

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

Status: Submitted

Last Updated: 10/30/2020 07:42 PM

Technical Review Coversheet

Applicant: Jobs for the Future, Inc. (S411C200066)

Reader #1: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Quality of Project Design		
1. Quality of Project Design	40	31
Sub Total	40	31
Resources and Quality of Management Plan		
Resources and Quality of Management Plan		
1. Resources and Management	35	29
Sub Total	35	29
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	25	21
Sub Total	25	21
Priority Questions		
CPP		
Competitive Preference Priority 1		
1. Computer Science	5	5
Sub Total	5	5
Total	105	86

Technical Review Form

Panel #3 - FY20 EIR Early Phase- AP2 STEM - 3: 84.411C

Reader #1: *****

Applicant: Jobs for the Future, Inc. (S411C200066)

Questions

Selection Criteria - Quality of Project Design

1. The Secretary considers the quality of the design of the proposed project based on the following factors:

Reader's Score: 31

Sub

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

Strengths:

Figure 1 (project logic model) lists the inputs, activities, outputs, and outcomes, and Table 1 identifies goals, objectives, performance measures and outcomes. Figure 1 and Table 1 (p. e19) with supporting text are clearly written and effectively included at the onset of the narrative to frame the rest of the proposal.

Weaknesses:

The goals, objectives and outcomes are clearly specified and measurable. while not part of the formal scoring of the application, the readability would be improved by reducing the number of acronyms to describe the project (e.g., work-based courses: WBC; work-based learning: WBL; early postsecondary opportunities: EPSOs; Tennessee Department of Education: TDOE; dual credit: DC; dual enrollment: DE; Works Clearinghouse: WWC; American Institutes of Research: AIR). Also, the proposal would be strengthened by providing a more thorough description of the treatment. Page e2 says: "WBC will be structured as early postsecondary opportunities (EPSOs), such as dual enrollment (DE), dual credit (DC), and Advanced Placement (AP) courses." and research is cited demonstrating the effectiveness of DE and AP (see below). Dual enrollment and dual credit are similar/the same, but different from AP. The only thing in common is that AP and DE allow high school students to obtain college credit. The goals and objectives would be strengthened by including a clearer description of the treatment (see more below).

Reader's Score: 6

2. (2) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.

Strengths:

Page e2: "The Project will serve high-need students, defined as those who are Black, Hispanic, female, and/or economically disadvantaged, in the 11th and 12th grades", and the project includes strong academic supports and career advising embedded as core components to support student success. In addition, p. e4 (Table 1) includes an objective to "increase students' and families' understanding of the value of STEM/CS." Meanwhile, the 20 new schools creating and offering work-based courses will be disaggregated by rural, urban, and suburban areas. Inclusion of these activities demonstrates how the project will support its target population of high-needs students, and page e8 mentions how the project design will address transportation barriers that may prevent high-need

Sub

students from participating by including both remote learning and in-person models in which the classroom and hands-on components are co-located in workplaces in order to minimize the need for transportation. Pages e6-e7 make a compelling case for why the Tennessee communities targeted for this project have a need for this type of intervention.

Weaknesses:

As explained on page e23, the evaluator will conduct moderation analyses to determine whether the program has a differential effect for Black and Latinx students and female students. The proposal, however, should clarify that the emphasis (i.e., confirmatory research) is on main effects for the overall sample and the evaluation will (at best) offer a preliminary (or exploratory) understanding of how the proposed activities impact outcomes of the target population.

Reader's Score: 9

3. (3) The extent to which the design of the proposed project reflects up-to-date knowledge from research and effective practice.

Strengths:

Relevant, current research is cited for both dual enrollment and work-based learning (WBL) are provided on page e3. In addition, the proposal cites an evaluation on WBL that was conducted by Jobs for the Future.

Weaknesses:

The full citation for the evaluation conducted by Jobs For the Future (JFF) on work-based learning (WBL) was not provided in the references on p. e27 and a discussion of the type of evaluation design conducted for this study was not included or discussed so the relevance to the proposed project could not be examined. This is a minor point, but it is unclear why more details of this study were not provided to support the proposed project especially as it was conducted by the applicant. The narrative only says: "An evaluation of a WBC pilot led by JFF found that WBC improved academic and career outcomes" (p. e3). Meanwhile, p. e3 says: "Research shows a correlation between student participation in EPSOs and higher outcomes on college and career readiness assessments." There are no citations, however, supporting the evidence base of this combination of activities (i.e., dual enrollment plus WBL, or AP plus WBL, etc.). The proposal would be strengthened by describing a theory of change supporting this combination of strategies, with citations to support the theory of change.

Reader's Score: 6

4. (4) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.

Strengths:

Page e10 effectively describes how the project is aligned with several state-wide initiatives in Tennessee. In addition, the project proposes to develop publicly available tools and resources for replication in the field (including a blueprint that will be made publicly available, and which will provide a clear framework used to improve outcomes for high-need students, as noted on p. e19).

Weaknesses:

No weaknesses identified.

Reader's Score: 10

Resources and Quality of Management Plan - Resources and Quality of Management Plan

1. The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project based on the following factors:

Reader's Score: 29

Sub

1. (1) 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 includes an organizational chart (Figure 2, p. e13) that clarifies the structure of this project, which involves a partnership between four large stakeholder groups (i.e., Jobs for the Future, the TN department of education, the evaluation team, and the partnering high schools). Clear and specific roles involving execution of the goals and objectives are provided in Table 1 (p. e4), and milestones for each project activity is listed in Table 2 (p. e14).

Weaknesses:

While the organization chart (Figure 2, p. e13) is helpful, if the Project Director (Ms. O'Conner) is overseeing the initiative, it seems to make sense that she would be placed at the top of the hierarchy. As illustrated, it seems the project director, project leadership team, and evaluation team all have equal authority in overseeing the project. However, p. e15 states: "JFF will manage and oversee the Project." The org chart should be revised to also reflect the true reporting structure planned for the project which would clarify the assigned responsibilities and potentially minimize confusion between stakeholders.

Reader's Score: 7

2. (2) The extent to which the costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.

Strengths:

The project costs are reasonable in that they involve developing and evaluating practices, tools, strategies, and resources that are designed to be replicated and used beyond the grant period throughout Tennessee and in other states. In addition, matching funds from the Tennessee Department of Education are detailed (see p. e15).

Weaknesses:

The budget justification listed on p. e110 describes the overall costs for providing competitive awards to schools without any details of the size of individual awards that will be allocated to each school.

Reader's Score: 3

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

Strengths:

The identified personnel have expertise and experience with many aspects of the proposed project (as detailed in Table 3 on p. e16) and have experience managing projects of this scale. In addition, the evaluation is headed by independent evaluators that do not have an investment in finding the intervention effective (or not) and the evaluators are versed in external evaluation procedures.

Sub

Weaknesses:

No weaknesses identified.

Reader's Score: 5

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

Strengths:

Pages e17-e18 explain the proposed formative evaluation and regular communications that are planned to ensure feedback and project improvement throughout the life of the grant. Specifically, Jobs for the Future will develop an assessment tool designed to organize and document learning in both the classroom and the workplace (Goal 2, p. e14), Jobs for the Future and the Tennessee Department of Education will hold biannual virtual community of practice convenings (Goal 4, pl. e14), Jobs for the Future will update its detailed project work plan annually based on feedback and evaluation (p. e14), and quarterly emails will be sent to all partnerships providing updates and soliciting feedback (p. e15). In addition, as explained in Appendix I, the evaluation team plans to meet monthly with the project team to discuss updates to the project and evaluation.

Weaknesses:

No weaknesses identified.

Reader's Score: 10

5. (5) The extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information or strategies.

Strengths:

A detailed dissemination plan is provided on pp. e19-e20. In addition, as p. e3 explains, the project will generate a suite of resources (e.g., tools, resources, and publications) to support replication of the project and increase knowledge around strategies for improving students' college and career readiness and STEM/CS skill attainment. Goal 4 in Table 1 (p. e6) even states the number of and type of products to be generated (e.g., At least four tools designed to assist other states and regions in replicating or adapting Project-related policies and practices; At least two publications documenting Project successes and challenges - e.g., case studies, policy briefs, online blogs, reports; Present on the Project to at least two national conferences with a similar focus - e.g., EPSOs, WBL, college and career pathways).

Weaknesses:

The project should consider social media platforms to help disseminate project findings.

Reader's Score: 4

Selection Criteria - Quality of the Project Evaluation

1. The Secretary considers the quality of the evaluation to be conducted of the proposed project based on the following factors:

Reader's Score: 21

Sub

1. **(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 with or without reservations as described in the What Works Clearinghouse Handbook (as defined in this notice).**

Strengths:

The proposed study involves a quasi-experimental design with propensity score matching (and the matching variables include both student-level achievement and income, which are requirements of WWC for postsecondary outcomes). In addition, comparison students will be grade 11 students completing the same STEM/CS pathways in similar high schools that are not participating in the Project in the same school years and districts. And the proposed analytic method controls for clustering of students within schools. Complete case analysis will be used to handle missing data (which is common among education studies).

Weaknesses:

Attrition is not discussed (though one can assume since the project proposes all administrative records as outcomes, attrition should be minimal). However, the proposal lacks any discussion related to attrition, inclusion of which would strengthen the proposal.

Reader's Score: 13

2. **(2) 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:

Table 5 (p. e21) offers a clear and concise summary of the project outcomes. In addition, Table 6 (p. e25) provides a helpful description of the key components and the preliminary thresholds for acceptable implementation and the proposal explains how the evaluator will work with the project team to finalize a measurable threshold for acceptable implementation before collecting implementation data. And p.e26-e.27 provide a logical description of the proposed mediation analyses.

Weaknesses:

Page e21 reads: "Treatment and comparison students will be followed to grade 12 and postsecondary." College enrollment and college completion are the college and career outcomes identified in Table 5 (p. e21). Beginning in year 3, AIR will conduct the impact study with the 2022-23 (cohort 1) and 2023-24 (cohort 2) school years. Appendix I states: "The grant begins on January 1, 2021 and ends on December 31, 2025" and the evaluation timeline states that all outcome data will be analyzed by August 2025. It therefore does not seem then there will be sufficient number of years/sample size to examine postsecondary outcomes based on the following calculations: 1) Cohort 1: gr 11 2022-23; gr 12 2023-24; Yr 1 college 2024-25; 2) Cohort 2: gr 11 2023-24; gr 12 2024-25. The feasibility of examining postsecondary outcomes should be clarified in the proposal. Also, the proposal would be strengthened by clarifying for which outcomes the power analysis (described on page e23) was calculated to detect an effect size for.

Reader's Score: 3

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

Strengths:

The proposal provides evidence that all outcome measures have face validity and are reliable. Also, written into the timeline in Appendix I is the following: "Register evaluation design with the Registry of Efficacy and Effectiveness

Sub

Studies” , which is a strength because preregistration creates a timestamped record of planned analyses and hypotheses before data are collected and analyzed. Doing so is vital for reducing the common problem of selective reporting of results and therefore improves the reliability and credibility of findings.

Weaknesses:

No weaknesses identified.

Reader's Score: 5

Priority Questions

CPP - Competitive Preference Priority 1

1. Competitive Preference Priority 1: Computer Science

Projects designed to improve student achievement or other educational outcomes in computer science (as defined in this notice). These projects must address the following priority area: Expanding access to and participation in rigorous computer science coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in this notice), children or students with disabilities (as defined in this notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).

Strengths:

As p. e2 states, the main goal of the project is to develop, implement, and test the feasibility of an innovative approach to STEM and computer science (STEM/CS) education for 11th and 12th graders and the project describes efforts to support their target population of high-need students, defined as those who are Black, Hispanic, female, and/or economically disadvantaged.

Weaknesses:

No weaknesses identified.

Reader's Score: 5

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Technical Review Coversheet

Applicant: Jobs for the Future, Inc. (S411C200066)

Reader #2: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Quality of Project Design		
1. Quality of Project Design	40	39
Sub Total	40	39
Resources and Quality of Management Plan		
Resources and Quality of Management Plan		
1. Resources and Management	35	34
Sub Total	35	34
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	25	23
Sub Total	25	23
Priority Questions		
CPP		
Competitive Preference Priority 1		
1. Computer Science	5	5
Sub Total	5	5
Total	105	101

Technical Review Form

Panel #3 - FY20 EIR Early Phase- AP2 STEM - 3: 84.411C

Reader #2: *****

Applicant: Jobs for the Future, Inc. (S411C200066)

Questions

Selection Criteria - Quality of Project Design

1. The Secretary considers the quality of the design of the proposed project based on the following factors:

Reader's Score: 39

Sub

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

Strengths:

Most of the goals, objectives, and outcomes of the proposed project are clearly specified and measurable (pp. e19 – e21). Furthermore, the goals, objectives, and outcomes reflect all phases of the work, emphasizing important student outcomes as well as capacity building and dissemination. This is a strength because most of the goals, objectives, and outcomes are clearly specified and measurable.

The project plans to measure data on students' college enrollment and completion of STEM/CS industry-recognized credentials, certificates, or licenses. These types of outcomes can be difficult to measure because timelines of five-year projects are often not sufficient to gather the data. However, based on Table G1 (starting on page e103), the first students to participate in the study will be 11th graders in January 2023 (cohort 1 implementation year and cohort 2 baseline year). Eleventh grade students from cohort 1 may begin postsecondary education in the Fall of 2024, and 11th graders from cohort 2 may begin postsecondary education in the Fall of 2025. Table G1 indicates that statistical analyses on the impacts of the intervention on students will take place in August 2025 (after all participating students have graduated high school and have either enrolled in postsecondary education or not).

Table 5 on page e36 clearly indicates that the STEM/CS industry-recognized credentials are referring to those completed by the end of 12th grade, and college enrollment is something that can also be measured by the end of 12th grade. Thus, the project has fit within a tight timeline an important outcome that is infrequently measured (enrollment in college). This is a strength because the project outcomes are clearly specified and measurable.

Weaknesses:

There is little information on the professional development for teachers of WBC. The proposal would be strengthened by more clearly specifying the details related to the professional development goal.

Reader's Score: 9

2. (2) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.

Sub

Strengths:

The plan to have high schools partner with academic faculty and a staff member of a local employer (who will serve as a WBC teacher) is innovative (p. e17). This plan is highly likely to meet the needs of the target population because students will make connections with people in nearby academic institutions and potential employers. These connections are likely to go far in supporting student confidence and in helping faculty and employers identify pools of talent outside of more traditional search approaches. This is a strength because it bridges secondary schools, postsecondary schools, and businesses in a way that is likely to be deeply meaningful for target students.

The proposal also plans to provide transportation for students to attend early postsecondary opportunities or work-based learning opportunities. This is a strength because it removes a key barrier preventing low-income students from participating in potentially transformative learning experiences. It strengthens the proposal because it will help ensure that the project will successfully address the needs of the target population.

Weaknesses:

No weaknesses identified.

Reader's Score: 10

3. (3) The extent to which the design of the proposed project reflects up-to-date knowledge from research and effective practice.

Strengths:

On pages e23 – e25, the proposal describes extensive research supporting all aspects of the project, including support for early postsecondary and dual enrollment opportunities and work-based learning. This is a strength because the project is designed based on up-to-date knowledge from research and effective practice.

Weaknesses:

No weaknesses identified.

Reader's Score: 10

4. (4) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.

Strengths:

The project has the potential to make important knowledge contributions related to the combined impact of Early Postsecondary Opportunities and Work Based Learning in the newly designed work-based courses. This is a strength because the project holds the promise of having strong impacts on a difficult educational problem (underrepresentation of minority students and women in STEM) and the development of a model of a potentially effective strategy that could be replicated.

Weaknesses:

No weaknesses identified.

Reader's Score: 10

Resources and Quality of Management Plan - Resources and Quality of Management Plan

1. The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project based on the following factors:

Reader's Score: 34

Sub

- 1. (1) 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 strength of the project is the well-defined management plan that includes an organizational chart (e28) and a detailed table of activities, milestones, and timeline (e28-e30). The table includes key project activities such as development of the Request for Proposals, development of the WBC Blueprint and WBL assessment tools, schedule for site visits, and clear statements for when the team would make changes to the project based on feedback. This is a strength because it is clear that the management plan is adequate to achieve the objectives of the proposed project on time and within budget, and it includes clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.

Weaknesses:

No weaknesses identified.

Reader's Score: 10

- 2. (2) The extent to which the costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.**

Strengths:

The funds requested seem reasonable based on the management and research needs for a large-scale project involving 40 high schools (p. e38). Furthermore, the potential significance of the programs (development and testing of a model that may begin to support underrepresented students in entering STEM fields) is likely well worth the costs of the project.

Weaknesses:

The budget justification provides information on the total expenditure for the grants (p. e110) but there is no specific information about the size of individual awards for the competitive grant program. The proposal would be strengthened if details related to the goal of providing grants were more clearly specified. This would allow for interpretation of whether the costs of the grants are reasonable in relation to the objectives.

Reader's Score: 4

- 3. (3) The qualifications, including relevant training and experience, of key project personnel.**

Strengths:

The project personnel are extremely qualified to lead every aspect of the proposed work, including research, development of the WBC Blueprint, management of grants, and professional learning. This is a strength because the qualifications of key project personnel are closely matched to the needs of the project.

Weaknesses:

No weaknesses identified.

Sub

Reader's Score: 5

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

Strengths:

Several aspects of the project plan include opportunities to use feedback to ensure continuous improvement in the operation of the proposed project, including yearly formative evaluation, biweekly videoconferences among the JFF Technical Assistance Team, monthly meetings among the Project Leadership Team, and a biannual convening of a Project community of practice. Furthermore, AIR (the project evaluator) will be gathering feedback data from a variety of sources to inform continuous improvement of the project. These are strengths because it is clear that the project has adequate procedures to ensure feedback and continuous improvement in the operation of the proposed project.

Weaknesses:

No weaknesses identified.

Reader's Score: 10

5. (5) The extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information or strategies.

Strengths:

The proposal includes a robust plan to disseminate the development and research products of the project. The dissemination plan includes multiple stakeholders (schools, policymakers, researchers, state education agencies, and the College in School Alliance). The robust dissemination plan will enable others in a variety of fields to use the development and research products from the proposed project.

Weaknesses:

No weaknesses identified.

Reader's Score: 5

Selection Criteria - Quality of the Project Evaluation

1. The Secretary considers the quality of the evaluation to be conducted of the proposed project based on the following factors:

Reader's Score: 23

Sub

1. (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 with or without reservations as described in the What Works Clearinghouse Handbook (as defined in this notice).

Strengths:

The project includes a quasi-experimental design. Although no matching is involved, the plan includes using weighting to handle any substantial between-group differences (p. e37). In addition, the power analysis and data analysis plans (including the multilevel model shown on p. e37) attend to the nested structure of the data. These are

Sub

strengths because the methods increase the likelihood that the evaluation will, if well implemented, produce evidence about the project's effectiveness that would meet WWC standards with reservations.

Weaknesses:

Performance measures 2.1 and 2.2 indicate that one (of many) positive outcomes of the project would be for 50% of students who complete WBC to have composite and math/science ACT scores equal to or greater than the state median. Given that, statistically speaking, it is likely that 50% of any subgroup of students in the state taking the ACT would score above the median score (if representative of the entire state population), it is unclear why this measure would indicate positive performance. There are data provided about the percent of students in the target population who meet the ACT STEM benchmark (p. e22) but no information on the percent of students in the target group scoring above the state median. The proposal would be strengthened if there were more information provided about the current level achievement by the target population on the ACT. This would strengthen the proposal because it would provide stronger evidence of the project's effectiveness.

A second weakness is that the power analysis (p. e38) relies on a very small ICC (5% of the variation in student outcomes is expected to be between schools). With ICCs, smaller values in multilevel power analyses are less conservative than larger values. This is a weakness because in this study, there may be very large variations in Work Based Courses from school to school, and the quality of instruction and other school ecological factors may strongly influence the efficacy of the project. The proposal would be stronger if it included strong rationale for using a very small (non-conservative) ICC in the power analysis. This would strengthen the project because it would increase the confidence that the project is sufficiently powered, and thus, increase the likelihood that it would meet What Works Clearinghouse standards with reservations.

Reader's Score: 13

2. **(2) 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:

Table 4 on page e35 clearly describes the key research questions related to moderation, implementation, and mediation. In addition, Table 5 on page e36 clearly describes all outcome measures. Table 6 on p. e40 clearly outlines the thresholds for acceptable implementation. These are strengths, because taken together, they demonstrate that the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as measurable thresholds for acceptable implementation.

Weaknesses:

No weaknesses identified.

Reader's Score: 5

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

Strengths:

The outcome measures shown in Table 5 on p. e36 are standardized tests with excellent validity and reliability metrics (ACT) or quantifiable outcomes that can be easily obtained by the Tennessee Department of Education (college enrollment, enrollment in early postsecondary opportunities, AP enrollment, graduation rates, etc.). These are strengths because the methods of evaluation will provide valid and reliable performance data on relevant outcomes.

Sub

On page e103, the proposal states that the team will preregister their evaluation design with the Registry of Efficacy and Effectiveness Studies (REES). This is a strength because it will increase the likelihood that the project will meet What Works Clearinghouse standards with reservations.

Weaknesses:

No weaknesses identified.

Reader's Score: 5

Priority Questions

CPP - Competitive Preference Priority 1

1. Competitive Preference Priority 1: Computer Science

Projects designed to improve student achievement or other educational outcomes in computer science (as defined in this notice). These projects must address the following priority area: Expanding access to and participation in rigorous computer science coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in this notice), children or students with disabilities (as defined in this notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).

Strengths:

A strength of the proposal is its emphasis on Work Based Courses that include computational thinking and computer science courses. The grant process will include competitive preference for Work Based Courses that include computer science and support underrepresented students (p. e28). In addition, the project is coordinated with Tennessee's Computer Science State Education Plan. This coordination is a strength because the participants in the project will be able to participate while still attending to statewide initiatives. These facets of the project are strengths because they will expand access to and participation in rigorous computer science coursework for traditionally underrepresented students.

Weaknesses:

No weaknesses identified.

Reader's Score: 5

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Technical Review Coversheet

Applicant: Jobs for the Future, Inc. (S411C200066)

Reader #3: *****

	Points Possible	Points Scored
Questions		
Selection Criteria		
Quality of Project Design		
1. Quality of Project Design	40	35
Sub Total	40	35
Resources and Quality of Management Plan		
Resources and Quality of Management Plan		
1. Resources and Management	35	33
Sub Total	35	33
Selection Criteria		
Quality of the Project Evaluation		
1. Project Evaluation	25	21
Sub Total	25	21
Priority Questions		
CPP		
Competitive Preference Priority 1		
1. Computer Science	5	5
Sub Total	5	5
Total	105	94

Technical Review Form

Panel #3 - FY20 EIR Early Phase- AP2 STEM - 3: 84.411C

Reader #3: *****

Applicant: Jobs for the Future, Inc. (S411C200066)

Questions

Selection Criteria - Quality of Project Design

1. The Secretary considers the quality of the design of the proposed project based on the following factors:

Reader's Score: 35

Sub

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

Strengths:

Goals, objectives, and measurable outcomes are clearly defined in a table on p. e19 which is a strength of this proposal.

Weaknesses:

No weaknesses noted.

Reader's Score: 10

2. (2) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.

Strengths:

The target population is well defined on p. e21 and the proposal gives extensive support that the proposal is aligned with their needs.

Weaknesses:

No weaknesses noted.

Reader's Score: 10

3. (3) The extent to which the design of the proposed project reflects up-to-date knowledge from research and effective practice.

Strengths:

The application cites recent research from academic journals and from the State of Tennessee to support the need for the proposed project. (p. e22)

Sub

Weaknesses:

The only apparent evaluation on WBC was conducted by the applicant JFF, but the study results and methodology were not discussed, and the full reference not provided. (p. e42)

Reader's Score: 7

4. (4) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies.

Strengths:

The proposal has the potential to inform current practice regarding Work-Based Courses (“WBC”) at the high school level.

Weaknesses:

The proposal states that data will be disaggregated by rural, urban, and suburban schools, but this does not appear to be explored as a moderator. This may be an overlooked contribution. (p. e19)

Reader's Score: 8

Resources and Quality of Management Plan - Resources and Quality of Management Plan

1. The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project based on the following factors:

Reader's Score: 33

Sub

1. (1) 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:

Responsibilities, timelines and milestones are clearly defined on p. e29 and provide a management plan that is well aligned with the goals of the proposed program.

Weaknesses:

The organizational chart (p. e26) does not indicate that the Project Director will oversee the rest of the team which is inconsistent with the statement on p. e30.

Reader's Score: 9

2. (2) The extent to which the costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.

Strengths:

Applicant gives justification for the costs associated with the project, and they appear to be reasonable in relation to the objectives. Matching funds from other sources are a strength of this proposal. (p. e30)

Sub

Weaknesses:

No weaknesses noted.

Reader's Score: 5

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

Strengths:

The key personnel have relevant experience and qualifications in STEM education, Work-Based Learning, managing EIR grants, and program evaluation. The identified members of the project team are a strength of this proposal. (p. e31)

Weaknesses:

No weaknesses noted.

Reader's Score: 5

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

Strengths:

The applicant has a thorough plan for collecting and utilizing feedback towards continuous improvement. (p. e32)

Weaknesses:

No weaknesses noted.

Reader's Score: 10

5. (5) The extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information or strategies.

Strengths:

Best practices and a model for replication will be shared in publications, a publicly available website, presentations at national conferences, and through the state's network. (p. e34)

Weaknesses:

In order to strengthen the proposal, dissemination strategy should consider the use of social media. (p. e33)

Reader's Score: 4

Selection Criteria - Quality of the Project Evaluation

1. The Secretary considers the quality of the evaluation to be conducted of the proposed project based on the following factors:

Reader's Score: 21

Sub

- 1. (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 with or without reservations as described in the What Works Clearinghouse Handbook (as defined in this notice).**

Strengths:

The proposed research design is a QED. Baseline equivalence is planned to be established on prior academic achievement and income by propensity score matching for individual student characteristics. (p. e37)

Weaknesses:

The research design does not specify in detail how it will handle potential attrition and missing data. These are important considerations for meeting WWC standards with reservations.

Reader's Score: 12

- 2. (2) 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 key project components, and threshold for acceptable implementation are clearly defined on p. e40.

Weaknesses:

Due to the project's proposed timelines, the postsecondary outcomes of the grant will likely have insufficient data (or time to analyze it) by the end of the grant in order to draw conclusions. (p. e20)

Reader's Score: 4

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

Strengths:

All outcomes measures are quantitative and externally developed to avoid over-alignment with the study. (p. e36)

Weaknesses:

No weaknesses noted.

Reader's Score: 5

Priority Questions

CPP - Competitive Preference Priority 1

1. Competitive Preference Priority 1: Computer Science

Projects designed to improve student achievement or other educational outcomes in computer science (as defined in this notice). These projects must address the following priority area: Expanding access to and participation in rigorous computer science coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in this notice), children or students with disabilities (as defined in this notice), or low-income individuals (as defined

under section 312(g) of the Higher Education Act of 1965, as amended).

Strengths:

The proposed project relates to Computer Science through its proposed Work Based Courses and it is stated that it will focus on the underserved populations of Black, Hispanic, female, and low-income students. This is well-aligned with the competitive preference.

Weaknesses:

No weaknesses noted.

Reader's Score: **5**

Status: Submitted
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