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

Status: Submitted
Last Updated: 05/28/2019 05:23 PM

# Technical Review Coversheet

**Applicant:** American Institutes for Research (U411B190010)
**Reader #1:** **********

|  | Points Possible | Points Scored |
|---|---|---|
| **Questions** | | |
| **Selection Criteria** | | |
| **Significance** | | |
| **1.** Significance | 15 | 11 |
| **Quality of Project Design** | | |
| **1.** Project Design | 25 | 22 |
| **Strategy to Scale** | | |
| **1.** Strategy to Scale | 20 | 17 |
| **Adequacy of Resources/Quality of Management Plan** | | |
| **1.** Resources/Management Plan | 20 | 14 |
| **Quality of the Project Evaluation** | | |
| **1.** Project Evaluation | 20 | 0 |
| **Sub Total** | 100 | 64 |
| **Total** | 100 | 64 |

# Technical Review Form

**Panel #2 - EIR Mid Phase - 2: 84.411B**

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

**Applicant:**    American Institutes for Research (U411B190010)

**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 applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.**

   **Strengths:**

   The project provides some potential contribution of the proposed project to increase knowledge of educational issues. The project, EWIMS is one that focuses on implementing, testing and refining a strategy to scale to using a data tool to identify students in grades 9 and 10, who are at risk of not graduating on time, assign students flagged as at risk to interventions, and monitor response to intervention to serve high need students in four states. It is an early warning system and this study will measure the impact of such systems on outcomes; including chronic absence, course failure, school suspensions, etc. The applicant cites several studies that illustrate the outcomes of students that drop out of school where one in five students leave without a diploma. Also cited are data that illustrate that there are persistent gaps between minority students and their white peers in each of the four partnering SEA's and these gaps are notably larger in some of our partnering LEA's.  e28

   The applicant does describe elements of an unmet demand for the product that will enable the applicant to reach the level of scale that is proposed in the application. The lead agency indicates that the EMIMS goes beyond just the identification of students in need and provides a comprehensive system to approach data review. Their strategy is that EWIMS is the recognition that student risk indicators are simply observable signs of disengagement from school. The system purports to provide a deeper investigation of the actual reason of student disengagement as part of the process of determining intervention options.  E33

   **Weaknesses:**

   The applicant does not illustrate the uniqueness or comparison of their tool as an early warning system for grade 9 and 10 with other tools and or systems that may be available for the same purpose; including known results and outcomes from these other systems that relate to monitoring high need students.

   The applicant does not describe the basis/the product of the actual EWIMS system as well as the technical makeup of the tool and how it would actually be used by school staff. The applicant leaves us guessing without an example as to how it actually works and what it produces in terms of data in, and data out. .E33

**Reader's Score:      11**


## 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.**


   **Strengths:**

   The goals, objectives and outcomes to be achieved by the project are specified and measurable. Their Exhibit 3-Objectives, Strategies, Outcomes and Measures appear to accurately measure what the project is intended to do. Objectives are clearly written.  For example, Objective 1 states: Improve academic outcomes for students including short-term outcomes, intermediate outcomes and long-term outcomes which are defined for each category.   Strategies are detail specific and include for example: Strategy 1.2. Use multiple data sources to identify student needs. Also state for the strategy are the outcome in detail and how measured.  As presented, they are comprehensive and include the scope of the project.   E35

   In support of a demonstration activity the applicant provides activities in their Exhibit 5-Theory of Action: How EWIMS Improves Student Outcomes.  This Exhibit provides the Inputs, Outputs, Short Term Outcomes, Intermediate Outcomes and long-term Outcomes. IN support, the applicant's model has embedded  in this model  short term student impacts which include improved engagement and performance in the school among students.  The outcome  reduces the percentage of students at risk of not graduating because of chronic absence, course failure, low cumulative grade point average and suspension. The project does promote short term outcomes that lead to intermediate and long-term gains which the lead agency seeks to implement.  E39


   **Weaknesses:**

   2. The applicant does not speak to/address the culture of the schools in the proposed project, their philosophy of discipline, the effectiveness level of their teaching and student support staff, the experience and depth of their administrative team, the school climate as it exists, the support of the central administration in implementing the program and the ability of the board of education to support the initiative as possible barriers to implementation and scale. The model does not address the input from all components of the school and district, including the varied teacher unions and other unions that represent those who work in the school system and come in contact with students in multiple ways. Teacher attendance levels and teacher turnover are also factors in reaching desired outcomes with high need high school students and these elements are not addressed.   E38


**Reader's Score:      22**


## Selection Criteria - Strategy to Scale

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

**(1)  The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

**(2)  The extent to which the proposed project will increase efficiency in the use of time, staff, money, or other resources in order to improve results and increase productivity.**

**Strengths:**

The applicant identifies specific strategies that address particular barriers that prevented the applicant in the past from reaching the level of scale that is proposed in the application.  These are enumerated and include a significant burden on school based EWIMS teams to export data from their student information system, manually reformat data and then import the data into the tool.  Other challenges included low technical capacity and limited time and resources were noted for schools and created barriers for some schools.  In addition, a barrier that was discovered was the ability to translate knowledge about the 7-step process into an actionable implementation strategy.  Identified strategies to address the barriers that optimize usability, feasibility, fidelity and sustainability of implementation and allow for more efficient allocation of resources were provided.

The applicant provides some details that illustrate how they will increase efficiency in the use of staff and other resources. The applicant, in order to increase efficiency, will use resources to improve results and increase productivity.  These resources are detailed by the lead agency and include: the provision of a new high-quality user friendly data tool-the Early Insights Suite to support EWIMS implementation as part of the partnership with BrightBytes, the Adaptive Coaching Model to help with school level implementation, and the provision of concrete supports for implementation supported by Concerns-Based Adoption Model. Also provided will be the training provided by AIR to district level staff members on the EWIMS implementation model so that they can provide ongoing support to schools following completion of the grant. E42

**Weaknesses:**

The applicant does not address the need for school programming expertise that provides a scheduling model and alternative means of granting high school credits outside of the traditional seat time in order to accommodate diverse scheduling needs of high need students and their personal situation in terms of time and responsibility.    The tool is just that, a tool, and the applicant does not embellish on staff and instructional program strategies that would promote outcomes using the tool in the context of the school.

**Reader's Score:        17**

**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 applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

**(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.**

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

**Strengths:**

1.The applicant provides a management plan to achieve their objectives of the proposed project.  Their Exhibit 6-Organizational Chart delineates the reporting structure for the partner organizations (BrightBytes and Abt).  Key personnel for the project are listed in Exhibit 7- and include their roles and responsibilities.  These two charts do provide the organizational structure necessary to deliver the project on time and within budget.  Their Exhibit 8-Organization Responsible, Time Frame and Milestones for Each Strategy identify the objective, responsible person/organization and timelines. E45

2.The applicant provides for a description of the background and experience of key personnel who do have substantial education and experiential levels with similar projects.  Resumes' are provided as well for key project personnel which illustrate an extensive background and expertise in the subject area.  Exhibit 9-AIR Projects of Similar Size and Scope is provided with past projects awarded and their description. E46

3.The applicant enumerates activities for continued support of the project after federal funding ends. Their partner BrightBytes is committed to improving its data tool using the findings from this project to deliver higher quality user friendly data visualization of complex analytics to drive decision making and student success.  Detailed manuals, the final materials and training model will reflect lessons learned throughout the project and all materials are currently accessible on AIR's website which will be updated as needed.e47

4.The applicant provides some details that illustrate that the costs are reasonable in relation to the objectives, design and potential significance of the proposed project.  This is supported by the outreach of the project to an estimated 120 high schools supporting an estimated 1,000,000 students in grade 9 and 10 during the grant.  The idea is that the project will integrate with existing practices in schools, there is a long-term benefit associated with project outcomes.  Fewer students at risk, fewer student absences, more students graduating high school and fewer course failures will occur.  E48

**Weaknesses:**

1.The applicant lists the timeline for strategy completion on a yearly basis, but a project of this magnitude and complexity warrants shorter durations for multiple components that should be implemented and or reviewed quarterly or at half-year project time lines for activities that may need review or revision.  E46

2.The applicant does not include the year of funding of their prior projects, nor do they provide a summary of their financial resources or the success levels of their prior project funding initiatives.

3. The applicant does not fully narrate/explain how project costs are reasonable in terms of the outcome for the 100,000 student participants they indicate will participate in the 120 schools.

**Reader's Score:** 14

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

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

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

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

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

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

**Strengths:**

-

**Weaknesses:**

-

**Reader's Score:**        0

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**Status:**        Submitted
**Last Updated:**        05/28/2019 05:23 PM

# Technical Review Coversheet

**Applicant:**    American Institutes for Research (U411B190010)
**Reader #2:**       **********

|  | Points Possible | Points Scored |
|---|---|---|
| **Questions** | | |
| **Selection Criteria** | | |
| **Significance** | | |
| **1.** Significance | 15 | 15 |
| **Quality of Project Design** | | |
| **1.** Project Design | 25 | 25 |
| **Strategy to Scale** | | |
| **1.** Strategy to Scale | 20 | 20 |
| **Adequacy of Resources/Quality of Management Plan** | | |
| **1.** Resources/Management Plan | 20 | 18 |
| **Quality of the Project Evaluation** | | |
| **1.** Project Evaluation | 20 | 0 |
| **Sub Total** | 100 | 78 |
| **Total** | 100 | 78 |

# Technical Review Form

## Panel #2 - EIR Mid Phase - 2: 84.411B

**Reader #2:**     **********
**Applicant:**   American Institutes for Research (U411B190010)

## 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 applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.**

   **Strengths:**

   1) The applicant well describes the potential contributions of the proposed project which aims to increase understanding of how high school dropout is a problem nationally, and helping schools improve on-time graduation rates benefits both individuals and society. The applicant cites a plethora of research which comprehensively describes the consequences of not graduating from high school. For example, the dropout risk is consistently higher among economically disadvantaged, rural, urban, and minority youth (pp. e 27-31). These facts are also evident in the target area where there are persistent gaps between minority students and their white peers in each of the four partnering SEAs (p. e 28). The proposed project will incorporate promising strategies based on an expert panel review of the relevant research which will require monitoring student progress and proactively intervening when students show early signs of attendance, behavior, or academic problems (p. e 29). The applicant plans to utilize early warning systems as a viable strategy for improving graduation rates for 9th and 10th grade students at risk of not graduating on time.

   (2)  The applicant clearly demonstrates that there is an unmet demand for the proposed Scaling and Testing an Effective Early Warning Intervention and Monitoring System (EWIMS) that will enable them to reach the level of scale that is proposed in the application. EWIMS is a strategic approach which will provide schools with a systematic approach of reviewing data; implementing student supports that best align with students' needs; monitoring progress; and adapting an intervention strategy in real time for students as new data become available (pp. e 32-33). Unlike other drop- out prevention initiatives that do not provide treatment beyond identification, EWIMS addresses an unmet need by emphasizing the use of risk indicators for initial identification, followed by deeper investigation to determine intervention options with the goal of helping students get back on track. In addition, EWIMS will also help schools improve alignment between the interventions and supports they offer and the identified needs of their students. Educators embrace implementing these comprehensive strategies to be utilized in this project as evidenced by letters of support (Appendix C).

   **Weaknesses:**

   (1) None noted
   (2) None noted

**Reader's Score:** 15

**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.**

    **Strengths:**

    (1) The applicant provides clearly specified goals and measurable objectives, and outcomes to be achieved by the proposed project. The primary goal is to refine and test a strategy for scaling EWIMS in diverse settings serving high-need students (pp. e 25-26). By objective (pp. e 35-37), the applicant describes focused strategies (use multiple data sources to identify student needs); realistic outcomes (identify potential root causes of risk); and appropriate quantitative and qualitative measures (data from diagnostic assessments, coaches' logs and focus groups).

    (2) The applicant describes the conceptual framework underlying the proposed EWIMS project which involves a 7-step cyclical implementation process. The 7-step process is designed so that each step builds on the prior step and the full cyclical process provides a coherent, systematic approach to data review and decision making (pp. e38-39). The theoretical framework (p. e 39) describes how EWIMS is expected to improve student outcomes by focusing on streamlining data review through the use of research-based or locally validated early warning indicators to flag students who may be at risk of not graduating on time. This is a feasible strategy because it is a direct link to the overall project goal and anticipated outcome of increasing the percentage of students at risk of not graduating on time, persisting and progressing in school. The applicant includes key components in theory of action model (p. e 39) for improving student outcomes including inputs (early warning data tool); outputs (monitoring student progress); short term outcomes (reduce % students at risk of failure); intermediate outcomes (increase % students persisting and progressing); and long term outcome (improved on time graduation rates).

    **Weaknesses:**

    (1) None noted
    (2) None noted

**Reader's Score:** 25

**Selection Criteria - Strategy to Scale**

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

    **(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level**

**of scale that is proposed in the application.**

**(2)  The extent to which the proposed project will increase efficiency in the use of time, staff, money, or other resources in order to improve results and increase productivity.**

Strengths:

(1) The applicant's strategy to scale addresses three barriers to implementation, including difficulty using a prior version of the data tool; difficulty utilizing the 7-step process as an actionable implementation strategy; and turnover of key staff in schools. These specific barriers destabilized implementation fidelity in some schools and caused a few schools to stop implementing the EWIMS process. Specific strategies to address these barriers will include providing a step-by-step implementation manual and self-assessment fidelity checklists; supporting implementation and coaching via the Concerns-Based Adoption Model (CBAM), which is a conceptual framework that provides diagnostic tools and techniques for facilitating and assessing the implementation of new initiatives; and building capacity for district-level staff  through focused training so that they can provide ongoing support to schools following completion of the grant (pp. e.39 – 43). The implementation of these strategies is expected to result in even larger impacts on student and school outcomes.

(2)  The applicant describes how the proposed EWIMS project will increase efficiency in order to improve results and increase productivity through a 3-tiered adaptive coaching model, with the goal of optimizing allocation of resources to provide differentiated support for school-level implementation. Schools will participate in district based on site summer training and will receive access to the content of refresher webinars via prerecorded online videos as well as tailored support from coaches. A coach will provide on-site support including meeting monthly with the leadership team to help develop a school-specific implementation strategy; troubleshooting challenges as they occur; and monitoring progress related to the implementation strategy—with a focus on building school capacity. Focusing on supporting the leadership team is important because the leaders will be better prepared to successfully lead staff through the change process.  This is a feasible strategy which will allow schools to more systematically identify students who need support. To further support schools, the coach will also join a monthly team meeting virtually and provide refresher coaching as needed; and If teams continue to encounter challenges, the coach will provide additional on-site support to team members and school leaders (pp. e 41-42).

Weaknesses:

(1) None noted
(2) None noted

**Reader's Score:        20**

**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 applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

**(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.**

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

**Strengths:**

(1)  The applicant provides an adequate 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. The applicant provides an organizational chart that clearly shows the project reporting structure (p. e 43); provides a detailed description of the qualifications and responsibilities of key project personnel (pp. e 44 – e 45); and provides a matrix organized by objectives, which clearly delineates personnel responsible; shows a year to year timeline with start and end dates by objective; and milestones for each strategy (pp. e 45-46).  The management plan will provide concrete supports including clearly defined duties of qualified personnel, viable milestones, and a realistic timeline for successfully implementing project components.

(2)  The applicant well describes how key personnel are qualified to bring this project to scale as evidenced by extensive experience leading other projects of similar size and scope. The applicant describes how partnerships that include coordinating across subcontracted organizations and several school districts with support bringing the proposed project to scale on a national or regional level (p. e 46). The applicant provides a description of past projects of similar size and scope which provides convincing evidence of their management capacity for successfully implementing the proposed project.

(3)  The applicant well describes the potential for continued support of the project after Federal funding ends. By the completion of the project, there will be approximately 120 additional high schools proficient in implementing EWIMS and that have successfully integrated EWIMS into existing practice to ensure sustainability. Both partners (American Institutes for Research (AIR) and BrightBytes) are committed to continuously optimizing the cost and benefits of EWIMS and improving school and district partners' experience using the EWIMS process and data tool (pp. e 47-48). The materials produced by this grant will be institutionalized and all existing materials will be accessible on AIR's website. The applicant intends to maintain and actively utilize the EWIMS process and resources to provide ongoing support to SEAs and LEAs in the implementation of effective, comprehensive early warning systems to support students at risk of not graduating on time.

(4)  The applicant's budget of $7,996,973.00 (p.e7) reflects costs that are reasonable in relation to the objectives, design, and potential significance of the proposed project. This project will provide resources to implement EWIMS in an estimated 120 high schools supporting approximately 100,000 students in Grades 9 and 10 during the grant. The resources will support sustainable implementation through successful integration with existing practice in schools, which will likely ensure the benefits will last long after the grant is completed (p. e 48).

**Weaknesses:**

(1) None noted
(2) More details are needed to describe the financial resources the applicant will utilize to bring the proposed project to scale on a national or regional level.
(3) None noted
(4) None noted

**Reader's Score:** 18


### Selection Criteria - Quality of the Project Evaluation

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

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

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

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

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


   **Strengths:**

   N/A

   **Weaknesses:**

   N/A

**Reader's Score:** 0

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**Status:** Submitted
**Last Updated:** 05/28/2019 02:39 PM

Status:      Submitted
Last Updated:      05/29/2019 03:39 PM

# Technical Review Coversheet

**Applicant:**   American Institutes for Research (U411B190010)
**Reader #3:**      **********

|  | Points Possible | Points Scored |
|---|---|---|
| **Questions** | | |
| **Selection Criteria** | | |
| **Significance** | | |
|   **1.** Significance | 15 | 12 |
| **Quality of Project Design** | | |
|   **1.** Project Design | 25 | 22 |
| **Strategy to Scale** | | |
|   **1.** Strategy to Scale | 20 | 17 |
| **Adequacy of Resources/Quality of Management Plan** | | |
|   **1.** Resources/Management Plan | 20 | 14 |
| **Quality of the Project Evaluation** | | |
|   **1.** Project Evaluation | 20 | 0 |
| **Sub Total** | 100 | 65 |
| **Total** | 100 | 65 |

# Technical Review Form

**Reader #3:**     **********
**Applicant:**   American Institutes for Research (U411B190010)

**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 applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.**

   **Strengths:**

   •        When speaking of the problems associated with dropping out of high school, the applicant moves from a national significance to that of the target area where the project will be set (e28).
   •        The applicant establishes that "early warning systems have emerged as a viable strategy for improving graduation rates" and make the greatest impact when implemented during the first year of high school (e30).
   •        Currently, half of public schools already implement some form of early warning system so the applicant's project will help to enhance the effectiveness of these systems by responding to the challenges and lack of evidence that currently exists within the current systems (e30).
   •        The applicant notes "promised results" (e30) were garnered from two recent experimental studies conducted to test the short-term impacts of early warning interventions.  These results included a reduction in "the percentage of students at risk of not graduating on time due to chronic absences and course failure".
   •        The applicant notes mistakes, challenges, and barriers associated with current early tracking systems but identifies that "providing schools more time" and "implementing a strategy to scale that address prior barriers" will lead to better results (e32)
   •        The applicant mentions that its proposed project will move beyond "mere identification of students in need of support" to "providing schools a comprehensive, systematic approach to data review" including an "alignment between the interventions and supports" offered to identified students (e32-e33).

   **Weaknesses:**

   •        The applicant could enhance this section of the application by more clearly illustrating the "consequences of not graduating from high school" (e27) by including numerical data related to unemployment, poverty, health, and crime.  The applicant's inclusion of citations does not sufficiently demonstrate the significance of dropping out of high school.

**Reader's Score:**     12

**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.**

**Strengths:**

•        On pages e35-e37, the applicant's Exhibit 3 clearly specifies the goals, objectives, outcomes, and measures. Exhibit 3 fully identities the various strategies that will be utilized to accomplish each project's objectives.
•        The project plans to scale and further test the effective Early Warning Intervention and Monitoring System (EWIMS) 7-Step Process.  This conceptual framework was recently used in a "randomized controlled trial involving more than 70 schools across three states" and after one year of implementation, EWIMS "reduced course failure and chronic absenteeism in Grades 9 and 10—two key early predictors of on-time graduation" (e25).  The "strategy to scale addresses prior barriers and improves efficiency of implementation" (e26) and will feature "rapid-cycle feedback" and continuous improvement.

**Weaknesses:**

•        In Exhibit 4, Step 2 of EWIMS states that "EWIMS teams upload a list of available interventions".  However, it is unclear what training or support teams will have at this point of the cycle to be able to successfully do this. Additionally, Step 5 indicates that EWIMS teams will select interventions, however, there is still an absence of a step that provides these teams with training and professional development to enhance their capacity to be able to do so (e38).

**Reader's Score:        22**

**Selection Criteria - Strategy to Scale**

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

    **(1)  The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

    **(2)  The extent to which the proposed project will increase efficiency in the use of time, staff, money, or other resources in order to improve results and increase productivity.**

**Strengths:**

•        The applicant addresses the burden that the data tool placed on school-based EWIMS by enabling the tool to directly interface with district student information systems with maintenance and updates being provided at the district level.  As new data is added, the tool will automatically update. (e41)
•        Addressing the ability of staff to translate knowledge about the 7-step process into action and implementation, the applicant has added an adaptive coaching model. This model will feature multiple layers of support including summer training, refresher webinars, on-site support, and monthly team lead meetings.  Inevitably, these additional support mechanisms will build staff capacity and strengthen the likelihood of success with implementation (e41-e42).
•        To address the barrier created when key staff turnover, the applicant plans to increase the concrete supports provided for successful implementation. These supports include a step-by-step implementation model, self-assessment fidelity checklists, diagnostic tools and techniques, and coaching (e42-e43).
•        Training district-level staff builds capacity within the district for when the grant is complete and also enhances the support that schools receive (e43).

**Weaknesses:**

•      As it relates to barrier three, the applicant should consider strategies that can glean implementation insight from exiting key staff before they leave so their reflection can be utilized to enhance project work and spark measures being put in place for incoming staff to counter any barriers or challenges sited (e40, e42).

**Reader's Score:**     **17**

**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 applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

   **(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.**

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

**Strengths:**

•      The applicant has selected key personnel that are experts in the field and past experience with work featured within this project (e44-e45).

•      In Exhibit 8, the applicant assigns each strategy to a specific person or team (e45-e46).

•      After the expiration of the grant, grantees will have access to the materials produced by the grant on AIR's website (e47). This website will be updated to "include all newly developed and iteratively refined materials.

**Weaknesses:**

•      Although Exhibit 7 identifies key personnel and establishes their level of expertise as it relates to the project, it does not clearly define each person's responsibilities (e44-e45).

•      Within Exhibit 3, column one is referred to as strategies and later in Exhibit 8, the applicant refers to column one as milestones. There is a distinguishable difference between strategies and milestones that the applicant does not provide (e35-e37 and e45-e46).

•      Heppen and Therriault are noted as dedicating 10% and 20% time; however, Exhibit 8 aligns both with a significant amount of responsibilities that exceed the time requested (e44-e46).

•      The applicant does not clearly articulate its capacity to bring the project to scale on a national or regional level. Although Exhibit 9 notes projects of similar size and scope, it does not address capacity related to financial resources and management capacity (e46-e47).

•      Although there will be a network of 120 additional high schools, the applicant does not explicitly indicate the long-term commitment of the school districts to provide supports to ensure sustainability after funding ends (e47).

**Reader's Score:** 14

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

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

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

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

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

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

   **Strengths:**

   n/a

   **Weaknesses:**

   n/a

**Reader's Score:** 0

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**Status:** Submitted
**Last Updated:** 05/29/2019 03:39 PM

# Technical Review Coversheet

**Applicant:**     American Institutes for Research (U411B190010)
**Reader #4:**     **********

|  | **Points Possible** | **Points Scored** |
|---|---|---|
| **Questions** | | |
| **Selection Criteria** | | |
| **Significance** | | |
| **1.** Significance | 15 | 0 |
| **Quality of Project Design** | | |
| **1.** Project Design | 25 | 0 |
| **Strategy to Scale** | | |
| **1.** Strategy to Scale | 20 | 0 |
| **Adequacy of Resources/Quality of Management Plan** | | |
| **1.** Resources/Management Plan | 20 | 0 |
| **Quality of the Project Evaluation** | | |
| **1.** Project Evaluation | 20 | 14 |
| **Sub Total** | 100 | 14 |
| | | |
| **Total** | 100 | 14 |

# Technical Review Form

**Panel #2 - EIR Mid Phase - 2: 84.411B**

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

**Applicant:**   American Institutes for Research (U411B190010)

**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 applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.**

   **Strengths:**

   na

   **Weaknesses:**

   na

**Reader's Score:**      **0**

**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.**

   **Strengths:**

   na

   **Weaknesses:**

   na

**Reader's Score:**      **0**

**Selection Criteria - Strategy to Scale**

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

    **(1) The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

    **(2) The extent to which the proposed project will increase efficiency in the use of time, staff, money, or other resources in order to improve results and increase productivity.**

    **Strengths:**

    na

    **Weaknesses:**

    na

**Reader's Score:** 0

**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 applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

    **(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.**

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

    **Strengths:**

    na

    **Weaknesses:**

    na

**Reader's Score:** 0

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

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

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

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

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

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

   **Strengths:**

   The applicant presented a comprehensive evaluation design for the proposed high school intervention. If well implemented, the evaluation method is likely to produce evidence that meet the What Works Clearinghouse standards for the following reasons:
   1. Factor (1): The evaluation follows a blocked, school-level randomized control trial (RCT) design to compare program outcomes of treatment schools and that of similar high schools in the business-as-usual condition. This design is rigorous to estimate program effects according to WWC standards, if well executed. The research questions are well aligned with the program's theory of action (Exhibit 5, p.15; Exhibit 10, p. 25). The power calculation suggests the sample has a good chance of detecting the target size of effect.
   2. Factor (3): The applicant will use data from multiple sources to measure implementation fidelity and program outcomes, including primary data collected from survey, interviews and coaching logs as well as secondary data from the program and districts. The applicant articulated the relevance of these data to the program outcomes and all these data seem to have face validity (p.29-30).
   3. Factor (4): The modeling of data is appropriate given the nested structure of students and schools.

   **Weaknesses:**

   The evaluation plan can be strengthened in the following ways:
   1. The applicant needs to provide stronger rationale for applying for the mid-phase grant as the number of schools between the proposed study and the past REL study is rather similar. It is not clear to the reviewer, besides the cost-effectiveness study, what new contribution this study will make to the program and its implementation.
   2. The analytic student sample for each outcome needs clarification. If the cohort of 2020-21 SY is the only cohort for the confirmative impact analysis, the applicant needs to explain how data from the additional cohort in the 2021-22 SY will be used.
   3. The analysis of implementation data is disconnected with the program, especially regarding the program changes discussed in section C (p.15-19). Besides thresholds described in the fidelity rubric, the applicant needs to elaborate on how data collected for R 4, 5, and 6 will be used to evaluate the seven implementation steps and how the variation in implementation across schools will be examined.
   4. The reliability of the student academic measures (p.29) is lacking. As these measures are for the primary, confirmatory analysis, it is crucial for the applicant to report their reliabilities. If the reliability of the proposed measures is hard to obtain, the applicant should consider include at least one additional measure whose reliability can be obtained.

**Reader's Score:       14**

**Status:** Submitted

**Last Updated:** 05/25/2019 05:36 AM

## Technical Review Coversheet

**Applicant:** American Institutes for Research (U411B190010)
**Reader #5:** \*\*\*\*\*\*\*\*\*\*

|  | **Points Possible** | **Points Scored** |
|---|---|---|
| **Questions** | | |
| **Selection Criteria** | | |
| **Significance** | | |
| **1.** Significance | 15 | 0 |
| **Quality of Project Design** | | |
| **1.** Project Design | 25 | 0 |
| **Strategy to Scale** | | |
| **1.** Strategy to Scale | 20 | 0 |
| **Adequacy of Resources/Quality of Management Plan** | | |
| **1.** Resources/Management Plan | 20 | 0 |
| **Quality of the Project Evaluation** | | |
| **1.** Project Evaluation | 20 | 14 |
| **Sub Total** | 100 | 14 |
| **Total** | 100 | 14 |

# Technical Review Form

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

**Applicant:**  American Institutes for Research (U411B190010)

**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 applicant demonstrates there is unmet demand for the process, product, strategy, or practice that will enable the applicant to reach the level of scale that is proposed in the application.

   **Strengths:**

   NA

   **Weaknesses:**

   NA

**Reader's Score:**    0

**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.

   **Strengths:**

   NA

   **Weaknesses:**

   NA

**Reader's Score:**    0

**Selection Criteria - Strategy to Scale**

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

   **(1)  The extent to which the applicant identifies a specific strategy or strategies that address a particular barrier or barriers that prevented the applicant, in the past, from reaching the level of scale that is proposed in the application.**

   **(2)  The extent to which the proposed project will increase efficiency in the use of time, staff, money, or other resources in order to improve results and increase productivity.**

   **Strengths:**

   NA

   **Weaknesses:**

   NA

**Reader's Score:**          0

**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 applicant's capacity (e.g., in terms of qualified personnel, financial resources, or management capacity) to bring the proposed project to scale on a national or regional level (as defined in 34 CFR 77.1(c)) working directly, or through partners, during the grant period.**

   **(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.**

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

   **Strengths:**

   NA

   **Weaknesses:**

   NA

**Reader's Score:**          0

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

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

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

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

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

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

   **Strengths:**

   The evidence of effectiveness produced by this evaluation will meet the What Works Clearinghouse standards without reservations. The design is a cluster randomized controlled trial or RCT (see page e49). Cluster-level attrition is likely to be low and is actively managed in this design (see pages e50-e51). Individuals that join a cluster after random assignment of the cluster are not included in the analytic sample (see bottom of page e50). The risk of non-response from individuals is minimized due to a study design that maintains cohorts within the assigned treatment condition across years, and the evaluation team will gather assessments/measurements from administrative units of the participating LEAs. The sample size (80 schools, 169 students in grade 9 and 169 in grade 10) are adequate and statistical power is estimated to identify significant differences as small as 0.14 to 0.16 standard deviations for continuous outcome measures and 4 to 6 percentage points for binary outcomes. Key moderators are being gathered for both the treatment and control groups (prior academic performance, gender, race/ethnicity, and social-economic status. This project evaluation will produce defensible answers to key research questions.

   The evaluation plan outlines a comprehensive and detailed 5-component strategy for generating and sharing key information regarding implementation and useful in supporting replication efforts. Using key moderators at the school level (high school graduation rate; school size; demographic composition, and urbanicity) and the student level (race/ethnicity, eligibility for free/reduced lunch, English learner status, special education status, prior achievement, and incoming risk status), the evaluation plan will provide useful information on how program efforts impact subgroups differentially. Note the mention of demographic composition (e.g., percentage of students eligible for free/reduced lunch); indicating "contextual effects" will/can be tested in the statistical models being utilized. Contextual effects are important moderators and/or mediators in most studies involving school settings. Other key components of the evaluation plan provide detailed information on barriers to implementation (fidelity) and a cost analysis to establish the cost-effectiveness of this endeavor.

   As a small side-note, there are 7 research questions, as opposed to "8" mentioned on page e48. The application is very clear on research questions (Exhibit 10 on page e49) so no points deducted for a simple typo.

   All outcome data elements are succinctly, but completely described on pages e160 and e161 in Exhibit H-1 Data Collection. All measures are appropriate for their purpose. The core outcome data are not assessment scores, but rather credit counts and event outcomes. Credits earned, persistence, and on-time graduation should each be error-free measures. Likewise, the implementation measures are simple counts and percentages, all of which are likely to be gathered free from measurement error. Reliability concerns are non-existent for outcome and implementation measures included in Exhibit H-1.

   The measures used in this evaluation design are appropriate for their purpose, likely measured free of error, and unlikely to be diminished by non-response, missing data, or attrition. The measures are embedded in a well thought out evaluation design.

   The two-level HLM being used in this study will yield results that support valid inferences regarding program impact. The

use of a RCT with random assignment at the cluster/group-level to generate evaluation data where DVs and IVs are reliable and valid for their purposes, sets the stage for a successful analysis of outcome data. The HLM is the most appropriate statistical model to use in this scenario due to the explicit modeling of the nested data structures inherent in this setting and its ability to separate error sources across the different levels of the hierarchy; thereby improving the accuracy of standard error estimates used to tests hypotheses regarding the student, school, and programmatic impacts/outcomes.

On page e38 of the application, authors succinctly share key project components in Exhibit 4 EWIMS 7-Step Process. Additional detailed information is also available starting on page e35 Exhibit 3 Objectives, Strategies, Outcomes and Measures. On page e54 of the application, authors clearly describe the relationship between program actions as mediators of short-term and mid-term outcomes which then in turn mediate the long-term outcomes. On page e35 of the application, authors provide a comprehensive listing of outcomes and the strategies thought to yield such outcomes as well as how outcomes will be measured. The strategies are logically linked to anticipated outcomes and proposed measures are appropriate for their purpose. On page e54 of the application, authors clearly describe the measurable thresholds for acceptable implementation. Key components with threshold statements include 2-day initial trainings, team on-site kick-off meetings, fidelity self-assessments, regular ongoing meetings with program coaches. This evaluation plan also has a well-developed implementation classification rubric that yields a score of low, moderate, or high fidelity (rubric available page e162). All materials are high quality, and thresholds set are rigorous but attainable.

**Weaknesses:**

Not all relevant outcomes are included in this evaluation plan. There is no mention of specific academic assessments to be used even though prior achievement is mentioned multiple times on pages e160 and e161 in Exhibit H-1 Data Collection. Academic growth as measured by reliable assessments is not mentioned in this application. Postsecondary outcomes such as postsecondary enrollment rates or first year GPA are not mentioned as important outcomes to assess.

Additional mediators, such as a measure of student connections to peers, adults, or passions and interests while in school, (as an example) are not considered in this application. If there are positive impacts on short-term and mid-term outcomes, how are we sure that the specific supports and interventions utilized are causing the impact as opposed to an increased level of "student connection" to peers, adults, and/or interests/passions that occurred due to the heightened interest others are displaying in a student's outcomes? Perhaps alternative supports and interventions (not selected by the current program) would have had similar positive impacts on short and mid-term outcomes. It may not be the specific supports and interventions that drive positive change, but rather the heightened sense of "connection" that students feel when others take the time to care about them as individuals and display this through observable action such as the current program's supports and actions. Therefore "student connections" may be a mediator that could/should be considered when modeling impacts of specific supports and interventions. This is just an example of the type of mediator that may be critical to include a specific measure for when evaluating a program such as that proposed in this application.

**Reader's Score:** 14

**Status:** Submitted
**Last Updated:** 05/24/2019 11:10 AM