IES FY 2020 Grant Competitions:
Research Grants Focused on Systematic Replication

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Transcript

Transcription is provided in order to facilitate communication accessibility and may not be a totally verbatim record of the proceedings.

(Slide 1)

Hi everyone. My name is Christina Chhin and I'm a program officer at the National Center for Education Research. I'm joined by Katie Taylor, a Program Officer in the National Center for Special Education Research. Today we will be talking about a new FY 2020 competition, research grants focused on systematic replication.

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In today's webinar we will provide a brief overview of IES and its mission then move into discussion of the new systematic replication grants program, specifically we will discuss its purpose, general requirements, project narrative and appendices. Lastly, we will discuss the application submission and review process.

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I will start by providing a bit of background on IES.

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IES is the independent research arm of the US Department of Education, authorized by the education sciences reform act in 2002. We are nonpartisan and our charge is providing rigorous evidence to inform education practice and policy, and sharing this information with educators, parents, policymakers, researchers and the public. The overall mission of IES is to describe the condition and progress of education in the United States, identify educational practices that improve academic achievement and access to education opportunities, and evaluate the effectiveness of federal and other education programs.

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This graphic represents the organizational structure of IES. We are led by a director who receives advice and consultation from the national Board for education sciences. Our science office oversees the scientific peer review process for IES grant applications and IES reports. We also have four centers within IES. The National Center for Education Statistics is the primary federal entity for collecting and analyzing data related to education. Within NCES you may be familiar with the National Assessment of Educational Progress or NAEP Assessment. Within NCES you will also find many large national longitudinal data sets including, for example, the early childhood longitudinal study. The National Center for Education, Evaluation and Regional Assistance conducts unbiased large-scale evaluations of education programs supported by federal

funds. Provides technical assistance and supports the development and use of research and evaluation throughout the United States. In NCEE you will find the What Works Clearinghouse and the Regional Educational Labs. The two centers that award grants are highlighted here in blue. The National Center for Education Research, referred to as NCER and the National Center for Special Education Research or NCSER. Both research sponsor rigorous research to address education problems in the US. The differences between the two are that NCER supports research that's focused on pre-kindergartners through adults. Whereas NCSER supports research on children starting at birth and going through high school and post secondary education for a limited number of research topics. In addition, NCSER also has a focus on students with or at risk for disabilities. You also notice here that the research centers are separate from the Science Office and Standards and Review staff, meaning that we, the program officers are not involved in the peer review process. This allows us to work closely with you, providing technical assistance to you on your applications. We will discuss more about that later in this webinar.

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In terms of our grant programs, our objective is to improve education outcomes for all students, particularly those at risk for school failure. The grant programs do this by developing or identifying education interventions that enhance education outcomes and can be widely deployed, by identifying what works and what does not work and then encouraging further research and innovation and by understanding the processes that underlie the effectiveness of education interventions and the variations in their effectiveness.

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With the objectives of IES grant programs in mind, IES is introducing a new grant competition for FY 2020. Instead of including replications under the Education Research or Special Education Research grant programs as we have in the past, IES is initiating a more targeted strategy to supporting replications by creating their research grants focused on systematic replication competition. Please note that there are two RFA's. One under NCER with the CFDA number 84.305R and the other under NCSER with CFDA number 84.324R.

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As way of background, IES has funded over 300 completed studies and have tested whether interventions improve education outcomes and while many innovations showed beneficial outcomes a lot of them were tested under limited conditions. For example, in a single location, and a small number of settings or with a limited group of educators or students. And have not been replicated since. Under this competition, IES intends to gather more evidence on these interventions to better understand the conditions under which they will likely work and for

whom. We will do this by supporting systematic replication studies of IES identified interventions that have produced beneficial effects on education outcomes in a prior IES funded impact study. Also known as conceptual replications, the proposed research will systematically vary one or more aspects of the prior impact study. For instance, the geographical location, the population of learners, educators and/or schools and/or the intervention delivery. The research will also investigate factors that may lead to and sustain successful implementation. The research is meant to address questions frequently asked by schools of educators, such as does the intervention show positive outcomes for learners like the ones in my class or school? Do the gains last? Is the intervention effective when implemented under typical school conditions? What are the resources that are necessary for successful and sustained implementation? And how much does it cost to implement this intervention?

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IES will support two types of replication studies. Effectiveness and efficacy. Effectiveness studies are replication studies that involve the independent evaluation of an intervention when implemented under routine conditions. In comparison, efficacy replications are studies that provide more support than is typically provided under routine conditions and may or may not include an independent evaluator.

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All Systematic Replication applications are expected to follow the principles outlined in the IES wide Standards for Excellence in Education Research as applicable. These SEER principles are meant to encourage rigorous education research that is transparent, actionable and focused on consequential outcomes. They include pre-registering studies, focusing on outcomes meaningful to student success, documenting intervention implementation to inform use in other settings, identifying core components, analyzing costs, facilitating generalization of study findings, making research findings methods and data available to others and conducting research in a way that informs the future scaling of interventions.

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Institutions that have the ability and capacity to conduct scientific research are eligible to apply. Eligible applicants include but are not limited to nonprofit and for-profit organizations and public and private agencies and institutions, such as colleges and universities. IES encourages applications from minority serving institutions. The applicant institution is responsible for identifying the principal investigator for the project. The PI is the individual who has the authority and responsibility for the proper conduct of the research. Also note, all awards under the systematic replication competition will be made as cooperative agreements to further IES's

involvement in the planning and implementation of the replication, including the use of common measures across systematic replication process, the implementation of the study and the dissemination of findings.

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Let's now talk about the general requirements. You must address these in order for your application to be sent forward for peer review.

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Applicants to 84.305R must focus on learners without disabilities whereas applicants to 84.324R must focus on children and/or youth with or at risk for disabilities. Disabilities is defined in the Individuals with Disabilities Education Act or IDEA. Risk for a disability is identified on an individual basis. If you plan to study learners at risk for disabilities you should clearly identify the disability or disability categories that your sample is at risk of developing and present research-based evidence of an association between risk factors in your proposed sample and the potential identification of specific disabilities. In other words, you cannot identify children at risk based on general population characteristics, such as being from low income families or English-language learners.

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For both competitions, research must address reading or mathematics outcomes depending on the type of intervention you are evaluating. Of course, you can measure other outcomes that are suited to your research questions.

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Research must be relevant to education in the US and address factors under the control of US education systems. So, research should occur in settings where education is provided. For both competitions, these include child care centers, preschools, public and private K to 12 schools and formal programs under the control of education agencies that take place outside of school Such as afterschool, distance-learning or online programs. For 84.324R, they also include homes and natural settings for early childhood special education services and 484.305R, they also include colleges and universities. IES does not support research that occurs in informal contexts outside of education systems and outside the control of education agencies.

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The proposed replication must evaluate an intervention identified in the RFA. These interventions were selected based on a number of criteria, including the intervention focuses on reading or math, a causal impact study funded by IES is completed and a paper describing the results have been published, the causal impact study described in the paper has been reviewed by the WWC and meets the WWC design standards with or without reservations. Using version 2.0 or later of the standards. IES has determined that there were beneficial and meaningful impact on education outcomes targeted by the intervention. The intervention is ready to be implemented, for example is available publicly or by request. There have been no recent studies supported by IES or other funding sources to test the effectiveness or expansion of the intervention at scale, and there have not already been multiple replications of the intervention supported by IES.

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These are the interventions that IES is interested in having systematically replicated. More information about these interventions can be found in part three of the RFA. Listed in the specific table are reading interventions that were developed and/or tested with funding from the National Center for Education Research that are eligible for systematic replication.

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These are the rest of the interventions that IES is interested in having systematically replicated. The ones in these tables are reading and math interventions that were developed and/or tested with funding from the National Center for Special Education Research.

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One special note regarding the list of interventions is that applicants to 84.305R can replicate an intervention listed under the NCER table or replicate a NCSER listed intervention with learners without disabilities. Similarly, applicants to 84.324R can replicate a NCSER intervention or an NCER intervention for learners were listed with or at risk for disabilities.

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>> Hi everyone. I'm Katie Taylor and I'm a Program Officer in the National Center for Special Education Research. I am now going to talk about the required sections of the project narrative. The project narrative comprises the majority of the content of your application. Systematic replication applications must include a narrative that has these four sections. Significance, research plan, personnel and resources. Under part two of the RFA, guidance is provided regarding the required components of each section followed by recommendations to improve the

quality of the application for each section. I will talk about the requirements and recommendations of each one of these sections individually.

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The purpose of the significance section is to explain why the study is needed. So you are going to identify the study as either an effectiveness or efficacy replication, then you need to describe the intervention to be evaluated including its components, implementation supports, findings from previous impact studies including any unanswered questions that would benefit from systematic replication and evidence that it is ready for implementation within the proposed context. You should describe this context in which the intervention will be evaluated and note which aspects of the prior studies will be systematically varied, and which will remain the same. For instance, you would describe the target population, the implementation setting, implementers, intervention delivery, implementation conditions including whether it would be implemented under ideal versus routine conditions, and whether or how these things differ from prior studies. You also need to justify the proposed variations including how it expands our understanding of the conditions under which the intervention is likely to work and for whom. You should also discuss how the results will increase the interventions potential for scalability and how they will help identify the market for the intervention and improve commercial opportunities.

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The purpose of this section is to describe the evaluation, including the sample and setting, research design, power analysis, outcome measures, fidelity of the intervention and comparison group practice, a plan for the implementation study, the data analysis plan and a plan for a cost and cost effectiveness analysis. Each of these things are described in more detail in the RFA, but in the next few slides I will address a few of these in more depth.

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For the research design, discuss how similar or different the proposed research design is from the prior impact studies of the intervention. Discuss how the study will meet the WWC standards with or without reservations. Describe the counterfactual and compare it to that of previous studies and describe how you will reduce potential contamination between treatment and comparison groups. IES encourages you to include plans for looking at longer-term outcomes to determine if short-term changes in education outcomes found immediately following the intervention are sustained over time. Depending on your design, you may be able to include additional follow-up data collection within your current study. Or if that is not possible, include activities that may help you apply for a future follow-up grant, like planning your sample size for

additional data collection in the future and maintaining contact with schools and your study participants. In regards to the outcome measures, they should align with those used in the prior impact study or studies. You should describe these measures and the constructs they assess and if you propose to include additional or different outcome measures than prior studies, justify their inclusion, discuss how they are linked to the intervention and describe their reliability and validity.

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In addition to measuring the fidelity of intervention and comparison group practice, you must also include a plan to study the implementation of the intervention. This is different from fidelity. Fidelity studies examine the extent to which the intervention was implemented as intended and help confirm that there is a difference between what the intervention and comparison group received, so you can better attribute any findings to the intervention. In comparison, the goal of the implementation study is to identify the process by which the intervention is implemented. Adaptations made in response to the local context and key factors that affect fidelity of initial and/or sustained implementation, such as end-user characteristics and classroom school and district organizational factors. The results of the implementation study could be used to improve the efficacy efficiency and scalability of the intervention. They could also be used to improve the interventions theory of change and inform future designs of the intervention.

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You must include a plan for both a cost analysis and a cost-effectiveness analysis. Cost analyses identify the monetary costs of implementing the intervention. So in your cost analysis plan you should specify how you will identify intervention costs including costs for things like personnel, facilities, equipment, materials, training and other relevant inputs. You should also describe how you will compute the annual cost and cost across the lifespan of the program. The overall cost and the cost at each level of the intervention, including state, district, school classroom and learner, as appropriate. The cost per component, if the intervention is composed of multiple components and the breakdown between startup costs and maintenance costs. Cost-effectiveness analyses provide schools, districts and states with information about the cost to achieve a particular impact. You are only required to do this analysis for the primary learner outcome measures. Your plan should describe the method you will use. Keep in mind that the analysis should be conducted at the level that is most relevant for the intervention being studied Whether the school, classroom or individual learner level. And if you are evaluating the impact of any specific components of the intervention in addition to the overall impact of the intervention you should provide additional cost-effectiveness analyses for the separate components as well.

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The purpose of the personnel section is to describe the project team and demonstrate that they have the expertise to conduct the research and disseminate the results. So for all key personnel including the PI, co-PIs, co Is etc. describe their roles and responsibilities, qualifications, time commitments, past successes and disseminating research to wide audiences and any practical and theoretical contributions their previous work evaluating interventions. You should also identify the key personnel responsible for the cost analysis and cost-effectiveness analysis and described their qualifications to carry out these analyses. And lastly, describe additional personnel at the primary applicant institution and any sub award institutions along with any consultants.

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If an independent evaluation is proposed, you should show that the key personnel who are responsible for the design of the evaluation, the assignment to treatment and comparison groups and the data analyses did not and do not participate in the development or distribution of the intervention and do not have a financial interest in the intervention. The developer or distributor of the intervention cannot serve as PI but may be a part of the project team if they are providing routine implementation support such as professional development that is no greater than a district or school would routinely receive if they were not taking part in the study. If they are included, discuss how their involvement will not jeopardize the objectivity of the evaluation. If an independent evaluation is not proposed, meaning key personnel were involved in the development of the intervention are from entities involved in the commercial production or distribution of the intervention or have a financial interest in the outcome of the research, you need to include a plan to ensure the objectivity of the research.

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The purpose of this section is to describe the resources to conduct the project and disseminate the results. So, your resources section should specify your institution's capacity to manage the grant, your access to resources at the primary and any sub award institutions, your plan for acquiring any resources that are not currently accessible and/or necessary to conduct the project, your access to the settings in which the research will take place and in terms of dissemination, any offices or organizations expected to take part in sharing findings and resources to support dissemination through electronic means, such as a website or social media accounts.

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The required project narrative is followed by several appendices some of which are required and some that are optional. I'll discuss the required appendices in more detail in the next few slides

but here is an overview. Appendix A is required. This is where you will describe your plans to disseminate the results. Appendix B is required for resubmission's and should include your response to previous reviewer comments. Appendix C is optional. You may include figures charts or tables with supplementary information like a timeline or examples of measures used to collect data for your project. Appendix D is optional and may include examples of curriculum materials, computer screenshots or other materials used in the intervention to be evaluated. Appendix E is optional and can include your letters of agreement from schools and districts who will participate in or provide data for the proposed research or service consultants. Please know that although you are not required to include letters of agreement from schools or districts, it is strongly recommended that you do so. Appendix F is required. This is where your data management plan goes.

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Appendix A must include the dissemination plan. Dissemination plans should be tailored to the audiences that will benefit from the findings like policymakers, researchers and practitioners and they must reflect the unique purpose of a replication project. For example, findings of a beneficial impact could support the wider use of the intervention and further adaptation for different conditions. Whereas findings of no impact also have important implications for decisions regarding the ongoing use and wider dissemination of the intervention and the further revision of the intervention and its theory of change. Researchers are expected to share results with policymakers and practitioners, for example by publishing in practitioner journals, reporting findings to research partners and giving presentations at meetings that include teachers and leaders. Researchers are also expected to publish their findings in scientific peer-reviewed journals and present them at conferences attended by other researchers.

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if your application is a resubmission of a previous application that proposed to replicate an intervention listed in the RFA, for example as part of a replication efficacy and effectiveness project, you must include an appendix B to describe 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 B to provide a rationale explaining why the current application should be considered a new application rather than a resubmitted application.

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These are the items that should be addressed in the data management plan. A plan for pre-registering the study in an education repository such as the SREE Registry of efficacy and

effectiveness studies. The type of data to be shared, procedures for managing and for maintaining the confidentiality of personally identifiable information, roles and responsibilities of staff including a discussion of any changes to responsibilities that will occur, should the PI or co-PIs leave the project or their institutions, the expected schedule for data access. It needs to remain accessible for at least 10 years. The format of the final data set, data set documentation to be provided including any decisions made about the data that would be important in replicating the results, method of data access such as through an archive and how people can locate and access the data. Whether or not users will need to sign a data use agreement and if so, what conditions they must meet. Any circumstances that will prevent all or some of the data from being made accessible. The cost associated with the data management plan can be covered by the grant and should be included in the budget and explained in the budget narrative.

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For both types of replications, the maximum duration for an award is five years. For efficacy replications, the maximum award amount is 3.6 million. That includes direct and indirect costs. For effectiveness, the maximum award amount is 4 million.

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On the last page of the RFA we also provide a checklist to better ensure you have included all the pieces needed to send the application for peer review.

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The last thing I will talk about today is the application submission and the peer review process.

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We accept applications once a year. All important dates and deadlines are included in the RFA. We encourage you to submit a letter of intent if you are interested in applying, but these are optional. So if you miss the deadline or didn't submit one you can still submit an application. I would however encourage you to email the appropriate program officer listed in the RFA a description of your project and your intention to apply. Most importantly be sure to leave yourself plenty of time to submit your application because we do not accept late applications.

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So now, let's talk about how to apply. Please know that there is an IES application   process webinar and in that webinar IES staff will go into more detail about the application process but

for now I'll talk broadly about how the process works. So you need three things to apply. First you need the RFA which contains information for writing your project narrative. Second, you need the IES application submission guide, which is a newly separated document that describes information related to submitting your application and provides an overview of the funding process. Lastly, you need the application package, which can be found on grants.gov. In terms of registration for grants.gov, the first tip and perhaps the most important is to start this process early. So initial registration can take more than five business days and even if you are already registered the annual update that you have to complete could take more than three days and it's actually your institution that needs to register so not you as an individual. For most institutions the sponsored projects office will take care of the registration if it hasn't already been done. But you want to make sure to check in with them to make sure that it has been completed. All applications must be submitted electronically through grants.gov. Applications received by grants.gov are date and time stamped to the second. So your application must be fully uploaded and submitted by the date and time specified in the RFA. And as I mentioned, we will not accept late applications.

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Okay, so once you successfully submit your application it will go through a review process. First applications are reviewed for compliance and responsiveness to the RFA. Compliance is the process of screening applications for inclusion of a project narrative and the required appendices. Responsiveness involves the determining whether you adhered to the requirements of the competition. The components that are the minimum necessary to be sent forward for peer review. These include the general requirements as well as the requirements for each section of the project narrative. If your application is found to be both responsive and compliant, then you will be assigned to a review panel and 2 to 3 panel members will conduct a primary review of your application and provide feedback about the application. Then once a primary review of each application has occurred, the most competitive applications are then forwarded for review by the full panel of reviewers. And then during the panel review, applications are discussed and then rated by all reviewers on the panel. From that point we make funding decisions and then contact all applicants, giving them statements from their reviewers so that those who did not receive funding can potentially resubmit, depending on whether we repeat the competition in subsequent years.

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If you want to learn more about the peer review process, you can follow this link to find out more information from the Standards and Review Office who oversees this process.

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In terms of notification about your application, all notifications will come through the Applicant Notification System, which is a system that you are prompted to sign up for once you have submitted an application. So if you have submitted before you should already have an account. This will provide you with information about the status of the award and then when summary statements of reviewer comments are released it will also allow you to access those.

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Finally, there are a few things I want to leave you with before we conclude this webinar. First, read the request for applications and the submission guide carefully. There's a lot of important detail in these documents and IES has spent a great deal of time over the years making the RFA a user-friendly guide to developing a high-quality application. So be sure you know the requirements and recommendations. IES will also post on-demand webinars, webinars you can access at your convenience, covering a wide range of topics including a grant writing workshop or webinars about specific funding competitions. We also have a Resources for Researchers page that includes methodological resources to assist in preparing an IES research grant application, videos from past IES training institutes, information about available data sets and tools, among other things. Despite all of the great resources I just described, program officers really are your best resources. So please contact us. Email us to schedule a phone call to talk more in depth about your proposal or just send quick questions through email. If it is within a reasonable timeframe we can also review draft proposals or parts and pieces of your proposals and provide feedback. Thank you.