



# Institute of Education Sciences Funding Opportunities Webinar Series

Overview of Education Research and  
Development Centers (84.305C)

**Webinar Transcript**

June 25, 2013

U.S. Department of Education

**:ies** INSTITUTE OF  
EDUCATION SCIENCES

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# **IES Funding Opportunities Webinar Series Overview of Education Research and Development Centers (84.305C)**

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Institute of Education Sciences**

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## **Slide 1**

The Institute of Education Sciences (IES) research and development (R&D) centers are charged with contributing to the production and dissemination of rigorous research and providing national leadership on a specific education topic. For fiscal year (FY) 2014, the National Center for Education Research (NCER) will be competing two R&D centers, specifically on Developmental Education Assessment and Instruction, and on Knowledge Utilization.

This is Becky McGill-Wilkinson. Thanks so much for attending today. We are going to cover the requirements for the NCER's R&D centers competition for FY 2014.

## **Slide 2**

To begin, I will start with a brief overview of IES and the research that we fund. Then I will discuss the R&D centers specifically. In 2014, NCER is competing two centers: the National Center on Developmental Education Assessment and Instruction, and the Research and Development Center on Knowledge Utilization. I will finish with general requirements for the application submission and briefly discuss the deadline for the competition and the notification system for applicants.

## **Slide 3**

IES was created in 2002 to describe the condition and progress of education in the United States, to identify educational practices that improve academic achievement and access to educational opportunities, and to evaluate the effectiveness of federal and other education programs.

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## Slide 4

This is the organizational structure of IES (on the slide). You will see that under the Office of the Director there are four centers at IES: the two that are in blue—NCER and the National Center for Special Education Research (NCSEER)—are the two research centers. The competition that we are holding in 2014 for the R&D centers is through NCER.

## Slide 5

The two research centers have similar missions, which are to support and sponsor rigorous research that addresses education needs. NCSEER supports research designed to expand the knowledge and the understanding of individuals with, or at risk for, disabilities.

## Slide 6

In general, the IES grant programs have a number of research objectives, and these are largely to develop and identify what works in education, to identify what does not work in education, and to understand the processes and variation in processes in education—in other words, why something works or does not work, and why it works or does not work for certain individuals in certain contexts.

## Slide 7

For 2014, we are competing a number of research and research training grant programs. Today, as you already know, we will be discussing the education R&D centers.

## Slide 8

In terms of total investment through NCER by competition, the national R&D centers are the second largest total investment made by NCER. We have funded 20 centers with a total of more than \$200 million. On average, these awards are larger than the education research awards, which are the field-initiated research grants.

## Slide 9

In terms of the R&D centers specifically, the purpose of an R&D center is to contribute to solve a U.S. education problem; improve the education system; and increase student achievement through a combination of research, development, evaluation, and national leadership on the topic of the center.

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## Slide 10

R&D centers, regardless of topic, have three main components. First is the focused program of research which is meant to contribute to the solution of a problem and generate new theories and knowledge. Second, R&D centers provide relatively rapid research and scholarships on supplemental questions that emerge from the center's topic area and that are not being adequately addressed elsewhere. This is done through the supplemental studies, which we will go over in more detail a little bit later. Third, R&D centers provide national leadership and outreach through a variety of mechanisms to a variety of stakeholders, including researchers, practitioners, and policymakers. Again, we will talk more about that in a moment.

## Slide 11

IES is grounded in the belief that effective education research must directly address the needs and interests of practitioners and policymakers, as well as students, parents, and community members. Thus, IES encourages partnerships with stakeholder groups in order to increase relevance, accessibility, and usability of the work.

## Slide 12

The first center that we are competing in FY 2014 is the National Center on Developmental Education Assessment and Instruction.

## Slide 13

The purpose of this center is to produce research that documents current developmental education practices, identify promising programs, support innovation, and evaluate programs that serve a large number of students or that can be expanded to serve a large number of students. Assessment of scalability of programs is an important part of the evaluation of a program. Additionally, the purpose of this center is to bring together policymakers, practitioners, and researchers and to assist states and postsecondary institutions in bringing effective models of developmental education to scale.

## Slide 14

In the United States today, many students begin their postsecondary career, especially in community colleges and open-access 4-year institutions, by having to take developmental or remedial reading, writing, or math courses before they can accumulate credits toward a degree. Data from the National Center for Education Statistics shows that 42 percent of first-year community college students and 39 percent of first-year students in nondoctoral, public 4-year institutions took at least one

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developmental education course. Further, many students are required to take multiple developmental education courses. Additionally, some subgroups are overrepresented in developmental education, including racial and ethnic minority students, especially Black and Latino students, and older students (those who are 24 years of age and over).

### **Slide 15**

Research on developmental education suggests that the tests and other practices that are used to place students in these courses may fail to predict who will actually benefit from developmental education. Many institutions use tests such as Compass and ACCUPLACER to determine which students need developmental education courses, but these tests and assessments may not be the best method to predict who actually needs developmental education. Studies that track the progress through coursework have shown mixed results on whether these assessments are successful at predicting who needs developmental education. Some students may benefit from developmental education, but others do not. Additionally, some students may not complete their coursework, and some students assigned to developmental education may be less likely to graduate.

### **Slide 16**

There are some policy concerns associated with developmental education. There has been a decline in support for developmental education, and some believe that developmental education is more of a hindrance than a support. Furthermore, developmental education can be costly, both for taxpayers and for the student—for taxpayers, federal and state funds are devoted to developmental education; for students the cost may be through course fees and the opportunity costs of not taking classes for credit and not working. Some researchers and policymakers have suggested that placement and instruction need to be revised or replaced.

### **Slide 17**

There is ongoing work to improve developmental education. First, there has been some consideration of changing the placement procedures; some have suggested that we should replace standardized tests with other measures, for example, using a high school transcript or a college readiness indicator such as motivation or problem-solving ability. Others have suggested that a solution to improve developmental education is to identify high school students' need for developmental education early, and provide remediation during high school rather than college, or during a bridge program before college. IES has funded evaluation of these kinds of early assessment programs, and this research has suggested that early assessment programs may reduce the need for remediation for some students.

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IES has also evaluated summer bridge programs in math and English. This research has shown that these summer bridge programs have led to modest gains in developmental education courses, but didn't improve student success in college-level courses or persistence. Another solution to the problems with developmental education that has been proposed is providing additional support during college, for example, learning communities may be helpful in promoting student success.

### Slide 18

In addition to efforts to change placement procedures, some approaches seek to change how developmental education is implemented. One example includes acceleration. Some have proposed that compressing 1-year's worth of material into a shorter period of time may be a partial solution to change developmental education; also, modularization—where students complete a module of study at their own pace, so that students who start with more knowledge are able to finish sooner—has been proposed. Also, mainstreaming has been proposed; this is when developmental education students take college-level courses but are provided additional support.

Finally, replacement has been proposed—replacing conventional developmental math education with a sequence on quantitative reasoning and statistics. Two major initiatives led by the Carnegie Foundation for the Advancement of Teaching and the Charles A. Dana Center at the University of Texas at Austin are working to replace conventional developmental math in community colleges and state universities with a new curriculum focused on quantitative reasoning and statistics. That is an example of replacement.

### Slide 19

In terms of the requirements for this center, the center has a focused program of research, which must include three studies. The first is a descriptive study, which is meant to document current developmental education practices, both assessment and instruction, in use by community colleges and other open-access institutions. Additionally, you need to conduct two evaluation studies to determine if specific assessments or instructional practices lead to improved student outcomes in reading, writing, math, English language proficiency, or any combination of these. These are the outcomes that need to be included in your evaluation studies: reading, writing, math, English language proficiency, or a combination of these.

The descriptive study should begin right away, after the award has been made. One evaluation study should be planned to begin soon after, and the second evaluation study can begin later in the project award period.

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## Slide 20

The purpose of the descriptive study is to document current developmental education practices in assessment and instruction that are currently being used by community colleges and open-access institutions. Some research questions that may be included are as follows. “What are the assessment tools and practices used to assess reading, writing, and math skills of incoming students and place students in development education? Why are institutions using these particular tools and practices? What are the major strategies used to teach developmental education? Are different assessment and instructional approaches used for non-traditional students? Are the assessment and instructional approaches aligned with the Common Core State Standards?” You may, as an applicant, expand on these research questions or provide additional or alternative research questions, and you need to provide a justification for doing so.

## Slide 21

In terms of our research approach for the descriptive study, there are a variety of approaches that can be used for this, including institutional surveys, qualitative interviews, secondary data analysis, or some combination of these. If you are proposing the institutional survey, consider that your application will be stronger if it is a nationally representative sample of community colleges and open-access institutions. If your sample is not nationally representative, the application will be stronger if you focus on states or postsecondary institutions in which the evaluation studies will take place.

## Slide 22

In terms of methodological requirements, when you are writing your application, you should be sure to indicate your research questions, the population from which your sample will be selected, your measures, the plan for data analysis, and the timeline of the work for this particular study.

## Slide 23

The first evaluation study should focus on whether specific assessment and placement practices lead to improved student outcomes in reading, writing, math, English language proficiency, or a combination of these. Possible research questions include the following: “How can institutions improve on current assessment and placement practices? What are the effects of alternative assessment and placement strategies on students’ overall academic performance, persistence, and progress?” Again, you may propose expanded or modified research questions, as long as they meet the purpose and requirements of the evaluation, and you should justify your choice to change or expand on the question.

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## Slide 24

The first evaluation study is the assessment piece, and the second evaluation study is the instruction piece. The purpose of this evaluation study is to determine if specific instructional practices lead to improved student outcomes, again, in reading, writing, math, English language proficiency, or some combination of these. Possible research questions include the following: “How can institutions prepare students for college-level courses in the shortest amount of time? What are the impacts of different instructional approaches on student learning, overall academic performance, persistence, and progress?” Again, you may propose expanded or modified research questions, as long as they meet the purpose and requirements of the evaluation, and you should justify your choice to change those questions.

## Slide 25

Both of the evaluation studies have the same methodological requirements. Again, you should address your specific research questions. You should indicate the sample and the setting in which you will be conducting the studies. You should propose an appropriate research design that meets What Works Clearinghouse standards. You need to include a power analysis. You also need to include a variety of measures, including proximal and distal outcomes, which are student outcomes in reading, writing, math, English language proficiency, or some combination of these. You also need to have measures of fidelity of implementation and measures of comparison group practices.

## Slide 26

You should discuss any moderators or mediators that you are including in the study. You need to have a plan to analyze implementation fidelity and comparison group practices. Your data analysis plan should include an analysis of overall impacts and also subgroup impacts; for example, nontraditional students versus traditional students, or students taking more versus fewer developmental education courses. There are other options for subgroup impacts, but you do need to include a plan for analyzing some of the subgroup impacts. You should include issues of scalability, including cost benefits of the program being evaluated, and you should include a timeline for each study.

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## Slide 27

In addition to the focused program of research, the R&D center also conducts supplemental studies. These are smaller research projects that can usually be completed within 9 to 12 months and may include exploratory research, piloting of innovations, or further development of innovations. The Center will work cooperatively with the Institute to select and design these supplemental studies. However, in your application you must provide two examples of supplemental studies, including a short rationale and a brief description of the research approach for each of the examples you provide—two to three paragraphs each.

## Slide 28

In terms of leadership and outreach, the Center will work with the Institute on its leadership and outreach activities. These may include activities such as convening policymakers, practitioners, and researchers; and assisting efforts by states, colleges, and universities to bring effective models to scale. The Institute encourages a Center website, webinars, podcasts, and other innovative uses of technology. Some of our centers, for example, host conferences either on their own or they coordinate with another national conference. Some provide issue briefs or training opportunities, such as workshops or seminars for doctoral and postdoctoral students. Some of the centers invite visiting scholars to be speakers or to teach seminars at their center. Those are just some examples. You should describe at least two examples of leadership and outreach activities in your application.

## Slide 29

The Significance section of the Research Narrative actually goes at the beginning of the Research Narrative. You should discuss your vision for the center, what problems you intend to address, and how your set of research and leadership activities will work together to help students in developmental education. You also want to address how the research will be relevant to community colleges and open-access 4-year institutions. You should also describe any active partnerships with states or postsecondary systems and their role in the work that you will be conducting. For example, some of our centers have had national or state organizations on their advisory boards, and this is a way that their partnership is reflected in the work that the center conducts.

## Slide 30

The Institute will award a maximum of one award for the R&D center on developmental education assessment and instruction. The maximum award is 5 years and \$10 million dollars. The focused program of research must comprise at least 75 percent of the total budget.

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### Slide 31

Now we will move on to the Research and Development Center on Knowledge Utilization.

### Slide 32

The purpose of this center is to develop tools for measuring research use, to identify conditions and contexts that promote or inhibit research use, and to identify or evaluate strategies researchers can use to make their work more meaningful and impactful on education practice. Additionally, this center will provide leadership and outreach on effective means of knowledge transfer to improve school performance and student outcomes.

### Slide 33

In terms of background for the knowledge utilization center, there is an accumulation of high-quality research and evaluation on the impact of educational policies and interventions. For example, the What Works Clearinghouse maintains a registry of almost 400 studies that meet standards for research and show evidence of efficacy. However, there is concern that this work is not being used by practitioners. Not only is there concern that practitioners may not be using interventions that are beneficial but also that practitioners may be using interventions that research has shown have either null or adverse effects.

### Slide 34

There are some potential reasons why research is not used by practitioners. For example, it may be a misalignment between research questions or policy questions and practitioner's concerns. Researchers may ask, "Does this intervention work?" However, practitioners may be more concerned with "How do I implement this particular intervention with my specific students in my school context?" There also may be an aspect of misunderstanding the social context of practitioners. Research use is a multi-level phenomenon. Teachers make decisions about what instructional practices to use in their classroom, but at the same time principals and district leaders make decisions about instructional practices, curricula, et cetera.

It may be important to understand the social context of these different levels. For instance, teachers may be more willing to listen to what their fellow teachers say in terms of instructional practices than to listen to a district leader who tells them that they need to use a specific curriculum. An understanding of the social network within a school, and within and between levels of this multi-level phenomenon, is important.

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We also may need new ways of thinking about how researchers work with practitioners. Partnerships may be important. By partnerships, we mean a bidirectional model where researchers not only communicate information to practitioners, but practitioners also communicate information to researchers. Intermediary organizations may also play an important role in facilitating partnerships between researchers and practitioners.

### **Slide 35**

The program of research needs to include three studies. The first is a measurement study, which is meant to develop and validate tools for observing and measuring research use in schools and school districts. This question is based mainly on the idea that we may not have a good idea of how research is actually in use in schools already. The other two studies can either be two descriptive studies, or one descriptive study and one evaluation or pilot study. I will talk more about the different options for that in a moment. The point of those sets of studies is to identify the conditions under which research is used and the factors that promote or inhibit research use in schools and districts. The second study should identify or evaluate the skills and strategies researchers can adopt to make their work more meaningful and have a greater impact on practice.

### **Slide 36**

For the measurement study, possible research questions include the following. “What are the most reliable and valid indicators of school staff using education research in their decisionmaking? What are the most reliable and valid approaches to capture variation in research use across schools, school districts, and over time?” Applicants may decide to expand or add additional research questions, and should provide justification for doing so.

### **Slide 37**

In terms of the methodological requirements for the measurement study, you should include a conceptual framework to provide a basis for the decisions you are making about assessment. You should include a description of the sample and the settings, as well as the characteristics, size, and analytic adequacy of the sample. You should describe methods for developing and validating the tools or measures, as well as methods for gathering psychometric evidence. You should address the appropriateness of the tools for the end users and the need for adaptation for different contexts and purposes. Finally, you should include a timeline for the measurement study.

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### Slide 38

The first descriptive study's purpose is to identify the conditions under which research is used, and the factors that promote or inhibit research use in schools and districts. Possible research questions follow. "What role do state and local education agencies play in making research available to school administrators, faculty, and staff? What role do school leaders play? How do education agencies, school leaders, and teachers obtain and process scientific information? How do social networks within schools and school districts support or hinder research? What are the major incentives or disincentives for practitioners to better understand and apply research? What contextual factors seem to affect the use of research in schools and districts?" Contextual factors may include political climate, administrative structures, hiring and tenure policies, et cetera. Again, you may expand or add additional research questions and should provide justification for doing so.

### Slide 39

The second descriptive study should identify or evaluate the skills and strategies researchers can adopt to make their work more meaningful and have a greater impact on practice. As a descriptive study, your research questions may include the following. "Are partnerships between researchers and practitioners associated with greater research use? Are intermediaries associated with greater research use? What communication strategies or technological innovations are associated with greater research use?" Again, you may expand or add additional research questions and should provide justification for doing so.

### Slide 40

You need to do the first descriptive study on the contexts and conditions of research use. Instead of focusing the second descriptive study on the skills and strategies researchers can use, you may instead propose an evaluation or pilot study in lieu of the second descriptive study. In this case, you may conduct a rigorous evaluation of the impact of a particular practice on research use, or you may conduct a pilot study to show promise of a particular practice.

### Slide 41

These descriptive studies have methodological requirements that include a discussion of the research questions and a description of the population from which you will select your sample. The Institute encourages you to select two or more research sites for the descriptive study. You should include a description of your measures, a plan for data analysis, and a timeline.

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## Slide 42

Should you decide to conduct an evaluation study or a pilot study instead of the second descriptive study, you may do so, and we do have methodological requirements for that. Again, you should discuss your research questions. You should describe the sample and the setting. You should also propose an appropriate research design. If you are doing an evaluation study, the design should meet the What Works Clearinghouse standards. You need to include a power analysis. You also should include measures, which include proximal and distal outcomes, fidelity of implementation, and comparison group practices.

## Slide 43

You should include a description of moderators or mediators, and also a plan to analyze implementation fidelity and comparison group practices. Finally, you need a data analysis plan and a timeline.

## Slide 44

In terms of leadership and outreach, the Institute encourages innovative approaches to fostering dialogue among practitioners and researchers. You may decide to take advantage of annual conferences. We also encourage you to have a website. We are open to learning how other applied social sciences encourage research use among practitioners, for example, public health may have some lessons that education researchers could learn. We do ask that you describe at least two examples of leadership and outreach activities in your application.

## Slide 45

Again, you may conduct smaller supplemental research projects. These can usually be completed within 9 to 12 months. The Center will work cooperatively with the Institute to select and design the supplemental studies; however, you must provide two examples of supplemental studies in your application, including a short rationale and brief description of the approach.

## Slide 46

In the Significance section at the start of your Research Narrative you should discuss the significance of the center you are proposing, which includes your vision for the center, what problems it is intended to address, how your set of research and leadership activities will work together to promote the use of scientific education research in schools and districts, and how you will engage researchers and practitioners in the work and communication of findings.

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## Slide 47

The knowledge utilization center has a maximum award of 5 years and \$5 million dollars. IES will make a maximum of one award. The focused program of research must comprise at least 75 percent of the total budget.

## Slide 48

Now, we are moving on to general requirements.

## Slide 49

There are additional sections of the research narrative that apply to both centers, so we are going to go over that now. You should have a 35-page Research Narrative, and you should discuss the significance, the research plan for the focused program of research, and supplemental studies. You should discuss other center activities, including leadership and outreach, management and institutional resources, and personnel. We have already discussed the significance, research plan, and leadership and outreach. Now, we will move on to the last two.

## Slide 50

In terms of management and institutional resources, you should describe your plans and procedures for the overall management of the center and its activity. If you plan to work in schools or other education delivery settings in the first year you must include letters of agreement from those educational organizations. If you have a developer or a distributor of a program or intervention who will be part of the center, you should describe that person's role and how objectivity will be maintained.

## Slide 51

For personnel, you should have personnel that have expertise in the content area of your center. You also should have personnel with methodological expertise. Your personnel should have sufficient experience working with education delivery settings, and you should also have personnel with experience relevant to national leadership. In your application you should explain why the proposed staff for the Center is qualified to fulfill that leadership role.

## Slide 52

The deadline for the center applications is September 4, 2013, at 4:30 p.m. Washington, DC time. That is 4:30 p.m. and zero seconds. The application package was posted on June 6. Note that the letter of intent (LOI) submission date has passed, but you can still apply for one of these centers. The LOIs are not required for submitting an application.

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If you did not submit a LOI, please send an e-mail describing your application to the Program Officer (which is me), in order to receive comments and feedback on your plan. The start date for your award for the Center will need to be between July 1, 2014, and September 1, 2014.

### **Slide 53**

Finally, all applicants will receive an e-mail notification that review information is available via the applicant notification system. The applicant notification system is online. You will receive e-mail notification about the status of your award and also the summary statement of the reviewer's comments. If you are not granted an award the first time, you may consider resubmitting it and talking with your Program Officer.

### **Slide 54**

If you think of questions later, please feel free to e-mail me. My e-mail address is [rebecca.mcgill@ed.gov](mailto:rebecca.mcgill@ed.gov). I am happy to reply via e-mail to any questions, or we can set up a phone call to discuss any specific questions you may have.

This concludes today's webinar, "Overview of Education Research and Development Centers (84.305C)," part of the Funding Opportunities Webinar Series. Copies of the PowerPoint presentation and a transcript from today's webinar will be available on the IES website shortly. Thank you and have a wonderful day.