REQUEST FOR APPLICATIONS

EDUCATION RESEARCH AND DEVELOPMENT CENTER PROGRAM
CFDA Number: 84.305C

Milestone	Date	Website
Letter of Intent Due	June 21, 2018	https://iesreview.ed.gov/
Application Package Available	June 21, 2018	http://www.grants.gov/
Application Due	**By 4:30:00 p.m. Eastern Time on August 9, 2018**	**http://www.grants.gov/**
Applicants Notified	By January 17, 2019	https://iesreview.ed.gov/
Possible Start Dates	January 17, 2019 to March 17, 2019	

For awards beginning in FY 2019   Education Research and Development Center
Posted May 24, 2018

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PART I: OVERVIEW AND GENERAL REQUIREMENTS

A. INTRODUCTION

In this announcement, the Institute of Education Sciences (Institute) requests applications for research centers that will contribute to its Education Research and Development Center program (CFDA 84.305C). Under the Education Sciences Reform Act of 2002, the Institute supports National Research and Development Centers (R&D Centers) that are intended to conduct focused, scientific research on key education issues that face our nation. Through this program, researchers have greater resources than are available through the Education Research Grants program (CFDA 84.305A) to tackle more complex education problems, create innovative education solutions, and contribute to knowledge and theory in the education sciences. For information on existing Institute R&D Centers, please see http://ies.ed.gov/ncer/RandD/.

For the FY 2019 Education Research and Development Center competition, the Institute invites applications for R&D Centers in two topic areas:

- **Improving Rural Education**

- **Writing in Secondary Schools**

Each of these R&D Centers will be responsible for the following:

- Contributing to the solution of a specific education problem and to the generation of new knowledge and theories relevant to the focus of the R&D Center.

- Conducting relatively rapid research and scholarship on supplemental questions that emerge within the R&D Center's topic area.

- Providing national leadership within the R&D Center's topic by disseminating research and engaging in dialogue with researchers, practitioners, and policymakers in order to advance evidence-based policy and practice.

The Institute will consider only applications that are responsive and compliant to the requirements described in this Request for Applications (RFA) and submitted electronically via Grants.gov (http://www.grants.gov) on time. Separate funding announcements are available on the Institute's website that pertain to the other research and research training grant programs funded through the Institute's National Center for Education Research (https://ies.ed.gov/ncer/) and to the discretionary grant competitions funded through the Institute's National Center for Special Education Research (https://ies.ed.gov/ncser/). An overview of the Institute's research grant programs is available at http://ies.ed.gov/funding/overview.asp.

The Institute believes that education research must address the interests and needs of education practitioners and policymakers, as well as students, parents, and community members (see http://ies.ed.gov/director/board/priorities.asp for the Institute's priorities). The Institute encourages researchers to develop partnerships with stakeholder groups to advance the relevance of their work and the accessibility and usability of their findings for the day-to-day work of education practitioners and policymakers. In addition, the Institute expects researchers to disseminate their results to a wide range of audiences that includes researchers, policymakers, practitioners, and the public.

This RFA is organized as follows. Part I sets out the general requirements for a grant application to the Institute. Part II describes general requirements for an R&D Center. Part III describes requirements specific to each of the R&D Center topics being competed in FY 2019. Part IV provides general information on funding, award requirements and the scientific peer review process. Part V describes how to prepare an application. Part VI describes how to submit an application electronically using Grants.gov.

You will also find a [glossary](#) of important terms located at the end of this RFA. The first use of each term within each part of this RFA is hyperlinked to the Glossary.

1. Technical Assistance for Applicants

The Institute encourages you to contact the Institute's Program Officers as you develop your application. Program Officers can provide guidance on substantive aspects of your application and answer any questions prior to submitting an application. Program Officers' contact information is listed in [Part III](#) and [Part VI.I](#).

The Institute asks potential applicants to submit a [Letter of Intent](#) prior to the application submission deadline to facilitate communication with Program Officers and to plan for the scientific peer review process. Letters of Intent are not required but strongly encouraged. If you submit a Letter of Intent, a Program Officer will contact you regarding your proposed research. Institute staff also use the information in the Letters of Intent to identify the expertise needed for the scientific peer review panels and to secure a sufficient number of peer reviewers to handle the anticipated number of applications.

In addition, the Institute encourages you to view the Institute's Funding Opportunities On-Demand Webinars for information on its research competitions, including advice on choosing the correct research competition, grant writing, or submitting your application. For more information regarding webinar topics, and webinar procedures, see http://ies.ed.gov/funding/webinars/index.asp.

B. GENERAL REQUIREMENTS

Applications under the Education Research and Development Center program **must meet the requirements** set out under the subheadings (1) Student Education Outcomes, and (2) Authentic Education Settings in order to be sent forward for scientific peer review.

1. Student Education Outcomes

All research supported under the Education Research and Development Center program **must** address [student education outcomes](#) including measures of [student academic outcomes](#). The Institute also supports research on student [social and behavioral competencies](#) that support success in school and afterwards, and on [employment and earnings outcomes](#) when appropriate. Student education outcomes should align with the theory of change guiding the proposed research and applicants should describe this alignment when discussing student outcomes and their measures.

Academic Outcomes

The Institute supports research on a diverse set of student academic outcomes that fall under two categories. The first category includes **academic outcomes that reflect learning and achievement in the core academic content areas**. The second category includes academic outcomes that reflect **students' successful progression through the education system**.

The Institute also sets out the student academic outcomes of interest by education level as follows:

- For **Kindergarten through Grade 12**, the primary student academic outcomes include learning, achievement, and higher-order thinking in the core academic content areas of reading, writing, and STEM as measured by specific [assessments](#) (e.g., researcher-developed assessments, standardized tests, grades, end-of-course exams, exit exams) and student progression through the education system (e.g., course and grade completion, retention, high school graduation, and dropout).

- For **Postsecondary Education,** the primary student academic outcomes are access to, persistence in, progress through, and completion of postsecondary education which includes developmental and bridge programs as well as programs that lead to occupational certificates, or associate's or bachelor's degrees. For students enrolled in developmental education, and undergraduate writing, CTE, and STEM courses, student academic outcomes also include learning, achievement, and higher-order thinking as measured by assessments such as researcher-developed assessments, standardized tests, grades, end-of-course exams, or exit exams. The Institute is primarily interested in research that is focused on improving outcomes for low-income and historically-disadvantaged students in postsecondary and adult education, and for students from all backgrounds who are attending open- and broad-access institutions that accept a majority of students who apply for admission.

Social and Behavioral Competencies

The Institute supports research on **social and behavioral competencies**, which are defined as social skills, attitudes, and behaviors that are important to students' success in school and beyond. Social and behavioral competencies may be included as additional outcomes in your research under certain R&D Center topics so long as your application makes clear how they relate to academic outcomes.

Employment and Earnings Outcomes

The Institute supports research on student **employment and earnings outcomes**, such as hours of employment, job stability, wages, and benefits when appropriate. In general, such outcomes are most pertinent to studies examining career and technical education, postsecondary education, and adult education.

2. Authentic Education Settings

Proposed research must be relevant to education in the United States and must address factors under the control of the U.S. education system (be it at the national, state, local, or school level). To help ensure such relevance, the Institute requires researchers to work within or with data from authentic education settings. Authentic education settings include both in-school settings and formal programs that take place after school or out of school (e.g., museums, science centers, after-school programs, distance learning programs, online programs) under the control of schools or state and local education agencies. The Institute permits a limited amount of laboratory research if it is carried out in addition to work within or with data from authentic education settings, but will not fund any projects that are exclusively based in laboratories.

The Institute defines authentic education settings by education level:

- **Authentic K-12 Education Settings**
    - Schools and alternative school settings (e.g., alternative schools or juvenile justice settings)
    - School systems (e.g., local education agencies or state education agencies)
    - Formal programs that take place after school or out of school (e.g., after-school programs, distance learning programs, online programs) under the control of schools or state and local education agencies
    - Settings that deliver direct education services (as defined in Section 1116(e) of the Elementary and Secondary Education Act of 1965, as amended by the Every Student Succeeds Act of 2015) (http://www2.ed.gov/policy/elsec/leg/esea02/index.html)
    - Career and Technical Education Centers affiliated with schools or school systems

- **Authentic Postsecondary Education Settings**

- o 2-year and 4-year colleges and universities that have education programs leading to occupational certificates, associate's degrees or bachelor's degrees

- o Career and Technical Education Centers/Colleges that lead to occupational certificates or associate's degrees or bachelor's degrees

C. APPLICANT REQUIREMENTS

1. Eligible Applicants

Applicants that have the ability and capacity to conduct scientific research are eligible to apply. These include, but are not limited to, non-profit and for-profit organizations and public and private agencies and institutions, such as colleges and universities, and research firms.

2. The Principal Investigator and Authorized Organization Representative

The Principal Investigator

The Principal Investigator (PI) is the individual who has the authority and responsibility for the proper conduct of the research, including the appropriate use of federal funds and the submission of required scientific progress reports.

Your institution is responsible for identifying the PI on a grant application and may elect to designate more than one person to serve in this role. In so doing, the applicant institution identifies these PIs as sharing the authority and responsibility for leading and directing the research project intellectually and logistically. All PIs will be listed on any grant award notification. However, institutions applying for funding must designate a single point of contact for the project. The role of this person is primarily for communication purposes on the scientific and related budgetary aspects of the project and should be listed as the PI. All other PIs should be listed as co-Principal Investigators.

The PI will attend one meeting each year (for up to 3 days) in Washington, DC with other Institute grantees and Institute staff. The project's budget should include this meeting. Should the PI not be able to attend the meeting, he/she can designate another person who is key personnel on the research team to attend.

The Authorized Organization Representative

The Authorized Organization Representative (AOR) for the applicant institution is the official who has the authority to legally commit the applicant to (1) accept federal funding and (2) execute the proposed project. When your application is submitted through Grants.gov, the AOR automatically signs the cover sheet of the application, and in doing so, assures compliance with the Institute's policy on public access to scientific publications and data as well as other policies and regulations governing research awards (see Part IV.B Additional Award Requirements).

3. Common Applicant Questions

- *May I submit an application if I did not submit a Letter of Intent?* Yes, but the Institute strongly encourages you to submit one. If you miss the deadline for submitting a Letter of Intent, contact the Program Officer listed in Part III. Please see Part IV.C.1 Submitting a Letter of Intent for more information.

- *Is there a limit on the number of times I may revise and resubmit an application?* No. Currently, there is no limit on resubmissions. Please see Part IV.C.2 Resubmissions and Multiple Submissions for important information about requirements for resubmissions.

- *May I submit the same application to more than one of the Institute's grant programs?* No.

- *May I submit multiple applications?* Yes. You may submit multiple applications if they are substantively different from one another. Multiple applications may be submitted within the same topic, across different topics, or across the Institute's grant programs.

- *May I apply if I work at a for-profit developer or distributor of an intervention or assessment?* Yes. You may apply if you or your collaborators develop, distribute, or otherwise market products or services (for-profit or non-profit) that can be used as interventions, components of interventions, or assessments in the proposed research activities. However, the involvement of the developer or distributor must not jeopardize the objectivity of the research. In cases where the developer or distributor is part of the proposed research team, you should discuss how you will ensure the objectivity of the research in the R&D Center Narrative.

- *May I apply if I intend to copyright products (e.g., curriculum) developed using grant funds?* Yes. Products derived from Institute-funded grants may be copyrighted and used by the grantee for proprietary purposes, but the Department reserves a royalty-free, non-exclusive, and irrevocable right to reproduce, publish, or otherwise use such products for Federal purposes and to authorize others to do so [2 C.F.R. § 200.315(b) (2014)].

D. PRE-AWARD REQUIREMENTS

Applicants considered for funding following scientific peer review are required to provide further information about the proposed research activities before a grant award is made (see Part IV.B). For example, you will be required to provide updated Letters of Agreement showing access to the authentic education settings where your work is to take place or to the secondary data sets you have proposed to analyze. You may be asked for additional information about your Research Plan, your Leadership and Outreach Activities, or your Data Management Plan. If significant revisions to the project arise from these information requests they will have to be addressed under the original budget.

E. CHANGES IN THE FY 2019 REQUEST FOR APPLICATIONS

All applicants and staff involved in proposal preparation and submission, whether submitting a new application or resubmitting an application that was reviewed in an earlier competition, **should carefully read all parts of this RFA**, including the requirements and recommendations for each topic and the instructions for preparing your application. Major changes to the RFA for the Education Research and Development Center Program competition are listed below and described fully in the relevant sections of the RFA.

- For FY 2019, the Institute is requesting R&D Center applications for only two topics: Improving Rural Education and Writing in Secondary Schools. The two other topics competed in FY 2018, Improving Education Outcomes for Disadvantaged Students in Choice Schools and Exploring Science Teaching in Early Elementary School Classrooms, are no longer being competed.

- The Institute has expanded its definition of Student Education Outcomes to include employment and earnings outcomes when appropriate.

- Changes specific to the Improving Rural Education Topic include:

  o A reduction from three to two goals: (1) to conduct research on a major problem or issue in rural education that involves local stakeholders and addresses their needs; and (2) to develop and test a tool or method to support the conduct of research in rural settings.

  o A broadening of the focus of the research from K-12 education to include postsecondary education.

  o New language encouraging researchers to conduct at least a portion of their research in schools located in remote and/or persistently poor locations.

o New language indicating that the Institute will fund up to two R&D Centers under the Improving Rural Education topic so long as they focus on different states or regions of the country, and/or are addressing different problems or issues in rural education.

F. READING THE REQUEST FOR APPLICATIONS

Both **Principal Investigators and Authorized Organization Representatives** should read the Request for Applications in order to submit an application that meets the following criteria:

1. Maximum Budget and Duration (see **Awards** for the selected R&D Center Topic in Part III, and described below).

2. Criteria required for an application to be sent forward for scientific peer review (Requirements).

3. Criteria that make for a strong (competitive) application and are used by the scientific peer reviewers (Recommendations for a Strong Application).

1. Maximum Budget and Duration

Topic	Maximum Grant Duration	Maximum Grant Award
Improving Rural Education	5 years	$10,000,000
Writing in Secondary Schools	5 years	$5,000,000

2. Requirements

- **RESPONSIVENESS**
  - ✓ Meet **R&D Center Narrative** requirements for the selected R&D Center Topic (see Part III).

- **COMPLIANCE**
  - ✓ Include all **required content** (see Part V.D).
  - ✓ Include **required Data Management Plan** (see Part II.A.5 and Part V.D.7).

- **SUBMISSION**
  - ✓ Submit electronically via Grants.gov no later than **4:30:00 p.m. Eastern Time** on **August 9, 2018**.
  - ✓ Use the **correct application package** downloaded from Grants.gov (see Part V.B).
  - ✓ Include PDF files that are **named and saved appropriately** and that are **attached to the proper forms** in the application package (see Part V.D and Part VI).

3. Recommendations for a Strong Application

For each R&D Center Topic (see Part III), the Institute provides recommendations to improve the quality of your application. The scientific peer reviewers are asked to consider these recommendations in their evaluation of your application. The Institute strongly encourages you to incorporate the recommendations into your R&D Center Narrative and relevant appendices.

PART II: R&D CENTER REQUIREMENTS

A. GENERAL REQUIREMENTS FOR ALL R&D CENTER APPLICATIONS

1. Requirements for the Focused Program of Research

The Institute intends for the work of the R&D Centers to include a focused program of research that ideally will result in solutions or answers to specific education problems at the end of 5 years. The Institute expects the focused program of research to comprise at least 75 percent of a R&D Center's activities. The exact percentage will depend on the cost and effort required to carry out the focused program of research.

Although the R&D Centers have broader functions than conducting a focused program of research, the focused research program is the only portion of the activities of a R&D Center that can be well-specified in advance and, thus, can provide a fair basis for evaluating applications for funding. Consequently, the majority of the application should be a detailed description of the focused program of research.

2. Requirements for Other R&D Center Activities

In addition to research on the focal topic, R&D Centers are required to (1) conduct supplemental activities as determined in cooperation with the Institute and (2) provide leadership in the topic area. The Institute will work cooperatively with the R&D Center to develop complete plans for these activities once the R&D Center is awarded.

a) Supplemental Activities

As part of the R&D Center's work, you must conduct supplemental activities (e.g., meetings, smaller-scale studies) that speak to other issues that are important within the context of the broad topic of the R&D Center. The R&D Center will work cooperatively with the Institute to select and design these supplemental activities to respond to pressing policy and practice needs within the topic covered by the R&D Center. For this reason, the Institute does not expect a detailed plan for these supplemental activities in the application. At least 5 percent of the maximum award amount for a R&D Center should be reserved to support these supplemental activities that will be determined in cooperation with the Institute once an award is made.

b) National Leadership and Outreach Activities

The Institute expects R&D Centers to have national visibility and function as a trusted source of scientific research on its topic. The Institute expects each R&D Center to develop a website that provides links to reports, papers, and other resources that have been peer reviewed or have been through a comparable quality review process. The Institute also encourages webinars, podcasts, and innovative uses of technology to share information and encourage discussion of the R&D Center's work among policymakers and practitioners. The Institute encourages applicants to consider the various audiences for the research and the types of publications, products, and dissemination activities that will be best suited to their needs. These may include reports, research briefs, methodological papers, data collection tools, and other documents, along with oral presentations and briefings. The Institute encourages applicants to consider venues that are more likely to be read and used by policymakers and practitioners as well as encouraging publications in scholarly journals. The Institute encourages applicants to consider publications that synthesize the research and draw lessons across studies and study sites. Online strategies for communication and dissemination are strongly encouraged.

Finally, the Institute considers researcher training to be an important element of national leadership and encourages R&D Centers to provide opportunities for graduate students and early career researchers to participate in instrument development, data collection, analysis, and publication activities. The Institute will work cooperatively with the R&D Center to provide feedback on the national leadership and outreach activities once the R&D Center is awarded.

3. Management and Institutional Resources

The Institute expects that the focused program of research, the supplemental activities, and the national leadership activities will require the coordination of multiple researchers and other partners. Therefore, describe your plans and procedures for the overall management of the R&D Center and its diverse activities.

If the plans for the first year of grant activities include substantial work to be conducted in schools or other authentic education settings, document the availability and cooperation of the schools or other authentic education settings that will be required to carry out that work via a letter of agreement from the education organization(s) in Appendix D of your application.

4. Personnel

Competitive applications will have leadership and staff that collectively demonstrate the following:

- Expertise in the content areas relevant to the R&D Center topic.

- The methodological expertise to carry out the proposed projects.

- Sufficient experience working with authentic education settings to carry out the proposed projects.

- Experience that is relevant to national leadership activities.

5. Public Access Policy and Data Management Plan

The Institute is committed to making the results of Institute-funded research available to a wide range of audiences. The Institute has a public access policy (see http://ies.ed.gov/funding/researchaccess.asp) that requires all grantees to submit their peer-reviewed scholarly publications to ERIC (Education Resources Information Center) and that requires grantees to share final research data in a timely fashion, and no later than the time of publication in a peer-reviewed scholarly publication.

Applications to the Education Research and Development Center program must include a Data Management Plan (DMP) placed in Appendix E that describes the method of data sharing, types of data to be shared, and documentation that will be created to promote responsible use of data.

Your DMP (recommended length: no more than 5 pages) describes your plans for making the final research data from the proposed R&D Center accessible to others. **Applications that do not contain a DMP will be deemed nonresponsive to the Request for Applications and will not be accepted for review.** Resources that may be of interest to researchers in developing a data management plan can be found at http://ies.ed.gov/funding/researchaccess.asp.

DMPs are expected to differ depending on the nature of the studies proposed and the data to be collected. By addressing the items identified below, your DMP describes how you will meet the requirements of the Institute's policy for data sharing. The DMP should include the following:

- Plan for pre-registering any casual impact studies in an appropriate registry for education evaluations (e.g., the SREE Registry of Efficacy and Effectiveness Studies at https://www.sree.org/pages/registry.php).

- Type of data to be shared.

- Procedures for managing and for maintaining the confidentiality of Personally Identifiable Information.

- Roles and responsibilities of R&D Center or institutional staff in the management and retention of research data, including a discussion of any changes to the roles and responsibilities that will

occur should the Project Director/Principal Investigator and/or co-Project Directors/co-Principal Investigators leave the project or their institution.

- Expected schedule for data access, including how long the data will remain accessible (at least 10 years) and acknowledgement that the timeframe of data accessibility will be reviewed at the annual progress reviews and revised as necessary.

- Format of the final dataset.

- Dataset documentation to be provided.

- Method of data access (e.g., provided by the Project Director/Principal Investigator, through a data archive) and how those interested in using the data can locate and access them.

- Whether or not a data agreement that specifies conditions under which the data will be shared will be required.

- Any circumstances that prevent all or some of the data from being made accessible. This includes data that may fall under multiple statutes and, hence, must meet the confidentiality requirements for each applicable statute (e.g., data covered by Common Rule for Protection of Human Subjects, FERPA, and HIPAA).

The costs of the DMP can be covered by the grant and should be included in the budget and explained in the budget narrative. The scientific peer review process will not include the DMP in the scoring of the scientific merit of the application. The Institute's Program Officers will be responsible for reviewing the completeness of the proposed DMP. If your application is being considered for funding based on the scores received during the scientific peer review process but your DMP is determined incomplete, you will be required to provide additional details (see Pre-Award Requirements).

PART III: R&D CENTER TOPIC REQUIREMENTS

A. APPLYING TO AN R&D CENTER TOPIC

For the FY 2019 Education Research and Development Center competition, you must submit your application to one of the two R&D Center topics being competed:

- **Improving Rural Education**

- **Writing in Secondary Schools**

You must identify your chosen topic area on the SF-424 Form (Item 4b) of the Application Package (see Part VI.F.1), or the Institute may reject your application as nonresponsive to the requirements of this RFA.

For each R&D Center Topic, the Purpose; Sample, Outcomes, and Setting Requirements; R&D Center Narrative Requirements and Recommendations (Significance, Research Plan, Leadership and Outreach, Management and Institutional Resources, Personnel); Award Requirements; and Data Management Plan Requirements are described in the following pages. Please note the following:

- The requirements for each R&D Center Topic are the minimum necessary for an application to be sent forward for scientific peer review. **Your application must meet all requirements listed for the R&D Center topic you select in order for your application to be considered responsive and sent forward for scientific peer review.**

- In order to improve the quality of your application, the Institute offers Recommendations for a Strong Application following each set of Center Narrative Requirements. The scientific peer reviewers are asked to consider the recommendations in their evaluation of your application. **The Institute strongly encourages you to incorporate the recommendations into your project narrative.**

1. Improving Rural Education

Program Officers: Dr. Corinne Alfeld (202-245-8203; Corinne.Alfeld@ed.gov)
                               Dr. Allen Ruby (202-245-8145; Allen.Ruby@ed.gov)

a) Purpose

Under this topic, the Institute is requesting applications to establish a **National Research and Development (R&D) Center to Improve Rural Education (Rural Center)**. Its central purpose is to build the capacity of rural schools to use high-quality, scientific research to improve student outcomes, as envisioned by the Every Student Succeeds Act of 2015 (ESSA).[1] Limited resources, as well as methodological and logistical challenges often impede research in rural settings, particularly those located in remote and/or persistently poor locations. The goals of the Rural Center are to:

- Conduct research on a major problem or issue in rural education that involves local stakeholders and addresses their needs.

- Develop and test a tool or method to support the conduct of education research in rural settings.

Nearly ten million children attend over 27,000 public elementary and secondary schools in over 7,000 rural school districts across the country.[2] These students represent over 20% of all students in the United States and account for over 23% of state education expenditures (Chicchinelli & Beesley, 2017). On the one hand, rural schools often have many strengths, including smaller class sizes and less student anonymity than schools in urban or suburban settings, and they frequently serve as the center of the community (NCER, 2014; Nugent et al., 2017). On the other hand, while rural communities in the United States vary widely in geography and demographics (NASBE, 2016), many face common challenges including poverty; long distances from home to school; lack of school resources such as technology, advanced coursework, and qualified personnel; and fewer local career opportunities for students after high school (Showalter, Klein, Johnson, & Hartman, 2017; Rosenberg, Christian, & Angus, 2015).

ESSA highlights the need for research to guide state and district decisions about how to improve school performance and student outcomes. The Institute currently supports rural education research through its Regional Education Laboratories (RELs), research grant programs, and statistical data collections. The RELs, for instance, devote at least 25 percent of their funding to rural issues, and the National Center for Education Statistics gathers data and reports on the conditions of rural schools. Despite these investments, the Institute recognizes that rural schools often do not have sufficient personnel and other resources needed to conduct research or make research-based improvements. Moreover, there are methodological challenges associated with conducting research in settings that have small numbers of schools and students. Prior work has shown that there are also major logistical hurdles to conducting research in rural areas, such as limited access, small populations, wide geographic spread with low densities, and geographic isolation (Bovaird & Bash, 2017; Rosenberg et al., 2015). Targeted assistance and new approaches are needed to build the capacity of rural schools and their research partners to conduct research that is informative, timely, and useful.

The work of the Rural Center is divided into three parts:

- A focused program of research to address the two goals of the Rural Center;

- National leadership and outreach; and

- Supplemental activities.

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[1] http://www2.ed.gov/documents/essa-act-of-1965.pdf.
[2] These 2013-14 statistics were retrieved from https://nces.ed.gov/surveys/ruraled/tables/a.1.a.-2.asp. Other national statistical information on rural education can be found at https://nces.ed.gov/surveys/ruraled/districts.asp.

The Rural Center will carry out a **focused program of research** with two components. The first will be research on a problem or issue that is of concern to K-12 and/or postsecondary education settings in rural locales (for some examples, see National Center for Education Research, 2014; National Rural Education Association, 2016). Applicants should explain why the problem or issue they selected is significant to education policy and practice and how the research they are proposing will help rural schools and IHEs improve student education outcomes. Applicants may propose a single, large study or multiple studies that will build new knowledge on how to improve education policy and practice in rural settings. The Institute expects that the studies will be designed and carried out as partnerships between researchers, Local Education Agencies (LEAs), rural postsecondary institutions, and other relevant stakeholders, such as State Education Agencies (SEAs), community college districts, state higher education systems, state higher education agencies or boards, and other state or community organizations that support rural schools.[3] These researcher-practitioner partnerships may be conceived similarly to those supported through the Institute's Partnerships and Collaborations Focused on Problems of Practice or Policy Program (84.305H).[4] Applicants may also draw upon other conceptions of research-practice partnerships (e.g., http://rpp.wtgrantfoundation.org/) or other approaches to involving communities in research (see Israel, Eng, Schulz, and Parker, 2005) for an example from the health field).

The second component of the focused program of research is the development and testing of a tool or method to facilitate the conduct of education research in rural education settings.[5] The Institute is particularly interested in tools or methods that may help rural schools and districts, and/or rural postsecondary institutions carry out their own data collection and analysis or be more likely to take part in research studies conducted by researchers. For example, the Institute funded the development of the RCT-Yes software which allows districts and schools to evaluate their own programs using small samples of students, teachers, and schools (https://www.rct-yes.com/). Applicants might also propose a methodological study to address such issues as small sample sizes and low statistical power when designing evaluations for rural settings or to refine rural locale codes (NCES 2006) to take into account geographic isolation, poverty, or other indicators of need. For example, Bovaird and Bash (2017) examined the use of a finite population correction when proportionally large samples are taken, sometimes possible in rural locations, to increase statistical power by reducing estimates of sampling error. They note the need for further research to identify when it would be appropriate to use such a correction and how it might be incorporated into causal evaluations (such as a regression discontinuity design when using retrospective data). These examples are illustrative, and the Institute welcomes other ideas for tools and methods to support the conduct of research in rural locales.

The Institute is open to applicant-proposed ideas regarding the development and testing of such tools and methods. Applicants should make clear how their tool or method may facilitate and/or improve research on rural education and present a plan that includes working with remote and/or persistently poor rural schools and/or postsecondary institutions to assess the feasibility and utility of the tool or method.

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[3] Local education agencies may also include tribal education agencies and organizations authorized by the state to support rural districts, e.g., regional education service agencies (RESAs) or boards of cooperative educational services (BOCES) that work with rural districts.

[4] This program supports research that is carried out by research institutions and U.S. State and Local Education Agencies working collaboratively on problems or issues that are high priorities for the education agencies. Together, partnerships are expected to develop the research questions, agree on the research design and its implementation, establish a mechanism to discuss the results as they are obtained and direct further research, consider the practice and policy implications of the results, disseminate the results to multiple audiences, and plan for future research.

[5] This year's RFA combines two components from last year's RFA that were to support research in rural areas (a practical tool for practitioners and a method for researchers) into the second component. Applicants may propose a tool or method specifically for either practitioners or researchers, or may propose one that can be used by both.

The Institute expects applicants to conduct their focused program of research in different parts of the country (at a minimum, in two different states or territories) and encourages applicants to consider how variations in population characteristics, state and local policies, and other contextual factors may affect student outcomes. The Institute strongly encourages applicants to conduct at least a portion of their research in schools and/or postsecondary institutions situated in remote rural locales (see text box) and/or persistently poor locations.[6]

In addition to the focused program of research, the Institute expects the Rural Center to provide **national leadership and outreach** on rural education research. This includes hosting a website and disseminating the Rural Center's findings and products to policymakers, practitioners, and other researchers interested in using scientific methods to improve rural education. The Institute encourages the Rural Center to host meetings and conferences (both in-person and virtual) to foster collaboration and communication on problems or issues of importance to rural educators and researchers. The Rural Center is encouraged to build capacity in the field by involving and training researchers from communities in or near where the research is taking place: for example, faculty from regional colleges and universities, or research analysts based in state and local education agencies. The Institute also encourages the Rural Center to help develop the next generation of rural education researchers by providing training fellowships and other learning opportunities for graduate students and early career researchers.

> **Rural Locale Codes**
>
> The National Center for Education Statistics defines rural locales as follows (NCES, 2006):
>
> *Fringe:* Census-defined rural territory that is less than or equal to 5 miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster
>
> *Distant:* Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster
>
> *Remote:* Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster

During the course of its work, the Rural Center is also expected to conduct **supplemental activities** (e.g., meetings, smaller-scale studies) that speak to other issues that are important within the context of rural education. The Rural Center will work cooperatively with the Institute to select and design these supplemental activities to respond to pressing policy and practice needs within the topic covered by the Center. For this reason, the Institute does not expect a detailed plan for these supplemental activities in the application but does expect the grantee to set aside 5 percent of the maximum grant award ($500,000) for supplemental activities.

b) Requirements and Recommendations
Applications under the Rural Center topic **must meet the requirements set out under (1) Sample, Outcomes, and Setting; (2) R&D Center Narrative; and (3) Data Management Plan** in order to

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[6] For example, the Economic Research Service of the U.S. Department of Agriculture has identified over 300 rural counties (15.2 percent of all rural counties) as persistently poor (having 20 percent or more of their population living in poverty over the last 30 years), compared with 50 urban counties (4.3 percent of all urban counties). ERS has also identified 708 persistent child poverty counties (having child poverty rates of 20 percent or more over the last 30 years), 558 (about 80 percent) of which were nonmetro (see Farrigan, 2018).

be responsive and sent forward for scientific peer review. In addition, Award criteria place limits on project duration and cost.

The requirements are the minimum necessary for an application to be sent forward for scientific peer review. In order to improve the quality of your application, the Institute offers recommendations following each set of Center Narrative requirements.

(1) Sample, Outcomes, and Setting

Applications under the Rural Center topic **must** meet the Sample, Outcomes, and Setting requirements listed below in order to be responsive and sent forward for scientific peer review.

a. Sample

- Your research **must** focus on typically developing students in K-12 and/or postsecondary education.

    o You may focus on the whole K-postsecondary system or a subset of grade/age levels.

    o Students with or at risk for disabilities may be included in your proposed research activities, but must not be the primary focus.[7]

b. Outcomes

- Your research **must** include measures of student academic outcomes. You may also include measures of social-behavioral competencies and employment and earnings if these are relevant to the research you are proposing.

c. Setting
- Your research **must** be conducted in authentic K-12 education settings, authentic postsecondary education settings, or on data collected from such settings.

- Your research must take place in rural settings.

- You **must** plan to conduct research in at least two states or territories.

(2) R&D Center Narrative

The Center narrative (recommended length: no more than 35 pages) for your application must include five sections: Significance, Research Plan, Leadership and Outreach Activities, Management and Institutional Resources, and Personnel.

a. Significance of the Focused Program of Research

Requirements: In order to be responsive and sent forward for peer review, applications under the Rural Center topic **must** include a Significance section that describes the following:

(i)   A major problem or issue in rural education that the Rural Center will address through its research study.

(ii)   A tool or method to support the conduct of education research in rural settings.

(iii)   The rural education settings where you plan to conduct your research.

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[7] The Institute supports research on students with or at risk for disabilities from birth through high school through grant programs run by the Institute's National Center for Special Education Research (http://ncser.ed.gov).

Recommendations for a Strong Application: In order to address the above requirements, the Institute recommends that you include the following in your Significance section to provide a compelling rationale for the Center's work.

- Describe the need for a new Rural Center, taking into account the lessons from prior rural education research and the current challenges facing rural education.

- Specify the major rural education problem(s) or issue(s) that the Rural Center will address.

- Describe how the education issue(s) and research questions were determined jointly by the Rural Center's research and practitioner partners. Explain how the research will provide information that practitioners can use to improve their schools.

- Review the relevant literature on the selected problem(s) or issue(s), emphasizing what is unique or important to rural education. Identify any research gaps and the role the Rural Center will play in addressing such gaps.

- Review the relevant literature on research partnerships that will guide your approach to working with schools and other stakeholders.

- Explain how the Rural Center's work will advance theory and practice in rural education.

- Make clear that you will work with LEAs in at least two states or territories. The Institute encourages you to include rural settings in different parts of the U.S. that have distinct demographic or cultural characteristics.

- Explain how you will involve LEAs[8], rural postsecondary institutions, and other relevant stakeholders in your focused program of research.

- Include information on race and ethnicity, rates of poverty, and other relevant details that show how you think about or define the rural education context (c.f., Beesley & Sheridan, 2017; Koziol et al., 2015).

- Use the NCES (2006) definitions of rural locales to make clear whether you are working in fringe, distant, or remote rural locales. The Institute strongly encourages the inclusion of remote and/or persistently poor rural locales in at least some aspects of the focused program of research.

- If you plan to add sites over the course of your work, explain how they will be identified and recruited.

b. **Research Plan for the Focused Program of Research**

Requirements: In order to be responsive and sent forward for scientific peer review, applications under the Rural Center topic **must** include a Research Plan section that describes the following:

(i) Plans to carry out a research study on one or more major problems or issues in rural education identified by rural education stakeholders.

(ii) Plans to develop and test a tool or method to support the conduct of education research in rural settings.

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[8] You may include traditional LEAs, tribal education agencies, and/or organizations authorized by the state to support rural districts, e.g., regional education service agencies (RESAs) or boards of cooperative educational services (BOCES) that work with rural districts.

Recommendations for a Strong Application: In order to address the above requirements, the Institute recommends that you include the following in your Research Plan section to explain and strengthen the methodological rigor of your work.

- Make clear how the research you are proposing will be designed and carried out as a partnership between researchers, LEAs, SEAs, rural postsecondary institutions, state higher education systems and agencies, and other relevant stakeholders. The Institute envisions that the work will be collaborative from start to finish.

  o Together, the researcher and practitioner (and any other) partners are expected to develop the research questions, agree on the research design and its implementation, establish a mechanism to discuss the results as they are obtained and direct further research, consider the practice and policy implications of the results, disseminate the results to multiple audiences, and plan for future research.

  o On the practitioner side, relevant decision-makers from across the participating education institutions and agencies are expected to take part in this process and so too are other relevant stakeholders.

- Organize the Research Plan into two subsections, one for each of the components of the Center's focused program of research (see above Requirements).

- If applicable, explain how the two components of the focused program of research are complementary.

- Provide a timeline for the Center's focused program of research (include in the Project Narrative or Appendix B).

Study of a major problem or issue in rural education with stakeholder involvement

- Describe the studies you propose to address your research question(s). The type of studies you propose will depend upon your research question(s) and the current state of knowledge regarding the identified rural education problem or issue. For example:[9]

  o <u>Exploratory Research</u>: When there is not enough known about your issue or problem to address it, exploratory studies may be necessary to better understand the issue and its links to school and student outcomes overall and for specific subgroups. You may also be interested in identifying other factors that mediate or moderate the link to student outcomes.

  o <u>Development/Innovation</u>: When your issue or problem is well understood, but there is no specific approach or intervention (e.g., a practice, program, or policy) for addressing it, you could develop one based upon an underlying theory of change as to how student outcomes would be expected to improve. You should carry out one or more pilot tests to determine if an

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[9] Additional recommendations on what to include when describing the design and analysis of your studies are provided in the Request for Applications for Education Research Grants (84.305A) under Part III: Research Goals, which covers Exploration, Development and Innovation (including pilot tests), Efficacy and Follow-up (evaluation studies), and Measurement. Regarding working in partnership with an SEA or LEA, you may wish to review the recommendations for describing your partnership and its work provided in the Request for Applications for Partnerships & Collaborations Focused on Problems of Practice or Policy (84.305H) under each of the two topics (the Researcher-Practitioner Partnership topic is similar to an Exploration study, and the State/Local Evaluation topic is similar to an evaluation study).

approach/intervention can be implemented as planned and whether it shows evidence of promise for improving student education outcomes.

- o Evaluation: If there is evidence of promise for improving student education outcomes or if there is an unevaluated intervention being widely used in the schools or districts you are working with, you could evaluate its causal impact on student education outcomes using an experimental design, regression discontinuity design, or quasi-experimental design that would meet the What Works Clearinghouse standards for evidence.[10] Replications of prior evaluations in new settings are also acceptable.

- o When describing how these studies will be carried out within a partnership framework, applicants may want to draw from continuous improvement approaches, such as design-based implementation research (e.g., Penuel & Martin, 2015), improvement science and networked improvement communities (e.g., Grunow & Park, 2014), the "plan, do, check, act" (PDCA) or "plan, do, study, act" (PDSA) method (e.g., Deming, 1986), and the model for improvement (e.g., Langley et al., 2009).

- For each study you propose, provide a detailed description of:

  - o The education problem(s) or issue(s) you intend to address.

  - o The major research question(s) you intend to answer.

  - o The sample to be studied.

  - o The student education outcomes to be examined and any proximal measures you will use.

  - o The data collection procedures.

  - o Power analysis for any pilot or evaluation studies.

  - o Data analysis procedures.

  - o The findings or products you will generate and their intended audiences or uses.

Development and testing of a tool or method to facilitate the conduct of education research in rural settings

- Explain your plans to develop and test a tool or method to support the conduct of education research in rural settings.

  - o Explain the practical need for the tool or method and how you expect it to be applied in rural education research.

  - o Identify the end users (e.g., education researchers and/or rural practitioners) and how they are expected to use the tool or method.

    - If applicable, discuss existing similar tools or methods.

  - o Present an iterative plan for developing, testing, and improving the proposed tool or method. Be sure to include a discussion of:

    - The process for developing the tool or method.

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[10] See the WWC's Procedures and Standards Handbook, Version 4.0 at https://ies.ed.gov/ncee/wwc/Handbooks.

- The sample you will use and the data you will collect to check the feasibility and usability of the tool or method by the intended end users.
  - The data collection procedures.
  - The data analysis procedures.
  - The process for refining the tool or method based on findings from testing.
- Describe how you will check that the tool or method works as planned. For example, you might apply your method to data you are collecting under your research study (component one) or to other existing data. Or you might use your tool in your research study, have other researchers use it in their studies, or have practitioners use it as part of their own work.
  - Identify the student education outcomes to be included when checking that the tool or method provides reliable and valid results.

c. **Leadership and Outreach Activities**

Requirements: In order to be responsive and sent forward for peer review, applications to the Rural Center topic **must** include a Leadership and Outreach section that describes:

(i) The leadership and outreach activities of the Rural Center.

Recommendations for a Strong Application: In order to address the above requirements, the Institute recommends that you include the following in your Leadership and Outreach Activities section.

- Describe how the work you are proposing will build the capacity of rural schools and/or rural postsecondary institutions to use high-quality, scientific research to improve student education outcomes.
- Discuss your plan to maintain a website that describes the Rural Center's goals and activities and makes its research reports and other products readily available for download.
- Describe the activities you will undertake to communicate with policymakers, practitioners, researchers, the media, parents, and the general public about the Rural Center's work.
- Describe your plans for meetings, conferences, and other events.
- Discuss your plans to use technology (e.g., webinars, podcasts, and social media) to broaden the reach of the Rural Center at a relatively low cost.
- Explain how you will involve regional research partners who work in or near the rural education settings in which you propose to carry out your research. Discuss how this collaborative work will build infrastructure for continuing high quality rural education research after the Rural Center ends.
- Describe any plans to involve external advisors to help guide and provide feedback on the Rural Center's work.
- Discuss any opportunities you will provide for graduate students or early career researchers to contribute to Rural Center activities and gain meaningful experience.

d. Management and Institutional Resources

Requirements: In order to be responsive and sent forward for peer review, applications under the Rural Center topic **mus**t have a Management and Institutional Resources section that describes the following:

(i) A management plan for the Rural Center.

(ii) Institutional resources that will support the Rural Center.

Recommendations for a Strong Application: In order to address the above requirements, the Institute recommends that you include the following in your R&D Center Management and Institutional Resources section to demonstrate that your team can acquire or has access to the facilities, equipment, supplies, and other resources required to support the completion and dissemination of the Rural Center's work, and that you have a plan to manage the multiple stakeholders who will participate in the Rural Center.

- Describe your capacity and plans to manage the Rural Center:
    - Discuss any prior experience managing a grant of this size, including coordinating the work of multiple partners; managing large budgets including subcontracts; running large meetings, conferences and videoconferences; conducting other national leadership activities; and annual reporting.
    - Make clear how all research institutions, K-12 and postsecondary education settings, and other organizations that are involved in the Rural Center will work with one another, share information, and contribute to decision-making. It may be useful to include an organizational chart.
    - Discuss your plans and procedures for the overall management of these diverse stakeholders and activities, including coordination of communication and collaboration across settings and partner research institutions.
    - If you plan to add research sites or partners over the course of the Rural Center, describe the process for identifying, recruiting, and establishing formal relationships with these sites and the timeline for this work.
- Describe the steps you will take to insure meaningful involvement from local education agencies and postsecondary institutions, and other stakeholders in the communities where you are working.
    - Describe how you will involve local education agency and/or postsecondary institution personnel in identifying key issues for research, advising you on how best to implement research, discussing the implications of findings, and identifying areas for follow-on research.
    - Explain whether your relationship with local education agency and/or postsecondary institution personnel is new for this application or extends a prior relationship.

- Include a signed Letter of Agreement in Appendix D from all **K-12 and/or postsecondary settings** in which at least the initial research will take place (more settings can be added later).[11]

- Include a signed Letter of Agreement in Appendix D from all **other research institutions** to be included in the Rural Center's work as research partners.

  - To help build the capacity of rural schools and school districts, and/or rural postsecondary institutions to conduct and use research, the Institute recommends you include regional research institutions based in or near the settings where your work is taking place.

- If applicable, include a signed Letter of Agreement in Appendix D from any **state education agencies and/or state postsecondary systems** that will play a role, either directly or in an advisory capacity, in the Center's work.

e. **Personnel**

Requirements: In order to be responsive and sent forward for peer review, applications under the Rural Center topic **must** include a Personnel section that describes the following:

(i) The Principal Investigator and other key personnel who will lead the Rural Center.

(ii) The key personnel from the research partner institutions that will be included in the Rural Center.

Recommendations for a Strong Application: In order to address the above requirements, the Institute recommends that you include the following in your Personnel section to demonstrate that your team possesses the appropriate training and experience and will commit sufficient time to competently implement the proposed research.

- Describe the PI's qualifications.

  - Describe the PI's research experience and expertise, including his or her background in rural education research.

- Describe the PI's experience and success with leading a large grant that includes multiple partners and projects.

- Describe the roles, qualifications, and experience of other Rural Center leadership and staff. Demonstrate that they collectively have the following:

  - Expertise in content areas relevant to rural education research;

  - The methodological expertise to carry out research in rural areas;

  - Experience working with rural school, district and/or postsecondary personnel;

  - Experience that is relevant to the required national leadership activities.

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[11] You may include tribal education agencies and/or organizations authorized by the state to support rural districts, e.g., regional education service agencies (RESAs) or boards of cooperative educational services (BOCES) that work with rural districts.

- Describe the personnel from regional partner institutions (at least one per state or territory in which the research is taking place) and their roles, qualifications, and experience with rural research.

(3) Awards

An application under the Rural Center topic **must** conform to the following limits on duration and cost:

Duration Maximum:

- **The maximum duration** of the Rural Center **is 5 years**.

Cost Maximum:

- **The maximum award** for a Rural Center **is $10,000,000 (total cost = direct costs + indirect costs).**
  - At least **75 percent** of the total budget (direct costs + indirect costs) **must be allocated to the focused program of research**.
  - At least **5 percent** of the maximum award ($500,000) **must be reserved for supplementary studies** to be designed in collaboration with the Institute.

(4) Data Management Plan

Applications under the Rural Center topic must include a Data Management Plan (DMP) placed in Appendix E. Your DMP (recommended length: no more than 5 pages) describes your plans for making the final research data from the proposed R&D Center accessible to others. **Applications that do not contain a DMP will be deemed nonresponsive to the Request for Applications and will not be accepted for review.** Resources that may be of interest to researchers in developing a data management plan can be found at http://ies.ed.gov/funding/researchaccess.asp.

DMPs are expected to differ depending on the nature of the studies conducted by the R&D Center and the data collected. By addressing the items identified below, your DMP describes how you will meet the requirements of the Institute's policy for data sharing. The DMP should include the following:

- Plan for pre-registering any casual impact studies in an appropriate registry for education evaluations (e.g., the SREE Registry of Efficacy and Effectiveness Studies at https://www.sree.org/pages/registry.php).

- Type of data to be shared.

- Procedures for managing and for maintaining the confidentiality of Personally Identifiable Information.

- Roles and responsibilities of project or institutional staff in the management and retention of research data, including a discussion of any changes to the roles and responsibilities that will occur should the Project Director/Principal Investigator and/or co-Project Directors/co-Principal Investigators leave the project or their institution.

- Expected schedule for data access, including how long the data will remain accessible (at least 10 years) and acknowledgement that the timeframe of data accessibility will be reviewed at the annual progress reviews and revised as necessary.

- Format of the final dataset.

- Dataset documentation to be provided.

- Method of data access (e.g., provided by the Project Director/Principal Investigator, through a data archive) and how those interested in using the data can locate and access them.

- Whether or not a data agreement that specifies conditions under which the data will be shared will be required.

- Any circumstances that prevent all or some of the data from being made accessible. This includes data that may fall under multiple statutes and, hence, must meet the confidentiality requirements for each applicable statute (e.g., data covered by Common Rule for Protection of Human Subjects, FERPA, and HIPAA).

The costs of the DMP can be covered by the grant and should be included in the budget and explained in the Narrative Budget Justification for the Center. The scientific peer review process will not include the DMP in the scoring of the scientific merit of the application. The Institute's Program Officers will be responsible for reviewing the completeness of the proposed DMP. If your application is being considered for funding based on the scores received during the scientific peer review process but your DMP is determined incomplete, you will be required to provide additional detail regarding your DMP (see Pre-Award Requirements).

2. Writing in Secondary Schools
Program Officers: Dr. Rebecca Kang McGill-Wilkinson (202-245-7613; Rebecca.McGill@ed.gov)

a) Purpose
Under this topic, the Institute is requesting applications to establish a **National Research and Development (R&D) Center on Writing in Secondary Schools (Writing Center)** to (1) examine how students develop writing skills across secondary school; and (2) understand how best to support secondary students become better writers and/or improve researchers' and teachers' ability to measure student writing quality with reliability and validity.

Writing is sometimes labeled the "forgotten R." It is an essential skill for communication, self-expression, and learning content knowledge, yet it tends to receive less attention as a subject of instruction than reading and 'rithmetic' (math; College Board, April 2003). This is especially concerning given that the results from the most recent National Assessment of Educational Progress (NAEP) show that one out of five students in 8th and 12th grade score below the basic level in writing (National Center for Education Statistics [NCES], 2012). Students who score below the basic level are considered unable to address writing tasks appropriately and to communicate effectively. This means that approximately 20 percent of students in the United States finish high school without being able to effectively communicate their ideas, express themselves, and demonstrate their knowledge to other people through writing. African American and Latino students score lower on the NAEP writing assessment compared to Asian and White students, as do males compared to females, and students from urban and rural locales compared to students from suburban locales. Despite this reality, little research has been conducted on writing, especially writing in secondary schools (defined as middle and high schools, grades 6 through 12).

Students in elementary school begin the process of learning how to write by practicing foundational writing skills such as handwriting and spelling. As students master these skills and enter middle school, they are expected to write more often and with greater complexity (Alamargot, Plane, Lambert, and Chesnet, 2010; Hillocks, 2008). Students in secondary schools must consider the topic and audience of their composition as well as engage cognitive processes such as planning, reviewing/revising, and decision-making, all while balancing motivational and affective factors such as goals, predispositions, and attitudes toward writing (MacArthur and Graham, 2016). Balancing the cognitive demands of writing with motivation and affect may be an especially difficult task for secondary students, who are in a stage of life when they are rapidly developing their identities and managing their social relationships with parents and peers, as well as dealing with rapid physical and cognitive changes (Eccles and Roeser, 2011; Steinberg, 2005; Steinberg and Morris, 2001). While research suggests that self-efficacy beliefs about writing are positively associated with writing achievement (MacArthur and Graham, 2016; Pajares, 2003; Pajares and Valiante, 2006), it also shows that writing self-efficacy does not increase as children get older, suggesting that writing confidence is not nurtured as students enter middle and high school (Pajares, 2003).

Despite the obvious need for high-quality supports and interventions for secondary students as they learn how to write for college and career, the state of knowledge in this area is relatively weak. The What Works Clearinghouse released the Teaching Secondary Students to Write Effectively Practice Guide in 2016, but it offers only three recommendations for strategies to improve secondary students' writing, and only one is supported by strong evidence (Graham, Bruch, et al., 2016). Not only are there few interventions that have been found to be consistently associated with improving writing skills (Graham, Burch, et al., 2016; Graham, Harris, and Chambers, 2016), but the field of writing research is also lacking in theoretical foundations on how writing develops across secondary school (Applebee, 2000; Rogers, 2010; Santangelo, Harris, and Graham, 2016; Slomp, 2012) as well as how motivation and self-efficacy relate to writing skill (MacArthur and Graham, 2016; Pajares, 2003). Finally, while recent technology has made scoring certain features of writing more efficient (Shermis, Burstein, Elliot, Miel, and Folz, 2016), there are few valid, reliable, and easy-to-use measures of writing quality that can be employed by researchers and/or teachers (Graham, Harris, and Hebert, 2011; Graham, Hebert, and Harris, 2011).

The work of the Writing Center is divided into three parts:

- A focused program of research on how students develop writing skills across secondary school and how best to support all secondary students to become better writers and/or improve researchers' and teachers' ability to reliably and validly measure student writing quality;

- National leadership and outreach activities; and

- Supplemental activities.

For the **focused program of research**, the Writing Center is required to conduct **at least two studies**: (1) one or more Exploration Studies; and (2) one Development Study or one Measurement Study.

You **must** propose to conduct at least **one Exploration Study** that addresses at least one of the following research areas:

- Secondary data analyses of student writing data to answer questions such as what are the features of high-quality writing or the writing difficulties of subgroups of students;

- Longitudinal exploration of how writing skills develop over time, for all students of all skill levels; or

- Research examining the role of self-efficacy and motivation in predicting writing outcomes in secondary schools.

Additionally, applicants to the Writing in Secondary Schools topic **must** propose **at least one** of the following **Development or Measurement Studies**:

- Development and pilot testing of innovative intervention(s) to improve secondary students' writing; or

- Measurement work, including development and validation of measure(s) of writing quality for use by researchers, teachers, and/or students.

The work carried out in the two or more studies should be aligned and integrated so as to create a unified focused program of research for the Writing Center. Applicants may propose to conduct the studies in any order they choose or concurrently. For example, applicants may choose to develop and validate measures of writing quality for use in the Exploration Study. Alternatively, applicants may use the Exploration Study to inform the development of an intervention or the development of a measure of writing quality.

Finally, the Writing Center will provide **national leadership and outreach** that will:

- Develop and disseminate products to researchers, teachers, and school leaders regarding findings;

- Support collaboration between the Writing Center and other researchers with interest and expertise in secondary writing; and

- Train scholars interested in researching student writing in secondary schools.

During the course of its work, the Writing Center is also expected to conduct **supplemental activities** (e.g., meetings, smaller-scale studies) that speak to other issues that are important within the context of writing in secondary schools. The Writing Center will work cooperatively with the Institute to select and design these supplemental activities to respond to pressing policy and practice needs within the topic covered by the Writing Center. For this reason, the Institute does not expect a detailed plan for these

supplemental activities in the application but does expect the budget to set aside 5 percent of the maximum grant award ($250,000) for supplemental activities.

b) Requirements and Recommendations

Applications under the Writing Center topic **must meet the requirements set out under (1) Sample, Outcomes, and Setting; (2) R&D Center Narrative; and (3) Data Management Plan** in order to be responsive and sent forward for scientific peer review. In addition, Award criteria place limits on project duration and cost.

The requirements are the minimum necessary for an application to be sent forward for scientific peer review. In order to improve the quality of your application, the Institute offers recommendations following each set of Center Narrative requirements.

> *Data Management Plan*
> A required plan for making the final research data from the proposed R&D Center accessible to others.

(1) Sample, Outcomes, and Setting

Applications under the Writing Center topic **must** meet the Sample, Outcomes, and Setting requirements listed below in order to be responsive and sent forward for scientific peer review.

a. Sample

- Your research **must** focus on typically developing students. You may propose to examine subgroups of students, which may include students with disabilities, but such students may not be the primary focus of your study. The Institute supports research on students with disabilities from birth through high school through grant programs run by the Institute's National Center for Special Education Research (http://ncser.ed.gov).

- Your sample **must** focus on students enrolled in grades 6-12, regardless of the grade configuration of their schools. You should include students from at least two grades, including at least one grade from middle school (grades 6-8) and one grade from high school (grades 9-12).

- Your sample **must** include students who are low-achieving in writing, though these students do not need to comprise the entire sample.

b. Outcomes

- Your research **must** include measures of student writing.

c. Setting

- Your research **must** be conducted in authentic 6-12 education settings or on data collected from such settings.

(2) R&D Center Narrative

The R&D Center narrative (recommended length: no more than 35 pages) **must** include five sections – Significance, Research Plan, Leadership and Outreach Activities, Management and Institutional Resources, and Personnel.

a. Significance of the Focused Program of Research

Requirements: In order to be responsive and sent forward for scientific peer review, applications under the Writing Center topic **must** include a Significance section that provides the following:

(i) Description of the major issues and research questions the Writing Center will address and how the studies proposed to address those questions will contribute to building knowledge about adolescent writing.

(ii) Conceptual framework that will guide the Writing Center's work.

Recommendations for a Strong Application: In order to address the above requirements, the Institute recommends that you include the following in your Significance section to provide a compelling rationale for the Center's work.

- Explain your understanding of the problems the Writing Center is meant to address, propose an overall vision for the Writing Center, and describe an integrated and coordinated set of research and leadership activities that you believe will collectively produce the most benefit for secondary students' writing outcomes. The Institute particularly encourages applications that propose innovative strategies for engaging researchers and practitioners in the work of the Writing Center and for communicating findings.

- Include a description of your conceptual framework and/or perspective and how that theoretical framework will guide the Writing Center's coordinated work. Your conceptual framework should address what is currently known and not known about teaching students to be successful writers in secondary school. Identify areas of critical need and unanswered questions related to writing in secondary schools, and what role the Writing Center will play in addressing them. Finally, describe how your conceptual framework will guide the research design, data collection and analysis plans described later in the proposal.

- In your literature review, consider the specific opportunities and challenges of writing in secondary schools,[12] including, but not limited to: features of high-quality writing; developmental trajectories of writing skills; feedback from teachers; feedback from peers; motivation and self-efficacy; identity; content area and/or discipline; genre; technology, and the assessment of writing quality. The opportunities and challenges you address in your literature review should inform the Exploration Study and the Development or Measurement Study you include in your focused program of research.

b. **Research Plan for the Focused Program of Research**

Requirements: In order to be responsive and sent forward for scientific peer review, applications under the Writing Center topic **must** include a Research Plan section that describes the following:

(i) The research designs for two or more conceptually-related studies (at least **one** Exploration Study and **either** a Development Study or a Measurement Study); and

(ii) Data analysis procedures for each study.

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[12] In September, 2016, the Institute sponsored a Technical Working Group meeting to discuss what is known and not known about research on writing in secondary schools, and to identify potential gaps in the current body of knowledge on the topic. You may review the summary of the meeting here: https://ies.ed.gov/ncer/whatsnew/techworkinggroup/. Please note that this is one source of information and that you do not need to be restricted to or limited by the areas of critical need or unanswered questions that were identified in the Technical Working Group meeting.

Recommendations for a Strong Application: In order to address the above requirements, the Institute recommends that you include the following in your Research Plan section to strengthen the methodological rigor of the proposed work.

- The Institute encourages you to identify a diverse sample with regards to factors such as writing ability, socioeconomic status, race/ethnicity, and geographic location.

Exploration Study (required of all applicants)

- Describe the focus of your Exploration Study and provide empirical and/or theoretical support for the focus you choose. Your foci should include:

  o Exploratory work incorporating secondary data analyses of writing data to answer questions about the features of high-quality writing, writing difficulties of subgroups of students, etc.;

  o Longitudinal exploration of how one becomes a better writer, for all students across the continuum of skill level; and/or

  o Exploratory work examining the role of self-efficacy and motivation in writing in secondary schools.

- Describe the malleable factors you will study and how you expect them to be associated with specific student writing outcomes, as well as any mediators or moderators. Explain how the Exploration Study will contribute to the research gaps you have identified in your Significance section, and how it fits into your conceptual framework or perspective.

- Present a research plan for the Exploration Study that describes:

  o The population from which you will select your sample and how you will select your sample;

  o The measures you will use;

  o A data collection and detailed analysis plan; and

  o A timeline.

- Describe the quantitative and/or qualitative methods you will use. Make clear how each method will be used and for what purpose. For example, if you plan to collect writing samples from students, you should make clear who will provide the writing samples, what topics they will address, and how the writing samples will be assessed. You should describe the data collection instruments you will use and their reliability and validity. Finally, you should explain how you will analyze the data collected from your Exploration Study.

- The Institute recommends that you refer to the Requirements and Recommendations for a Goal 1 Exploration study in its [Education Research Grants Program (CFDA 84.305A)](#) to make sure your research plan is complete.

Development or Measurement Study (Applicants must do one or the other)

Development Study

- Clearly describe the current typical practice in secondary writing instruction and why this practice should be changed or improved.

- Describe the intervention you will develop and pilot-test and how you expect the intervention to improve writing outcomes for secondary students. The intervention you propose to develop may incorporate a variety of features which may be important for improving writing outcomes for secondary students.

- Explain your rationale for the features on which you choose to focus. If you choose to revise an existing intervention, justify the revision of the intervention including an explanation of why such a revision is preferable over developing a new intervention.

- Present a research plan that includes the following:
    - A clear statement of the problem or issue that your study will address;
    - Your theory of change for how your intervention, and its components, will lead to better student writing outcomes;
    - The method for developing the intervention (iterative development process);
    - The sample and setting and how they will be appropriate for meeting the research aims of the project;
    - A plan for a pilot study;
    - A detailed data analysis plan;
    - The measures of the feasibility, usability, and fidelity of implementation of the intervention;
    - The measures used to determine whether the intervention shows evidence of promise to impact student writing outcomes; and
    - A timeline.

- Discuss the expected practicality of the intervention, including why the intervention is likely to be accepted and implemented and how it can contribute to resolving the issue or problem that forms the basis of the project.

- The Institute recommends that you refer to the Requirements and Recommendations for a Goal 2 Development and Innovation study in its Education Research Grants Program (CFDA 84.305A) to make sure your research plan is complete for both the development work and the pilot study.

Measurement Study

- Explain your decision to develop a new measure(s) or revise an existing measure(s). The measure(s) may be for use by researchers, teachers, and/or other stakeholders, though you should justify the end user you choose.

- If you propose to develop a new measure(s), contrast the new measure(s) with current typical assessment practice and its identified shortcomings. If you propose to revise and validate an existing measure, describe the specific need for validating an existing measure. Explain how the Measurement Study will contribute to the research gaps you have identified in the Significance section, and how it fits into your conceptual framework or perspective.

- If you choose to propose a Measurement Study, you should present a research plan that explains:

- o The methods for developing and validating the measure(s), or modifying and validating an existing measure(s);

- o The practical applications of the measure(s) for education researchers and/or practitioners;

- o How psychometric evidence will be gathered to support the validity and reliability of the measure(s) for the prescribed purpose;

- o The sample and setting and how they will be appropriate for meeting the research aims of the project;

- o Any accommodations made for subgroups such as English learners or students with specific disabilities;

- o The characteristics, size, and analytic adequacy of the sample to be used in the study, including justification for exclusion and inclusion criteria; and

- o A timeline.

- Describe the iterative development processes that you will use to develop or revise the measure(s), including field testing procedures and processes for item revision. Include a detailed description of the validation activities and the types of evidence you will gather on the reliability and validity of the measure(s) for the specified purpose, populations, and contexts.

- Consider whether adaptation of the measure is needed for different contexts and purposes. You should plan to produce a technical manual that includes information about scoring and psychometric properties, as well as appropriate and inappropriate uses for the measure(s).

- Justify your choice of method for measuring writing quality (e.g. rubrics, indirect measures, direct measures, etc.).

- The Institute recommends that you refer to the Requirements and Recommendations for a Goal 5 Measurement study in its Education Research Grants Program (CFDA 84.305A) to make sure your research plan is complete.

c. **Leadership and Outreach Activities**

Requirements: In order to be responsive and sent forward for scientific peer review, applications to the Writing Center **must** describe the following:

(i) The leadership and outreach activities of the Writing Center.

Recommendations for a Strong Application: In order to address the above requirements, the Institute recommends that you include the following in your Leadership and Outreach Activities section.

- Describe the audiences you intend to reach and the various activities you will undertake to communicate with these audiences.

- Describe your plan to coordinate and collaborate with other researchers, including other researchers funded by the Institute, with interest and expertise in the area of secondary writing.

- The Institute expects the Writing Center to develop and disseminate products for teachers and other practitioners regarding the findings from the research. To use available resources most efficiently, you might consider taking

advantage of annual conferences and other forums where researchers and practitioners already gather.

- Describe the Writing Center website you will design, including its content and the audiences you intend to reach. The Institute also encourages applicants to use social media and electronic forms of communication (such as webinars, podcasts, and videos) to broaden the reach of the Writing Center at a relatively low cost.

- In order to continue to build expertise in the field of secondary writing, the Institute encourages you to consider how the Writing Center can train scholars interested in conducting research on writing in secondary schools. Describe the opportunities you will offer to potential trainees and how they will be recruited and selected.

d. Management and Institutional Resources

Requirements: In order to be responsive and sent forward for scientific peer review, applications under the Writing Center topic must describe the following:

(i) The organizational structure of the Writing Center and the management plan for how it will be run; and

(ii) The resources to conduct the work of the Writing Center, including the focused program of research, the supplemental activities, and the national leadership and outreach activities.

Recommendations for a Strong Application: In order to address the above requirements, the Institute recommends that you include the following in your Management and Institutional Resources section to demonstrate that your team can acquire or has access to the facilities, equipment, supplies, and other resources required to support the completion and dissemination of the Writing Center's work, and that you have a plan to manage the multiple researchers who will participate in the Writing Center.

- Describe your plans and procedures for the overall management of the Writing Center and its diverse activities.

- Include an organization chart that shows how the major functions or activities of the Writing Center will be organized and how key personnel will relate to one another.

- If the plans for the first year of grant activities include substantial work to be conducted in schools or other authentic education settings, document the availability and cooperation of the schools or other authentic education settings that will be required to carry out that work via a letter of agreement from the education organization(s) in Appendix D of your application.

e. Personnel

Requirements: In order to be responsive and sent forward for scientific peer review, applications under the Writing Center topic **must** describe the following:

(i) The key personnel making up the Writing Center's team.

Recommendations for a Strong Application: In order to address the above requirement, the Institute recommends that you include the following in your Personnel section to demonstrate that your team possesses the appropriate training and experience and will commit sufficient time to completely implement the proposed Center activities.

- Describe the personnel at the primary applicant institution and any subaward institution along with any consultants. Competitive applications will have leadership and staff who collectively demonstrate:

    o Expertise in content areas relevant to writing in secondary schools;

    o The methodological and measurement expertise to carry out the proposed projects;

    o Sufficient experience working with education delivery settings to carry out the proposed projects;

    o Experience that is relevant to national leadership activities; and

    o Experience and capacity to manage a project of this size and type.

- The Institute encourages applicants to form multi-disciplinary teams and to consider scholars with different perspectives. Applicants are especially encouraged to include at least one team member with expertise in adolescent development in addition to the appropriate methodological expertise and content area expertise.

- Briefly describe the qualifications, roles, responsibilities, and percent of time (effort over the calendar year) to be devoted to the Writing Center for all key personnel.

(3) Awards

An application under the Writing Center topic **must** conform to the following limits on duration and cost:

Duration Maximum:

- **The maximum duration** of a Writing Center **is 5 years**.

Cost Maximum:

- **The maximum award** for a Writing Center is **$5,000,000 (total cost = direct costs + indirect costs).**

    o At least **75 percent** of the total budget (direct costs + indirect costs) **must be allocated to the focused program of research**.

    o At least **5 percent** of the maximum award ($250,000) **must be reserved for supplementary studies** to be designed in collaboration with the Institute.

(4)   Data Management Plan

Applications under the Writing Center topic must include a Data Management Plan (DMP) placed in Appendix E. Your DMP (recommended length: no more than 5 pages) describes your plans for making the final research data from the proposed R&D Center accessible to others.

Applications that do not contain a DMP will be deemed nonresponsive to the Request for Applications and will not be accepted for review. Resources that may be of interest to researchers in developing a data management plan can be found at http://ies.ed.gov/funding/researchaccess.asp.

DMPs are expected to differ depending on the nature of the studies conducted by the R&D Center and the data collected. By addressing the items identified below, your DMP describes how you will meet the requirements of the Institute's policy for data sharing. The DMP should include the following:

- Plan for pre-registering any casual impact studies in an appropriate registry for education evaluations (e.g., the SREE Registry of Efficacy and Effectiveness Studies at https://www.sree.org/pages/registry.php).

- Type of data to be shared.

- Procedures for managing and for maintaining the confidentiality of Personally Identifiable Information.

- Roles and responsibilities of project or institutional staff in the management and retention of research data, including a discussion of any changes to the roles and responsibilities that will occur should the Project Director/Principal Investigator and/or co-Project Directors/co-Principal Investigators leave the project or their institution.

- Expected schedule for data access, including how long the data will remain accessible (at least 10 years) and acknowledgement that the timeframe of data accessibility will be reviewed at the annual progress reviews and revised as necessary.

- Format of the final dataset.

- Dataset documentation to be provided.

- Method of data access (e.g., provided by the Project Director/Principal Investigator, through a data archive) and how those interested in using the data can locate and access them.

- Whether or not a data agreement that specifies conditions under which the data will be shared will be required.

- Any circumstances that prevent all or some of the data from being made accessible. This includes data that may fall under multiple statutes and, hence, must meet the confidentiality requirements for each applicable statute (e.g., data covered by Common Rule for Protection of Human Subjects, FERPA, and HIPAA).

The costs of the DMP can be covered by the grant and should be included in the budget and explained in the Narrative Budget Justification for the Center. The scientific peer review process will not include the DMP in the scoring of the scientific merit of the application. The Institute's Program Officers will be responsible for reviewing the completeness of the proposed DMP. If your application is being considered for funding based on the scores received during the scientific peer review process but your DMP is determined incomplete, you will be required to provide additional detail regarding your DMP (see Pre-Award Requirements).

PART IV: COMPETITION REGULATIONS AND REVIEW CRITERIA

A. FUNDING MECHANISMS AND RESTRICTIONS

1. Mechanism of Support
The Institute intends to award only one cooperative agreement for the Writing Center. The Institute will award up to two cooperative agreements for the Rural Center if they are working in different states or regions of the country, and/or addressing different problems or issues in rural education.

2. Funding Available
Although the Institute intends to support the R&D Center topics described in this announcement, all awards pursuant to this Request for Applications are contingent upon the availability of funds and the receipt of meritorious applications. The Institute makes its awards to the highest quality applications, as determined through scientific peer review.

Please attend to the maximums set for R&D Center length and budget for each topic.

- **R&D Center on Improving Rural Education**
  The size of the award depends on the scope of work for the R&D Center. The maximum duration of the award is 5 years and the maximum award for a 5-year Center is $10,000,000 (total cost = direct + indirect).

- **R&D Center on Writing in Secondary Schools**
  The size of the award depends on the scope of work for the R&D Center. The maximum duration of the award is 5 years and the maximum award for a 5-year Center is $5,000,000 (total cost = direct + indirect).

The Institute expects the focused program of research to comprise at least 75 percent of a R&D Center's activities depending on the cost and effort required to carry out the focused program of research, with the remainder of the budget devoted to supplemental activities, leadership and outreach activities, and any administrative activities not included in the focused program of research. You should allocate at least 5 percent of the R&D Center's budget annually to the supplemental activities of the R&D Center that will be determined cooperatively with the Institute after an award is made.

Although the plans of the Institute include the Education Research and Development Center topics described in this announcement, awards pursuant to this Request for Applications are contingent upon the availability of funds and the scientific merit of applications as determined by scientific peer review. The Institute will prioritize funding one R&D Center under each topic.

3. Cooperative Agreements
Through the terms of the cooperative agreement, grantees will work with the Institute to plan work related to Supplemental and Leadership activities.

4. Special Considerations for Budget Expenses

Indirect Cost Rate
When calculating your expenses for research conducted in field settings, you should apply your institution's federally negotiated off-campus indirect cost rate. Questions about indirect cost rates should be directed to the U.S. Department of Education's Indirect Cost Group http://www2.ed.gov/about/offices/list/ocfo/fipao/icgindex.html.

Institutions, both primary grantees and subawardees, not located in the territorial United States cannot charge indirect costs.

Meetings and Conferences

If you are requesting funds to cover expenses for hosting meetings or conferences, please note that there are statutory and regulatory requirements in determining whether costs are reasonable and necessary. Please refer to OMB's Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance), 2 CFR, §200.432 Conferences.

In particular, federal grant funds cannot be used to pay for alcoholic beverages or entertainment, which includes costs for amusement, diversion, and social activities. In general, federal funds may not be used to pay for food. A grantee hosting a meeting or conference may not use grant funds to pay for food for conference attendees unless doing so is necessary to accomplish legitimate meeting or conference business. You may request funds to cover expenses for working meetings (e.g., working lunches); however, the Institute will determine whether these costs are allowable in keeping with the Uniform Guidance Cost Principles. Grantees are responsible for the proper use of their grant awards and may have to repay funds to the Department if they violate the rules for meeting- and conference-related expenses or other disallowed expenditures.

5. Program Authority
20 U.S.C. 9501 et seq., the "Education Sciences Reform Act of 2002," Title I of Public Law 107-279, November 5, 2002. This program is not subject to the intergovernmental review requirements of Executive Order 12372.

6. Applicable Regulations
Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance) codified at CFR Part 200. The Education Department General Administrative Regulations (EDGAR) in 34 CFR parts 77, 81, 82, 84, 86 (part 86 applies only to institutions of higher education), 97, 98, and 99. In addition 34 CFR part 75 is applicable, except for the provisions in 34 CFR 75.100, 75.101(b), 75.102, 75.103, 75.105, 75.109(a), 75.200, 75.201, 75.209, 75.210, 75.211, 75.217, 75.219, 75.220, 75.221, 75.222, and 75.230.

B. ADDITIONAL AWARD REQUIREMENTS

1. Public Availability of Data and Results
You must include a Data Management Plan (DMP) in Appendix E: Data Management Plan as part of your R&D Center application. The scientific peer review process will not include the DMP in the scoring of the scientific merit of the application. Instead, the Institute's Program Officers will be responsible for reviewing the completeness of the proposed DMP. The costs of the DMP can be covered by the grant and should be included in the budget and explained in the budget narrative.

Recipients of awards are expected to publish or otherwise make publicly available the results of the work supported through this program. Institute-funded investigators must submit final manuscripts resulting from research supported in whole or in part by the Institute to the Educational Resources Information Center (ERIC, http://eric.ed.gov) upon acceptance for publication. An author's final manuscript is defined as the final version accepted for journal publication and includes all graphics and supplemental materials that are associated with the article. The Institute will make the manuscript available to the public through ERIC no later than 12 months after the official date of publication. Investigators and their institutions are responsible for ensuring that any publishing or copyright agreements concerning submitted articles fully comply with this requirement.

2. Special Conditions on Grants

The Institute may impose special conditions on a grant pertinent to the proper implementation of key aspects of the proposed research design or if the grantee is not financially stable, has a history of unsatisfactory performance, has an unsatisfactory financial or other management system, has not fulfilled the conditions of a prior grant, or is otherwise not responsible.

3. Demonstrating Access to Data and Authentic Education Settings

The research you propose to do under a specific R&D Center topic will most likely require that you have (or will obtain) access to authentic education settings (e.g., classrooms, schools, districts), secondary data sets, or studies currently under way. In such cases, you will need to provide evidence that you have access to these resources prior to receiving funding. Whenever possible, include Letters of Agreement in Appendix D from those who have responsibility for or access to the data or settings you wish to incorporate when you submit your application. Even in circumstances where you have included such letters with your application, **the Institute will require additional supporting evidence prior to the release of funds**. If you cannot provide such documentation, the Institute may not award the grant or may withhold funds.

You will need supporting evidence of partnership or access if you are doing any of the following:

- *Conducting research in or with authentic education settings*: If your application is being considered for funding based on scientific merit scores from the scientific peer review panel and your research relies on access to authentic education settings (e.g., schools), you will need to provide documentation that you have access to the necessary settings in order to receive the grant. This means that if you do not have permission to conduct the proposed project in the necessary number of settings at the time of application, you will need to provide documentation to the Institute indicating that you have successfully recruited the necessary number of settings for the proposed research before the full first-year costs will be awarded. If you recruited sufficient numbers of settings prior to the application, the Institute may ask you to provide documentation that the settings originally recruited for the application are still willing to partner in the research.

- *Using secondary data sets*: If your application is being considered for funding based on scientific merit scores from the scientific peer review panel and your research relies on access to secondary data sets (e.g., federally-collected data sets, state or district administrative data, or data collected by you or other researchers), you will need to provide documentation that you have access to the necessary data sets in order to receive the grant. This means that if you do not have permission to use the proposed data sets at the time of application, you must provide documentation to the Institute from the entity controlling the data set(s) before the grant will be awarded. This documentation must indicate that you have permission to use the data for the proposed research for the time period discussed in the application. If you obtained permission to use a proposed data set prior to submitting your application, the Institute may ask you to provide updated documentation indicating that you still have permission to use the data set to conduct the proposed research during the project period.

- *Building on existing studies*: You may propose studies that piggyback onto an ongoing study (i.e., that require access to subjects and data from another study). In such cases, the Principal Investigator of the existing study should be one of the members of the research team applying for the grant to conduct the new project.

In addition to obtaining evidence of access, the Institute strongly advises applicants to establish a written agreement, within 3 months of receipt of an award, among all key collaborators (e.g., Principal and co-Principal Investigators) and their institutions regarding roles, responsibilities, access to data, publication rights, and decision-making procedures.

C. OVERVIEW OF APPLICATION AND SCIENTIFIC PEER REVIEW PROCESS

1. Submitting a Letter of Intent
The Institute strongly encourages potential applicants to submit a Letter of Intent by June 21, 2018. Letters of Intent are optional, non-binding, and not used in the scientific peer review of a subsequent application. However, when you submit a Letter of Intent, one of the Institute's Program Officers will contact you regarding your proposed research to offer assistance. The Institute also uses the Letter of Intent to identify the expertise needed for the scientific peer review panels and to secure a sufficient number of reviewers to handle the anticipated number of applications. Should you miss the deadline for submitting a Letter of Intent, you still may submit an application. If you miss the Letter of Intent deadline, the Institute asks that you inform the relevant Program Officer of your intention to submit an application.

Letters of Intent are submitted online at https://iesreview.ed.gov. **Select the Letter of Intent form for the R&D Center topic under which you plan to submit your application**. The online submission form contains fields for each of the seven content areas listed below. Use these fields to provide the requested information. The project description should be single-spaced and is recommended to be no more than one page (about 3,500 characters).

- Descriptive title

- R&D Center Topic that you will address

- Brief description of the proposed R&D Center

- Name, institutional affiliation, address, telephone number and e-mail address of the Principal Investigator and any Co-Principal Investigators

- Name and institutional affiliation of any key collaborators and contractors

- Duration of the proposed R&D Center (attend to the duration maximum)

- Estimated total budget request (attend to the budget maximums)

2. Resubmissions and Multiple Submissions
If you intend to revise and resubmit an application that was submitted to one of the Institute's previous competitions but that was not funded, you must indicate on the SF-424 Form of the Application Package (Items 4a and 8) (see Part V.F.1.) that the FY 2019 application is a resubmission (Item 8) and include the application number of the previous application (an 11-character alphanumeric identifier beginning "R305" entered in Item 4a). Prior reviews will be sent to this year's reviewers along with the resubmitted application. You must describe your response to the prior reviews using Appendix A: Response to Reviewers (see Part III.D.3.). Revised and resubmitted applications will be reviewed according to this FY 2019 Request for Applications.

If you submitted a somewhat similar application in the past and did not receive an award but are submitting the current application as a new application, you should indicate on the application form (Item 8) that your FY 2019 application is a new application. In Appendix A, you should provide a rationale explaining why your FY 2019 application should be considered a new application rather than a revision. If you do not provide such an explanation, then the Institute may send the reviews of the prior unfunded application to this year's reviewers along with the current application.

You may submit applications to more than one of the Institute's FY 2019 grant programs. However, you may submit a given application only once for the FY 2019 grant competitions (i.e., you may not submit the same application or similar applications to multiple grant programs, multiple topics, or multiple times within the same topic). If you submit the same or similar applications, the Institute will determine whether and which applications will be accepted for review and/or will be eligible for funding.

3. Application Processing

Applications must be submitted electronically and received no later than 4:30:00 p.m. Eastern Time on August 9, 2018 through the Internet using the software provided on the Grants.gov website: http://www.grants.gov/. You must follow the application procedures and submission requirements described in Part V Preparing Your Application and Part VI Submitting Your Application and the instructions in the User Guides provided by Grants.gov (https://grants.gov/help/html/help/GetStarted/Get_Started.htm).

After receiving the applications, Institute staff will review each application for compliance and responsiveness to this Request for Applications. Applications that do not address specific requirements of this request will not be considered further.

Once you formally submit an application, Institute staff will not comment on its status until the award decisions are announced (no later than January 17, 2019) except with respect to issues of compliance and responsiveness. This communication will come through the Applicant Notification System (https://iesreview.ed.gov/).

Once an application has been submitted and the application deadline has passed, you may not submit additional materials or information for inclusion with your application.

4. Scientific Peer Review Process

The Institute will forward all applications that are compliant and responsive to this Request for Applications to be evaluated for scientific and technical merit. Scientific reviews are conducted in accordance with the review criteria stated below and the review procedures posted on the Institute's website (http://ies.ed.gov/director/sro/peer_review/application_review.asp) by a panel of scientists who have substantive and methodological expertise appropriate to the program of research and Request for Applications.

Each compliant and responsive application is assigned to one of the Institute's scientific review panels http://ies.ed.gov/director/sro/peer_review/reviewers.asp. At least two primary reviewers will complete written evaluations of the application, identifying strengths and weaknesses related to each of the review criteria. Primary reviewers will independently assign a score for each criterion, as well as an overall score, for each application they review. Based on the overall scores assigned by primary reviewers, the Institute calculates an average overall score for each application and prepares a preliminary rank order of applications before the full scientific peer review panel convenes to complete the review of applications.

The full panel will consider and score only those applications deemed to be the most competitive and to have the highest merit, as reflected by the preliminary rank order. A panel member may nominate for consideration by the full panel any application that he or she believes merits full panel review but that would not have been included in the full panel meeting based on its preliminary rank order.

5. Review Criteria for Scientific Merit

The purpose of Institute-supported research is to contribute to solving education problems and to provide reliable information about the education practices that support learning and improve academic achievement and access to education for all students. The Institute expects reviewers for all applications to assess the following aspects of an application in order to judge the likelihood that the proposed

research will have a substantial impact on the pursuit of that goal. Information pertinent to each of these criteria is described in Part II R&D Center Requirements and in Part III: R&D Center Topic Requirements.

a) Significance of the Focused Program of Research
Does the applicant provide a compelling rationale for the significance of the R&D Center as defined in the sections on the significance of the focused program of research?

b) Research Plan for the Focused Program of Research
Does the applicant meet the requirements and address the recommendations described in the sections detailing the methodological requirements for the focused program of research?

c) Plans for Other R&D Center Activities
Does the description of the applicant's capacity to conduct supplemental and leadership activities demonstrate that the applicant has the ideas, experience, and capability to successfully carry-out such activities in cooperation with the Institute? Does the applicant propose meaningful leadership and outreach activities for the R&D Center?

d) Management and Institutional Resources
Do the plans and procedures for the overall management of the R&D Center indicate that the applicant has the capacity to complete the proposed research, dissemination, and leadership activities efficiently and successfully? Does the applicant have the facilities, equipment, supplies, and other resources required to support the proposed activities? Do the commitments of each partner show support for the implementation and success of the proposed R&D Center activities?

e) Personnel
Does the description of the personnel make it apparent that the Principal Investigator/Center Director and other key personnel possess the appropriate training and experience and will commit sufficient time to competently implement the proposed research?

6. Award Decisions
The following will be considered in making award decisions for responsive and compliant applications:

- Scientific merit as determined by scientific peer review;

- Performance and use of funds under a previous federal award;

- Contribution to the overall program of research described in this Request for Applications;

- Alignment of project budget and duration with requirements specified in the Request for Applications, i.e., the proposed research can be carried out with the proposed budget and project duration after making any necessary adjustments to meet the maximum award and maximum duration requirements; and

- Availability of funds.

PART V: PREPARING YOUR APPLICATION

A. OVERVIEW

The application contents – individual forms and their PDF attachments – represent the body of an application to the Institute. All applications for Institute funding must be self-contained. As an example, reviewers are under no obligation to view an internet website if you include the site address (URL) in the application. In addition, **you may not submit additional materials directly to the Institute after the application package is submitted**.

B. GRANT APPLICATION PACKAGE

The Application Package for this competition (84-305C2019) provides all of the forms that you must complete and submit. The application form approved for use in the competition specified in this Request for Applications is the government-wide SF-424 Research and Related (R&R) Form Family (OMB Number 4040-0001).[13]

1. Date Application Package is Available on Grants.gov

The Application Package will be available on http://www.grants.gov/ by June 21, 2018.

2. How to Download the Correct Application Package

To find the correct downloadable Application Package, you must first search by the CFDA number for this research competition without the alpha suffix. To submit an application to the Education Research and Development Center program, you must search on: CFDA 84.305.

The Grants.gov search on CFDA 84.305 will yield more than one Application Package. For the Education Research and Development Center program, you must download the Application Package marked:

- Education Research and Development Center CFDA 84.305C

You must download the Application Package that is designated for this grant competition. If you use a different Application Package, even if it is for another Institute competition, the application will be submitted to the wrong competition. Applications submitted using the incorrect application package run the risk of not being reviewed according to the requirements and recommendations for the Education Research and Development Center competition.

See Part VI Submitting Your Application, for a complete description of the forms that make up the application package and directions for filling out these forms.

C. GENERAL FORMATTING

For a complete application, you must submit the following as individual attachments to the R&R forms that are contained in the application package for this competition in Adobe Portable Document Format (PDF):

- R&D Center Summary/Abstract;

- R&D Center Narrative; Appendix A: Response to Reviewers (Required for Resubmissions); Appendix B: Supplemental Charts, Tables, and Figures (Optional); Appendix C: Examples of

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[13] According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control numbers for this information collection are 4040-0001 and 4040-0010. The time required to complete this information collection is estimated to average 40 hours per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this family of forms, please write to: U.S. Department of Education, Washington, D.C. 20202-4537.

Intervention or Assessment Materials (Optional); Appendix D: Letters of Agreement; and Appendix E: Data Management Plan (Required), all together as one PDF file;

- Bibliography and References Cited;

- Research on Human Subjects Narrative (i.e., Exempt or Non-Exempt Research Narrative);

- A Biographical Sketch for each senior/key person;

- A Narrative Budget Justification for the total Center budget; and

- Subaward Budget(s) that has (have) been extracted from the R&R Subaward Budget (Fed/Non-Fed) Attachment(s) Form, if applicable.

Information about formatting all of these documents except the Subaward budget attachment (see Part VI.F.6) is provided below.

1. Page and Margin Specifications
For all Institute research grant applications, a "page" is 8.5 in. x 11 in., on one side only, with 1-inch margins at the top, bottom, and both sides.

2. Page Numbering
Add page numbers using the header or footer function and place them at the bottom or upper right corner for ease of reading.

3. Spacing
We recommend that you use single spacing.

4. Type Size (Font Size)
Small type size makes it difficult for reviewers to read the application. To ensure legibility, we recommend the following:

- The height of the letters is not smaller than a type size of 12-point.
- Type density, including characters and spaces, is no more than 15 characters per inch (cpi). For proportional spacing, the average for any representative section of text does not exceed 15 cpi.
- Type size yields no more than 6 lines of type within a vertical inch.

As a practical matter, if you use a 12-point Times New Roman font without compressing, kerning, condensing, or other alterations, the application will typically meet these recommendations. When converting documents into PDF files, you should check that the resulting type size is consistent with the original document.

5. Graphs, Diagrams, and Tables
We recommend that you use black and white in graphs, diagrams, tables, and charts. If color is used, you should ensure that the material reproduces well when printed or photocopied in black and white. Text in figures, charts, and tables, including legends should be readily legible.

D. PDF ATTACHMENTS
The information you include in these PDF attachment provides the majority of the information on which reviewers will evaluate the application.

1. R&D Center Summary/Abstract

a) Submission
You must submit the R&D Center Summary/Abstract as a separate PDF attachment at Item 7 of the Other Project Information form (see Part VI.F.4 Research & Related Other Project Information).

b) Recommended page length
We recommend that the R&D Center Summary/Abstract be no more than one page.

c) Content
The R&D Center summary/abstract should include the following:

- **Title** of the proposed R&D Center,

- The **topic** under which the applicant is applying (e.g., "R&D Center on Writing in Secondary Schools"),

- Brief description of the focused program of research, including a summary of each proposed study, and

- A list of the key R&D Center personnel.

Please see http://ies.ed.gov/ncer/projects for examples of the content to be included in your R&D Center summary/abstract.

2. R&D Center Narrative

a) Submission
You must submit the R&D Center Narrative as a separate PDF attachment at Item 8 of the Other Project Information form (see Part VI.F.4 Research & Related Other Project Information).

b) Recommended page length
We recommend that the R&D Center Narrative be no more than 35 pages. To help reviewers locate information and conduct the highest quality review, you should write a concise and easy to read narrative, with pages numbered consecutively using the header or footer function to place numbers at the top or bottom right-hand corner.

c) Citing references in text
We recommend you use the author-date style of citation (e.g., James, 2004), such as that described in the Publication Manual of the American Psychological Association, 6th Ed. (American Psychological Association, 2009).

d) Content
Your R&D Center Narrative **must** include five sections in order to be compliant with the requirements of this Request for Applications: (1) Significance of the Focused Program of Research, (2) Research Plan for the Focused Program of Research, (3) Leadership and Outreach Activities, (4) Management and Institutional Resources, and (5) Personnel. Information to be included in each of these sections is detailed in Part II R&D Center Requirements and Part III: R&D Center Topic Requirements. The information you include in each of these five sections will provide the majority of the information on which reviewers will evaluate the application.

3. Appendix A: Response to Reviewers (Required for Resubmissions)

a) Submission

If your application is a resubmission you must include Appendix A. If your application is one that you consider to be new but that is similar to a previous application, you should include Appendix A. Include Appendix A after the R&D Center narrative as part of the same PDF attachment at Item 8 of the Other Project Information form (see Part VI.F.4 Research & Related Other Project Information).

b) Recommended page length

We recommend that Appendix A be no more than three pages.

c) Content

Use Appendix A to describe the required response to reviewers, which details how the revised application is responsive to prior reviewer comments.

If you have submitted a somewhat similar application in the past but are submitting the current application as a new application, you should use Appendix A to provide a rationale explaining why the current application should be considered a "new" application rather than a "resubmitted" application.

This response to the reviewers is the only information that should be included in Appendix A.

4. Appendix B: Supplemental Charts, Tables, and Figures (Optional)

a) Submission

If you choose to have an Appendix B, you must include it at the end of the project narrative following Appendix A (if included), and submit it as part of the same PDF attachment at Item 8 of the Other Project Information form (see Part VI.F.4 Research & Related Other Project Information).

b) Recommended page length

We recommend that Appendix B be no more than 15 pages.

c) Content

You may include figures, charts (e.g., a timeline for your research project, a diagram of the management structure of your project), or tables that supplement the center narrative as well as examples of measures (e.g., individual items, tests, surveys, observation and interview protocols) used to collect data for your project in Appendix B. These are the only materials that should be included in Appendix B.

5. Appendix C: Examples of Intervention or Assessment Materials (Optional)

a) Submission

If you choose to have an Appendix C, you must include it following the other Appendices included at the end of the R&D Center narrative and submit it as part of the same PDF attachment at Item 8 of the Other Project Information form (see Part VI.F.4 Research & Related Other Project Information).

b) Recommended page length

We recommend that Appendix C be no more than 10 pages.

c) Content

In Appendix C, if you are proposing to explore, develop, evaluate, or validate an intervention or assessment you may include examples of curriculum materials, computer screen shots, assessment items, or other materials used in the intervention or assessment to be explored, developed, evaluated, or validated. These are the only materials that should be included in Appendix C.

6. Appendix D: Letters of Agreement (Optional)

a) Submission
If you have an Appendix D, you must include it following the other Appendices included at the end of the R&D Center narrative and submit it as part of the same PDF attachment at Item 8 of the Other Project Information form (see Part VI.F.4 Research & Related Other Project Information).

b) Recommended page length
We do not recommend a page length for Appendix D.

c) Content
Include in Appendix D the Letters of Agreement from partners (e.g., schools and districts), data sources (e.g., state agencies holding administrative data), and consultants. Ensure that the letters reproduce well so that reviewers can easily read them. Do not reduce the size of the letters. Although, see Part VI.E.4 Attaching Files for guidance regarding the size of file attachments.

Letters of Agreement should include enough information to make it clear that the author of the letter understands the nature of the commitment of time, space, and resources to the research project that will be required if the application is funded. A common reason for projects to fail is loss of participating schools and districts. Letters of Agreement regarding the provision of data should make it clear that the author of the letter will provide the data described in the application for use in the proposed research and in time to meet the proposed schedule.

These are the only materials that may be included in Appendix D; all other materials will be removed prior to review of the application.

7. Appendix E: Data Management Plan (Required)

a) Submission
You **must** include Appendix E following the other Appendices included at the end of the R&D Center narrative, and submit it as part of the same PDF attachment at Item 8 of the Other Project Information form (see Part VI.F.4 Research & Related Other Project Information).

b) Recommended page length
We recommend that Appendix E be no more than five pages.

c) Content
Include in Appendix E your Data Management Plan (DMP). The content of the DMP is discussed in Part II.A.5: Public Access Policy. These are the only materials that should be included in Appendix E.

8. Bibliography and References Cited

a) Submission
You must submit this section as a separate PDF attachment at Item 9 of the Other Project Information form (see Part VI.F.4 Research & Related Other Project Information).

b) Recommended page length
We do not recommend a page length for the Bibliography and References cited.

c) Content
You should include complete citations, including the names of all authors (in the same sequence in which they appear in the publication), titles (e.g., article and journal, chapter and book), page numbers, and year of publication for literature cited in the R&D Center narrative.

9. Research on Human Subjects Narrative

a) Submission
The human subjects narrative must be submitted as a PDF attachment at Item 12 of the Other Project Information form (see Part VI.F.4 Research & Related Other Project Information).

b) Recommended page length
We do not recommend a page length for the Human Subjects Narrative.

c) Content
The Human Subjects Narrative should address the information specified by the U.S. Department of Education's Regulations for the Protection of Human Subjects (see http://www2.ed.gov/about/offices/list/ocfo/humansub.html for additional information).

Exempt Research on Human Subjects Narrative

Provide an "exempt" narrative if you checked "yes" on Item 1 of the Research & Related Other Project Information form (see Part VI.F.4 Research & Related Other Project Information). The narrative must contain sufficient information about the involvement of human subjects in the proposed research to allow a determination by the Department that the designated exemption(s) are appropriate. The six categories of research that qualify for exemption from coverage by the regulations are described on the Department's website: http://www2.ed.gov/policy/fund/guid/humansub/overview.html.

Non-exempt Research on Human Subjects Narrative

If some or all of the planned research activities are covered by (i.e., not exempt from) the Human Subjects Regulations and you checked "no" on Item 1 of the Research & Related Other Project Information form (see Part VI.F.4 Research & Related Other Project Information), provide a "non-exempt research" narrative. The non-exempt narrative should describe the following: the characteristics of the subject population; the data to be collected from human subjects; recruitment and consent procedures; any potential risks; planned procedures for protecting against or minimizing potential risks; the importance of the knowledge to be gained relative to potential risks; and any other sites where human subjects are involved.

Note that the U.S. Department of Education does not require certification of Institutional Review Board approval at the time you submit your application. However, if an application that involves non-exempt human subjects research is recommended/selected for funding, the designated U.S. Department of Education official will request that you obtain and send the certification to the Department within 30 days after the formal request.

10. Biographical Sketches for Senior/Key Personnel

a) Submission
Each sketch will be submitted as a separate PDF attachment and attached to the Research & Related Senior/Key Person Profile (Expanded) form (see Part VI.F.2 Research & Related Senior/Key Person Profile (Expanded)). The Institute encourages you to use the IES Biosketch template available through SciENcv, or you may develop your own biosketch format.

b) Recommended page length
We recommend that each Biographical Sketch be no more than five pages, which includes Current and Pending Support.

c) Content

Provide a Biographical Sketch for the Principal Investigator, each co-Principal Investigator, and other key personnel. Each sketch should include information sufficient to demonstrate that key personnel possess training and expertise commensurate with their specified duties on the proposed project (e.g., publications, grants, and relevant research experience). If you'd like, you may also include biographical sketches for consultants (this form will allow for up to 40 biographical sketches in total).

Provide a list of current and pending grants for the Principal Investigator, each co-Principal Investigator, and other key personnel, along with the proportion of his/her time, expressed as percent effort over a 12-month calendar year, allocated to each project. Include the proposed education research grant as one of his/her pending grants in this list. If the total 12-month calendar year percent effort across all current and pending projects exceeds 100 percent, you must explain how time will be allocated if all pending applications are successful in the Narrative Budget Justification. If you use SciENcv, the information on current and pending support will be entered into the biosketch template. If you use your own format, you will need to provide this information in a separate table.

11. Narrative Budget Justification

a) Submission

The narrative budget justification must be submitted as a PDF attachment at Section K of the first project period of the Research & Related Budget (SF 424) Sections A & B; C, D, & E; and F-K form for the Project (see Part VI.F.5 Research & Related Budget (Total Federal + Non-Federal) - Sections A & B; C, D, & E; and F-K). For grant submissions with a subaward(s), a separate narrative budget justification for each subaward must be submitted and attached at Section K of the Research & Related Budget (SF 424) for the specific Subaward/Consortium that has been extracted and attached using the R&R Subaward Budget (Fed/Non-Fed) Attachment(s) Form (see Part VI.F.6).

b) Recommended page length

We do not recommend a page length for the Narrative Budget Justification.

c) Content

A Narrative Budget Justification must be submitted for the R&D Center budget, and a separate Narrative Budget Justification must be submitted for any subaward budgets included in the application. Each narrative budget justification should provide sufficient detail to allow reviewers to judge whether reasonable costs have been attributed to the R&D Center and its subawards, if applicable. The budget justification should correspond to the itemized breakdown of R&D Center costs that is provided in the corresponding Research & Related Budget (SF 424) Sections A & B; C, D, & E; and F-K form for each year of the R&D Center. The narrative should include the time commitments for key personnel expressed as annual percent effort (i.e., calculated over a 12-month period) and brief descriptions of the responsibilities of key personnel. For consultants, the narrative should include the number of days of anticipated consultation, the expected rate of compensation, travel, per diem, and other related costs. A justification for equipment purchases, supplies, travel (including information regarding number of days of travel, mode of transportation, per diem rates, number of travelers, etc.), and other related R&D Center costs should also be provided in the budget narrative for each project year outlined in the Research & Related Budget (SF 424).

d) Indirect Cost Rate

You must use your institution's federally negotiated indirect cost rate see Part IV.A.4 Special Considerations for Budget Expenses). When calculating your indirect costs on expenses for research conducted in field settings, you should apply your institution's federally negotiated off-campus indirect cost rate.

If your institution does not have a federally negotiated indirect cost rate, you should consult a member of the Indirect Cost Group (ICG) in the U.S. Department of Education's Office of the Chief Financial Officer http://www2.ed.gov/about/offices/list/ocfo/fipao/icgreps.html to help you estimate the indirect cost rate to put in your application.

PART VI: SUBMITTING YOUR APPLICATION

This part of the RFA describes important Grants.gov submission procedures you need to be aware of to ensure your application is received on time (no later than 4:30:00 p.m. Eastern Time on August 9, 2018) and accepted by the Institute. Any questions that you have about submitting your application through Grants.gov should be addressed to the Grants.gov Contact Center (support@grants.gov or 1-800-518-4726). You can also access the Grants.gov Self-Service Knowledge Base web portal at https://grants-portal.psc.gov/Welcome.aspx?pt=Grants for further guidance and troubleshooting tips.

A. MANDATORY ELECTRONIC SUBMISSION OF APPLICATIONS AND DEADLINE

Applications must be submitted electronically through the Grants.gov web site: http://www.grants.gov/. and must be received (fully uploaded and processed by Grants.gov) no later than 4:30:00 p.m. Eastern Time on August 9, 2018. **Applications received by Grants.gov after the 4:30:00 p.m. Eastern Time application deadline will be considered late and will not be sent forward for scientific peer review.**

Submission through Grants.gov is required unless you qualify for one of the exceptions to the electronic submission requirement and submit, no later than 2 weeks before the application deadline date, a written statement to the Institute that you qualify for one of these exceptions. A description of the Allowable Exceptions to Electronic Submissions is provided at the end of this document.

Please consider submitting your application ahead of the deadline date (the Institute recommends 3 to 4 days in advance of the closing date and time) to avoid running the risk of a late submission that will not be reviewed. **The Institute does not accept late applications.**

B. REGISTER ON GRANTS.GOV

To submit an application to the Institute via Grants.gov, your organization must have four things:

- A Data Universal Numbering System (DUNS) number,
- An active System for Award Management (SAM) registration,
- An active Grants.gov account, and
- A workspace for your application within Grants.gov

1. Register Early

Grants.gov registration involves many steps including obtaining a DUNS number if you do not already have one. The DUNS number is necessary to complete registration on SAM (www.sam.gov), which itself may take approximately one week to complete. Note: SAM registration can take several weeks to complete, depending upon the completeness and accuracy of the data entered into the SAM database by the applicant organization. During SAM registration the E-Business Point of Contact (eBIZ POC) role for the organization is assigned. The eBIZ POC is the individual within the organization who oversees all activities within Grants.gov and gives permissions to Authorized Organization Representatives (AORs). AORs are allowed to submit grant applications on behalf of their organization. It is the eBIZ POC's responsibility to renew the organization's SAM registration annually.

There have been some changes to the SAM registration process. Beginning on April 27, 2018, new entities, or entities renewing or updating their registration will be required to submit an original, signed notarized letter confirming the authorized Entity Administrator associated with the DUNS number before the registration is activated. Visit this FAQ page for more information: https://www.gsa.gov/about-

us/organization/federal-acquisition-service/office-of-systems-management/integrated-award-environment-iae/sam-update.

You may begin working on your application while completing the registration process, but you cannot submit an application until all of the registration steps are complete. Please note that once your SAM registration is active, it will take 24 to 48 hours for the information to be available in Grants.gov, and before you can submit an application through Grants.gov.

For additional assistance with registering your DUNS number in SAM or updating your existing SAM account, the Department of Education has prepared a SAM.gov Tip Sheet which you can find at: http://www2.ed.gov/fund/grant/apply/sam-faqs.html.

2. Create a Grants.gov Account

If your organization is new to federal grants or Grants.gov, review the Organization Registration page https://www.grants.gov/web/grants/applicants/organization-registration.html. If you already have a Grants.gov account, you do not need to register another account.

- Click the Register link https://www.grants.gov/web/grants/register.html in the top-right corner of the Grants.gov banner.

- Click the **Get Registered Now** button on the Register page.

- Complete the **Contact Information** and **Account Details** sections. All fields with a red asterisk (*) are required.

  o Email Address - When entering an email address, please keep in mind that all correspondence with Grants.gov will be sent to that email address.

- Select whether to subscribe or unsubscribe from Grants.gov Communications. The **Alerts** are important messages about time-sensitive or major system changes. The **Newsletter** features training, system enhancement updates, and other resources to help the federal grants community.

- Decide if you would like to add a profile to your Grants.gov account or click the **Continue** button to log in. You need to add a profile https://www.grants.gov/web/grants/applicants/registration/add-profile.html to submit an application.

3. Add a Profile to a Grants.gov Account

A profile in Grants.gov corresponds to a single applicant organization the user represents (i.e., an applicant) or an individual applicant. If you work for or consult with multiple organizations and have a profile for each, you may log in to one Grants.gov account to access all of your grant applications. To add an organizational profile to your Grants.gov account, enter the DUNS Number for the organization in the DUNS field while adding a profile. For more detailed instructions about creating a profile on Grants.gov see https://www.grants.gov/web/grants/applicants/registration/add-profile.html.

- After you register with Grants.gov and create an Organization Applicant Profile, the organization applicant's request for Grants.gov roles and access is sent to the EBiz POC. The EBiz POC will then log into Grants.gov and authorize the appropriate roles. The application can be submitted online any time after you have been assigned the AOR role.

- When applications are submitted through Grants.gov, the name of the organization applicant with the AOR role that submitted the application is inserted into the signature line of the application, serving as the electronic signature. The EBiz POC **must** authorize people who are able to make legally binding commitments on behalf of the organization as a user with the AOR role; **this step is often missed and it is crucial for valid and timely submissions.**

C. WORKSPACE

To submit your application, you must create or use an existing workspace within Grants.gov. Workspace is a shared, online environment where multiple people may simultaneously access and edit different forms within the application https://www.grants.gov/web/grants/applicants/workspace-overview.html. Creating a workspace for your application allows you to complete it online and route it through your organization for review before submitting. Participants who have assigned roles in the workspace can complete all the required forms online (or by downloading PDF versions and working offline) and check for errors before submission.

The Workspace progress bar will display the state of your application process as you apply. Click the blue question mark icon near the upper-right corner of each page for additional help if needed. Once the application is complete and ready to be submitted, click the Sign and Submit button on the Manage Workspace page, under the Forms tab.

- Adobe Reader: If you do not want to complete the forms online, you can download individual PDF forms in Workspace and complete them offline. The individual PDF forms can be downloaded and saved to your local device storage, network drive(s), or external drives, then accessed through Adobe Reader. See the Adobe Software Compatibility page on Grants.gov to download the appropriate version if needed https://www.grants.gov/web/grants/applicants/adobe-software-compatibility.html.

For additional training resources on Workspace, including video tutorials, please see https://www.grants.gov/web/grants/applicants/applicant-training.html. The Institute also offers webinars on the application submission process http://ies.ed.gov/funding/webinars/index.asp.

D. SUBMISSION AND SUBMISSION VERIFICATION

1. Submit Early

The Institute strongly recommends that you not wait until the deadline date to submit an application. Grants.gov will put a date/time stamp on the application and then process it after it is fully uploaded. **The time it takes to upload an application will vary depending on a number of factors including the size of the application and the speed of your internet connection.** If Grants.gov rejects your application due to errors in the application package, you will need to resubmit successfully before 4:30:00 p.m. Eastern Time on the deadline date as determined by Grants.gov. As an example, if you begin the submission process at 4:00:00 p.m. Eastern Time on the deadline date, and Grants.gov rejects the application at 4:15:00 p.m. Eastern Time, there may not be enough time for you to locate the error that caused the submission to be rejected, correct it, and then attempt to submit the application again before the 4:30:00 p.m. Eastern Time deadline. **Grants.gov recommends that you begin the submission process at least 48 hours before the deadline date and time to ensure a successful, on-time submission.**

Note: To submit successfully, **you must provide the DUNS number on your application that was used when you were registered as an Authorized Organization Representative (AOR) on Grants.gov**. This DUNS number should be the same number used when your organization registered with the SAM. If you do not enter the same DUNS number on your application as the DUNS you registered with, Grants.gov will reject your application.

2. Verify Submission is OK

The Institute urges you to verify that Grants.gov and the Institute have received the application on time and that it was validated successfully. To see the date and time that your application was received by Grants.gov, you need to log on to Grants.gov and click on the "Track My Application" link http://www.grants.gov/web/grants/applicants/track-my-application.html. For a successful submission, the

date/time received should be no later than 4:30:00 p.m. Eastern Time on the deadline date, AND the application status should be: (1) Validated (i.e., no errors in submission), (2) Received by Agency (i.e., Grants.gov has transmitted the submission to the U.S. Department of Education), or (3) Agency Tracking Number Assigned (the U.S. Department of Education has assigned a unique PR/Award Number to the application).

Note: If the date/time received is later than 4:30:00 p.m. Eastern Time on the deadline date, the application is late. If the application has a status of "Received" it is still awaiting validation by Grants.gov. Once validation is complete, the status will change either to "Validated" or "Rejected with Errors." If the status is "Rejected with Errors," the application has not been received successfully. Grants.gov provides information on reasons why applications may be rejected in its Frequently Asked Questions (FAQ) page (http://www.grants.gov/web/grants/applicants/encountering-error-messages.html).

You will receive four emails regarding the status of your submission; the first three will come from Grants.gov and the fourth will come from the U.S. Department of Education. Within 2 days of submitting a grant application to Grants.gov, you will receive three emails from Grants.gov:

- The first email message will confirm receipt of the application by the Grants.gov system and will provide you with an application tracking number beginning with the word "GRANT", for example GRANT00234567. You can use this number to track your application on Grants.gov using the "Track My Application" link http://www.grants.gov/web/grants/applicants/track-my-application.html before it is transmitted to the U.S. Department of Education.

- The second email message will indicate that the application EITHER has been successfully validated by the Grants.gov system prior to transmission to the U.S. Department of Education OR has been rejected due to errors, in which case it will not be transmitted to the Department.

- The third email message will indicate that the U.S. Department of Education has confirmed retrieval of the application from Grants.gov once it has been validated.

If the second email message indicates that the application, as identified by its unique application tracking number, is valid and the time of receipt was no later than 4:30:00 p.m. Eastern Time, then the application submission is successful and on-time.

Note: You should not rely solely on e-mail to confirm whether an application has been received on-time and validated successfully. The Institute urges you to use the "Track My Application" link on Grants.gov to verify on-time, valid submissions in addition to the confirmation emails http://www.grants.gov/web/grants/applicants/track-my-application.html.

Once Grants.gov validates the application and transmits it to the U.S. Department of Education, you will receive an email from the U.S. Department of Education.

- This fourth email message will indicate that the application has been assigned a PR/Award number unique to the application beginning with the letter R, followed by the section of the CFDA number unique to that research competition (e.g., 305C), the fiscal year for the submission (e.g., 19 for fiscal year 2019), and finally four digits unique to the application, for example R305C19XXXX. If the application was received after the closing date/time, this email will also indicate that the application is late and will not be given further consideration.

Note: The Institute strongly recommends that you begin the submission process at least 3 to 4 days in advance of the closing date to allow for a successful and timely submission.

3. Late Applications
If your application is submitted after 4:30:00 p.m. Eastern Time on the application deadline date your application will not be accepted and will not be reviewed. **The Institute does not accept late applications.**

Late applications are often the result of one or more common submission problems that could not be resolved because there was not enough time to do so before the application deadline. Some of the reasons Grants.gov may reject an application can be found on the Grants.gov site http://www.grants.gov/web/grants/applicants/encountering-error-messages.html. For more detailed information on troubleshooting Adobe errors, you can review the Adobe Reader Software Tip Sheet at http://www.grants.gov/web/grants/applicants/adobe-software-compatibility.html.

If after consulting these resources you still experience problems, contact Grants.gov Customer Support (1-800-518-4726 or support@grants.gov) or access the Grants.gov Self-Service Knowledge Base web portal https://grants-portal.psc.gov/Welcome.aspx?pt=Grants.

If the Grants.gov Support Desk determines that a technical problem occurred with the Grants.gov system, and determines that the problem affected your ability to submit the application by the submission deadline, you may petition the Institute to review your application (email the relevant program officer with the Grants.gov case number and related information). However, if Grants.gov determines that the problem you experienced is one of those identified by Grants.gov as common application errors, do not petition the Institute to have your case reviewed because these common submission problems are not grounds for petition. **The Institute will not accept an application that was late due to failure to follow the submission guidelines provided by Grants.gov and summarized in this RFA**.

E. TIPS FOR WORKING WITH GRANTS.GOV
Please go to http://www.grants.gov/web/grants/support.html for help with Grants.gov. For additional tips related to submitting grant applications, refer to the Grants.gov Applicant FAQs http://www.grants.gov/web/grants/applicants/applicant-faqs.html.

1. Internet Connections
The time required to upload and submit your application will vary depending upon a number of factors including the type of internet connection you are using (e.g., high speed connection versus dial up). Plan your submission accordingly.

2. Browser Support
The latest versions of Microsoft Internet Explorer (IE), Mozilla Firefox, Google Chrome, and Apple Safari are supported for use with Grants.gov. However, these web browsers undergo frequent changes and updates so it is recommended you have the latest version when using Grants.gov. Legacy versions of these web browsers may be functional, but you may experience issues.

For additional information or updates, please see the Grants.gov Browser Information in the Applicant FAQs.

3. Software Requirements
Grants.gov recommends using Adobe Acrobat Reader for Windows or MAC OS. Grants.gov has an Adobe Software Compatibility page http://www.grants.gov/web/grants/applicants/adobe-software-compatibility.html where you can download the appropriate version of Adobe if needed.

4. Attaching Files
You must attach **read-only, flattened .PDF files** to the forms in the application package (see Part V.D).

- PDF files are the only approved file type accepted by the Department of Education as detailed in the Federal Register application notice. Applicants must submit individual .PDF files only when attaching files to their application. Specifically, the Department will not accept any attachments that contain files within a file, such as PDF Portfolio files, or an interactive or fillable .PDF file. Any attachments uploaded that are not .PDF files or are password protected files will not be read.

- Grants.gov cannot process an application that includes two or more files that have the same name within a grant submission. Therefore, each file uploaded to your application package should have a unique file name.

- When attaching files, applicants should follow the guidelines established by Grants.gov on the size and content of file names. Uploaded file names must be fewer than 50 characters, and, in general, applicants should not use any special characters. However, Grants.gov does allow for the following UTF-8 characters when naming your attachments: A-Z, a-z, 0-9, underscore, hyphen, space, period, parenthesis, curly braces, square brackets, ampersand, tilde, exclamation point, comma, semi colon, apostrophe, at sign, number sign, dollar sign, percent sign, plus sign, and equal sign. Applications submitted that do not comply with the Grants.gov guidelines will be rejected at Grants.gov and not forwarded to the Department.

- Applicants should limit the size of their file attachments. Documents submitted that contain graphics and/or scanned material often greatly increase the size of the file attachments and can result in difficulties opening the files. For reference, the average discretionary grant application package with all attachments is less than 5 MB. Therefore, you may want to check the total size of your package before submission.

F. REQUIRED RESEARCH & RELATED (R&R) FORMS AND OTHER FORMS

You must complete and submit the R&R forms described below. In Workspace, you can complete these forms online or the individual PDF forms can be downloaded and saved to your local device storage, network drive(s), or external drives, then accessed through Adobe Reader.

Note: Although not required fields, Items 4a (Federal Identifier) and b (Agency Routing Number) on the Application for Federal Assistance SF 424 (R&R) form provide critical information to the Institute and should be filled out for an application to this research grant competition.

1. Application for Federal Assistance SF 424 (R&R)

This form asks for general information about the applicant, including but not limited to the following: contact information; an Employer Identification Number (EIN); a DUNS number; a descriptive title for the project; an indication of the R&D Center topic; Principal Investigator contact information; start and end dates for the project; congressional district; total estimated project funding; and Authorized Representative contact information.

Because information on this form populates selected fields on some of the other forms described below, you should complete this form first. This form allows you to attach a cover letter; however, the Institute does not require a cover letter so you should not attach one here.

Provide the requested information using the drop down menus when available. Guidance for completing selected items follows.

- Item 1

  Type of Submission. Select either "Application" or "Changed/Corrected Application." "Changed/Corrected Application" should only be selected in the event that you need to submit an updated version of an already submitted application (e.g., you realized you left something out of

the first application submitted). The Institute does not require pre-applications for its grant competitions.

- Item 2

  Date Submitted. Enter the date the application is submitted to the Institute.

  Applicant Identifier. Leave this blank.

- Item 3

  Date Received by State and State Application Identifier. Leave these items blank.

- Item 4

  Note: This item provides important information that is used by the Institute to screen applications for responsiveness to the competition requirements and for assignment to the appropriate scientific peer review panel. **It is critical that you complete this information completely and accurately or the application may be rejected as nonresponsive or assigned inaccurately for scientific review of merit.**

  o   Item 4a: Federal Identifier. **Enter information in this field if this is a Resubmission**. If this application is a revision of an application that was submitted to an Institute grant competition in a prior fiscal year (e.g., FY 2018) that received reviewer feedback, then this application is considered a "Resubmission" (see Item 8 Type of Application). You should **enter the PR/Award number that was assigned to the prior submission (e.g., R305XXXXXXX) in this field.**

  o   Item 4b: Agency Routing Number. **Enter the code for the topic that the application addresses in this field**. Applications to the Education Research and Development Center (CFDA 84.305C) program must be submitted to a particular topic (see Part III: R&D Center Topic Requirements for additional information).

Topic	Code
Improving Rural Education	NCER-Rural
Writing in Secondary Schools	NCER-Writing

  It is critical that you use the appropriate code in this field and that the code shown in this field agrees with the information included in the application abstract. Indicating the correct code facilitates the appropriate processing and review of the application. Failure to do so may result in delays to processing and puts your application at risk for being identified as nonresponsive and not considered for further review.

  o   Item 4c: Previous Grants.gov Tracking ID. If you are submitting a "Changed/Corrected" application (see Item 1) to correct an error, enter the Grants.gov Tracking Number associated with the application that was already submitted through Grants.gov. Contact the Program Officer listed on the application package and provide the Grants.gov tracking numbers associated with both applications (the one with the error and the one that has been corrected) to ensure that the corrected application is reviewed.

- Item 5

    Applicant Information. Enter all of the information requested, including the legal name of the applicant, the name of the primary organizational unit (e.g., school, department, division, etc.) that will undertake the activity, and the address, including the county and the 9-digit ZIP/Postal Code of the primary performance site (i.e., the Applicant institution) location. This field is required if the Project Performance Site is located in the United States. The field for "Country" is pre-populated with "USA: UNITED STATES." For applicants located in another country, contact the Program Officer (see Part III: R&D Center Topic Requirements or the list of Program Officers in Part VI.I) before submitting the application. Use the drop down menus where they are provided.

    Organizational DUNS. Enter the DUNS or DUNS+4 number of the applicant organization. A **Data Universal Numbering System (DUNS)** number is a unique 9-character identification number provided by the commercial company Dun & Bradstreet (D&B) to identify organizations. If your institution does not have a DUNS number and therefore needs to register for one, a DUNS number can be obtained through the Dun & Bradstreet website: http://fedgov.dnb.com/webform/displayHomePage.do.

    Note: The DUNS number provided on this form must be the same DUNS number used to register on Grants.gov (and the same as the DUNS number used when registering with the SAM). **If the DUNS number used in the application is not the same as the DUNS number used to register with Grants.gov, the application will be rejected with errors by Grants.gov.**

    Person to Be Contacted on Matters Involving this Application. Enter all of the information requested, including the name, telephone and fax numbers, and email address of the person to be contacted on matters involving this application. The role of this person is primarily for communication purposes on the budgetary aspects of the project. As an example, this may be the contact person from the applicant institution's office of sponsored projects. Use the drop down menus where they are provided.

- Item 6

    Employer Identification (EIN) or (TIN). Enter either the Employer Identification Number (EIN) or Tax Identification Number (TIN) as assigned by the Internal Revenue Service. If the applicant organization is not located in the United States, enter 44-4444444.

- Item 7

    Type of Applicant. Use the drop down menu to select the type of applicant. If Other, please specify.

    Small Business Organization Type. If "Small Business" is selected as Type of Applicant, indicate whether or not the applicant is a "Women Owned" small business – a small business that is at least 51% owned by a woman or women, who also control and operate it. Also indicate whether or not the applicant is a "Socially and Economically Disadvantaged" small business, as determined by the U.S. Small Business Administration pursuant to section 8(a) of the Small Business Act U.S.C. 637(a).

- Item 8

    Type of Application. Indicate whether the application is a "New" application or a "Resubmission" of an application that was submitted under a previous Institute competition and received

reviewer comments. Only the "New" and "Resubmission" options apply to Institute competitions. Do not select any option other than "New" or "Resubmission."

Submission to Other Agencies. Indicate whether or not this application is being submitted to another agency or agencies. If yes, indicate the name of the agency or agencies.

- Item 9

  Name of Federal Agency. Do not complete this item. The name of the federal agency to which the application is being submitted will already be entered on the form.

- Item 10

  Catalog of Federal Domestic Assistance Number. Do not complete this item. The CFDA number of the program competition to which the application is being submitted will already be entered on the form. The CFDA number can be found in the Federal Register Notice and on the face page of the Request for Applications.

- Item 11

  Descriptive Title of Applicant's Project. **Enter a distinctive, descriptive title for the R&D Center**. The maximum number of characters allowed in this item field is 200.

- Item 12

  Proposed Project Start Date and Ending Date. Enter the proposed start date of the R&D Center and the proposed end date of the R&D Center. The start date must not be earlier than January 17, 2019, which is the Earliest Anticipated Start Date listed in this Request for Applications, and must not be later than March 17, 2019. The end date is restricted based on the duration maximums for the R&D Center topic selected (see Part III: R&D Center Topic Requirements).

- Item 13

  Congressional District of Applicant. For both the applicant and the project, enter the Congressional District in this format: 2-character State Abbreviation and 3-character District Number (e.g., CA-005 for California's 5th district, CA-012 for California's 12th district). Grants.gov provides help for finding this information http://www.grants.gov/web/grants/applicants/applicant-faqs.html under "How can I find my congressional district code?" If the program/project is outside the U.S., enter 00-000.

- Item 14

  Project Director/Principal Investigator Contact Information. Enter all of the information requested for the Project Director/Principal Investigator, including position/title, name, address (including county), organizational affiliation (e.g., organization, department, division, etc.), telephone and fax numbers, and email address. Use the drop down menus where they are provided.

- Item 15

  Estimated Project Funding

- o <u>Total Federal Funds Requested</u>. Enter the total Federal funds requested for the entire project period. The total federal funds requested must not exceed the cost maximums for the topic selected (see <u>Part III</u>).

- o <u>Total Non-Federal Funds</u>. Enter the total Non-Federal funds requested for the entire project period.

- o <u>Total Federal & Non-Federal Funds</u>. Enter the total estimated funds for the entire project period, including both Federal and non-Federal funds.

- o <u>Estimated Program Income</u>. Identify any program income estimated for the project period, if applicable.

- Item 16

  <u>Is Application Subject to Review by State Executive Order 12372 Process</u>? The Institute is not soliciting applications that are subject to review by Executive Order 12372; therefore, check the box "Program is not covered by E.O. 12372" to indicate "No" for this item.

- Item 17

  This is the Authorized Organization Representative's electronic signature.

  By providing the electronic signature, the Authorized Organization Representative certifies the following:

  - o To the statements contained in the list of certifications
  - o That the statements are true, complete and accurate to the best of his/her knowledge.

  By providing the electronic signature, the Authorized Organization Representative also provides the required assurances, agrees to comply with any resulting terms if an award is accepted, and acknowledges that any false, fictitious, or fraudulent statements or claims may subject him/her to criminal, civil, or administrative penalties.

  Note: The certifications and assurances referred to here are described in <u>Part VI.F.7 Other Forms Included in the Application Package</u>).

- Item 18

  <u>SF LLL or other Explanatory Documentation</u>. Do not add the SF LLL here. A copy of the SF LLL is provided as an optional document within the application package. See <u>Part VI.F.4 Other Forms Included in the Application Package</u> to determine applicability. If it is applicable to the grant submission, choose the SF LLL from the optional document menu, complete it, and save the completed SF LLL form as part of the application package.

- Item 19

  <u>Authorized Organization Representative</u>. The Authorized Organization Representative is the official who has the authority both to legally commit the applicant to (1) accept federal funding and (2) execute the proposed project. Enter all information requested for the Authorized Organization Representative including name, title, organizational affiliation (e.g., organization, department, division, etc.), address, telephone and fax numbers, and email address of the Authorized Organization Representative. Use the drop down menus where they are provided.

Signature of Authorized Organization Representative. Leave this item blank as it is automatically completed when the application is submitted through Grants.gov.

Date Signed. Leave this item blank as the date is automatically generated when the application is submitted through Grants.gov.

- Item 20

Pre-application. Do not complete this item as the Institute does not require pre-applications for its grant competitions.

- Item 21

Cover Letter. Do not complete this item as the Institute does not require cover letters for its grant competitions.

2. Research & Related Senior/Key Person Profile (Expanded)

This form asks you to: (1) identify the Project Director/Principal Investigator and other senior and/or key persons involved in the R&D Center; (2) specify the role key staff will serve; and (3) provide contact information for each senior/key person identified. The form also requests information about the highest academic or professional degree or other credentials earned and the degree year. This form includes a "Credential/Agency Log In" box that is optional.

This form also provides the means for attaching the Biographical Sketches of senior/key personnel as PDF files. This form will allow for the attachment of a total of 40 biographical sketches: one for the project director/principal investigator and up to 39 additional sketches for senior/key staff. See Part V.D.10 Biographical Sketches of Senior/Key Personnel for information about page limitations, format requirements, and content to be included in the biographical sketches. The persons listed on this form should be the same persons listed in the Personnel section of the R&D Center Narrative. If consultants are listed there, you may include a biographical sketch for each one listed. As a reminder, the Institute strongly encourages the use of SciENcv to create IES Biosketches for grant applications to the Institute.

3. Project/Performance Site Location(s)

This form asks you to identify the primary site where project work will be performed. You must complete the information for the primary site. If a portion of the project will be performed at any other site(s), the form also asks you to identify and provide information about the additional site(s). As an example, a research proposal to an Institute competition may include the applicant institution as the primary site and one or more schools where data collection will take place as additional sites. The form permits the identification of eight project/performance site locations in total. This form requires the applicant to identify the Congressional District for each site. See above, Application for Federal Assistance SF 424 (R&R), Item 13 for information about Congressional Districts. DUNS number information is optional on this form.

4. Research & Related Other Project Information

This form asks you to provide information about any research that will be conducted involving Human Subjects, including: (1) whether human subjects are involved; (2) if human subjects are involved, whether or not the project is exempt from the human subjects regulations; (3) if the project is exempt from the regulations, an indication of the exemption number(s); and, (4) if the project is not exempt from the regulations, whether an Institutional Review Board (IRB) review is pending; and if IRB approval has been given, the date on which the project was approved; and, the Human Subject Assurance number. This form also asks you: (1) whether there is proprietary information included in the application; (2) whether the project has an actual or potential impact on the environment; (3) whether the research

site is designated or eligible to be designated as a historic place; and, (4) if the project involves activities outside the U.S., to identify the countries involved.

This form also provides the means for attaching a number of PDF files (see Part V.D PDF Attachments for information about content and recommended formatting and page lengths) including the following:

- R&D Center Summary/Abstract,

- R&D Center Narrative and Required and Optional Appendices,

- Bibliography and References Cited, and

- Research on Human Subjects Narrative.

- Item 1

  Are Human Subjects Involved? If activities involving human subjects are planned at any time during the proposed project at any performance site or collaborating institution, you must check "Yes." (You must check "Yes" even if the proposed project is exempt from Regulations for the Protection of Human Subjects.) If there are no activities involving human subjects planned at any time during the proposed project at any performance site or collaborating institution, you may check "No" and skip to Item 2.

  Is the Project Exempt from Federal Regulations? If all human subject activities are exempt from Human Subjects regulations, then you may check "Yes." You are required to answer this question if you answered "yes" to the first question "Are Human Subjects Involved?"

  If you answer "yes" to the question "Is the Project Exempt from Federal Regulations?" you are required to check the appropriate exemption number box or boxes corresponding to one or more of the exemption categories. The six categories of research that qualify for exemption from coverage by the regulations are described on the U.S. Department of Education's website http://www2.ed.gov/policy/fund/guid/humansub/overview.html. Provide an Exempt Research on Human Subjects Narrative at Item 12 of this form (see Part V.D.9 Research on Human Subjects Narrative).

  If you answer "no" to the question "Is the Project Exempt from Federal Regulations?" you will be prompted to answer questions about the Institutional Review Board (IRB) review.

  If no, is the IRB review pending? Answer either "Yes" or "No."

  If you answer "yes" because the review is pending, then leave the IRB approval date blank. If you answer "no" because the review is not pending, then you are required to enter the latest IRB approval date, if available. Therefore, you should select "No" only if a date is available for IRB approval.

  Note: IRB Approval may not be pending because you have not begun the IRB process. In this case, an IRB Approval Date will not be available. However, a date must be entered in this field if "No" is selected or the application will be rejected with errors by Grants.gov. Therefore, you should check "Yes" to the question "Is the IRB review pending?" if an IRB Approval date is not available.

  If you answer "no" to the question "Is the Project Exempt from Federal Regulations?" provide a Non-exempt Research on Human Subjects Narrative at Item 12 of this form (see Part V.D.9 Research on Human Subjects Narrative).

Human Subject Assurance Number: Leave this item blank.

- Item 2

- Are Vertebrate Animals used? Check whether or not vertebrate animals will be used in this project.

- Item 3

  Is proprietary/privileged information included in the application? Patentable ideas, trade secrets, privileged or confidential commercial or financial information, disclosure of which may harm the applicant, should be included in applications only when such information is necessary to convey an understanding of the proposed project. If the application includes such information, check "Yes" and clearly mark each line or paragraph on the pages containing the proprietary/privileged information with a legend similar to: "The following contains proprietary/privileged information that (name of applicant) requests not be released to persons outside the Government, except for purposes of review and evaluation."

- Item 4

  Does this project have an actual or potential impact on the environment? Check whether or not this project will have an actual or potential impact on the environment.

- Item 5

  Is the research site designated or eligible to be designated as a historic place? Check whether or not the research site is designated or eligible to be designated as a historic place. Explain if necessary.

- Item 6

  Does the project involve activities outside of the United States or partnerships with international collaborators? Check "Yes" or "No." If the answer is "Yes," then you need to identify the countries with which international cooperative activities are involved. An explanation of these international activities or partnerships is optional.

- Item 7

  R&D Center Summary/Abstract. Attach the R&D Center Summary/Abstract as a PDF file here. See Part V.D PDF Attachments for information about content and recommended formatting and page length for this PDF file.

- Item 8

  R&D Center Narrative. Create a single PDF file that contains the Center Narrative and Appendix A (required for resubmissions), Appendix B (optional), Appendix C (optional), Appendix D (Optional), and Appendix E (required). Attach this single PDF file here. See Part V.D PDF Attachments for information about content and recommended formatting and page length for the different components of this PDF file.

- Item 9

  <u>Bibliography and References Cited</u>. Attach the Bibliography and References Cited as a PDF file here. See <u>Part V.D.8</u> for information about content and recommended formatting and page length for this PDF file.

- Item 10.

  <u>Facilities and Other Resources</u>. The Institute does not want an attachment here. Explanatory information about facilities and other resources must be included in the Resources Section of the 35-page R&D Center Narrative for the application and may also be included in the Narrative Budget Justification. In the R&D center narrative of competitive proposals, applicants describe having access to institutional resources that adequately support research activities and access to schools in which to conduct the research. Strong applications document the availability and cooperation of the schools or other <u>authentic education settings</u> that will be required to carry out the research proposed in the application via a letter of agreement from the education organization. Include Letters of Agreement in Appendix D.

- Item 11.

  <u>Equipment</u>. The Institute does not want an attachment here. Explanatory information about equipment may be included in the Narrative Budget Justification.

- Item 12.

  <u>Other Attachments</u>. Attach a Research on Human Subjects Narrative as a PDF file here. You must attach either an Exempt Research on Human Subjects Narrative or a Non-Exempt Research on Human Subjects Narrative. See <u>Part V.D.9</u> for information about content and recommended formatting and page length for this PDF file.

  If you checked "Yes" to Item 1 of this form "Are Human Subjects Involved?" and designated an exemption number(s), then you must provide an "Exempt Research" narrative. If some or all of the planned research activities are covered by (not exempt from) the Human Subjects Regulations, then you must provide a "Non-exempt Research" narrative.

5. Research & Related Budget (Total Federal+Non-Federal)-Sections A & B; C, D, & E; F-K

This form asks you to provide detailed budget information for each year of support requested for the applicant institution (i.e., the Project Budget). The form also asks you to indicate any non-federal funds supporting the project. You should provide this budget information for each project year using all sections of the R&R Budget form. Note that the budget form has multiple sections for each budget year: A & B; C, D, & E; and F - K.

- Sections A & B ask for information about Senior/Key Persons and Other Personnel

- Sections C, D & E ask for information about Equipment, Travel, and Participant/Trainee Costs

- Sections F - K ask for information about Other Direct Costs and Indirect Costs

You must complete each of these sections for as many budget periods (i.e., project years) as you are requesting funds.

Note: The narrative budget justification for each of the project budget years must be attached at Section K of the first budget period; otherwise, you will not be able to enter budget information for subsequent project years.

Note: Budget information for a subaward(s) on the project must be entered using a separate form, the R&R Subaward Budget (Fed/Non-Fed) Attachment(s) Form, described in Part VI.F.6 This is the only form that can be used to extract the proper file format to complete subaward budget information. **The application will be rejected with errors by Grants.gov if subaward budget information is included using any other form or file format.**

Enter the Federal Funds requested for all budget line items as instructed below. If any non-Federal funds will be contributed to the project, enter the amount of those funds for the relevant budget categories in the spaces provided. Review the cost maximums for the R&D Center topic selected (see Part III R&D Center Topic Requirements).

All fields asking for total funds in this form will auto-calculate.

- Organizational DUNS.

    If you completed the SF 424 R&R Application for Federal Assistance form first, the DUNS number will be pre-populated here. Otherwise, the organizational DUNS number must be entered here.

- Budget Type.

    Check the box labeled "Project" to indicate that this is the budget requested for the primary applicant organization. If the project involves a subaward(s), you must access the R&R Subaward Budget (Fed/Non-Fed) Attachment(s) Form to complete a subaward budget (see Part VI.F.6 for instructions regarding budgets for a subaward).

- Budget Period Information.

    Enter the start date and the end date for each budget period. **Enter no more than the number of budget periods allowed for the R&D Center as determined by the Award Duration Maximums for the relevant R&D Center topic** (see Part III R&D Center Topic Requirements). Note: If you activate an extra budget period and leave it blank this may cause your application to be rejected with errors by Grants.gov.

- Budget Sections A & B

    A. Senior/Key Person. The project director/principal investigator information will be pre-populated here from the SF 424 R&R Application for Federal Assistance form if it was completed first. Then, enter all of the information requested for each of the remaining senior/key personnel, including the project role of each and the number of months each will devote to the project, i.e., calendar or academic + summer. You may enter the annual compensation (base salary – dollars) paid by the employer for each senior/key person; however, you may choose to leave this field blank. Regardless of the number of months devoted to the project, indicate only the amount of salary being requested for each budget period for each senior/key person. Enter applicable fringe benefits, if any, for each senior/key person. Enter the Federal dollars and, if applicable, the non-Federal dollars. If any personnel intend to donate time, this donated time must be listed in the budget and budget narrative and described as cost sharing. The Institute does not require or request such cost sharing nor consider it in award decisions but does require that it be documented. Personnel proposing to donate time must demonstrate that they have such time available.

B. Other Personnel. Enter all of the information requested for each project role listed – for example postdoctoral associates, graduate students, undergraduate students, secretary/clerical, etc. – including, for each project role, the number of personnel proposed and the number of months devoted to the project (calendar or academic + summer). Regardless of the number of months devoted to the project, indicate only the amount of salary/wages being requested for each project role. Enter applicable fringe benefits, if any, for each project role category. Enter the Federal dollars and, if applicable, the non-Federal dollars.

Total Salary, Wages, and Fringe Benefits (A + B). This total will auto calculate.

- Budget Sections C, D & E

C. Equipment Description. Enter all of the information requested for equipment. Equipment is defined as an item of property that has an acquisition cost of $5,000 or more (unless the applicant organization has established lower levels) and an expected service life of more than 1 year. List each item of equipment separately and justify each in the narrative budget justification. Allowable items ordinarily will be limited to research equipment and apparatus not already available for the conduct of the work. General-purpose equipment, such as a personal computer, is not eligible for support unless primarily or exclusively used in the actual conduct of scientific research. Enter the Federal dollars and, if applicable, the non-Federal dollars.

Total C. Equipment. This total will auto calculate.

D. Travel. Enter all of the information requested for Travel.

Enter the total funds requested for domestic travel. In the narrative budget justification, include the purpose, destination, dates of travel (if known), applicable per diem rates, and number of individuals for each trip. If the dates of travel are not known, specify the estimated length of the trip (e.g., 3 days). Enter the Federal dollars and, if applicable, the non-Federal dollars.

Enter the total funds requested for foreign travel. In the narrative budget justification, include the purpose, destination, dates of travel (if known), applicable per diem rates, and number of individuals for each trip. If the dates of travel are not known, specify the estimated length of the trip (e.g., 3 days). Enter the Federal dollars and, if applicable, the non-Federal dollars.

Total D. Travel Costs. This total will auto calculate.

E. Participant/Trainee Support Costs. Do not enter information here; this category is not used for project budgets for this competition.

Number of Participants/Trainees. Do not enter information here; this category is not used for project budgets for this competition.

Total E. Participants/Trainee Support Costs. Do not enter information here; this category is not used for project budgets for this competition.

- Budget Sections F-K

F. Other Direct Costs. Enter all of the information requested under the various cost categories. Enter the Federal dollars and, if applicable, the non-Federal dollars.

Materials and Supplies. Enter the total funds requested for materials and supplies. In the narrative budget justification, indicate the general categories of supplies, including an amount for each category. Categories less than $1,000 are not required to be itemized.

Publication Costs. Enter the total publication funds requested. The proposed budget may request funds for the costs of documenting, preparing, publishing or otherwise making available to others the findings and products of the work conducted under the award. In the narrative budget justification, include supporting information.

Consultant Services. Enter the total costs for all consultant services. In the narrative budget justification, identify each consultant, the services he/she will perform, total number of days, travel costs, and total estimated costs. Note: Travel costs for consultants can be included here or in Section D. Travel.

ADP/Computer Services. Enter the total funds requested for ADP/computer services. The cost of computer services, including computer-based retrieval of scientific, technical, and education information may be requested. In the narrative budget justification, include the established computer service rates at the proposing organization if applicable.

Subaward/Consortium/Contractual Costs. Enter the total funds requested for: (1) all subaward/consortium organization(s) proposed for the project and (2) any other contractual costs proposed for the project. Use the R&R Subaward Budget (Fed/Non-Fed) Attachment(s) Form to provide detailed subaward information (see Part VI.F.6).

Equipment or Facility Rental/User Fees. Enter the total funds requested for equipment or facility rental/user fees. In the narrative budget justification, identify each rental user fee and justify.

Alterations and Renovations. Leave this field blank. The Institute does not provide funds for construction costs.

Other. Describe any other direct costs in the space provided and enter the total funds requested for this "Other" category of direct costs. Use the narrative budget justification to further itemize and justify.

Total F. Other Direct Costs. This total will auto calculate.

G. Direct Costs

Total Direct Costs (A thru F). This total will auto calculate.

H.   Indirect Costs

Enter all of the information requested for Indirect Costs. Principal investigators should note that if they are requesting reimbursement for indirect costs, this information is to be completed by their Business Office.

Indirect Cost Type. Indicate the type of base (e.g., Salary & Wages, Modified Total Direct Costs, Other [explain]). In addition, indicate if the Indirect Cost type is Off-site. If more than one rate/base is involved, use separate lines for each. When calculating your expenses for research conducted in field settings, you should apply your institution's negotiated off-campus indirect cost rate, as directed by the terms of your institution's negotiated agreement with the federal government.

Institutions, both primary grantees and subawardees, not located in the territorial US cannot charge indirect costs.

If you do not have a current indirect rate(s) approved by a Federal agency, indicate "None--will negotiate". **If your institution does not have a federally negotiated indirect cost rate**, you should consult a member of the Indirect Cost Group (ICG) in the U.S. Department of Education's Office of the Chief Financial Officer http://www2.ed.gov/about/offices/list/ocfo/fipao/icgreps.html to help you estimate the indirect cost rate to put in your application.

Indirect Cost Rate (%). Indicate the most recent Indirect Cost rate(s) (also known as Facilities & Administrative Costs [F&A]) established with the cognizant Federal office, or in the case of for-profit organizations, the rate(s) established with the appropriate agency.

If your institution has a cognizant/oversight agency and your application is selected for an award, you must submit the indirect cost rate proposal to that cognizant/oversight agency office for approval.

Indirect Cost Base ($). Enter the amount of the base (dollars) for each indirect cost type. Depending on the grant program to which you are applying and/or the applicant institution's approved Indirect Cost Rate Agreement, some direct cost budget categories in the grant application budget may not be included in the base and multiplied by the indirect cost rate. Use the narrative budget justification to explain which costs are included and which costs are excluded from the base to which the indirect cost rate is applied. If your grant application is selected for an award, the Institute will request a copy of the applicant institution's approved Indirect Cost Rate Agreement.

Indirect Cost Funds Requested. Enter the funds requested (Federal dollars and, if applicable, the Non-Federal dollars) for each indirect cost type.

Total H. Indirect Costs. This total will auto calculate.

Cognizant Agency. Enter the name of the Federal agency responsible for approving the indirect cost rate(s) for the applicant. Enter the name and telephone number of the individual responsible for negotiating the indirect cost rate. If a Cognizant Agency is not known, enter "None."

I.   Total Direct and Indirect Costs

    Total Direct and Indirect Costs (G + H). This total will auto calculate.

J.   Fee.

    Do not enter a dollar amount here as you are not allowed to charge a fee on a grant or cooperative agreement.

K.   Budget Justification

    Attach the Narrative Budget Justification as a PDF file at Section K of the first budget period (see Part V.D.11) for information about content and recommended formatting and page length for this PDF file). Note that if the justification is not attached at Section K of the first budget period, you will not be able to access the form for the second budget period and all subsequent budget periods. The single narrative must provide a budget justification for each year of the R&D Center.

    <u>Cumulative Budget</u>. This section will auto calculate all cost categories for all budget periods included.

Final Note: The maximum grant duration and award for each R&D Center topic are listed in the table below.

Topic	Maximum Grant Duration	Maximum Grant Award
Improving Rural Education	5 years	$10,000,000
Writing in Secondary Schools	5 years	$5,000,000

6. R&R Subaward Budget (Fed/Non-Fed) Attachment(s) Form

This form provides the means to both extract and attach the Research & Related Budget (Total Fed + Non-Fed) form that is to be used by an institution that will hold a subaward on the grant. Please note that separate budgets are required only for subawardee/consortium organizations that perform a substantive portion of the project. As with the Primary Budget, the extracted Research & Related Budget (Total Fed + Non-Fed) form asks you to provide detailed budget information for each year of support requested for a subaward/consortium member with substantive involvement in the project. The budget form also asks for information regarding non-federal funds supporting the project at the subaward/consortium member level. You should provide this budget information for each project year using all sections of the R&R Budget form. Note that the budget form has multiple sections for each budget year: A & B; C, D, & E; and F-K.

- Sections A & B ask for information about Senior/Key Persons and Other Personnel.

- Sections C, D & E ask for information about Equipment, Travel, and Participant/Trainee Costs.

- Sections F - K ask for information about Other Direct Costs and Indirect Costs.

"Subaward/Consortium" must be selected as the Budget Type, and all sections of the budget form for each project year must be completed in accordance with the R&R (Federal/Non-Federal) Budget instructions provided above in Part VI.F.5. Note that subaward organizations are also required to provide their DUNS or DUNS+4 number.

You may extract and attach up to 10 subaward budget forms. When you use the button "Click here to extract the R&R Budget (Fed/Non-Fed) Attachment," a Research & Related Budget (Total Fed + Non-

Fed) form will open. Each institution that will hold a subaward to perform a substantive portion of the project must complete one of these forms and save it as a PDF file with the name of the subawardee organization. Once each subawardee institution has completed the form, you must attach these completed subaward budget form files to the R&R Subaward Budget (Fed/Non-Fed) Attachment(s) Form. Each subaward budget form file attached to this form must have a unique name.

Note: This R&R Subaward Budget (Fed/Non-Fed) Attachment(s) Form must be used to attach only one or more Research & Related Budget (Total Fed + Non-Fed) form(s) that have been extracted from this form. Note the form's instruction: "Click here to extract the R&R Budget (Fed/Non-Fed) Attachment". **If you attach a file format to this form that was not extracted from this attachment form your application will be rejected with errors by Grants.gov.**

7. Other Forms Included in the Application Package
You are required to submit the first two forms identified here. You are not required to submit the third form, Disclosure of Lobbying Activities – Standard Form LLL, unless it is applicable.

- SF 424B-Assurances-Non-Construction Programs.

- Grants.gov Lobbying form (formerly, ED 80-0013 form).

- Disclosure of Lobbying Activities – Standard Form LLL (if applicable).

G. SUMMARY OF REQUIRED APPLICATION CONTENT

R&R Form	Instructions Provided	Additional Information
Application for Federal Assistance SF 424 (R & R)	Part VI.F.1	Form provided in Grants.gov application package
Senior/Key Person Profile (Expanded)	Part VI.F.2	Form provided in Grants.gov application package
Project/Performance Site Location(s)	Part VI.F.3	Form provided in Grants.gov application package
Other Project Information	Part VI.F.4	Form provided in Grants.gov application package
Budget (Total Federal + Non-Federal):	Part VI.F.5	Form provided in Grants.gov application package
R&R Subaward Budget (Fed/Non-Fed) Attachment(s) Form	Part VI.F.6	Form provided in Grants.gov application package. Use this form to *extract and attach* a subaward budget(s).
SF 424B Assurances – Non-Construction Programs Grants.gov Lobbying form Disclosure of Lobby Activities – Standard Form LLL	Part VI.F.7	Forms provided in Grants.gov application package
R&D Center Summary/Abstract	Part V.D.1	Add as an attachment (PDF file) using Item 7 of the "Other Project Information" form
R&D Center Narrative and Appendices • Narrative • Appendix A • Appendix B • Appendix C • Appendix D • Appendix E	Part V.D.2-7	The R&D Center Narrative, Appendix A (required for resubmissions), Appendix B, Appendix C, Appendix D, and Appendix E (required for all applications) must ALL be included together in one PDF file and attached at Item 8 of the "Other Project Information" form.
Bibliography and References Cited	Part V.D.8	Add as an attachment (PDF file) using Item 9 of the "Other Project Information" form.
Research on Human Subjects Narrative, if applicable	Part V.D.9	Add as an attachment (PDF file) using Item 12 of the "Other Project Information" form.
Biographical Sketches of Senior/Key Personnel (including Current and Pending Support)	Part V.D.10	Add each as a separate attachment (PDF file) using the "Senior/Key Person Profile (Expanded)" form.
Narrative Budget Justification	Part V.D.11	Add as an attachment (PDF file) using *Section K – Budget Period 1* of the "Budget (Total Federal + Non-Federal)" form.

H. APPLICATION CHECKLIST

	Have each of the following forms been completed?
	SF 424 Application for Federal Assistance
	For item 4a, is the PR/Award number entered if this is a Resubmission following the instructions in Part VI.F.1?
	For item 4b, is the correct topic code included following the instructions in Part VI.F.1?
	For item 8, is the Type of Application appropriately marked as either "New" or "Resubmission" following the instructions in Part VI.F.1?
	Senior/Key Person Profile (Expanded)
	Project/Performance Site Location(s)
	Other Project Information
	Budget (Total Federal + Non-Federal): Sections A & B; Sections C, D, & E; Sections F - K
	R&R Subaward Budget (Federal/Non-Federal) Attachment(s) form (if applicable)
	SF 424B Assurances – Non-Construction Programs
	Grants.gov Lobbying form (formerly ED 80-0013 form)
	Disclosure of Lobby Activities – Standard Form LLL (if applicable)
	Have each of the following items been attached as PDF files in the correct place?
	R&D Center Summary/Abstract, using Item 7 of the "Other Project Information" form
	R&D Center Narrative, and where applicable, Appendix A (required for resubmissions), Appendix B (optional), Appendix C (optional), Appendix D (optional), and Appendix E (required) as a single file using Item 8 of the "Other Project Information" form
	Bibliography and References Cited, using Item 9 of the "Other Project Information" form
	Research on Human Subjects Narrative, either the Exempt Research Narrative or the Non-exempt Research Narrative, using Item 12 of the "Other Project Information" form
	Biographical Sketches of Senior/Key Personnel, using "Attach Biographical Sketch" of the "Senior/Key Person Profile (Expanded)" form, including Current and Pending Support
	Narrative Budget Justification, using Section K – Budget Period 1 of the "Budget (Total Federal + Non-Federal" form
	Budget (Total Federal + Non-Federal): Sections A & B; Sections C, D, & E; Sections F – K for the Subaward(s), using the "R&R Subaward Budget (Federal/Non-Federal) Attachment(s)" form, as appropriate, that conforms to the Award Duration and Budget maximums for the R&D Center
	Have the following actions been completed?
	The correct PDF files are attached to the proper forms in the Grants.gov application package
	The "Check Package for Errors" button at the top of the grant application package has been used to identify errors or missing required information that prevents an application from being processed
	The "Track My Application" link has been used to verify that the upload was fully completed and that the application was processed and validated successfully by Grants.gov before 4:30:00 p.m. Eastern Time on the deadline date

I. PROGRAM OFFICER CONTACT INFORMATION

Please contact the Institute's Program Officers with any questions you may have about your application. Program Officers function as knowledgeable colleagues who can provide substantive feedback on your research idea, including reading a draft of your R&D Center narrative. Program Officers can also help you with any questions you may have about the content and preparation of PDF file attachments. However, any questions you have about individual forms within the application package and electronic submission of your application through Grants.gov should be directed first to the Grants.gov Support Center at support@grants.gov, http://www.grants.gov/web/grants/support.html), or call 1-800-518-4726. The Program Officers for this competition are:

Improving Rural Education

Dr. Corinne Alfeld   Dr. Allen Ruby
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Writing in Secondary Schools

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GLOSSARY

Assessment: The wide range of measurement tools used to support teaching, learning, and organizing systems at the student, classroom, school, district, state, or federal level to improve student education outcomes (e.g., academic tests, behavioral measures, observational tools, informal assessments, and school quality indicators), and to support education research.

Authentic education setting: Proposed research must be relevant to education in the United States and must address factors under the control of the U.S. education system (be it at the national, state, local, and/or school level). To help ensure such relevance, the Institute requires researchers to work within or with data from authentic education settings. The Institute permits a limited amount of laboratory research if it is carried out in addition to work within or with data from authentic education settings, but will not fund any projects that are exclusively based in laboratories.

The Institute defines authentic education settings by education level:

- Authentic K-12 Education Settings

  o Schools and alternative school settings (e.g., alternative schools or juvenile justice settings)

  o School systems (e.g., local education agencies or state education agencies)

  o Settings that deliver direct education services (as defined in the Elementary and Secondary Education Act of 1965, as amended by the Every Student Succeeds Act of 2015 http://www2.ed.gov/policy/elsec/leg/esea02/index.html)

  o Career and Technical Education Centers affiliated with schools or school systems

- Authentic Postsecondary Education Settings

  o 2-year and 4-year colleges and universities that have education programs leading to occupational certificates, associate's degrees and/or bachelor's degrees

  o Career and Technical Education Centers/Colleges that lead to occupational certificates or associate's or bachelor's degrees

Compliant: The part of the process of screening applications for acceptance for review that focuses on adherence to the application rules (e.g., completion of all parts of the application).

Concurrent validity evidence: Evidence that indicates how accurately scores can predict criterion scores that are obtained at a similar time. A form of validity evidence based on relations to other variables.

Convergent validity evidence: "Evidence based on the relationship between test scores and other measures of the same or related construct" (AERA, 2014).). A form of validity evidence based on relations to other variables.

Construct: "The concept or the characteristic that an assessment is designed to measure" (AERA, 2014).

Construct coverage: The degree to which an assessment measures the full range of skills, abilities, and/or content needed to adequately represent the target construct.

Development process: The process used to develop and/or refine an intervention.

Differential item functioning (DIF): "For a particular item in a test, a statistical indicator of the extent to which different groups of test takers who are at the same ability level have different frequencies of correct responses or, in some cases, different rates of choosing various item options" (AERA, 2014).

Discriminant validity evidence: "Evidence indicating whether two tests interpreted as measures of different constructs are sufficiently independent (uncorrelated) and that they do, in fact, measure two distinct constructs" (AERA, 2014). A form of validity evidence based on relations to other variables.

Effectiveness study: The independent evaluation of a fully developed education intervention with prior evidence of efficacy to determine whether it produces a beneficial impact on student education outcomes relative to a counterfactual when implemented under routine practice in authentic education settings.

Effectiveness follow-up study: Studies that follow students who took part in an Effectiveness study as they enter later grades (or different authentic education settings) in which they do not continue to receive the intervention in order to determine if the beneficial effects are maintained in succeeding time periods.

Efficacy study: A study that tests an intervention's beneficial impacts on student education outcomes in comparison to an alternative practice, program, or policy.

Efficacy follow-up study: An efficacy study that tests the longer-term impacts of an intervention that has been shown to have beneficial impacts on student education outcomes in a previous or ongoing efficacy study.

End user: The person intended to be responsible for the implementation of the intervention. Evaluations should test an intervention implemented by the end user.

Feasibility: The extent to which the intervention can be implemented within the requirements and constraints of an authentic education setting.

Fidelity of implementation: The extent to which the intervention is being delivered as it was designed to be by end users in an authentic education setting.

Final manuscript: The author's final version of a manuscript accepted for publication that includes all modifications from the scientific peer review process.

Final research data: The recorded factual materials commonly accepted in the scientific community as necessary to document and support research findings. For most studies, an electronic file will constitute the final research data. This dataset will include both raw data and derived variables, which will be fully described in accompanying documentation. Researchers are expected to take appropriate precautions to protect the privacy of human subjects. Note that final research data does not mean summary statistics or tables but, rather, the factual information on which summary statistics and tables are based. Final research data do not include laboratory notebooks, preliminary analyses, drafts of scientific papers, plans for future research, peer reviewed reports, or communications with colleagues.

Horizontal equating: Putting two or more assessments that are considered interchangeable on a common scale.

Ideal conditions: Conditions that provide a more controlled setting under which the intervention may be more likely to have beneficial impacts. For example, ideal conditions can include more implementation support than would be provided under routine practice in order to ensure adequate fidelity of implementation. Ideal conditions can also include a more homogeneous sample of students, teachers, schools, and/or districts than would be expected under routine practice in order to reduce other sources of variation that may contribute to outcomes.

Independent Evaluation: An evaluation carried out by individuals who did not and do not participate in the development or distribution of the intervention and have no financial interest in the outcome of the evaluation.

Intervention: The wide range of education curricula; instructional approaches; professional development; technology; and practices, programs, and policies that are implemented at the student-, classroom-, school-, district-, state-, or federal-level to improve student education outcomes.

Laboratory research: An approach to research that allows for careful control of extraneous factors (e.g., by conducting research in a more controlled environment or with a more controlled situation than would be expected in authentic education settings). Laboratory research may be conducted in a laboratory or in an authentic education setting.

Malleable factors: Things that can be changed by the education system to improve student education outcomes.

Mediators: Factors through which the relationship between the intervention and student education outcomes occurs (e.g., many interventions aimed at changing individual student education outcomes work through changing teacher behavior, student peer behavior, and/or student behavior).

Moderators: Factors that affect the strength or the direction of the relationship between the intervention and student education outcomes (e.g., an intervention's impacts may differ by such student characteristics as achievement level, motivation, or social-economic status; and by organizational or contextual factors, such as school size or neighborhood characteristics).

Pilot study: A study designed to provide evidence of the promise of the fully developed intervention for achieving its intended outcomes when it is implemented in an authentic education setting. A pilot study differs from studies conducted during the development process. The latter are designed to inform the iterative development process (e.g., by identifying areas of further development, testing individual components of the intervention); therefore, they are expected to lead to further development and revision of the intervention. The pilot study is designed to help determine whether a finalized version of the intervention performs as expected. Depending on the results, pilot studies may lead to further development of the intervention, or they may lead to a rigorous evaluation of the intervention.

Predictive validity evidence: "Evidence indicating how accurately test data collected at one time can predict criterion scores that are obtained at a later time" (AERA, 2014). A form of validity evidence based on relations to other variables.

Reliability: The stability or dependability of measures when taken over repeated applications.

Replication study: An additional study of an intervention that has been shown to have beneficial impacts on student education outcomes in a previous efficacy study, and which is designed to generate additional evidence that the intervention improves student education outcomes.

<u>Responsive</u>: The part of the process of screening applications for acceptance for review. This screening includes making sure applications (1) are submitted to the correct competition and/or topic and (2) meet the basic requirements set out in the Request for Applications.

<u>Retrospective study</u>: An efficacy study that analyzes retrospective (historical) secondary data to test an intervention implemented in the past, and, that as a result, may not be able meet the requirements for Efficacy/Replication projects regarding fidelity of implementation of the intervention and comparison group practice.

<u>Routine conditions</u>: Conditions under which an intervention is implemented that reflect (1) the everyday practice occurring in classrooms, schools, and districts; (2) the heterogeneity of the target population; and (3) typical or standard implementation support.

<u>Student education outcomes</u>: The outcomes to be changed by the intervention. The intervention may be expected to directly affect these outcomes or indirectly affect them through intermediate student or instructional personnel outcomes. There are two types of student education outcomes. The topic you choose will determine the types of student education outcomes you can study.

- <u>Student academic outcomes</u>: The Institute supports research on a diverse set of student academic outcomes that fall under two categories. The first category includes academic outcomes that reflect learning and achievement in the core academic content areas (e.g., measures of understanding and achievement in reading, writing, math, and science). The second category includes academic outcomes that reflect students' successful progression through the education system (e.g., course and grade completion and retention in grade K through 12; high school graduation and dropout; postsecondary enrollment, progress, and completion).

- <u>Social and behavioral competencies</u>: Social skills, attitudes, and behaviors that may be important to students' academic and post-academic success.

- <u>Employment and earnings outcomes</u>: Long-term, post-school student outcomes that include indicators such as hours of employment, job stability, wages and benefits.

<u>Theory of change</u>: The underlying process through which key components of a specific intervention are expected to lead to the desired student education outcomes. A theory of change should be specific enough to guide the design of the evaluation (e.g., selecting an appropriate sample, measures and comparison condition).

<u>Usability</u>: The extent to which the intended user understands or can learn how to use the intervention effectively and efficiently, is physically able to use the intervention, and is willing to use the intervention.

<u>Validity</u>: The degree to which a measure provides a true indication of whatever it is intended to represent.

<u>Vertical equating</u>: Putting two or more assessments that are considered to measure the same construct across different levels of development on a common scale.

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ALLOWABLE EXCEPTIONS TO ELECTRONIC SUBMISSIONS

You may qualify for an exception to the electronic submission requirement and submit an application in paper format if you are unable to submit the application through the Grants.gov system because: (a) you do not have access to the Internet; or (b) you do not have the capacity to upload large documents to the Grants.gov system; and (c) no later than 2 weeks before the application deadline date (14 calendar days or, if the fourteenth calendar date before the application deadline date falls on a Federal holiday, the next business day following the Federal holiday), you mail or fax a written statement to the Institute explaining which of the two grounds for an exception prevents you from using the Internet to submit the application. If you mail the written statement to the Institute, it must be postmarked no later than 2 weeks before the application deadline date. If you fax the written statement to the Institute, the faxed statement must be received no later than 2 weeks before the application deadline date. The written statement should be addressed and mailed to:

Ellie Pelaez, Office of Administration and Policy
Institute of Education Sciences, U.S. Department of Education
550 12th Street, S.W., Potomac Center Plaza - Room 4126
Washington, DC 20202
Fax: 202-245-6752

If you request and qualify for an exception to the electronic submission requirement you may submit an application via mail, commercial carrier or hand delivery. To submit an application by mail, mail the original and two copies of the application on or before the deadline date to:

U.S. Department of Education
Application Control Center, Attention: CFDA# (84.305A)
400 Maryland Avenue, S.W., LBJ Basement Level 1
Washington, DC 20202 – 4260

You must show one of the following as proof of mailing: (a) a legibly dated U.S. Postal Service Postmark; (b) a legible mail receipt with the date of mailing stamped by the U.S. Postal Service; (c) a dated shipping label, invoice, or receipt from a commercial carrier; or (d) any other proof of mailing acceptable to the U.S. Secretary of Education (a private metered postmark or a mail receipt that is not dated by the U.S. Postal Services will not be accepted by the Institute). Note that the U.S. Postal Service does not uniformly provide a dated postmark. Before relying on this method, you should check with your local post office. If your application is postmarked after the application deadline date, the Institute will not consider your application. The Application Control Center will mail you a notification of receipt of the grant application. If this notification is not received within 15 business days from the application deadline date, call the U.S. Department of Education Application Control Center at (202) 245-6288.

To submit an application by hand, you or your courier must hand deliver the original and two copies of the application by 4:30:00 p.m. (Eastern Time) on or before the deadline date to:

U.S. Department of Education
Application Control Center, Attention: CFDA# (84.305A)
550 12th Street, S.W., Potomac Center Plaza - Room 7039
Washington, DC 20202 – 4260

The Application Control Center accepts application deliveries daily between 8:00 a.m. and 4:30 p.m. (Eastern Time) except Saturdays, Sundays and Federal holidays.