

U.S. DEPARTMENT OF EDUCATION  
INSTITUTE OF EDUCATION SCIENCES

AN OVERVIEW OF THE MATHEMATICS  
RESEARCH AND DEVELOPMENT CENTER  
FUNDING OPPORTUNITIES

Washington, D.C.

P R O C E E D I N G S

1  
2 MS. ALBRO: -- Good afternoon. For those  
3 of you who haven't been to a webinar before,  
4 welcome. For those of you who have been listening  
5 to IES staff talk all week, welcome back.

6 **Slide One:**

7 The way that this is going to work is I'm going to  
8 talk through the slides that you all should have in  
9 front of you. And I'm going to talk about the  
10 requirements for the three research and development  
11 centers that we are currently competing that are  
12 focused on mathematics.

13 If people have questions, they can use the  
14 chat box and send that to us and we will see it.  
15 And I will pause at sensible times and respond to  
16 them.

17 All right? I'm going to go ahead and get  
18 going. We're starting on time because I have  
19 another obligation at 2:30.

20 **Slide Two:**

21 All right. So, what are we going to do? First  
22 what I'm going to do is talk a little bit about  
23 what documentation you need to have in order to be  
24 ready to submit the application. I'm going to talk

1 about the content that you all need to make sure is  
2 included in the project narrative. I'm going to  
3 talk a little bit about the specifics of comparing  
4 the application itself. I'm going to share with  
5 you a little bit from the reviewer's point of view  
6 and talk about submitting an application, what  
7 happens after you push that button, and just some  
8 final reminders.

9 **Slides Three and Four:**

10 So, to get started, I hope that all of you on the  
11 phone already know this, but just as a reminder  
12 there are three documents that you will need in  
13 order to both prepare your application and make the  
14 final submission. The first document, which all of  
15 you should have is the appropriate Request for  
16 Applications. Today I'm going to talk about topics  
17 and competitions that are available under two  
18 Request for Applications: one is CFDA Number  
19 84.305C, the Education Research and Development  
20 Center Program; and the other is CFDA Number  
21 84.324C, which is the Special Education Research  
22 and Development Center Program. Those RFAs will  
23 give you a good sense of the contents of the  
24 applications, the problem that the R&D Centers are

1 being asked to address, and the specific  
2 methodological requirements.

3           As you begin to shape your application and  
4 to fill in the cover sheet and other components,  
5 you will also need to have the IES Grants.gov  
6 Application Submission Guide, which walks you  
7 through the process of completing the Grants.gov  
8 documentation. That document is not currently  
9 available. It will be up on August 3rd with  
10 appropriate information for this upcoming cycle.  
11 You will also need to download the full application  
12 package from Grants.gov, and that will be available  
13 on August 3rd.

14 **Slide Five:**

15 So, just to recap then, here's where you'll find  
16 all this information. If you don't have the  
17 Request for Applications right now, you can  
18 download them from the [ies.ed.gov/funding](http://ies.ed.gov/funding) page.

19           If after you listen to this webinar you  
20 decide you're not ready to come in for this  
21 competition, but you think you might be interested  
22 for a future competition, please do make sure that  
23 you sign up for the Newsflash. I think most of you  
24 probably already know about the Newsflash, but if

1 you don't, this is a great way to get information  
2 about upcoming competitions, about awards that have  
3 been made, and new publications that are released.  
4 It's really a good resource, so I would recommend  
5 you sign up for it.

6 **Slide Six:**

7 For those of you who haven't been to our website  
8 lately, please make sure that when you look for  
9 funding you go to [ies.ed.gov](http://ies.ed.gov). You can go to the  
10 main [ed.gov](http://ed.gov) site and navigate to IES, but it's  
11 easier if you just come in right through  
12 [ies.ed.gov](http://ies.ed.gov). I've circled in red the two buttons  
13 that you can click in order to get to either the  
14 Funding Opportunities or the Newsflash pages.

15 **Slide Seven:**

16 As I said before, both the October application  
17 package and the IES Application Submission Guide  
18 will be available on August 3rd. They will both be  
19 available on [Grants.gov](http://Grants.gov). The IES Application  
20 Submission Guide will also be available on our  
21 funding page here at the Department.

22 **Slide Eight:**

23 Those of you who aren't familiar with the  
24 [Grants.gov](http://Grants.gov) portal, here's a picture.

1 **Slide Nine:**

2 All right. So what are we going to talk about  
3 today? I am going to talk specifically about the  
4 topics in these two requests for applications which  
5 are looking at questions around mathematics  
6 learning.

7 **Slide Ten:**

8 What are the R&D Centers and how are they different  
9 from our typical education research program? The  
10 first thing that our National R&D Centers are asked  
11 to do is to contribute to the solution of a  
12 specific education problem. These problems are  
13 specified within each of the R&D Center topics and  
14 so that makes it a little bit different from the  
15 regular competition where we put out a broad  
16 problem, so children's reading comprehension is not  
17 where we'd like it to be. And then ask applicants  
18 to generate possible solutions in their  
19 applications. Here the problems for R&D Centers  
20 tend to be more constrained and very targeted. The  
21 applicants are expected to contribute to the  
22 specific question as well as generate new knowledge  
23 that's relevant to the particular focus of the R&D  
24 Center.

1           Centers are also expected to provide  
2 relatively rapid research and scholarship on  
3 supplemental questions that are related to the R&D  
4 Center topic area.

5           And finally, R&D Centers are also expected  
6 to provide national leadership on the topics that  
7 they are addressing.

8 **Slide Eleven:**

9 The R&D Center project narratives are also  
10 different from the regular research narrative.  
11 They're longer and they include additional  
12 components. So, again, for those of you familiar  
13 with our typical competitions, in those you have  
14 significance, research plan, personnel, and  
15 resources.

16           In R&D Centers you have significance,  
17 research plan, and personnel as three sections, but  
18 you also are required to include sections which  
19 describe your plans for other center activities,  
20 that would include the supplemental studies I just  
21 referred to, and the national leadership  
22 activities. And you are also expected to have a  
23 section which discusses the management of the R&D  
24 Center and the institutional resources that the

1 institution or institutions have that they can  
2 bring to bear to the center.

3           The way I've organized these slides is I  
4 am going to talk through each center in turn and  
5 I'm going to talk about the significance, research  
6 plan, and personnel requirements for each R&D  
7 Center. Those differ across centers. Then, at the  
8 conclusion, I'll talk about the plans for other  
9 center activities and management and institutional  
10 resources because the requirements are similar  
11 across all of the topics.

12 **Slide Twelve:**

13 So, within the Education Research and Development  
14 Center Program that's being competed in Fiscal 2010  
15 we are competing three topics. The two topics that  
16 I'm going to discuss today are the Mathematics  
17 Standards and Assessment Center and the Cognition  
18 and Mathematics Instruction Center.

19 **Slides Thirteen and Fourteen:**

20 The National R&D Center on Mathematics Standards  
21 and Assessment. The goals of this R&D Center are  
22 twofold. The first is to establish a mathematics  
23 standard and assessment standards and assessment  
24 framework based on empirical evidence. The center

1 is also expected to conduct research on assessment  
2 construction and the methods for setting standards.  
3 So how do we make decisions about what standards  
4 are appropriate for different grade levels in the  
5 context of mathematics?

6 **Slide Fifteen:**

7 When preparing your section on significance you are  
8 expected to identify the state or the consortium of  
9 states with whom the team will work. You're  
10 expected to describe the theoretical and empirical  
11 foundations that will inform the standards and  
12 assessment work. You are expected also to provide  
13 a compelling rationale for why this proposed  
14 research will improve assessments and standard-  
15 setting methods. So in your Significance section  
16 you need to make sure you discuss each of these  
17 points in turn.

18 **Slide Sixteen:**

19 Within the standards and assessment of the Research  
20 Plan section, which is the next big section, you  
21 should describe the procedure for establishing  
22 mathematics standards, the procedure you are going  
23 to follow to establish the mathematics standards  
24 and assessment framework. You're expected to

1 prepare standards that cover pre-kindergarten  
2 through grade 9. So what is the developmental  
3 progression that you would expect to see in terms  
4 of mathematics, knowledge, skills, and abilities  
5 from pre-kindergarten to grade 9? How are you  
6 going to determine that? How are you going to  
7 figure out what the appropriate standards are?

8           You should also include a discussion of  
9 how you propose to develop assessment frameworks  
10 that can be used by states or the state who is  
11 participating or the consortium in order to assess  
12 mathematics achievement. Okay? Now, clearly the  
13 process of developing the math standards and the  
14 process for developing the assessment framework,  
15 these two things will more than likely be related  
16 to one another.

17 **Slide Seventeen:**

18 What are the methodological requirements? Now, in  
19 some ways I say methodological requirements and you  
20 all may think I'm going to tell you you need to do  
21 this design and follow this set of rules. Really  
22 the key here is to provide details. So the RFA,  
23 particularly for the math standards and assessment  
24 call does not have requirements about what types of

1 methodology you're expected to follow. However,  
2 you are required to describe your plan clearly and  
3 in sufficient detail. Reviewers will want to know  
4 what you're planning to do, how you're planning to  
5 get the information that you need in order to build  
6 standards and assessments, and then how you're  
7 going to gather evidence about whether these are  
8 the appropriate standards and whether the  
9 assessments are, in fact, working to measure the  
10 knowledge and skills and abilities that are  
11 expected to be attained in the standards. All  
12 right? So as you're putting together your research  
13 plan make sure you provide sufficient details.

14           You also need to think about and provide a  
15 discussion of how the team will consider and plan  
16 for possible difficulties while your research plan  
17 is being implemented. So it's important for the  
18 reviewers to know that you haven't, as it were, put  
19 all your eggs in one basket; that you're thinking  
20 about, well, if this particular process of  
21 standards setting doesn't work for whatever reason,  
22 here's the next step that we're going to try.  
23 Again, detail is good.

24 **Slide Eighteen:**

1 As you put together your mathematics standards and  
2 assessment proposal, I think for centers even more  
3 so than for regular grants, although perhaps that's  
4 not true, but I think for R&D Centers, because the  
5 scope of work is typically larger, you need to  
6 think long and hard about who the right individuals  
7 are, who should be part of your team. So for the  
8 Math Standards and Assessment Center we have said  
9 in the RFA that the team needs to include  
10 individuals with expertise in mathematics content,  
11 in the learning of mathematics content. So, for  
12 example, a cognitive psychologist or cognitive  
13 scientist might be part of the team--as well as  
14 someone who's experienced in developing and  
15 evaluation assessment tools. So they need to have  
16 that expertise in those areas.

17           They also need to have methodological  
18 expertise that is relevant to carrying out the  
19 proposed project. So depending upon how you  
20 propose to set the standards and depending upon how  
21 you propose to evaluate the assessments in relation  
22 to the standards, you want to make sure that  
23 individuals who are part of your plan have the  
24 right expertise for this project.

1           Because this center has an explicit call  
2 for working closely with at least one state if not  
3 a group of states, you also must demonstrate that  
4 the individuals on your team have sufficient  
5 expertise in working with education delivery  
6 settings to carry out this work. We also expect  
7 that there will be at least one representative from  
8 the state education agency with whom the team  
9 proposes to work, who will be a named part of the  
10 team.

11           Finally, whoever the PI and other members  
12 of the team are should have experience relative to  
13 national leadership activities. So how are they  
14 going to put forward what you all are learning as  
15 you're developing these new standards and these new  
16 assessments?

17           All right. I'm sort of pausing to make  
18 sure I didn't have any questions, but I'm going to  
19 keep going. And as questions comes up, I will  
20 stop.

21 **Slides Nineteen and Twenty:**

22 The second center I want to talk about today is the  
23 National Research and Development Center on  
24 Cognition and Math Instruction. This is Topic 3

1 under the Education Research R&D Center RFA. And  
2 the purpose of this particular center, of the  
3 center that will funded, is to improve student  
4 learning in mathematics by redesigning an existing  
5 mathematics curriculum in ways that will  
6 substantially improve student outcome.

7           The goal here is to use what is currently  
8 known about improving the acquisition, retention,  
9 and transfer of knowledge to the redesign. So the  
10 hope here is that applicants will take current  
11 knowledge about cognitive science, some of which is  
12 captured in a practice guide that IES put forward I  
13 guess it's almost two years ago now, called  
14 Organizing Instruction and Study to Improve Student  
15 Learning (September, 2007). But using current  
16 knowledge and cognitive science to transform the  
17 way math instruction is currently delivered.

18 **Slide Twenty-one:**

19 As you try to establish the significance of your  
20 particular plan of research, your particular  
21 proposal, you must identify the existing  
22 mathematics curriculum that you plan to revise.  
23 The RFA requires that whatever curriculum you  
24 choose it must span a three-year sequence from

1 kindergarten to grade 9. You can select which  
2 three-year sequence you want, but it must fit  
3 within that range. And you need to explain why you  
4 chose a particular curriculum. It may have to do  
5 with the fact that it's the curriculum of choice in  
6 the district where you plan to work or perhaps it  
7 has to do with the fact that it's used across many  
8 different settings. Those are two that come to  
9 mind immediately. I'm sure there are other  
10 explanations that would be possible as well.

11           And then you need to provide a theoretical  
12 and empirical rationale for the redesign of the  
13 instructional approach to the chosen mathematics  
14 curriculum. And this will be a very important part  
15 of the Significance section of the R&D Center. So  
16 why are the pieces of cognitive science that you're  
17 choosing to use relevant to the work that you're  
18 proposing to do? And what are the alternatives?

19 **Slides Twenty-two and Twenty-three:**

20 Then in your research plan, the research plan sort  
21 of has two pieces. The first is that you need to  
22 do the revision of the curriculum. So for those of  
23 you who know our regular RFAs, this is sort of like  
24 a development piece except it's a revision part.

1 But the hope here and the intent is that applicants  
2 will propose to use a revise-test-redesign-and-test  
3 process as they revise the curriculum.

4           In your application you should include a  
5 discussion of what revisions do you currently plan  
6 or are you planning to carry out with the math  
7 curriculum. You should detail what procedures will  
8 be followed for the initial and any subsequent  
9 revision of the curriculum; that the subsequent  
10 revision should, of course, depend upon what you  
11 learn in initial revision.

12           And then you need to articulate for the  
13 reviewers what procedures will be followed to  
14 determine if the revised materials function as  
15 intended. So we want to know not only can you  
16 change the materials, but how are you going to  
17 figure out if the revised instructional processes  
18 are, in fact, happening as they're [inaudible at  
19 00:18:57] in the classroom.

20           The second part of the research plan for  
21 the Cognition and Math Instruction R&D Center is to  
22 evaluate the effect of the revised curriculum  
23 intervention on student outcomes. In this case, we  
24 do have a statement that studies using randomized

1 assignment to treatment and comparison conditions  
2 are strongly preferred. The hope here is that we  
3 could gather information about whether integrating  
4 and redesigning curriculum based on these cognitive  
5 principles will, in fact, show improved student  
6 outcomes as compared to either business as usual or  
7 to some other specified comparison conditions.

8           Again, as I'm going to say over and over  
9 again, please make sure that you describe the  
10 measures that you intend to use and provide both  
11 reliability and validity information as relevant to  
12 those measures. And you should also provide a  
13 detailed analysis plan. When you put your analysis  
14 plan together, please be mindful of the level at  
15 which your randomization is occurring. Is it  
16 occurring at the student, at the classroom, or at  
17 the school level? And go back and make sure that  
18 the analysis that you propose maps back on to that  
19 original level of random assignment.

20 **Slide Twenty-four:**

21 Who should be on your team for the Cognition and  
22 Math Instruction R&D Center? Again, you're going  
23 to need individuals with expertise in mathematics  
24 content, in cognitive science, and in curriculum

1 development or redesign. And those people may not  
2 be the same person or they may be individuals who  
3 have skills in both of those areas or in all of  
4 those areas, but make sure that the members of the  
5 team represent that expertise.

6           Again, you need to make sure that the  
7 folks involved in your proposed project have the  
8 methodological expertise to carry out the projects  
9 as proposed. You need also to ensure that the  
10 individuals on your team have sufficient expertise  
11 working with education delivery settings to carry  
12 out this proposed project. I will say that as  
13 someone who oversaw the Cognition and Student  
14 Learning Program for a long time, one of the  
15 challenges that the cognitive community can face in  
16 trying to take what they learned to schools is  
17 insufficient expertise in working with education  
18 delivery settings. So think about how you can  
19 demonstrate a balance among the team members in  
20 terms of ability to work well with schools.

21           And finally, the team should have  
22 experience relevant to national leadership  
23 activities.

24           Here I have a question that I'm going to

1 wait till it gets big enough so I can read it.

2 "Is this the same as the RFA for improving  
3 math instruction for students with math  
4 difficulties, a special ed R&D Center?"

5 No, it's not. I'm going to talk about  
6 that one right now.

7 **Slides Twenty-five and Twenty-six:**

8 So the first two topics that I was discussing come  
9 out of the education research RFA and we have a  
10 third mathematics R&D Center which is currently  
11 being competed under the Special Education Research  
12 and Development Center Program, focused on  
13 improving mathematics instruction for students with  
14 math difficulties. I think that it's important to  
15 recognize that the one that I just finished talking  
16 about is really focused on thinking about  
17 curriculum that's designed for all learners and  
18 there's not a particular focus on understanding how  
19 to redesign curriculum for students with math  
20 difficulties. This one I'm going to talk about  
21 right now, this special Education R&D Center  
22 Program, is specifically targeting leveraging what  
23 we know about cognitive research to help better  
24 understand and serve students with mathematics

1 difficulties.

2           So I hope that's clear. Here, I'm going  
3 to go ahead and talk about it and then if there's  
4 additional confusion, please just let me know.

5 **Slide Twenty-seven:**

6 So, for the Special Education R&D Center focused on  
7 mathematics the goal of this center is also to math  
8 instruction, but with a particular eye toward  
9 understanding how best to reshape math instruction  
10 for students who are struggling to do well in  
11 mathematics. Again, our goal here is to ask the  
12 research community to use cognitive science to  
13 develop innovative approaches to improving  
14 instruction for students with learning difficulties  
15 in mathematics. So the scope of the population is  
16 a bit more narrow in this particular call.

17           We also see one of the main purposes of  
18 the main purposes of this R&D Center to be to  
19 extend our scientific knowledge of the underlying  
20 cognitive processes that contribute to learning  
21 difficulties in mathematics. My knowledge of  
22 mathematics difficulties suggests that it is an  
23 area where there's still a lot of discussion about  
24 what it means for a student to have a mathematics

1 difficulty and there are many possible reasons why  
2 students can be underperforming in mathematics.  
3 And I think one of the goals of this center is to  
4 try to pull that apart and try to understand what  
5 are some of the foundational challenges that  
6 students with mathematics difficulties have.

7           I'm looking at my colleagues in special ed  
8 to make sure I said that correctly. Good. All  
9 right.

10 **Slide Twenty-eight:**

11 So, again, the focused program of research within  
12 this center has two pieces. The first is to  
13 explore the underlying cognitive processes that  
14 impede mathematics performance in students with  
15 mathematics difficulties. And the reason we're  
16 asking the team to do this is to identify possible  
17 targets for intervention. So I would anticipate  
18 that that will happen in the first year, maybe two,  
19 of the R&D Center.

20           And then building upon that knowledge the  
21 R&D Center would then develop and test innovative  
22 instructional approaches or other forms of  
23 interventions for students with mathematics  
24 difficulties. Again, drawing on that knowledge

1 that has been either sort of summarized or brought  
2 together or discovered through the research efforts  
3 of the team who is carrying out the work.

4 **Slide Twenty-nine:**

5 In the Significance section then, what applicants  
6 need to do is they need to identify or need to  
7 describe how they are going to identify students  
8 with mathematics difficulties. Again, I think this  
9 is an ongoing conversation in the field. How do  
10 you know who are the students who have mathematics  
11 difficulties? And how do you know who are students  
12 who you wouldn't want to classify or group under  
13 that classification?

14           So the age range is preschool to grade 12.  
15 We're not working with individuals who are in  
16 postsecondary for this particular R&D Center.

17           You need in the Significance section to  
18 provide a rationale for the cognitive processes  
19 that you're planning to explore. And then you also  
20 need to provide a rationale for the innovative  
21 instructional approaches that will be developed.

22           Now, for those of you who are listening,  
23 you may have heard me say that first you're going  
24 to do this cognitive research and then you're going

1 to propose these innovative instructional  
2 processes. And you may wonder how can you provide  
3 a rationale for innovative instructional approaches  
4 if you don't know what the cognitive processes are  
5 yet? Clearly, reviewers will know that, but what  
6 they would like to hear applicants do is to  
7 articulate the the scientific process that you  
8 propose to follow. And clearly, any team that's  
9 coming in for this will have cognitive scientists  
10 or cognitive researchers as part of this team. And  
11 I would imagine you can put together at least an  
12 initial hypothesis or set of hypotheses about where  
13 you think the cognitive work may take you, and then  
14 you can talk about the process for developing  
15 instructional approaches based upon your current  
16 hypothesis, right, with the recognition that that  
17 may change as a function of what you learn.

18 **Slide Thirty:**

19 So, I may have just jumped ahead of myself here,  
20 but in the Research Plan section you should include  
21 a detailed description of the methods that you  
22 propose to use to explore these underlying  
23 cognitive processes. You need to describe the  
24 methods that you will be proposing to use to

1 develop these innovative instructional approaches.  
2 And you should also include a timeline of research  
3 activities. I want to note that the timeline is  
4 also expected for the other two R&D Centers. Where  
5 that information goes is up to you. You can  
6 describe it in the Research Plan itself. It can  
7 also be included in Appendix A. So that's a call  
8 that the applicant should make.

9 **Slide Thirty-one:**

10 For improving math instruction the personnel  
11 involved in this project should include individuals  
12 who have expertise, again, in the learning of  
13 mathematics content, such as cognitive  
14 psychologists or cognitive developmentalists.  
15 There should be individuals on the team who have  
16 expertise in mathematics difficulties as well as  
17 expertise in instruction of mathematics.

18           Again, the reviewers will look to see  
19 whether the personnel involved have appropriate  
20 methodological expertise given the projects that  
21 have been proposed. They should have expertise  
22 working with education delivery settings and they  
23 should have relevant experience to do national  
24 leadership activities.

1           Okay. So that sort of sets up the  
2 universe for these three different mathematics-  
3 related R&D Centers that are currently being  
4 competed. Each of those applications should have a  
5 section that addresses the significance, research  
6 plan, and personnel requirements that are specified  
7 in the RFA, and they're different for each of those  
8 three centers.

9 **Slide Thirty-two:**

10 However, project narratives for all of the centers  
11 should include two additional sections. The first  
12 is Plans for Other Center Activities. Again, the  
13 R&D Centers tend to be relatively large. And as  
14 well as the focused program of research, there is  
15 also an expectation that R&D Centers will carry out  
16 supplemental studies. These studies are smaller,  
17 we like to call them quick-response research  
18 projects. The idea is that they can be completed  
19 within a 9- to 12-month time period or even  
20 shorter, if possible. And they're really meant to  
21 address small issues of relevance to the R&D Center  
22 topic, whatever that is.

23           In the application you are asked to  
24 describe two example supplemental studies that you

1 think would be useful to undertake. These  
2 supplemental studies may, in fact, not happen as a  
3 function of what IES needs or the Department needs.  
4 However, in the application you should describe two  
5 examples of these studies that the reviewers will  
6 look at to determine whether you have, you the  
7 center, have the capacity to carry out these kinds  
8 of studies on an as-needed or as-requested basis.

9 **Slide Thirty-three:**

10 In the Plans for Other Center Activities section  
11 you should also include the discussion of  
12 leadership activities. You should think about what  
13 kinds of activities you would plan to do. Would  
14 members of your center team develop position papers  
15 about particular issues of relevance? Would you  
16 host an annual conference? For whom would that  
17 conference be intended? Is it a practitioner  
18 conference or a researcher conference? How do you  
19 propose to engage in a dialogue between researchers  
20 and practitioners, again, around the topic of the  
21 center?

22           As in the supplemental studies, please do  
23 provide two examples of the types of activities  
24 that you think would be useful for the R&D Center

1 to undertake.

2 **Slide Thirty-four:**

3 All center applications should also include a  
4 section that discusses the management and  
5 institutional resources of the proposed center.  
6 That will include plans and procedures for the  
7 overall management of the center and the  
8 coordination of multiple scientists and other  
9 partners. Most of the R&D Centers that we fund  
10 have, again, multiple individuals and multiple  
11 institutions that are involved. And one of the  
12 perhaps most tricky things for an R&D Center  
13 director is bringing all of those resources that  
14 are trying to attend or solve the same problem, how  
15 to manage those resources. And so this is an  
16 opportunity for the applicant to describe how they  
17 will do that.

18           Within the Management and Institutional  
19 Resources section you should also include plans for  
20 coordinating with schools and districts or other  
21 education delivery settings involved in the  
22 projects of the center. Different centers have  
23 different expectations for when schools will come  
24 online as it were, when there will be close

1 participation with schools. So please go back and  
2 look at the requirements for each of these centers,  
3 specifically to think about whether you need to  
4 have schools involved from the very beginning or  
5 whether schools should come on midway through the  
6 first year or perhaps there are cases where it  
7 would be even later. So you need to think about  
8 that and you need to discuss that in your  
9 Management and Resources section. Okay.

10 **Slide Thirty-five:**

11 For all of the Personnel section, so before I talk  
12 about the types of individuals who need to be on  
13 your team, what kind of information should you  
14 include about those individuals? You need to  
15 include all the key personnel who are going to be  
16 part of your team. You need to make sure you have  
17 a labeled section in your narrative. I don't think  
18 that everyone's just going to look at the CVs. You  
19 need to summarize the relevant experience of those  
20 key personnel. Again, just remember that the  
21 reviewers may not know these individuals who are on  
22 your team and they may not know why you chose that  
23 individual for your project. So make it clear why  
24 you chose who you did and how their experience fits

1 in with the work that you're proposing to do.

2 We also ask that applicants specify the  
3 percentage of effort that will be devoted to this  
4 project. Again, R&D Centers are typically large in  
5 terms of the amount of effort that is involved  
6 because they are trying to leverage a fair number  
7 of resources to tackle an important problem. And  
8 reviewers are going to want to know that the key  
9 personnel have an appropriate percentage of effort  
10 devoted to the projects that they're responsible  
11 for. Again, please note that you are expected to  
12 use the biographical sketches, the four-page CVs  
13 that are uploaded separately, to further  
14 demonstrate and document the expertise and  
15 productivity of your team.

16 **Slide Thirty-six:**

17 All applications should also include an Appendix A.  
18 And in Appendix A you should include a clear  
19 timeline of all the activities that you're  
20 proposing to do as well as letters of agreement  
21 from participating teachers, schools, or districts  
22 as required. You can also include in Appendix A  
23 any supporting tables or figures that may help a  
24 reader or a reviewer understand how all of the

1 pieces of the work that you're proposing to do fit  
2 together or graphs or figures that illustrate any  
3 pilot data or preliminary data that you may already  
4 have for a particular part of your project.

5 **Slide Thirty-seven:**

6 What's the money available? The typical range is  
7 between 1 to \$2 million per year. That is a total  
8 cost of direct plus indirect. And these centers,  
9 you can request funding for up to five years' worth  
10 of work. I'm trying to think if I've ever seen an  
11 R&D Center application come in for less than five  
12 years. I think that the scope of work that is  
13 requested for each of the topics I've just  
14 discussed today probably would need to have a five-  
15 year funding cycle in order to complete all the  
16 work that we have put out there to be done. Okay.

17 **Slide Thirty-eight:**

18 What about formatting requirements? Again, for  
19 those of you familiar with the education and  
20 special education research grants, the formatting  
21 requirements are the same except for the project  
22 narrative. The project narrative is no longer than  
23 35 pages single-spaced. The additional 10 pages  
24 are necessary because you are describing not only

1 the work of the focus project, which is typically  
2 large in scope, but you also need to describe the  
3 supplemental studies as well as the leadership  
4 activities and then the management component as  
5 well. So the project narrative is no longer than  
6 35 pages single-spaced.

7 Both appendices have the same limits as in  
8 our education research and special education  
9 research RFAs. So Appendix A can be no longer than  
10 15 pages and Appendix B can be no longer than 10  
11 pages.

12 **Slide Thirty-nine:**

13 Please do make sure that you pay attention to what  
14 can and cannot be included in the appendices. We  
15 hate for folks to upload information into the  
16 appendix and then find that it's simply been  
17 removed because it is outside of the page limit or  
18 if it's the kind of information that's not to be  
19 included in the appendices.

20 I recommend to everyone I talk to to have  
21 someone who's not involved in the project read a  
22 draft. I think one of the most difficult things,  
23 particularly when you're working on a complicated  
24 project with lots of different pieces, is to figure

1 out how to convey both the complexity and the  
2 coherence of a project. And it's really helpful if  
3 you have someone who is outside of the project read  
4 through the draft. And they can say, well, this  
5 doesn't fit here and this really needs to go here.  
6 All right? So please think about who you might  
7 want to have read.

8 **Slide Forty:**

9 The other thing I like to encourage applicants to  
10 think about when they're putting their applications  
11 together is to think about the reviewer. So when  
12 you prepare your narrative and when you prepare  
13 your appendices think about the reviewers who will  
14 be reviewing your application.

15           Please make sure that you write as clearly  
16 and concisely as you can. Please make sure that  
17 you address the points described in the RFA. One  
18 of the reasons we've been doing these webinars is  
19 to try to highlight important points. But I want  
20 to caution those of you on the phone that I have  
21 not included every single piece of information  
22 that's in the RFA on these slides, so you need to  
23 go back and re-read the RFA and make sure that you  
24 have addressed all of the points that are discussed

1 in the RFA as important for applicants to address.

2           Please do your best to organize the  
3 information in a logical sequence so that a  
4 reviewer can be reading along and won't stop in the  
5 middle and go, hey, wait, this doesn't follow from  
6 what he just said or I need this piece of  
7 information and I don't have it yet. So think  
8 about what reviewers will need to know in order to  
9 evaluate the piece of the application that they're  
10 reading.

11           It seems like a small thing, but if take  
12 the time to label your sections, use those headers  
13 that say Significance, Research Plan, Personnel,  
14 that really helps the reviewers find the  
15 information they need as they are evaluating each  
16 of those sections. And please use page numbers.  
17 R&D Centers are subject to triage like our regular  
18 education research grants, but many of them also go  
19 to a full panel discussion. And if panelists are  
20 going to be discussing your application it makes it  
21 much easier if they can say it's on this page as  
22 opposed to saying, well, it's on the page after  
23 this particular section. Okay?

24           So the intent here is to remember that you

1 want to make it as easy as you can for the  
2 reviewers to find and understand the information  
3 you're presenting so that they can discuss it in a  
4 fashion where it's easy for them to understand what  
5 you're proposing to do. And they can have a good  
6 discussion about your ideas and what you're  
7 planning to do, and that they don't have to spend a  
8 lot of thinking about, well, huh, what are they  
9 doing exactly? Okay?

10

11 **Slide Forty-one:**

12 So to submit an application, in case you're not  
13 aware of this, we require that applications be  
14 submitted electronically. We use the Grants.gov  
15 portal. So if your institution is not already  
16 registered on Grants.gov, you want to encourage  
17 them to start now to get that process completed so  
18 that that doesn't stand in the way of uploading the  
19 application on time.

20           Please note that the time by which the  
21 application must be submitted is 4:30 p.m. and 0  
22 seconds. Center applications are due October 1,  
23 2009. And you need to make sure that they're there  
24 on time, and on time as a function of the

1 Grants.gov computer, not your desktop. So please  
2 do make sure that you upload your application with  
3 plenty of time so that if any glitches are  
4 encountered or any problems are encountered, you're  
5 okay.

6 **Slide Forty-two:**

7 When you're thinking about your final application  
8 submission, and I know October 1 seems like it's  
9 far off in the distance, but you want to make sure  
10 that all of your online forms are complete. You  
11 want to make sure that the PDFs of the application  
12 contents have been uploaded. You want to make sure  
13 that your authorized representative has completed  
14 the final step of the electronic process. And you  
15 should have received an e-mail acknowledging the  
16 receipt of your application. That will tell you  
17 that when that final submit button was pushed that  
18 it actually was submitted to Grants.gov.

19 So I'm going to pause. I kind of think I  
20 went through that a little fast. Does anyone have  
21 questions about the content of the different center  
22 topics?

23 No. All right. So then I'm going to just  
24 keep going and if questions come to you, please go

1 ahead and send them forward.

2 **Slides Forty-three and Forty-four:**

3 So what happens next? For those of you who are not  
4 familiar with our process I want to let you know  
5 what the review process looks like.

6           The first step for peer review is that  
7 after the applications are received by our offices,  
8 the first step is to review each application for  
9 compliance. This is the step where we make sure  
10 that page lengths have been followed, that the  
11 right content has been uploaded in the correct  
12 appendices. We also take the time at this sort of  
13 initial step to make sure that the content that is  
14 described in the project narrative maps on to the  
15 requirements that are in the RFA. So this is where  
16 we'll look to see, well, did they propose the  
17 projects that are in the methodological  
18 requirements? Do they have the content that's  
19 required given the RFA?

20           Once applications have been determined to  
21 be compliant, they are then assigned to a review  
22 panel.

23 Given the scope of center applications, typically  
24 four panel members are asked to conduct the primary

1 review of each application. After that initial  
2 application is done the most competitive  
3 applications are reviewed by the full panel and  
4 each panel member has an opportunity to present  
5 their discussion - to present what they learned  
6 from your application and to talk about the  
7 strengths and weaknesses that they see of each  
8 application that they have reviewed. Once each  
9 application is presented then the applications are  
10 scored and evaluated and it is those scores that  
11 then come back to IES and we use the reviewer  
12 scores to make final recommendations.

13 **Slide Forty-five:**

14 For those of you who would like additional  
15 information about the IES board approved peer  
16 review process you can go to this hyperlink and I  
17 would recommend you cut and paste it cause there's  
18 an underscore in there that you might not be able  
19 to see. You can go directly to that link that has  
20 information both about the process and about  
21 individuals who have served for us as peer  
22 reviewers.

23 **Slide Forty-six:**

24 Once IES has gone through the peer review process

1 and IES has made recommendations for funding,  
2 applicants receive email notifications of the  
3 status of their applications. Accompanying those  
4 notifications are copies of reviewer comments.

5 **Slides Forty-seven and Forty-eight:**

6 Alright, so just to remind, I want to remind  
7 everyone that it's important to start early and  
8 clearly many folks have already been thinking about  
9 R&D centers for awhile. Make sure you know the  
10 request for applications well - that you've read it  
11 carefully. I want to encourage individuals, too who  
12 haven't read our full request for applications -  
13 the Education Research RFA - that that can also be  
14 a helpful additional set of additional knowledge to  
15 help you think about where the R&D centers fit in  
16 our overall program of research. The other piece of  
17 information to know is that you should talk with  
18 the program officer. Here at the end I have a list  
19 of the program officers who are responsible for  
20 each of the topics. We are here to help you think  
21 through your projects, to think through your ideas,  
22 to try to frame the proposals or the application  
23 that you are putting together. We can even provide  
24 feedback on drafts if you send them to us, so we

1 are here to help so please do reach out and talk  
2 with us. And the last thing I always want to  
3 encourage people is to please start the online  
4 submission process early. There's nothing more  
5 devastating either for an applicant or even for a  
6 program officer to have someone who has been  
7 working on an application for months and months and  
8 months not meet that deadline. So the deadline is  
9 October 1, 2009, this year and it's 4:30 PM EST.

10 **Slide Forty-nine:**

11 So here's the list of everyone who is involved in  
12 the project. So I'm the program officer for the  
13 Cognition and Math Instruction Center. Dr. David  
14 Sweet is the program officer for the Mathematic  
15 Standards and Assessment Center. And Celia  
16 Rosenquist and Rob Ochsendorf are here and they are  
17 responsible for the Improving Math Instruction for  
18 Students with Math Difficulties.

19 So that's actually all the content that I have here  
20 in terms of slides so if folks have specific  
21 questions or overall questions that they would like  
22 me to talk about please let me know I will be happy  
23 to try to answer them.

24 The question here which says "is funding available

1 for only a single center per topic"? No, in fact we  
2 have a couple of examples of times when we have had  
3 more than one center proposal that has come through  
4 and been evaluated to be of fundable quality and we  
5 have funded multiple topics in the same topic area.  
6 So it really depends on the quality of the  
7 applications that come in and the evaluations of  
8 the peer reviewers in terms of the scientific merit  
9 of the application. We do also consider overlap,  
10 whether the centers are highly similar in terms of  
11 the work that they are proposal. But the short  
12 answer is it is possible that we could fund more  
13 than one center per topic.

14 Anybody else?

15 Usually I guess you guys have been on all the other  
16 webinars asking all the questions, right? I guess  
17 the main thing to think about is that the R&D  
18 Centers are really overall a larger scope than our  
19 education research grants and there is an  
20 expectations that the work that is proposed will  
21 reflect the scope of work that is in the RFA. So  
22 it's focused but it's also covering that - I'm  
23 trying to think of the right way to frame this -  
24 it's focused and substantial.

1    Alright, I'm going to wait a few more seconds and  
2    if anyone has questions go ahead and type them in,  
3    I know that typing is not as easy as talking.  
4    Alright I know everyone has many things to do so I  
5    don't want to keep people on the line if it's not  
6    necessary. So, here I think I'll wait like two more  
7    minutes and then if I don't have any questions that  
8    folks have I will sign off and expect that you will  
9    be in touch with either myself, with David, Celia  
10   or Rob if you have other questions.  
11   I have a question here, this says "does the  
12   national standards movement affect the assessment  
13   initiative?" It could potentially but it certainly  
14   - this RFA was something that was prepared prior to  
15   any of the conversation around this. Right now the  
16   real hope is that applicants that will come in for  
17   the Standards and Assessment RFA will provide, will  
18   really work to think about how do you, what's the  
19   most thoughtful way to create a set of standards  
20   across that pre-Kindergarten to Grade Nine math  
21   learning in a way that is empirically driven and  
22   then how do you create assessments that are well  
23   aligned with those standards and we hope that the  
24   knowledge gained out of that center would be

1 something that could inform decisions that are made  
2 in the future.

3 Oh, we have "what is the range of possible start  
4 and end dates for funding?" The National R&D  
5 Centers, the earliest possible start date would be  
6 July 1, 2010, and the latest possible start date  
7 would be September 1, I think, right? September 1,  
8 2010 and then you can request up to five years of  
9 funding from that start date. So they could go, I  
10 can't do my math in my head right now, that they  
11 would go five years from that start date.

12 The last question here which said "is it expected  
13 that all participating institutions will be  
14 involved in primary data collection?" It really  
15 depends I think upon what center we are talking  
16 about. It is, I think, possible that not all  
17 participating institutions are involved in primary  
18 data collection. You may have individuals or  
19 institutions that you tap whose expertise would be  
20 used maybe for supplemental studies where doing a  
21 secondary data analysis would be the kind of work  
22 that those individuals would do. For setting  
23 standards, there may, you know for the standards  
24 and assessment one, individuals who are setting

1 math standards, you may not, you may have a set of  
2 content experts who are not involved in primary  
3 data collection. So I think it really just depends  
4 upon what center we are talking about and what the  
5 expectations are.

6 Could I give an example of a supplemental study? I  
7 sort of alluded to one there. Certainly the example  
8 that's described in the RFA, or at least one of  
9 them, talks about doing a secondary data analysis  
10 to look at a question, let me think about one in  
11 the area of math. Do you guys have any good  
12 examples? I mean maybe what you could do, let's  
13 think about the math difficulties area. Perhaps one  
14 could propose to do a secondary data analysis of  
15 children who participated in the ECLS-B Sample  
16 Collection. There is numeracy data, the development  
17 of numeracy data that's involved there and maybe  
18 you could propose to do a quick analysis of  
19 students who fall into the bottom quintile to  
20 figure out if those kids have some characteristics  
21 that you might want to attend to when you are  
22 beginning to do the cognitive research that's  
23 really focused on elaborating what those cognitive  
24 pieces are. I mean, you know it's hard to specify

1 and again it may just depend upon the different  
2 topics. So I guess one thing that you all could do  
3 is you could look on our currently funded R&D  
4 Centers. There is information on both of our web  
5 sites and you could read the descriptions of the  
6 current R&D Centers work and get a sense from those  
7 descriptions what the supplemental studies look  
8 like for those topic areas. But again it really is  
9 going to depend on the content of your center.  
10 Anything else?

11 Sorry, I'm looking down at my colleague to see if  
12 we've got anything here. I think - I think maybe  
13 that's everything that we have now. I want to thank  
14 you all for taking the time to come and listen to  
15 us, I hope it was helpful. Please do be in touch  
16 with those of us here around our specific topics  
17 we'd be happy to work with you as you prepare your  
18 application and I hope that some of you on the  
19 phone have already been in touch with some of us  
20 here and we look forward to helping you. Oh I do  
21 also want to encourage everyone who is planning to  
22 submit in October to please put in the Letter of  
23 Intent for August 3. That is important not for the,  
24 not for the reviewers because they won't see that

1 information but it's very helpful for IES staff  
2 because we can then reach out and provide  
3 assistance to you all as you're preparing your  
4 applications and it's important for our review  
5 staff to know the kind of expertise that they will  
6 need to recruit in order to staff our panels. So if  
7 you were not intending to put in an LOI please do.  
8 I want to encourage you to do that. So, thanks very  
9 much for your attention and I hope you have a  
10 lovely afternoon and a great weekend. Thanks much.  
11 [Whereupon, the webinar was concluded.]

12