

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

Status: Submitted

Last Updated: 06/17/2019 05:47 PM

## Technical Review Coversheet

Applicant: Sacred Heart University (U411C190254)

Reader #1: \*\*\*\*\*

	Points Possible	Points Scored
<b>Questions</b>		
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	25	21
<b>Quality of Project Design</b>		
1. Project Design	35	32
<b>Adequacy of Resources/Quality of Management Plan</b>		
1. Resources/Management Plan	20	17
<b>Sub Total</b>	<b>80</b>	<b>70</b>
<b>Priority Questions</b>		
<b>Competitive Preference Priority</b>		
<b>Competitive Preference Priority</b>		
1. Absolute Priority 3	5	5
<b>Sub Total</b>	<b>5</b>	<b>5</b>
<b>Total</b>	<b>85</b>	<b>75</b>

# Technical Review Form

Panel #25 - EIR Early Phase Tier 1 - 24 - 1: 84.411C

Reader #1: \*\*\*\*\*

Applicant: Sacred Heart University (U411C190254)

## Questions

### Selection Criteria - Significance

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

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

(2) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

#### Strengths:

The applicant provides adequate details to show the understanding of the problem by discussing that Project FUTURE will engage elementary teachers in Connecticut and Wisconsin in professional development in computer science education to positively impact student outcomes in computer science (CS) and other identified areas. (pp. 1)

The applicant also provided clear details to show the potential contribution of the proposed project to increase understanding of issues by discussing how Computer Science instruction provides opportunities for students to learn teaches valuable skills such as like problem-solving, collaboration, and critical thinking. These skills will be valuable to advancing the academic skills of students in computer science classes. (pp. 3)

Adequate details are provided to show an understanding of the problem by the applicant writing that CS instructional skills are associated with a high-quality education in the 21st century, and by situating their proposed project in predominantly high-needs schools the proposed project will address the opportunity gap that currently exists in Computer Science education and help to expand access and participation in rigorous computer science coursework in high-need communities. (pp. 3)

The applicant provides compelling details to show their project involves the development of promising new strategies by writing that they plan to provide a progressively and sustained professional learning model, leading to the development of Computer Science embedded curriculum unit exemplars as described. (pp. 3)

Strong details are discussed by the applicant to show that their project involves the development of promising new strategies by discussing that as computer science becomes more familiar to elementary teachers, and they will increase their abilities to connect their new learning s to their content areas. the potential for connections with other content areas can be explored. Computer Science instruction has also shown the potential to positively impact elementary student outcomes in literacy, mathematics, and science. (pp. 6)

#### Weaknesses:

The applicant provided minimal details to show actual program being used and relationship to the research base cited for their programs. (pp. 1) to 6)

**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:

- (1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.
- (2) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.
- (3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

**Strengths:**

The applicant provided very clear goals and objectives. For example, the applicant discussed their goals of expanding access to computer science education for K-5 students with their objective of increasing to 90% the number of partner school elementary teachers who have participated in professional learning on computer science principles and pedagogy. (pp. 9)

I agree that There is adequate evidence provided to show the underlying conceptual framework of the project by the applicant writing that their tools are critical for valid cross-talk and comparison of various interventions. To further provide strong details about their underlying concepts the applicant also discussed that they will construct three instruments such as one to measure teacher attitudes and beliefs about Computer Science and which can be used to analyze the impact of professional learning experiences. Other instruments are an observation protocol for Computer Science to aid both researchers and administrators in identifying desired Computer Science pedagogy, and a curriculum evaluation tool measuring the quality of computer science-embedded units to aid developers and researchers. (pp. 9, 10, 11)

The applicant also discussed that to ensure feedback and continuous improvement there will be the development of new instruments in the early phases of the project that will provide additional metrics to monitor growth in teacher learning and behaviors. In addition, there will be reviews of trends in teacher development and activity including sub-group analysis. (pp. 15)

**Weaknesses:**

The applicant did not provide details to show who would be responsible for monitoring and providing feedback and continuous improvement for project outcomes. (pp. 15)  
None noted.

**Selection Criteria - Adequacy of Resources/Quality of Management Plan**

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

(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.

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

(3) The potential for continued support of the project after Federal funding ends, including, as appropriate, the demonstrated commitment of appropriate entities to such support.

**Strengths:**

The applicant provides adequate details to show their objectives of their project to be on time. For example, the applicant discussed that they plan to implement, monitor and evaluate Cycle 1 of the Innovation Incubator which is a week-long summer intensive with 4 follow-on academic year sessions during Years 3 and 4 with 905 teachers completing this summer training. (pp. 18)

Adequate evidence is provided by the applicant to show adequate persons on the leadership team. For example, the applicant provided details to show that the Project Director will be a part of project leadership, research and analysis team, outreach and development team, and lead liaisons. (pp. 12)

There are adequate details to show the qualifications of key personnel staff and their relevant training. For example, the applicant discussed that the project co-Director has much experience in STEM programs because of past experiences in implementing and leading STEM education programs. served as the STEM Programs Co-Director, lead the development and implementation of STEM-area Education programs such as CT's first endorsement for teachers in Computer Science and an advanced STEAM Education program , and also served as a co-director of Sacred Heart University's Regional Partnership agreement with Code.org to promote access to rigorous computer science education K-12 via high quality professional learning programs for teachers. (pp. e52)

**Weaknesses:**

There are minimal details to show how the will be sustained after federal funding ends, therefore it is unclear whether the program will be sustained after federal funds have ended. (pp. e17)

**Reader's Score:** 17

**Priority Questions**

**Competitive Preference Priority - Competitive Preference Priority**

1. Within Absolute Priority 3, we give competitive preference to applications that address the following priority:

**Projects designed to improve student achievement or other educational outcomes in computer science (as defined in the notice). These projects must address the following priority area:**

**Expanding access to and participation in rigorous computer science (as defined in the notice) coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in the**

notice), children or students with disabilities (as defined in the notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).

**Note:** Projects addressing this priority must be administered in a manner consistent with nondiscrimination requirements contained in the U.S. Constitution and Federal civil rights laws.

**Strengths:**

The applicant provided adequate details to show their expanding access to and participation in rigorous computer science coursework by proposing Project (FUTURE), which is an early phase inquiry to address the urgent need for computer science (CS) instruction at the elementary level by studying the impact of Computer Science integration on Computer Science skills and other high value learning outcomes in partner schools. (pp. 1)

**Weaknesses:**

None noted.

**Reader's Score:** 5

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**Status:** Submitted  
**Last Updated:** 06/17/2019 05:47 PM

Status: Submitted

Last Updated: 06/13/2019 08:21 PM

## Technical Review Coversheet

Applicant: Sacred Heart University (U411C190254)

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

	Points Possible	Points Scored
<b>Questions</b>		
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	25	22
<b>Quality of Project Design</b>		
1. Project Design	35	33
<b>Adequacy of Resources/Quality of Management Plan</b>		
1. Resources/Management Plan	20	16
<b>Sub Total</b>	<b>80</b>	<b>71</b>
<b>Priority Questions</b>		
<b>Competitive Preference Priority</b>		
<b>Competitive Preference Priority</b>		
1. Absolute Priority 3	5	5
<b>Sub Total</b>	<b>5</b>	<b>5</b>
<b>Total</b>	<b>85</b>	<b>76</b>

# Technical Review Form

Panel #25 - EIR Early Phase Tier 1 - 24 - 1: 84.411C

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

Applicant: Sacred Heart University (U411C190254)

## Questions

### Selection Criteria - Significance

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

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

(2) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

### Strengths:

(1) Project {FUTURE} has the potential to contribute to increased knowledge and understanding of the problems faced by those seeking to integrate Computer Science education into the elementary grades. In the first year of the project, participating elementary school teachers from Wisconsin and Connecticut will participate in the Code.org Computer Science Fundamentals Workshop (page 1). Additional workshops, learning communities and other professional development opportunities follow in Years 2 – 4, culminating with the development, implementation and dissemination of a pilot unit that incorporates Computer Science to explore target content as identified by each participating school.

(2) This project builds on workshops developed by Code.org, a leading provider of K-12 Computer Science curricula. (page 3) Project {FUTURE} expands the professional learning program to include intensive summer workshops and professional learning communities (page 4) while providing participating teachers the opportunity to work alongside Computer Science professionals to develop their course materials.

### Weaknesses:

(1) Many of the activities included in this proposal already exist, they are not new.

(2) Some of the research cited (page 5) is outdated and therefore of questionable value. Characteristics of elementary science teachers in the 1990s are not necessarily characteristics of elementary science teachers in 2019.

Reader's Score: 22

### 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:

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

(2) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.

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

**Strengths:**

- (1) This proposal clearly identifies three goals: To expand access to computer science education for K-5 students, to contribute innovations in professional learning and curriculum integration to elementary computer science education, and to contribute validated instruments and curricular tools to the field of computer science education. (Page 9). Objectives, outcomes and metrics for each goal are delineated in Table 6 (17-19). Objectives are tied to goals and each objective includes a metric and a timeline expressed in years. Additional details provide monthly activities and assign responsible personnel to each activity (page e98) This should ensure timely and successful completion of the project.
- (2) A logic model for this project is provided (page e83) and addresses all phases, goals and outcomes for this project. Additionally, this project is based on programs that have previously been evaluated and proven effective. (Pages 4 and 7)
- (3) This proposal incorporates Pre-existing mechanisms for feedback that are already in place for the beginning phases and includes plans to develop new instruments to provide additional metrics to monitor teacher learnings. (page 15). The proposal also incorporates quarterly classroom observations and visits with teachers along with monthly meetings of grant personnel to review activities and provide corrections as indicated. (Page 16)

**Weaknesses:**

This reviewer found it difficult to determine the project personnel responsible for each item in the project. It would have been helpful if a "responsibility" column heading had been provided for the detailed timeline in Appendix I.10. (page e98)

**Reader's Score: 33**

**Selection Criteria - Adequacy of Resources/Quality of Management Plan**

**1. The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project. In determining the adequacy of resources and quality of the management plan for the proposed project, the Secretary considers the following factors:**

- (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.**
- (2) The qualifications, including relevant training and experience, of key project personnel.**
- (3) The potential for continued support of the project after Federal funding ends, including, as appropriate, the demonstrated commitment of appropriate entities to such support.**

**Strengths:**

- (1) This proposal includes a comprehensive management plan divided into four phases (page 10). Individual responsibilities for key personnel are outlined in Table 5 (page 12) and further explained in Appendix I.10 (page e98). Timelines and milestones are further specified in the "Innovation Incubator Overview in Appendix I.9 (pages e96-97). The budget narrative (pages e100-134) is comprehensive and ensures that timelines and milestones should be met.
- (2) Key project personnel are qualified with relevant experience as evidenced in resumes provided. The proposal includes a job description and qualifications for the project coordinator who will be hired. (page e95)
- (3) Letters of support are included and the project will create activities that will be made available to elementary schools throughout the country. This project also creates new instruments designed to measure teacher attitudes and beliefs about computer science. (page 9)

**Weaknesses:**

- (1) The letters of support do not provide commitment to continuation of the project after federal funding ends.
- (2) This proposal does not provide for ongoing teacher support or professional development. Ongoing support is important for all teachers and continued professional development will be needed for new teachers hired after the project begins and/or after the grant ends.

**Reader's Score: 16**

**Priority Questions**

**Competitive Preference Priority - Competitive Preference Priority**

- 1. Within Absolute Priority 3, we give competitive preference to applications that address the following priority:

**Projects designed to improve student achievement or other educational outcomes in computer science (as defined in the notice). These projects must address the following priority area:**

**Expanding access to and participation in rigorous computer science (as defined in the notice) coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in the notice), children or students with disabilities (as defined in the notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).**

**Note: Projects addressing this priority must be administered in a manner consistent with nondiscrimination requirements contained in the U.S. Constitution and Federal civil rights laws.**

**Strengths:**

During the final phase of this project, elementary school teachers will work with computer science professionals to create activities integral to school curricula. These activities will be implemented, evaluated, and disseminated.

This project is significant because it impacts elementary school students, introducing them to computer science early in their academic career, thus increasing awareness and improving the likelihood that students will continue pursuing computer science.

**Weaknesses:**

This reviewer found no weaknesses in this area

**Reader's Score: 5**

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**Status:** Submitted

**Last Updated:** 06/13/2019 08:21 PM



Status: Submitted

Last Updated: 06/13/2019 08:54 PM

## Technical Review Coversheet

Applicant: Sacred Heart University (U411C190254)

Reader #3: \*\*\*\*\*

	Points Possible	Points Scored
<b>Questions</b>		
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	25	23
<b>Quality of Project Design</b>		
1. Project Design	35	35
<b>Adequacy of Resources/Quality of Management Plan</b>		
1. Resources/Management Plan	20	15
<b>Sub Total</b>	<b>80</b>	<b>73</b>
<b>Priority Questions</b>		
<b>Competitive Preference Priority</b>		
<b>Competitive Preference Priority</b>		
1. Absolute Priority 3	5	5
<b>Sub Total</b>	<b>5</b>	<b>5</b>
<b>Total</b>	<b>85</b>	<b>78</b>

# Technical Review Form

Panel #25 - EIR Early Phase Tier 1 - 24 - 1: 84.411C

Reader #3: \*\*\*\*\*

Applicant: Sacred Heart University (U411C190254)

## Questions

### Selection Criteria - Significance

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

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

(2) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies.

### Strengths:

1) The applicant has proposed a program to provide Computer Science training to K-5 elementary students from high need school districts in Wisconsin and Connecticut. The applicant does a good job of demonstrating need for targeting enhanced Computer Science educational programming for these student populations, citing statistics demonstrating outcomes disparities in Computer Science Advanced Placement examination scores on page e21, and concluding the need for outreach. This strategy of delivering programming for elementary school students based on Code.org curricula will provide an increased number of qualified students from underrepresented populations that will have the foundational background so that their career and educational choices are not limited as they move into middle and high school. Another strength that is highlighted by the applicant on page e25, is their strategy to encourage elementary school teachers to become more confident in their knowledge and skills in Computer Science, and provide them opportunities to develop possibilities where they can integrate Computer Science with their other science, math and curricular content. This is especially important for elementary school teachers because they are responsible for teaching in all disciplines, unlike middle school or high school teachers.

2) The applicant has chosen to utilize existing curriculum and educational strategies developed by Code.org as a foundation for their proposal. In fact, program leadership for Project {FUTURE} have been Regional Partners in organizing Code.org Computer Science Fundamentals professional development activities in their respective states of Connecticut and Wisconsin, and will build upon that experience to further develop professional development for participating elementary school teachers and establish professional learning communities as described on page e23. This idea of building these mutually beneficial partnerships between the University researchers at Sacred Heart and Marquette and the practicing elementary school teachers is an exciting strategy, that will allow the program activities to be evaluated and refined to establish "best practices" for Computer Science education at the elementary school level. The applicant refers to this strategy as a laboratory of practice, and that description seems fitting. This strategy is a definite strength of the proposal and has an excellent chance of resulting in outcomes data of interest to other programs.

### Weaknesses:

1) The potential contribution of the proposed project to increase the use of an effective strategies to improve Computer Science education opportunities in communities in Connecticut and Wisconsin is a likely outcome for the project. The need for enhanced Computer Science instruction, especially for these identified communities is well documented, and the proposal directly addresses those needs. There are no apparent weaknesses in this part of the proposal.

2) The applicant mentions on page e23 that the Code.org Computer Science Fundamentals teacher development workshop is now in its fourth revision (page e23), and that the applicant has experience delivering the workshops regionally. It seems as though much of the curricular development (especially for the teacher development activities that

are the focus of this project) are at a fairly well-developed status at this point. This project may be more about creating the resources and impetus for implementing the Code.org program for the respective underserved school districts in their states rather than significantly revising the existing Code.org curriculum and professional development program.

**Reader's Score: 23**

### **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:**

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

**(2) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework.**

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

#### **Strengths:**

- 1) The applicant has included a very detailed project plan in Table 4 beginning on page e36 with goals and objectives/activities, each with clearly defined metrics, targets and timelines. The objectives clearly relate to the goals of the EIR program and this individual proposal and a reasonable give the scope of the project and the target school districts.
- 2) The choice to utilize Code.org curricula as a framework the training of elementary school students in Computer Science is an important strategy as it is a nationally accepted curriculum, indicating training is transferable for students and teachers (page e26). Furthermore, the decision to begin training early will assist the student in embracing Computer Science computational thinking and problem-solving skills such as the creation of algorithms and apply those skills to other STEM disciplines. The plan to train all teachers, but have a special cohort (Innovation Incubator) that receives more training to develop curricular integration units is also important (pages e27-28). Because elementary school teachers are most often required to teach all disciplines, the plan to create a professional learning community and additional support for struggling teachers is also conceptually important (page e23). The plan to develop assessment tools is also a great idea. The conceptual framework underlying the proposed research or demonstration activities and the quality of that framework are outstanding.
- 3) The applicant provides a detailed plan for feedback and continuous improvement across the project phases (pages e34-e35). The Leadership Team and an Advisory Board will oversee the process. Joint and regional monthly meetings for feedback and improvement are mentioned. A major goal of the project is to create instruments for Computer Science educational programs to assess student acquisition of skills and teacher attitudes (pages e28-e29). They will also develop a tool to measure the quality of curricular units. Therefore, that facet of evaluation/assessment tool development is focused on providing more effective assessment and feedback for student achievement and program outcomes. It would be important that they use those tools to provide effective feedback and program improvement in their own program.

#### **Weaknesses:**

- 1) There are no weaknesses in the goals, objectives, and suggested outcomes to be achieved by the proposed project. Each goal, objective/activity and measure is clearly outlined in Table 6 on pages e36-38. Goals and objectives/activities are consistent with the goals of the applicant school systems and the priorities of the EIR program.
- 2) There are no weaknesses in the conceptual framework underlying the proposed Computer Science program for these elementary school teachers and students.

3) This is a well designed plan for feedback and continuous improvement. There are no identified weaknesses in the proposal's procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

**Reader's Score: 35**

### **Selection Criteria - Adequacy of Resources/Quality of Management Plan**

**1. The Secretary considers the adequacy of resources and the quality of the management plan for the proposed project. In determining the adequacy of resources and quality of the management plan for the proposed project, the Secretary considers the following factors:**

**(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.**

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

**(3) The potential for continued support of the project after Federal funding ends, including, as appropriate, the demonstrated commitment of appropriate entities to such support.**

#### **Strengths:**

1) The applicant provides a detailed management plan in Table 6 beginning on page e36. The plan contains numerous objectives/activities for each goal with identified metrics and timelines with quantitative metrics. Although the management plan in Table 6 does not identify responsibilities for program activities, the a more detailed management plan is presented in Appendix I on page e98. The timeline in that management plan also identifies Months in the timeline. This is a very detailed and clearly defined management plan. The budget is appropriate and is described in a very detailed budget narrative beginning on page e100 in Appendix D. The budget is appropriate given the scope and goals of the project. Budget items are split out to demonstrate differences between the Wisconsin and Connect project sites. This is a very well thought out budget.

2) The key personnel identified by the applicant on page e31 have been extensively involved with Computer Science education efforts in K-12 efforts, often coordinating activities with Code.org in their individual states. Although Connecticut Project Director Dr. Ronan (CV on pages e52-53) is a junior faculty member at Sacred Heart, she has become extensively involved in K12 Computer Science education efforts and hosted Code.org activities. Wisconsin Project Director Dr. Brylow (CV on page e59-e60) is a Full Professor with significant evidence of research and program supervision in Computer Science education. Dr. Erdil (CV on pages e54-e55) at Sacred Heart has similarly demonstrated commitment to Computer Science Education efforts. Ms. Bruckerhoff (CV on pages e65-e71) who will lead program's external evaluation efforts has an impressive listing of past successful program evaluations she has led or participated in. The participation of Eric Raomski (CV on pages e63-e64) from the Milwaukee Public Schools is a positive as he also has demonstrated commitment to improving STEM education and administering programs in one of the target communities. The participation of Code.org and their commitment of funding to the project also demonstrates the quality of the team assembled for the project.

3) Although the applicant does not discuss the potential of the program for continued support after funding ends, the training received by teachers participating in the program will provide knowledge and skills after the project has ended. Furthermore, the community of practice created by the project should continue to provide support to the elementary school teachers after funding ends. Tools and curriculum integration exemplars created as part of the program should be useful and shareable for several years.

#### **Weaknesses:**

1) There are no weaknesses in the management plan or budget as defined, although there is an error identifying Year 5 as Year 3 in the Management plan timeline in Appendix I on page e98.

2) Although there are no identifiable weaknesses in the qualifications of the participating key personnel, it would have

been helpful to have a member on the leadership team representing the interests of the participating Connecticut school districts.

3) Although a commitment to continuation of the efforts to support Computer Science content into the grades 1-5 curriculum seem to be a commitment by the program participants including strong letters of support from the school districts, no formal discussion of a commitment to continued support is included in the project narrative. This oversight by the applicant is concerning. It is also a concern that the letter of support from the Bridgeport, CT Board of Education (page e77) does not mention Computer Science education.

**Reader's Score:** 15

## Priority Questions

### Competitive Preference Priority - Competitive Preference Priority

1. Within Absolute Priority 3, we give competitive preference to applications that address the following priority:

**Projects designed to improve student achievement or other educational outcomes in computer science (as defined in the notice). These projects must address the following priority area:**

**Expanding access to and participation in rigorous computer science (as defined in the notice) coursework for traditionally underrepresented students such as racial or ethnic minorities, women, students in communities served by rural local educational agencies (as defined in the notice), children or students with disabilities (as defined in the notice), or low-income individuals (as defined under section 312(g) of the Higher Education Act of 1965, as amended).**

**Note: Projects addressing this priority must be administered in a manner consistent with nondiscrimination requirements contained in the U.S. Constitution and Federal civil rights laws.**

#### Strengths:

The applicant has proposed to develop and implement a Computer Science professional development program for elementary school teachers in school districts that have high need students and are from underrepresented backgrounds. Work product will include the development and testing of Computer Science curriculum exemplar units produced by teachers participating in the program. The program partners with Code.org efforts to stimulate Computer Science training in elementary school classrooms to positively impact skills and attitude development early in the educational process. Participation of both partners (Marquette and Sacred Heart Universities) with previous Code.org indicate these strategies are likely to successfully meet student needs in an engaging format. These primary goals of the program directly address the desired educational outcomes expressed in Absolute Priority 3 and have the additional benefit of producing strategies that can also positively impact Computer Science education in other schools around the nation.

#### Weaknesses:

There are no weaknesses in the proposal in the program's abilities to improve access and participation of the targeted student populations in curricular programs preparing them for careers in Computer Science.

**Reader's Score:** 5

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**Status:** Submitted

**Last Updated:** 06/13/2019 08:54 PM

