

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

Status: Submitted

Last Updated: 08/19/2013 04:14 PM

## Technical Review Coversheet

Applicant: Waterford Institute (U411B130020)

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

	Points Possible	Points Scored
<b>Questions</b>		
<b>Summary Statement</b>		
<b>Summary Statement</b>		
1. Summary Statement	0	
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	20	20
<b>Quality of Project Design</b>		
1. Project Design	20	18
<b>Quality of the Management Plan</b>		
1. Management Plan	20	20
<b>Quality of Project Personnel</b>		
1. Personnel	10	10
<b>Quality of the Project Evaluation</b>		
1. Project Evaluation	30	0
<b>Priority Questions</b>		
<b>Competitive Preference Priority 1</b>		
<b>Competitive Preference Priority 1</b>		
1. CPP 1	1	1
<b>Competitive Preference Priority 2</b>		
<b>Competitive Preference Priority 2</b>		
1. CPP 2	2	2
<b>Invitational Priority</b>		
<b>Invitational Priority</b>		
1. Invitational Priority	0	0
<b>Total</b>	103	71

# Technical Review Form

Panel #5 - i3 Validation - 5: 84.411B

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

Applicant: Waterford Institute (U411B130020)

## Questions

### Summary Statement - Summary Statement

#### 1. Summary Statement (Optional):

General:

Reader's Score:

### Selection Criteria - Significance

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

(1) The likelihood that the project will have the estimated impact, including the extent to which the applicant demonstrates that unmet demand for the proposed project or the proposed services will enable the applicant to reach the proposed level of scale.

(2) The feasibility of national expansion if favorable outcomes are achieved.

#### Strengths:

The applicant has chosen high need rural communities in Utah to implement their UPSTART program. The research basis for expanding the UPSTART program into Utah is strong, with thorough evaluations of the Waterford Early Reading Program (WERP), the Phonological Abilities Tests, and a What Works Clearinghouse review of the WERP in Ohio (pages e29-e30). This strong research basis suggests that UPSTART program will be effective in meeting the pre-K educational needs of the districts, and effectively transitioning children to school. If successful, national expansion of the UPSTART program seems feasible due to the strong research basis for its use, the cost-effectiveness of the program (on page e36 the applicant notes that UPSTART averages \$1,340 per child compared to the NIEER estimate of \$8,700 per child for universal preschool), and the Waterford Institute's experience with large-scale programs. All of these factors suggest that the UPSTART program could have a high degree of significance.

#### Weaknesses:

No weaknesses found.

Reader's Score: 20

### Selection Criteria - Quality of Project Design

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

(1) The extent to which the proposed project addresses the national need and priorities the applicant is seeking to meet.

**(2) The extent to which the proposed project has a clear set of goals and an explicit plan or actions to achieve the goals, including identification of any elements of the project logic model that require further testing or development.**

**(3) The extent to which the applicant will use grant funds to address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale proposed in the application.**

**Strengths:**

The applicant's proposed project would be an important step in beginning to address the national need for effective, cost-efficient pre-K. As the applicant notes on page e26, the return on investment for preschool children is great but the cost of offering traditional pre-K programs has led to limited implementation.

On page e40, the applicant lists two project goals: "1) successfully expand implementation of UPSTART in participating rural school districts; and 2) work with district personnel to enhance children's experience on the program, meet the pre-K educational needs of the districts, and effectively transition children to school and work with them during the summers to avoid summer learning decay." To accomplish these goals the applicant outlines seven components and three software programs, which in turn inform the milestones and timelines on pages e45-47.

The applicant has proposed using grant funds in a strategic manner to overcome the barriers that have prevented the Waterford Institute from expanding its usage of UPSTART. Specifically, grant funds used to purchase computers and internet service for rural children will help the applicant reach a high need population with limited pre-K program options (pages e12-14).

**Weaknesses:**

Although the project has an explicit plan for rolling out the UPSTART offerings, the project goal stated on page e40 of "successfully expanding implementation of UPSTART in participating rural school districts" seems somewhat vague given the applicant has proposed a partnership with 18 rural school districts. This vague goal seems to guide some of the research questions on page e50, which in turn makes some of the research questions simplistic.

**Reader's Score: 18**

**Selection Criteria - Quality of the Management Plan**

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

**(1) The extent to which the management plan articulates key responsibilities and well-defined objectives, including the timelines and milestones for completion of major project activities, the metrics that will be used to assess progress on an ongoing basis, and annual performance targets the applicant will use to monitor whether the project is achieving its goals.**

**(2) The clarity and coherence of the applicant's multi-year financial and operating model and accompanying plan to operate the project at a national or regional (as defined in the Validation Notice Inviting Applications) during the project period.**

**Strengths:**

The applicant has created a thorough management plan that articulates key responsibilities, milestones, steps to implement, expected outcomes, performance indicators, and a timeline (pages e45 and e46). The performance indicators use a variety of different data sources to assess progress on an ongoing basis. The applicant has provided a clear

operating model that details how the i3 funds will be used.

In terms of a financial model, on page e47 the applicant states that "Funding from i3 will be used to: 1) expand the number of homes and children in rural Utah districts served by UPSTART; 2) train Waterford and district personnel to work together as a program support unit; 3) supply hardware and Internet access to ensure that children who are low-income are able to participate in the program; 4) provide training and programmatic and technological support for parents/caregivers; and 5) maintain a cost-effective administrative approach to the program." This overview of the financial model is supported with additional details in the budget narrative on pages e210 through e221.

**Weaknesses:**

No weaknesses found.

**Reader's Score: 20**

**Selection Criteria - Quality of Project Personnel**

**1. In determining the quality and personnel for the proposed project, the Secretary considers the following factor:**

**(1) The adequacy of the project's staffing plan, particularly for the first year of the project, including the identification of the project director and, in the case of projects with unfilled key personnel positions at the beginning of the project, that the staffing plan identifies how critical work will proceed.**

**(2) The qualifications and experience of the project director and other key project personnel and the extent to which they have the expertise to accomplish the proposed tasks.**

**Strengths:**

The staffing plan is adequate, "because Waterford already has a successfully functioning UPSTART program underway statewide in Utah, and because UPSTART is technology-based, staffing the project will be straightforward. Waterford will immediately hire the personnel to scale up UPSTART and pass grant funds on to the districts to hire UPSTART liaisons" (page e49). With the UPSTART program already underway and a breakdown of the work that Waterford and the districts will undertake on page e45, the applicant has created a staffing plan that will allow for critical work to proceed. The project director and key staff have an outstanding breadth of experience to accomplish the tasks outlined in this proposal including the project director's "thirteen-year tenure at the Desert Research Institute in Reno, Nevada" (page e49) where she "oversaw three statewide K-12 programs."

**Weaknesses:**

No weaknesses identified.

**Reader's Score: 10**

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

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

**(1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.**

**(2) 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 Evidence Standards without reservations.

(3) The extent to which the evaluation will study the project at the proposed level of scale, including, where appropriate, generating information about potential differential effectiveness of the project in diverse settings and for diverse student population groups.

(4) The extent to which the evaluation plan includes a clear and credible analysis plan, including a proposed sample size and minimum detectable effect size that aligns with the expected project impact, and an analytic approach for addressing the research questions.

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

**Strengths:**

n/a

**Weaknesses:**

n/a

**Reader's Score:** 0

**Priority Questions**

**Competitive Preference Priority 1 - Competitive Preference Priority 1**

1. Under this priority, we provide funding to projects that address one of the following areas:

- (a) Substantially improving student outcomes without commensurately increasing per-student costs.
- (b) Maintaining student outcomes while substantially decreasing per-student costs.
- (c) Substantially improving student outcomes while substantially decreasing per-student costs.

**Strengths:**

The applicant provides a clear budget, a compelling discussion of the cost-effectiveness of the UPSTART program (page e36), and an estimation of the cost of traditional pre-K (\$8,700) versus the cost of the UPSTART pre-K program and two years of summer work (\$2,550). The applicant also presents data on the scaled costs of the UPSTART program, suggesting that there is an economy of scale to the program (page e37).

**Weaknesses:**

No weaknesses found.

**Reader's Score:** 1

**Competitive Preference Priority 2 - Competitive Preference Priority 2**

1. Under this priority, we provide funding to projects that enable broad adoption of effective practices. An application proposing to address this priority must, as part of its application:

- (a) Identify the practice or practices that the application proposes to prepare for broad adoption,

including formalizing the practice (i.e., establish and define key elements of the practice), codifying (i.e., develop a guide or tools to support the dissemination of information on key elements of the practice), and explaining why there is a need for formalization and codification.

(b) Evaluate different forms of the practice to identify the critical components of the practice that are crucial to its success and sustainability, including the adaptability of critical components to different teaching and learning environments and to diverse learners.

(c) Provide a coherent and comprehensive plan for developing materials, training, toolkits, or other supports that other entities would need in order to implement the practice effectively and with fidelity.

(d) Commit to assessing the replicability and adaptability of the practice by supporting the implementation of the practice in a variety of locations during the project period using the materials, training, toolkits, or other supports that were developed for the i3-supported practice.

**Strengths:**

The strong research basis behind UPSTART program (pages e29-e30), the iterative process that the Waterford Institute has used to refine its products, the cost-effectiveness of the UPSTART program when compared to traditional pre-K offerings (page e36), and the examinations that the Waterford Institute has done on scaling the UPSTART program (page e37) all suggest that this project could enable the broad adaption of effective practices.

**Weaknesses:**

No weaknesses found.

**Reader's Score:** 2

**Invitational Priority - Invitational Priority**

1. The Secretary encourages applicants to propose projects that incorporate high-quality early learning components that are aligned with the early learning, elementary and secondary education systems in participating schools and help ensure that all children, especially those from low-income families, enter kindergarten ready to succeed.

**General:**

The UPSTART program has the potential to provide cost-effective pre-K educational services to high need students across the country. In addition to providing pre-K services, the Waterford Institute has expanded the UPSTART program to students following kindergarten and 1st grade to help prevent summer learning loss.

**Reader's Score:** 0

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**Status:** Submitted

**Last Updated:** 08/19/2013 04:14 PM

Status: Submitted

Last Updated: 08/19/2013 11:06 PM

## Technical Review Coversheet

Applicant: Waterford Institute (U411B130020)

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

	Points Possible	Points Scored
<b>Questions</b>		
<b>Summary Statement</b>		
<b>Summary Statement</b>		
1. Summary Statement	0	
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	20	20
<b>Quality of Project Design</b>		
1. Project Design	20	18
<b>Quality of the Management Plan</b>		
1. Management Plan	20	19
<b>Quality of Project Personnel</b>		
1. Personnel	10	10
<b>Quality of the Project Evaluation</b>		
1. Project Evaluation	30	0
<b>Priority Questions</b>		
<b>Competitive Preference Priority 1</b>		
<b>Competitive Preference Priority 1</b>		
1. CPP 1	1	1
<b>Competitive Preference Priority 2</b>		
<b>Competitive Preference Priority 2</b>		
1. CPP 2	2	2
<b>Invitational Priority</b>		
<b>Invitational Priority</b>		
1. Invitational Priority	0	
<b>Total</b>	<b>103</b>	<b>70</b>

# Technical Review Form

Panel #5 - i3 Validation - 5: 84.411B

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

Applicant: Waterford Institute (U411B130020)

## Questions

### Summary Statement - Summary Statement

#### 1. Summary Statement (Optional):

General:

Reader's Score:

### Selection Criteria - Significance

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

(1) The likelihood that the project will have the estimated impact, including the extent to which the applicant demonstrates that unmet demand for the proposed project or the proposed services will enable the applicant to reach the proposed level of scale.

(2) The feasibility of national expansion if favorable outcomes are achieved.

#### Strengths:

UPSTART connects a link between its proposal and impact of learning with rural areas for pre-k students. Strength lies in the flexibility of the "blue print" for other districts to scale the model, as well as national expansion. UPSTART has been implemented in schools, including rural areas, since 2009 with positive student outcomes , which supports the effectiveness of the proposed project in the area of phonological awareness and pre-k reading skills on pg.6. This evidence supports strength in meeting the unmet demand for this project. Waterford's 15 years of experience, is including prior history of large scalability (pg. 15), which helps to give support and strength to this project by serving as a partner to these 18 rural school districts.

#### Weaknesses:

No weaknesses found.

Reader's Score: 20

### Selection Criteria - Quality of Project Design

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

(1) The extent to which the proposed project addresses the national need and priorities the applicant is seeking to meet.

(2) The extent to which the proposed project has a clear set of goals and an explicit plan or actions to

achieve the goals, including identification of any elements of the project logic model that require further testing or development.

**(3) The extent to which the applicant will use grant funds to address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale proposed in the application.**

**Strengths:**

Grant funds will be utilized to provide “at-home” support for parents with pre-k students, as well as summer support. Strength is demonstrated in prior success of using this program in a similar location, size, and socioeconomic population. UPSTART addresses specific needs to phonological awareness in early ages, in rural communities, which adds strength to meeting the need of developing these early readers. The project is innovative in connecting with rural populations at home and providing clear parent support (pg. 1). Goals are briefly outlined on pg. 18 with seven strategic components, which are aligned with addressing the barriers. Evidence of academic effectiveness, on pg. 7 (Idaho), demonstrates strength for supporting the model. There is direct correlation between the student outcomes and the goals that are stated on pg. 8.

**Weaknesses:**

Logic model is not identified. Elaboration of goals to address the barriers could offer strength to this model. For example, explaining how training of personnel will work to support the project could give more strength to the model.

**Reader's Score: 18**

**Selection Criteria - Quality of the Management Plan**

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

**(1) The extent to which the management plan articulates key responsibilities and well-defined objectives, including the timelines and milestones for completion of major project activities, the metrics that will be used to assess progress on an ongoing basis, and annual performance targets the applicant will use to monitor whether the project is achieving its goals.**

**(2) The clarity and coherence of the applicant's multi-year financial and operating model and accompanying plan to operate the project at a national or regional (as defined in the Validation Notice Inviting Applications) during the project period.**

**Strengths:**

The project entails a clearly defined timeline, which has several components expressed with great detail. These components include the purchase of hardware and Internet services (to support the rural families), personnel training and dissemination of information. Responsibilities are very well articulated. Milestones are briefly outlined and identify with the corresponding student outcomes to reach barrier limitations. Metrics are very specific and gives insight on how much academic progress is made periodically and annually on pgs. 24-25. The financial plan (e210-221) details the low-costs of implementing the project during development and strength to this application. With the support of Waterford, UPSTART is ready for state implementation in Utah already pg. 26.

**Weaknesses:**

The project plan to expand is not clear. Barriers, including lack of computer access (pre-k) and providing Internet service, are concerns for expansion.

Reader's Score: 19

#### Selection Criteria - Quality of Project Personnel

1. In determining the quality and personnel for the proposed project, the Secretary considers the following factor:

(1) The adequacy of the project's staffing plan, particularly for the first year of the project, including the identification of the project director and, in the case of projects with unfilled key personnel positions at the beginning of the project, that the staffing plan identifies how critical work will proceed.

(2) The qualifications and experience of the project director and other key project personnel and the extent to which they have the expertise to accomplish the proposed tasks.

#### Strengths:

Staff planning is demonstrated and goal oriented. Significant staff is identified and qualified for the tasks, as well as establishing the milestones presented on pgs. 23-25. A district-based liaison with UPSTART is already assigned to support the integration of the key components for the project. A project director is identified on pg. 25 and demonstrates further qualifications and expertise in Appendix F to provide support and strength to this project.

#### Weaknesses:

No weaknesses found.

Reader's Score: 10

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

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

(1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.

(2) 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 Evidence Standards without reservations.

(3) The extent to which the evaluation will study the project at the proposed level of scale, including, where appropriate, generating information about potential differential effectiveness of the project in diverse settings and for diverse student population groups.

(4) The extent to which the evaluation plan includes a clear and credible analysis plan, including a proposed sample size and minimum detectable effect size that aligns with the expected project impact, and an analytic approach for addressing the research questions.

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

#### Strengths:

n/a

**Weaknesses:**

n/a

**Reader's Score: 0**

**Priority Questions**

**Competitive Preference Priority 1 - Competitive Preference Priority 1**

1. Under this priority, we provide funding to projects that address one of the following areas:
  - (a) Substantially improving student outcomes without commensurately increasing per-student costs.
  - (b) Maintaining student outcomes while substantially decreasing per-student costs.
  - (c) Substantially improving student outcomes while substantially decreasing per-student costs.

**Strengths:**

Criterion met on pg. 14-15. Evaluation of per-student costs while improving or maintaining student outcomes is demonstrated by utilizing the UPSTART model. Explained in the budget narrative (e210-221), comparative to other pre-school models the cost effectiveness of the UPSTART program would substantially support this rural community by improving student outcomes with minimal cost.

**Weaknesses:**

No weaknesses found.

**Reader's Score: 1**

**Competitive Preference Priority 2 - Competitive Preference Priority 2**

1. Under this priority, we provide funding to projects that enable broad adoption of effective practices. An application proposing to address this priority must, as part of its application:
  - (a) Identify the practice or practices that the application proposes to prepare for broad adoption, including formalizing the practice (i.e., establish and define key elements of the practice), codifying (i.e., develop a guide or tools to support the dissemination of information on key elements of the practice), and explaining why there is a need for formalization and codification.
  - (b) Evaluate different forms of the practice to identify the critical components of the practice that are crucial to its success and sustainability, including the adaptability of critical components to different teaching and learning environments and to diverse learners.
  - (c) Provide a coherent and comprehensive plan for developing materials, training, toolkits, or other supports that other entities would need in order to implement the practice effectively and with fidelity.
  - (d) Commit to assessing the replicability and adaptability of the practice by supporting the implementation of the practice in a variety of locations during the project period using the materials, training, toolkits, or other supports that were developed for the i3-supported practice.

**Strengths:**

Criterion fully met. Replicability is supported by the adaptability of the implementation. It reaches to diverse learners and addresses needs in a rural community that can be developed at the national level. Utilizing Waterford software, the program can reach "in-home" communities at an early age with the model proposed. Components are already in place and demonstrate success to formalize and expand this model.

**Weaknesses:**

No weaknesses found.

**Reader's Score:** 2

**Invitational Priority - Invitational Priority**

1. **The Secretary encourages applicants to propose projects that incorporate high-quality early learning components that are aligned with the early learning, elementary and secondary education systems in participating schools and help ensure that all children, especially those from low-income families, enter kindergarten ready to succeed.**

**General:**

**Reader's Score:**

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**Status:** Submitted  
**Last Updated:** 08/19/2013 11:06 PM

Status: Submitted

Last Updated: 08/20/2013 04:40 PM

## Technical Review Coversheet

Applicant: Waterford Institute (U411B130020)

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

	Points Possible	Points Scored
<b>Questions</b>		
<b>Summary Statement</b>		
<b>Summary Statement</b>		
1. Summary Statement	0	
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	20	20
<b>Quality of Project Design</b>		
1. Project Design	20	19
<b>Quality of the Management Plan</b>		
1. Management Plan	20	20
<b>Quality of Project Personnel</b>		
1. Personnel	10	10
<b>Quality of the Project Evaluation</b>		
1. Project Evaluation	30	0
<b>Priority Questions</b>		
<b>Competitive Preference Priority 1</b>		
<b>Competitive Preference Priority 1</b>		
1. CPP 1	1	1
<b>Competitive Preference Priority 2</b>		
<b>Competitive Preference Priority 2</b>		
1. CPP 2	2	2
<b>Invitational Priority</b>		
<b>Invitational Priority</b>		
1. Invitational Priority	0	
<b>Total</b>	<b>103</b>	<b>72</b>

# Technical Review Form

Panel #5 - i3 Validation - 5: 84.411B

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

Applicant: Waterford Institute (U411B130020)

## Questions

### Summary Statement - Summary Statement

#### 1. Summary Statement (Optional):

General:

Reader's Score:

### Selection Criteria - Significance

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

(1) The likelihood that the project will have the estimated impact, including the extent to which the applicant demonstrates that unmet demand for the proposed project or the proposed services will enable the applicant to reach the proposed level of scale.

(2) The feasibility of national expansion if favorable outcomes are achieved.

#### Strengths:

Applicant indicates an unmet demand of addressing early childhood reading deficiencies, and needing to meet this demand before school/kindergarten since programs to rectify the situation once formal education starts have not proven effective. (p e24-25) The program the applicant wishes to implement would address these deficiencies and early childhood learning in general, via a program that is implemented before school/kindergarten starts, and continued through third grade (p e23). Based on the parameters set by the applicant for implementing the program the program is likely to succeed (p e17). The parameters that indicate success are:

- Home commitment – involvement of home caregivers is vital since a portion of the program will take place at home over the summers, when a teacher is not physically present to help the student
- Providing equipment and access to those homes that need it, along with support on their mechanical and instructional use, will enable home caregivers to successfully support their student's participation in the program
- The program seeks to target rural students, which will be done via the population they've chosen to serve – the 18 rural districts in Utah

The applicant will be expanding and enhancing a program already piloted in the state, and feasibility of national expansion is high due to the cost-effectiveness of the program, and the program's company (Waterford) experience implementing programs on a large scale (p e 36).

#### Weaknesses:

None.

Reader's Score: 20

### Selection Criteria - Quality of Project Design

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

(1) The extent to which the proposed project addresses the national need and priorities the applicant is seeking to meet.

(2) The extent to which the proposed project has a clear set of goals and an explicit plan or actions to achieve the goals, including identification of any elements of the project logic model that require further testing or development.

(3) The extent to which the applicant will use grant funds to address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale proposed in the application.

#### Strengths:

The applicant states their goal is to encourage the expansion of the program into rural areas in the US through validating their implementation. In order to do this, all 18 districts in Utah that have been identified as rural will participate (p e39).

Clear goals and plan for achievement are identified. By the end of the 5 year grant, the applicant states that 70% of the districts four year olds (the age at which program implementation begins) will have been studied. The 7 components of Waterford's strategy support the goals of expanding the program in rural school districts and meet students' Pre-K educational needs while also avoiding summer learning decay that can take away preparative instruction (p e40).

One of the main barriers that the applicant will use grant funds to remove is the issue of access in rural areas due to remote location, families living poverty, or both. Funds will be used to provide program participants with the necessary hardware and internet access for the duration of their participation in the program. Additionally, participants will receive the program during the summer months, which is an extension of the regular program, in order to prevent learning decay between academic years and classroom instruction (p e40). Finally, the program will be offered in English and Spanish, allowing those in Spanish-speaking home to participate as well (p e41).

#### Weaknesses:

The applicant does not indicate what will happen to the participating families' hardware and connectivity once they are no longer in the program – the impact on the program's funds if the family keeps the equipment, or the impact on the family if they need to surrender it.

Reader's Score: 19

### Selection Criteria - Quality of the Management Plan

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

(1) The extent to which the management plan articulates key responsibilities and well-defined objectives, including the timelines and milestones for completion of major project activities, the metrics that will be used to assess progress on an ongoing basis, and annual performance targets the applicant will use to monitor whether the project is achieving its goals.

(2) The clarity and coherence of the applicant's multi-year financial and operating model and accompanying plan to operate the project at a national or regional (as defined in the Validation Notice

**Inviting Applications) during the project period.**

**Strengths:**

Much of the management plan is already articulated through Waterford due to the existing nature of the program. Waterford addresses recruitment and publicity, hardware and connectivity purchasing, training appropriate personnel, conducting pre and post testing, and providing an independent evaluator. The district will need to provide appropriate data to Waterford, assist in promotion, hire a district program liaison, implement and support the program, and provide data for assessment. A clear timeline of milestones, steps to be implemented, expected outcomes, and performance indicators is provided (p e45-47).

The applicant indicates that funding will be used to expand the number of homes the program serves, provide training for personnel and parents/caregivers, and evaluation (p e47). The cost-effectiveness of the program and Waterford's experience implementing programs indicate the ability to operate at the national level (p e48).

**Weaknesses:**

None.

**Reader's Score: 20**

**Selection Criteria - Quality of Project Personnel**

**1. In determining the quality and personnel for the proposed project, the Secretary considers the following factor:**

**(1) The adequacy of the project's staffing plan, particularly for the first year of the project, including the identification of the project director and, in the case of projects with unfilled key personnel positions at the beginning of the project, that the staffing plan identifies how critical work will proceed.**

**(2) The qualifications and experience of the project director and other key project personnel and the extent to which they have the expertise to accomplish the proposed tasks.**

**Strengths:**

All appropriate personnel are in place due to the existing nature of the program: "Because Waterford already has a successfully functioning UPSTART program underway statewide in Utah, and because UPSTART is technology-based, staffing the project will be straight forward. Waterford will immediately hire the personnel to scale up UPSTART and pass grant funds on to the districts to hire UPSTART liaisons. " (p e49) This includes:

- The executive director of UPSTART, who works with the Utah state legislature and the USDOE to administer the program
- The VP of Applied Research and Learning and Chief Scientist at Waterford, who assisted with Waterford's validation and will work with the external evaluator for this program
- The VP of Technology at Waterford, who will serve as the program's technology director
- The president of the Evaluation and Training Institute, who has experience managing large-scale research projects with educational data

**Weaknesses:**

None.

Reader's Score: 10

### Selection Criteria - Quality of the Project Evaluation

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

- (1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.
- (2) 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 Evidence Standards without reservations.
- (3) The extent to which the evaluation will study the project at the proposed level of scale, including, where appropriate, generating information about potential differential effectiveness of the project in diverse settings and for diverse student population groups.
- (4) The extent to which the evaluation plan includes a clear and credible analysis plan, including a proposed sample size and minimum detectable effect size that aligns with the expected project impact, and an analytic approach for addressing the research questions.
- (5) The extent to which the evaluation plan clearly articulates the key components and outcomes of the project, as well as a measureable threshold for acceptable implementation.

**Strengths:**

N/A

**Weaknesses:**

N/A

Reader's Score: 0

### Priority Questions

#### Competitive Preference Priority 1 - Competitive Preference Priority 1

1. Under this priority, we provide funding to projects that address one of the following areas:

- (a) Substantially improving student outcomes without commensurately increasing per-student costs.
- (b) Maintaining student outcomes while substantially decreasing per-student costs.
- (c) Substantially improving student outcomes while substantially decreasing per-student costs.

**Strengths:**

- Compared to a control group, students who participated in the program had greater reading ability gains, a faster acquisition of phonological awareness skills, and alphabets. (p e28-30)Traditional classroom-based Pre-K programs are estimated to cost \$8,700/student (p e26); the program's cost is \$1,340/student. (p e36)
- In addition to the cost-effectiveness of the program, the applicant also indicates that the program also includes a multi-sensory intervention supplement that can be used (p e14); additionally, the program can fill gaps that are left from the modest gains produced by the academic limits of a universal preschool program. (p e26)

- Costs are outlined in Appendix J; the state is currently committed to funding the program on a smaller scale (p e38) and a letter from the state superintendant indicates that they will continue to fund the program on a wider scale if it is validated through this grant. (p e191)
- The cost-effectiveness of the practice comes from its home-based deployment, taking away the need to fund an entire institutionalized preschool program. (p e27)
- Waterford indicates that once the program is scaled, costs will be reduced from \$618/student for 150,000 participants to \$584/student for 500,000 participants. (p e37)

**Weaknesses:**

None.

**Reader's Score: 1**

**Competitive Preference Priority 2 - Competitive Preference Priority 2**

**1. Under this priority, we provide funding to projects that enable broad adoption of effective practices. An application proposing to address this priority must, as part of its application:**

**(a) Identify the practice or practices that the application proposes to prepare for broad adoption, including formalizing the practice (i.e., establish and define key elements of the practice), codifying (i.e., develop a guide or tools to support the dissemination of information on key elements of the practice), and explaining why there is a need for formalization and codification.**

**(b) Evaluate different forms of the practice to identify the critical components of the practice that are crucial to its success and sustainability, including the adaptability of critical components to different teaching and learning environments and to diverse learners.**

**(c) Provide a coherent and comprehensive plan for developing materials, training, toolkits, or other supports that other entities would need in order to implement the practice effectively and with fidelity.**

**(d) Commit to assessing the replicability and adaptability of the practice by supporting the implementation of the practice in a variety of locations during the project period using the materials, training, toolkits, or other supports that were developed for the i3-supported practice.**

**Strengths:**

- The applicant proposes to prepare Waterford's UPSTART program for broad adoption. The steps of the Waterford program and responsibilities of the districts involved combine to create the formalization and codification of the program. (p e44-45) There is a need for this in order to reach rural and/or economically challenged students to increase school readiness preparation and reading development. (p e17)
- The applicant addresses the different forms of the practice and barriers to address its sustainability and adaptability. (p e12-14)
- All of the materials, training, toolkits, and other supports have been developed by Waterford.
- The program will be implemented in 18 rural districts in Utah for the purpose of validating the replicability and adaptability; Waterford personnel will work with district personnel to ensure implementation fidelity.

**Weaknesses:**

None.

**Reader's Score:** 2

**Invitational Priority - Invitational Priority**

1. The Secretary encourages applicants to propose projects that incorporate high-quality early learning components that are aligned with the early learning, elementary and secondary education systems in participating schools and help ensure that all children, especially those from low-income families, enter kindergarten ready to succeed.

**General:**

**Reader's Score:**

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**Status:** Submitted

**Last Updated:** 08/20/2013 04:40 PM

Status: Submitted

Last Updated: 08/16/2013 02:42 PM

## Technical Review Coversheet

Applicant: Waterford Institute (U411B130020)

Reader #4: \*\*\*\*\*

	Points Possible	Points Scored
<b>Questions</b>		
<b>Summary Statement</b>		
<b>Summary Statement</b>		
1. Summary Statement	0	0
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	20	0
<b>Quality of Project Design</b>		
1. Project Design	20	0
<b>Quality of the Management Plan</b>		
1. Management Plan	20	0
<b>Quality of Project Personnel</b>		
1. Personnel	10	0
<b>Quality of the Project Evaluation</b>		
1. Project Evaluation	30	18
<b>Priority Questions</b>		
<b>Competitive Preference Priority 1</b>		
<b>Competitive Preference Priority 1</b>		
1. CPP 1	1	
<b>Competitive Preference Priority 2</b>		
<b>Competitive Preference Priority 2</b>		
1. CPP 2	2	
<b>Invitational Priority</b>		
<b>Invitational Priority</b>		
1. Invitational Priority	0	
<b>Total</b>	<b>103</b>	<b>18</b>

# Technical Review Form

Panel #5 - i3 Validation - 5: 84.411B

Reader #4: \*\*\*\*\*

Applicant: Waterford Institute (U411B130020)

## Questions

### Summary Statement - Summary Statement

#### 1. Summary Statement (Optional):

General:

N/A

Reader's Score: 0

### Selection Criteria - Significance

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

(1) The likelihood that the project will have the estimated impact, including the extent to which the applicant demonstrates that unmet demand for the proposed project or the proposed services will enable the applicant to reach the proposed level of scale.

(2) The feasibility of national expansion if favorable outcomes are achieved.

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

### Selection Criteria - Quality of Project Design

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

(1) The extent to which the proposed project addresses the national need and priorities the applicant is seeking to meet.

(2) The extent to which the proposed project has a clear set of goals and an explicit plan or actions to achieve the goals, including identification of any elements of the project logic model that require further testing or development.

(3) The extent to which the applicant will use grant funds to address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale proposed in the application.

**Strengths:**

N/A

**Weaknesses:**

N/A

**Reader's Score: 0**

**Selection Criteria - Quality of the Management Plan**

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

(1) The extent to which the management plan articulates key responsibilities and well-defined objectives, including the timelines and milestones for completion of major project activities, the metrics that will be used to assess progress on an ongoing basis, and annual performance targets the applicant will use to monitor whether the project is achieving its goals.

(2) The clarity and coherence of the applicant's multi-year financial and operating model and accompanying plan to operate the project at a national or regional (as defined in the Validation Notice Inviting Applications) during the project period.

**Strengths:**

N/A

**Weaknesses:**

N/A

**Reader's Score: 0**

**Selection Criteria - Quality of Project Personnel**

1. In determining the quality and personnel for the proposed project, the Secretary considers the following factor:

(1) The adequacy of the project's staffing plan, particularly for the first year of the project, including the identification of the project director and, in the case of projects with unfilled key personnel positions at the beginning of the project, that the staffing plan identifies how critical work will proceed.

(2) The qualifications and experience of the project director and other key project personnel and the extent to which they have the expertise to accomplish the proposed tasks.

**Strengths:**

N/A

**Weaknesses:**

N/A

## Selection Criteria - Quality of the Project Evaluation

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

- (1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.
- (2) 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 Evidence Standards without reservations.
- (3) The extent to which the evaluation will study the project at the proposed level of scale, including, where appropriate, generating information about potential differential effectiveness of the project in diverse settings and for diverse student population groups.
- (4) The extent to which the evaluation plan includes a clear and credible analysis plan, including a proposed sample size and minimum detectable effect size that aligns with the expected project impact, and an analytic approach for addressing the research questions.
- (5) The extent to which the evaluation plan clearly articulates the key components and outcomes of the project, as well as a measureable threshold for acceptable implementation.

#### Strengths:

- The evaluation plan provides a list of specific questions to be addressed (p. 28) along with outcomes to be measured for the first two impact questions.
- The first two questions will be addressed in a randomized control trial (RCT) that appears to adhere to the WWC Evidence Standards (p. 28).
- The plan provides a detailed description of the sampling plan, which is projected to be 900 students from 18 districts. This would appear to meet the WWC standards for sample size and effect size (p. 29).
- Random assignment to treatment and control groups is described and would seem to be appropriate. The pool of students eligible for random assignment to the treatment group must have used the program for 1100 minutes beginning pre-kindergarten. (p. 30).
- Data analysis is described and will include a 2 level HLM analysis (p. 33). This would appear to be sufficient to answer the outcome questions presented.

#### Weaknesses:

- There appears to be a contradiction, perhaps a typo, between the introduction to the evaluation plan (p. 28, experimental and control groups (neither assigned randomly), versus p. 30, which describes the selection of the control and treatment groups as randomly selected) and further descriptions of the methodology. While there may be a distinction to be made between random selection and random assignment, the descriptions are a little unclear.
- The implementation questions presented, particularly 3 and 4 are questions that would appear to be answered through the normal implementation of the program. That is, it doesn't really provide a great deal of information that would provide an evaluation of the effectiveness of the implementation. Fidelity issues related to the barriers described (i.e., language, parental education level, etc.) should have been included in the process questions.

- Calculations of attrition for purposes of sample size do not appear to follow accepted methods for WWC (p. 29). The selection of 10% to account for attrition is not explained. It would have been stronger to have used the WWC approach that would have established a predicted effect size through power analysis.
- The budget narrative (p. 4) indicates that the cost of the evaluation contract is \$2 million plus \$40,000/yr for a program staff member to serve as evaluation coordinator (p. 2). Since the Joint Standards suggests that the cost of program evaluation should be 5-10% of the grant amount, this evaluation will cost 16.7% of the grant amount, which appears to be excessive, particularly since the data collection and analysis does not appear to be either time consuming or overly complicated.
- The analysis of data is not clearly presented (p. 33). A detailed logic model would have provided the evaluation plan with much more clarity in terms of specific outcomes attached to each research question and how and when those outcomes would have been measured and evaluated.

**Reader's Score: 18**

### **Priority Questions**

#### **Competitive Preference Priority 1 - Competitive Preference Priority 1**

- 1. Under this priority, we provide funding to projects that address one of the following areas:**
  - (a) Substantially improving student outcomes without commensurately increasing per-student costs.**
  - (b) Maintaining student outcomes while substantially decreasing per-student costs.**
  - (c) Substantially improving student outcomes while substantially decreasing per-student costs.**

**Strengths:**

**Weaknesses:**

**Reader's Score:**

#### **Competitive Preference Priority 2 - Competitive Preference Priority 2**

- 1. Under this priority, we provide funding to projects that enable broad adoption of effective practices. An application proposing to address this priority must, as part of its application:**
  - (a) Identify the practice or practices that the application proposes to prepare for broad adoption, including formalizing the practice (i.e., establish and define key elements of the practice), codifying (i.e., develop a guide or tools to support the dissemination of information on key elements of the practice), and explaining why there is a need for formalization and codification.**
  - (b) Evaluate different forms of the practice to identify the critical components of the practice that are crucial to its success and sustainability, including the adaptability of critical components to different teaching and learning environments and to diverse learners.**
  - (c) Provide a coherent and comprehensive plan for developing materials, training, toolkits, or other supports that other entities would need in order to implement the practice effectively and with fidelity.**

**(d) Commit to assessing the replicability and adaptability of the practice by supporting the implementation of the practice in a variety of locations during the project period using the materials, training, toolkits, or other supports that were developed for the i3-supported practice.**

**Strengths:**

**Weaknesses:**

**Reader's Score:**

**Invitational Priority - Invitational Priority**

- 1. The Secretary encourages applicants to propose projects that incorporate high-quality early learning components that are aligned with the early learning, elementary and secondary education systems in participating schools and help ensure that all children, especially those from low-income families, enter kindergarten ready to succeed.**

**General:**

**Reader's Score:**

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**Status:** Submitted  
**Last Updated:** 08/16/2013 02:42 PM

Status: Submitted

Last Updated: 08/17/2013 09:27 PM

## Technical Review Coversheet

Applicant: Waterford Institute (U411B130020)

Reader #5: \*\*\*\*\*

	Points Possible	Points Scored
<b>Questions</b>		
<b>Summary Statement</b>		
<b>Summary Statement</b>		
1. Summary Statement	0	
<b>Selection Criteria</b>		
<b>Significance</b>		
1. Significance	20	0
<b>Quality of Project Design</b>		
1. Project Design	20	0
<b>Quality of the Management Plan</b>		
1. Management Plan	20	0
<b>Quality of Project Personnel</b>		
1. Personnel	10	0
<b>Quality of the Project Evaluation</b>		
1. Project Evaluation	30	16
<b>Priority Questions</b>		
<b>Competitive Preference Priority 1</b>		
<b>Competitive Preference Priority 1</b>		
1. CPP 1	1	
<b>Competitive Preference Priority 2</b>		
<b>Competitive Preference Priority 2</b>		
1. CPP 2	2	
<b>Invitational Priority</b>		
<b>Invitational Priority</b>		
1. Invitational Priority	0	
<b>Total</b>	103	16

# Technical Review Form

Panel #5 - i3 Validation - 5: 84.411B

Reader #5: \*\*\*\*\*

Applicant: Waterford Institute (U411B130020)

## Questions

### Summary Statement - Summary Statement

#### 1. Summary Statement (Optional):

General:

Reader's Score:

### Selection Criteria - Significance

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

(1) The likelihood that the project will have the estimated impact, including the extent to which the applicant demonstrates that unmet demand for the proposed project or the proposed services will enable the applicant to reach the proposed level of scale.

(2) The feasibility of national expansion if favorable outcomes are achieved.

Strengths:

N/A

Weaknesses:

N/A

Reader's Score: 0

### Selection Criteria - Quality of Project Design

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

(1) The extent to which the proposed project addresses the national need and priorities the applicant is seeking to meet.

(2) The extent to which the proposed project has a clear set of goals and an explicit plan or actions to achieve the goals, including identification of any elements of the project logic model that require further testing or development.

(3) The extent to which the applicant will use grant funds to address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale proposed in the application.

**Strengths:**

N/A

**Weaknesses:**

N/A

**Reader's Score:** 0

**Selection Criteria - Quality of the Management Plan**

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

(1) The extent to which the management plan articulates key responsibilities and well-defined objectives, including the timelines and milestones for completion of major project activities, the metrics that will be used to assess progress on an ongoing basis, and annual performance targets the applicant will use to monitor whether the project is achieving its goals.

(2) The clarity and coherence of the applicant's multi-year financial and operating model and accompanying plan to operate the project at a national or regional (as defined in the Validation Notice Inviting Applications) during the project period.

**Strengths:**

N/A

**Weaknesses:**

N/A

**Reader's Score:** 0

**Selection Criteria - Quality of Project Personnel**

1. In determining the quality and personnel for the proposed project, the Secretary considers the following factor:

(1) The adequacy of the project's staffing plan, particularly for the first year of the project, including the identification of the project director and, in the case of projects with unfilled key personnel positions at the beginning of the project, that the staffing plan identifies how critical work will proceed.

(2) The qualifications and experience of the project director and other key project personnel and the extent to which they have the expertise to accomplish the proposed tasks.

**Strengths:**

N/A

**Weaknesses:**

N/A

## Selection Criteria - Quality of the Project Evaluation

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

- (1) The clarity and importance of the key questions to be addressed by the project evaluation, and the appropriateness of the methods for how each question will be addressed.
- (2) 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 Evidence Standards without reservations.
- (3) The extent to which the evaluation will study the project at the proposed level of scale, including, where appropriate, generating information about potential differential effectiveness of the project in diverse settings and for diverse student population groups.
- (4) The extent to which the evaluation plan includes a clear and credible analysis plan, including a proposed sample size and minimum detectable effect size that aligns with the expected project impact, and an analytic approach for addressing the research questions.
- (5) The extent to which the evaluation plan clearly articulates the key components and outcomes of the project, as well as a measureable threshold for acceptable implementation.

### Strengths:

The proposal specifies five key research questions (p. 28) that will guide the evaluation. The research questions also provide a listing of school readiness outcomes that will be examined.

The project plans to select a sample of 900 students enrolled in 18 districts in a single state. A power analysis has indicated that this sample size is sufficient to allow detection of a small effect size (p. 29).

Outcomes data will be appropriately analyzed at two points in time through the use of a multiple linear regression analysis (p. 29).

The external evaluator that has been selected has conducted a previous evaluation of the program of interest and appears to be qualified to conduct this evaluation.

### Weaknesses:

While the project proposes to compare an intervention group to a non-intervention group and to use covariates to control for some differences between the groups, there is no indication that the groups will be compared at baseline. To meet the What Works Clearinghouse Evidence Standards with reservation requires that this initial comparison find a difference no greater than one-quarter of a standard deviation in the characteristics of interest.

The proposal expresses a preference for participating districts to currently administer the assessments to project plans to use in order for the project to be able to access and use existing data (p. 30). This raises concerns regarding the reliability and validity of the existing data.

The proposal indicates that scores from the Preschool Early Literacy Indicator, the Brigance, and the DIBELS will be used as outcome measures (p.31). However, the Milestones chart (pp. 23-25) does not indicate that these measures will be administered as part of the project.

The project specifies a minimum dosage level for a child to be included in the analyses but does not establish a plan for

examining differences in outcomes resulting from dosage differences above that minimum. The knowledge of the effect of different dosages is important for those that might wish to replicate the project.

Research questions 3 and 4 (p. 28) provide implementation information; however, there is no clear plan as to how this information might be used to determine the need for project adjustments.

The research questions (p. 28) do not specify a plan to identify the key components of the project that could guide those that wish to replicate the project. Nor, does the proposal present a plan to determine these key components.

The project has budgeted approximately 15% of the grant funds for the evaluation. This appears to go beyond the costs that would be required to support the planned evaluation activities.

**Reader's Score:** 16

### **Priority Questions**

#### **Competitive Preference Priority 1 - Competitive Preference Priority 1**

- 1. Under this priority, we provide funding to projects that address one of the following areas:**
  - (a) Substantially improving student outcomes without commensurately increasing per-student costs.**
  - (b) Maintaining student outcomes while substantially decreasing per-student costs.**
  - (c) Substantially improving student outcomes while substantially decreasing per-student costs.**

**Strengths:**

**Weaknesses:**

**Reader's Score:**

#### **Competitive Preference Priority 2 - Competitive Preference Priority 2**

- 1. Under this priority, we provide funding to projects that enable broad adoption of effective practices. An application proposing to address this priority must, as part of its application:**
  - (a) Identify the practice or practices that the application proposes to prepare for broad adoption, including formalizing the practice (i.e., establish and define key elements of the practice), codifying (i.e., develop a guide or tools to support the dissemination of information on key elements of the practice), and explaining why there is a need for formalization and codification.**
  - (b) Evaluate different forms of the practice to identify the critical components of the practice that are crucial to its success and sustainability, including the adaptability of critical components to different teaching and learning environments and to diverse learners.**
  - (c) Provide a coherent and comprehensive plan for developing materials, training, toolkits, or other supports that other entities would need in order to implement the practice effectively and with fidelity.**

**(d) Commit to assessing the replicability and adaptability of the practice by supporting the implementation of the practice in a variety of locations during the project period using the materials, training, toolkits, or other supports that were developed for the i3-supported practice.**

**Strengths:**

**Weaknesses:**

**Reader's Score:**

**Invitational Priority - Invitational Priority**

- 1. The Secretary encourages applicants to propose projects that incorporate high-quality early learning components that are aligned with the early learning, elementary and secondary education systems in participating schools and help ensure that all children, especially those from low-income families, enter kindergarten ready to succeed.**

**General:**

**Reader's Score:**

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**Status:** Submitted  
**Last Updated:** 08/17/2013 09:27 PM