS pathways (p. 10). To overcome these barriers, the applicant proposes to scale an existing teacher professional development program to provide 200 teachers with certification in CS, target rural areas and provide funding and assistance to their creation of STEM and CS CCRMs, and leverage their resources and personnel to provide guidance and support to schools (pp. 10-11).

3. The proposal describes how Texas's size and heterogenous population and settings will allow the project to gain data on implementation in a variety of contexts, allowing them to generalize lessons learned to other states (p. 5). The applicant plans to examine these common challenges and best practices and create documents for dissemination in order to assist other regions and states (p. 13).

Weaknesses:

No weaknesses noted.

Reader's Score: 30

Selection Criteria - Quality of the Project Design and Management Plan

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

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

(2) 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.

(3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

(4) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the applicant beyond the end of the grant.

Strengths:

1. The goals, objectives, and outcomes are clearly described and aligned in Table 1 (pp. 14-17). The outcomes are measurable and performance measures aligned with each objective describe the anticipated measurement of each (pp. 15-17). Goals address multiple facets of the project, including a focus on student access as well as increased participation

and educational outcomes for students, increased school capacity, and dissemination of best practices (pp. 14-17).

2. Three main entities are collaborating on the project, and each has a specific role that is outlined in Figure 2 (p. 18). The tasks listed in the management plan (Table 2) are generally clear, specific, and aligned with broader activities under each goal. Objectives and performance measures are also aligned to each activity (pp. 19-22).

3. The proposal contains a plan for yearly formative evaluation, as well as regular communications and procedures for obtaining and using feedback (p. 22). The proposal outlines specific meetings that will occur regularly between project collaborators, including bi-weekly meetings, monthly meetings with the evaluator, and quarterly meetings with the peer learning network (p. 22). At these meetings, formative data will be discussed and used to make course corrections (p. 23).

4. The proposal lays out a convincing argument for the project to continue after the grant expires. The project incorporates the new STEM and CS pathways into the existing CCRM structure in the state, making it likely that the pathways will become integrated into the CCRM work (p. 23). The project will also focus on building capacity in schools (p. 24).

Weaknesses:

2. The due date for each milestone is somewhat vague, and although the responsible organization is listed, the proposal would be strengthened with more specific due dates and the responsible individual. Further, some of the milestones are also too vague: for example, "support teachers enrolled in online Foundations of CS for Teachers course" does not provide sufficient detail to know how the teachers will be supported (p. 20).

3. Although the proposal describes the process for reviewing formative data, it does not describe what formative data will be gathered. It's not clear from the proposal what types of data will be gathered and which outcomes they will relate to.

Reader's Score: 30

Selection Criteria - Quality of the Project Evaluation

1. In determining the quality of the project evaluation, the Secretary considers the following factors:

(1) The extent to which the methods of evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet the What Works Clearinghouse standards without reservations as described in the What Works Clearinghouse Handbook (as defined in this notice).

(2) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings.

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

(4) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation.

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

Status: Submitted
Last Updated: 07/11/2018 10:30 AM