

**MSAP Pre-Application Webinar  
Evidence  
February 2, 2017**

Jennifer Todd: Good afternoon and welcome Magnet Schools Assistance Program fiscal year 2017 pre-application webinar. My name is Jennifer Todd, I'm the MSAP team lead. I'm joined by the MSAP program officers Tiffany McClain and Justis Tuia. Today your presenter, Jon Jacobson from the Institute of Education Sciences, will provide an overview of the introduction to evidence. We will answer any questions toward the end of the presentation.

The purpose of this series is to provide technical assistance to LEAs interested in submitting a grant application and response to the FY 2017 notice inviting application. Each webinar in the series addresses a topic from the Notice Inviting applications that we believe deserves some extra attention. These webinars will be recorded and provided as a resource for applicants on both websites as well. Thank you for joining today's webinar. Now I will hand it over to our speaker to present to you.

I will go over some notes and logistics before I turn it over to Jon. Audio of this session will be recorded and posted on the program website together with the transcript. To reduce background noise we have muted everyone's phone. Please submit relevant questions, responses, and comments during the session by using the Q&A pod on the right side of your screen. Due to time constraints we may not be able to answer all questions received. If your question is not addressed you can submit it to the [msap.team@ed.gov](mailto:msap.team@ed.gov) email address. We cannot respond to every inquiry with an individual response but we will regularly post answers to the most frequently asked questions on the program website. The address is listed here.

Some of the things we can address in this webinar series. ED definitions related to evidence, resources for finding evidence or designing studies to build evidence. What we cannot answer are questions about a specific logic model to be included in an application. Questions about whether specific studies provide evidence, questions about specific evaluation designs to build evidence or the rationale behind inclusion or exclusion of specific items in the MSAP application beyond what is in the federal register.

At this time I will turn the presentation over to Jon Jacobson from the National Center for Education Evaluation and Regional Assistance Institute of Education Sciences with the U.S. Department of Education.

Jon Jacobson: Thank you, Jennifer. Hello, my name is Jon Jacobson. I work with the National Center for Education Evaluation and Regional Assistance with IES which is the Institute of Education Sciences no the research, statistics, and evaluation arm of the U.S. Department of Education. The focus of my

presentation today is evidence. In particular the relevant definitions of evidence for this grant competition as well as evidence-related resources that may be of use to you in preparing your application.

I'd first like to provide some motivation about why we should care about evidence if we care about improving student outcomes and other relevant outcomes and in the particular context of this competition. I will then define some terms for understanding evidence according to the evidence definitions in the Every Student Succeeds Act, the reauthorization of the Elementary and Secondary Education Act. Following this law and its own regulations the department distinguishes different levels or tiers of evidence. I will then turn to describing the What Works Clearinghouse which is an initiative of IES to help identify evidence from well designed, well implemented studies.

I will turn to the Department's definitions of strong theory and how logic models can illustrate how project components may be related to relevant outcomes. I will then [inaudible] how the Department defines evidence of promise and what a project evaluation needs to include to build such evidence. I will conclude by pointing you to related resources for both finding evidence and building evidence that relates to the theory of action for your proposed project.

Why should we care about evidence if we care about education and the students served by education programs? The poet Walt Whitman recognized that seeking scientific evidence is an important way to acknowledge our ignorance and possibly correct our mistakes. He wrote, "I like the scientific spirit. The holding off, the being sure but not too sure, the willingness to surrender ideas when the evidence is against them. This is ultimately fine. It always keeps the way beyond open. Always gives life, thought, affection, the whole man a chance to try over again after a mistake, after a wrong guess."

In addition, as you know, the U.S. Department of Education is placing an increasing emphasis on using evidence of what works to improve student outcomes and other relevant outcomes when awarding grants and also on building evidence on the effectiveness of education programs policies and practices including project components and other education interventions.

For this particular competition the Department is including a competitive preference priority that relates to evidence. This relates to new or revised magnet school projects and the strength of evidence to support those proposed projects. For the competition under this priority, the Secretary determines the extent to which the applicant proposes to carry out a new evidence-based, as defined in the notice, magnet school program or significantly revise an existing magnet school program using evidence based methods and practices as available or replicate an existing magnet school program that has a demonstrated record of success in increasing student academic achievement

and reducing isolation of minority groups.

The Department encourages applicants to submit research that demonstrates that the applicant's proposed approach to their MSAP funded magnet schools is based on prior evidence and we encourage applicants to submit evidence that corresponds to the highest levels of evidence available. When submitting evidence under this competitive preference priority the proposal should specify the interventions and the study or studies that you plan to implement, the findings within the citations that you're requesting to be considered as evidenced based including page numbers of specific tables as applicable. The Department will not consider a study citation or citations that you failed to clearly identify for review. No more than two studies may be submitted under this priority.

In addition to referencing the study citation or citations in the application narrative you must include a copy of the full study or studies in the appendix. References to the citation or citations or the provision of publicly accessible links that lead to the study or studies are not in and of themselves sufficient. If the Department determines that an applicant has provided insufficient information the applicant will not have an opportunity to provide additional information at a later time.

In addition, it is suggested that you address the three following pieces in your response to satisfy the competitive preference priority. [inaudible] Provide the full citation for each study you are putting forth for consideration. If the study has been reviewed by the WWC, which refers to the What Works Clearinghouse which I'll get into in a moment, please include the rating it received.

Outcomes. Describe the outcomes in the study presented and how those outcomes are statistically significant and also how the outcomes and the evidence relate to the outcomes in your project. Finally, relevance to the proposed project. Briefly describe the intervention used in the study presented as evidence. How does the evidence relate to your proposed project? Will your proposed project measure the same outcomes? What link is there between the study presented and your proposed intervention and/or the study? If applicable, explain how the population in your proposed project is similar to what is used in the cited study.

Turning now to the Department's definition of an evidence-based component of a project. The Department's definition of an evidence based component of a project is the definition included in the Every Student Succeeds Act of 2015, which re-authorized the Elementary and Secondary Education Act of 1965. This definition states that an evidence based activity, strategy or intervention demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on either strong evidence

from at least one well designed and well implemented experimental study, moderate evidence from at least one well designed and well implemented quasi-experimental study or promising evidence from at least one well designed and well implemented correlational study with statistical controls for selection bias. I'll explain many of these terms a little bit later on but the definition also allows an evidence based project to be one that demonstrates a rationale based on high quality research findings or positive evaluation that such activity, strategy or intervention is likely to improve student outcomes or other relevant outcomes and includes ongoing efforts to examine the effects of such activity, strategy or intervention.

So where would you go to find evidence from well designed, well implemented studies of the effectiveness of education interventions supposing that you wanted to find such evidence in support of your application? There are several possibilities. You could rely on your own knowledge and experience. You could turn to colleagues, peers, administrators of programs. You could turn to professional associations. You could consult with academic or non-academic researchers. You could go online and look for news stories, blogs, journals, unfortunately some of these journals might be behind paywalls.

What I am going to describe to you now is an important source of information on evidence to inform the design of projects such as your and that's the What Works Clearinghouse. The WWC is an initiative of the Institute of Education Sciences and was established in 2002 in order to be a trusted source of information on what works to improve outcomes or other relevant education outcomes. The WWC reviews, rates and summarizes original studies of the effectiveness of education interventions. The WWC does not rate qualitative studies, descriptive studies, or re-analysis or syntheses of others' data. Reviews of the studies reviewed by the What Works Clearinghouse are documented on the What Works Clearinghouse website and the findings are reported from studies that met WWC standards.

Although WWC only reviews a subset of all education research studies as shown by this diagram which are the original studies of effectiveness of education interventions where intervention is understood broadly to refer to a policy, program, practice or project intended to improve student outcomes or other outcomes relevant for education.

What are What Works Clearinghouse standards? What Works Clearinghouse standards have been developed by panels of national [inaudible] for different types of research designs for effectiveness studies. These standards focus on the internal validity of estimates or study findings which is whether an estimated impact of an intervention on a relevant outcome is valid or is likely to be biased. The standards are applied by teams of WWC certified reviewers using a review protocol to give studies one of three possible ratings. The three

possible ratings for a study eligible for What Works Clearinghouse standards up for review are meets WWC standards without reservations, which is the highest possible rating. The second highest rating is meets WWC standards with reservations. The third possible rating is does not meet WWC standards.

There also might be studies that simply are not eligible for review so they wouldn't get any of these ratings. Note that different review protocols are used by WWC reviewers for different types of studies. These protocols define the studies and outcomes eligible for WWC review and what these studies need to provide to meet WWC standards. The most general review protocol used by the WWC is called the review of individual studies protocol which is available on the WWC website [whatworks.ed.gov](http://whatworks.ed.gov) but other review protocols are used in certain topic areas such as beginning reading or elementary school mathematics.

When thinking of What Works Clearinghouse evidence ratings it's important to keep certain things in mind. First, meets standards is applied to study findings not the intervention itself. The What Works Clearinghouse rates the quality of the evidence it doesn't rate the quality of the intervention. A study could receive a high rating, that wouldn't necessarily mean the intervention was effective. It would mean the study was a strong study of whether that intervention was effective. The study as a whole receives the rating of the highest rated finding reviewed by the WWC which may be different from the finding relevant for your project. Among the outcomes and the findings of a study that are eligible for review the highest rated one will then have a rating applied to the study but there might be another analysis that didn't get that high rating or perhaps was not even eligible for review.

A high study rating, as I've already said, is not the WWCs endorsement of an intervention or a determination that an intervention or a finding is relevant for your project. You are the best experts of what's relevant for your own project. The [inaudible] size and statistical significance of the estimate effect are reported by the WWC but do not affect the WWCs study rating so a study rating of meets What Works Clearinghouse standards does not mean the intervention is effective. Study ratings can change when WWC standards are updated so some study ratings that might be listed in the review studies database can be out of date once a new study comes online although that database does try to highlight the most recent review of each study.

Getting back to the MSAP competition I want to introduce some other concepts referred to under the Secretary's assessment of the quality of the project design. In determining the quality of the design of the proposed project the Secretary considers first the manner and extent to which the magnet school program will improve student academic achievement for all students attending the magnet school programs including the manner and extent to which each magnet school program will increase student academic

achievement in the instructional area or areas offered by the school including any evidence, there's that word again, or if such evidence is not available a rationale based on current research findings to support such a description. In addition, as relevant for our discussion today, the Secretary considers the extent to which the proposed project is supported by strong theory as defined in this notice.

The Department also has a definition of strong theory. This comes not from a statute but from the Education Department General Administrative Regulations or EDGAR. EDGAR specifies that strong theory means a rationale for the proposed product, strategy or practice that includes a logic model. What is a logic model? A logic model also known as a theory of action means a well specified conceptual framework that identifies key components of the proposed process, product, strategy or practice and describes the relationship among the key components and outcomes. One way I like to think of this is a logic model for your project describes what you're planning to do and why you're planning to do it. Relevant outcomes means the student outcomes or the ultimate outcome if not related to students the proposed process, product, strategy or practice is designed to improve consistent with the specific goals of the program.

A logic model has four major components as shown on this slide also a note on providing a reference to a publication from one of the regional educational laboratories supported by IES that discusses project logic models. The first component is resources. Those are the materials to implement the project such as facilities, staff, stakeholder support, funding and time. The second component is activities which are the steps for project implementation including the critical components that are necessary for the project's success. Third are outputs which are the immediate products of the project such as the levels of enrollment and attendance. And the fourth component is impacts on outcomes which are changes in project participants' knowledge, beliefs or behavior. If influence in a student outcome or other relevant outcome is a goal for a project then that outcome is a relevant outcome for the project. For example, a performance indicator for your project may be a relevant outcome.

Logic models can help build evidence through the design of a project evaluation to answer certain questions. This slide shows how each of the four components of the logic model implies a different set of questions that a project evaluation can address. First, the component of resources. An evaluation might address the question, "What resources were provided for the project? How were those resources used?" A second question implied by a logic model is under activities, "How did the project identify individuals to serve? What services were provided and to whom?" An evaluation might investigate how the project identifies [inaudible] students, what types of services were provided for the different students enrolled.

In terms of the outputs from the project an evaluation might investigate the levels of enrollment, attendance and participation in the services offered by the project. In terms of impacts on outcomes of the project an evaluation might investigate the impacts the project or components of the project had on relevant outcomes such as student academic achievement or the racial and socio-economic integration of schools. I underlined that one because I'm going to talk a little more about evaluation designs to address impact questions but it's important to remember that there are various types of questions an evaluation can look at not just impact questions. The project logic model should define both the key components of the project and the relevant outcomes that might be the focus of an impact study.

In the notice inviting applications there's discussion of project evaluations and in particular under the quality of the project evaluation the Department is considering the extent to which the project evaluation will build evidence perhaps on those project components on which evidence of effectiveness may not already exist in particular in determining the quality of the evaluation. The Secretary considers the following factors. First, the extent to which the methods of evaluation will, if well implemented, produce evidence of promise as defined in this notice. I, of course, will get to that what evidence of promise is. Second, the extent to which the methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data to the extent possible. And third, the extent to which the costs of the evaluation are reasonable in relation to the objectives, design, and potential significance of the proposed project.

What's evidence of promise? The Department has a definition of evidence promise also from its EDGAR regulations. It's defined as empirical evidence to support the theoretical linkages between at least one critical component and at least one relevant outcome presented in the logic model for the proposed process, product, strategy or practice. This must include one study that is either a correlational study with statistical controls for selection bias regardless of whether that study meets What Works Clearinghouse evidence standards, a quasi-experimental design study that meets What Works Clearinghouse evidence standards with reservations, and a randomized control trial that meets What Works Clearinghouse evidence standards with or without reservations. I will describe the What Works Clearinghouse in a moment but one point I want to emphasize here is in order to build evidence of promise you need to have a logic model for your proposed project and that logic model will help you identify a critical component and a relevant outcome to study in the impact study that would seek to build evidence of promise.

What's an intervention? An intervention is a general [inaudible] that can refer to any critical component of the process of the project as well as a group of

critical components. It can be defined as a process, product or strategy or practice being proposed designed to improve a relevant outcome consistent with the specific goals of the program. The intervention does not need to be all of the activities of your project taken together. In the context of a logic model there are multiple activities you might be proposing or planning, the intervention doesn't have to be all of them together it could be a subset of them. It could just be one, it could be a group of them. It does not have to be an activity that is directed at all of the students your project could serve. The intervention can be an activity directed at some of the students you propose to serve or only some of the students your project would receive perhaps because participation is voluntary or targeted on the basis of student academic need or financial need or some other consideration.

The EDGAR definition of evidence of promise has an additional requirement and the requirement is that the study must have found a statistically significant or substantively important favorable association between the intervention which is the key component or activity of what's being studied and the relevant outcome. That is the study must have found a positive effect of the activity on at least one of the relevant outcomes measured by the study. A statistically significant association is one that is unlikely to arise by chance and therefore may indicate a real relationship between a critical component of the project and a relevant outcome.

But what is a substantively important favorable association? Substantively important refers to the magnitude of the difference in outcomes attributed to the intervention. According to EDGAR, the Department's regulations, this difference must equal 0.25 standard deviations or larger, so that's a statistical measure of magnitude. In practical terms, this means an impact of 12.5% points of successful outcomes say for 62.5% of the students receiving the intervention if there were a successful outcome for only 50% of the students not receiving the intervention.

There's another term in the definition of evidence of promise and that's correlational study with statistical controls for selection bias. What's that? A correlational study, as the name implies, looks at the association between receipt of an intervention and an outcome of interests. Statistical controls for selection bias are the sampling methods or the analysis methods used by study authors to attempt to compare subjects similar except for the receipt of the intervention. Researchers when doing a study of the effectiveness of an intervention want to make sure they're comparing apples to apples. They want to make sure they're comparing similar students, say, some of whom receive the intervention some of whom do not. They don't want to have an apples to oranges comparison and so they will use tools known as statistical controls for selection bias in order to make a comparison between equivalent student or equivalent schools or whatever group of individuals they're comparing. In general, a correlational study with statistical controls needs a comparison

group and some effort to make it similar to the treatment group which is the group receiving the intervention.

What is selection bias? Selection bias is an error in choosing an individual or groups to take part in a study. Ideally the subject and the study should be very similar to one another; if there are important differences the results of the study may not be valid. This is a quotation from the National Cancer Institute, as you can imagine having studies that avoid selection bias is very important not only in education studies but especially in health research as well.

This graph helps illustrate why studies need comparison groups in order to assess the impact of an intervention. Suppose an intervention was first implemented in the year 2015 and baseline data collection occurred in the preceding year 2014 and follow up data collection in the year 2016. Over time let's suppose the students receiving the intervention demonstrate improved outcomes, higher in 2015 than in 2014 and higher in 2016 than in 2015. Does this mean that the impact of the intervention is favorable? Things are getting better in terms of the projects' outcomes. What's missing from these time trends is a comparison group equivalent to the intervention group at the beginning in 2014. If such a group were added and it turned out that this group had superior outcomes in 2015 and 2016 than the intervention group, these results would suggest the intervention was not effective relative to the services received by members of the comparison group.

This is just an example. It's not necessarily the case that the intervention would have this result or wouldn't help any students. Rather the evidence present here in this example suggests that on average the intervention was less helpful for the average student than the alternative services received by students in the comparison group. Often students are receiving something even if they're not receiving the intervention.

There are different ways that researches can form comparison groups for impact studies. The first way is to use a lottery, that is random assignment, to assign the intervention. This form of design is known as a randomized control trial, or RCT, and is a type of experimental design that can, depending on the details of its design and implementation, meet What Works Clearinghouse standards without reservations which means achieve the highest rating from the What Works Clearinghouse. However, lotteries may not always be feasible either because of ethical concerns denying the intervention to those who may need it most or because there are few too individuals available to form a control group.

A second way to form a comparison group is to use an index of need such as academic need or family income and pick individuals on one side of the threshold to receive the intervention. This form of design is known as a regression discontinuity design, or RDD, and it can also, depending on its

design and implementation, meet What Works Clearinghouse standards without reservations. A third way to form a comparison group is to select the treatment or intervention group some other way but use pre-intervention characteristics to compare groups similar to each other in important respects in order to estimate impacts using apples to apples comparisons instead of apples to oranges comparisons. This type of design is sometimes known as a match comparison design. It's a type of quasi-experimental design, or QED. At best this sort of design can meet What Works Clearinghouse standards with reservations. That's because there's always some uncertainty as to whether the groups are similar in the characteristics we don't observe such as motivation.

A comparison group may be constructed by using data on students outside of a project but it may also be constructed, depending on the nature of the intervention, by using data on students being served within a project. When studying an intervention that is received by only some of the students in a project it's possible to save resources on data collection by relying on data you may already be collecting on all students in your project. In this diagram some students in a project received intervention A and I'll leave it up to you to think what intervention A might be. Other students received intervention B which I also leave up to you to imagine what that might be. Some students receive neither intervention but still provide data for the project.

If the focus of an impact study were on the impact of intervention A students receiving that intervention could be compared with students receiving intervention B or with students in the project receiving neither intervention A nor intervention B. It wouldn't be necessary in this instance to collect data on students outside of the project for the sake of an impact study although such data collection may be valuable for a variety of reasons.

Regardless of which way you would propose for a project evaluation to form a comparison group make sure to identify these things and in particular the needs you would have for an impact study if your goal is to produce evidence of promise. You will need to have technical capacity on the evaluation team to design the study, form the intervention and comparison groups and conduct the statistical data analysis. Second, you will need data on students in both the treatment group and a comparison group. Third, you will need to collect the same kinds of pre-intervention data and outcome data for both groups of students. You'll need to have data that allows you to compare the students before everyone receives the intervention that you're studying and you'll also need data on the relevant outcome for those students for both groups.

You'll also need to collect data on implementation of the intervention, specifically who receives what intervention and ideally when and how. Finally, you'll need stakeholder support if you are proposing any changes in the way of assigning students to the intervention from what you would

usually do such as index of need or a lottery.

Forgot to put those on the screen. There they are. I'll pause a moment, catch my breath. Put those on the screen for you.

Now on this whole matter of what to study, what intervention to study if you're focusing on evidence of promise for an evaluation, think some more about your proposed project design when planning a project evaluation. Ask yourself which intervention will you propose to study that according to the logic model for our project is supposed to affect a relevant outcome such as a performance indicator that maybe you're already planning to measure. Notice again the importance of having a logic model. A second thing to think about is is this intervention received by all students in our project or only by some students. When an intervention is received by only some students served by your project you probably will have data on other students in your project who could be considered for a comparison group and you would not be, there would not be a requirement or a need to go outside of the project to find a comparison group.

Third, what services will be received by students in the comparison group and do they offer a service contrast with the intervention. In other words is the experience of the students in the comparison group going to be different from the students receiving the intervention. If the two groups of students are receiving similar services, if they're having similar experiences, you are unlikely to detect an effect of the intervention so might consider identifying a different intervention for your study choosing from other services or supports your projects provides to students that might offer a contrast.

In planning data collection for a study designed to build evidence of promise ask yourself what pre-intervention data will we need on students in the intervention groups and students in the comparison group. Often these pre-intervention data come from data that's already being collected. What data we need to collect on the implementation of the intervention? Which relevant outcomes will we need to estimate the impacts of the intervention? The relevant outcomes that you're aiming to improve should be in your logic model but it might be that you have to identify how you're going to get data on those outcomes. Fourth, will we have the permissions, the funds, and the time to collect the data we need? Finally, will we have resources left for other data collection, formative evaluation data, process evaluation data, and project performance data that you might need or might be required to collect?

I'd like to provide a few tips for designing an impact study to build evidence of promise as part of your proposed project evaluation. First, as early as possible in your planned project decide on the intervention, the outcomes, the study design, which is how you would create a comparison group, and what data you would need, what data you would need to plan to collect. Second, if

possible plan to collect multiple years of data to increase the sample size for detecting statistically significant effects. The larger the sample of students being compared the more likely it is you'd be able to detect an effect on those students that your evaluation could characterize as statistically significant. Third, in planning an evaluation that includes an impact study leave at least one year of your project for data analysis and preparation of a report describing the evaluation questions, the design and implementation and impact study and the study findings. Remember, it takes time to analyze data even after it's been collected. Finally, keep in mind that evidence from a study done by one project can benefit other projects in the future.

Now I'd like to turn and point you to some resources that might be of help to you now that you have, I hope, a better understanding of the levels of evidence defined by the Department and have received some general guidance on designing a project evaluation to build evidence of promise. The first set of resources are resources creating a logic model for your project and I know there's a separate webinar that's focused specifically on that since it's very important but I'll just point you to a few resources that IES has put together. Second are some resources for basing a logic model on pre-existing evidence, for example, from a study that meets What Works Clearinghouse standards. These are ways of identifying pre-existing evidence. Finally, some resources for using a logic model and planning an evaluation to build new evidence by designing a project evaluation not only to provide evidence of promise but that might even have the potential to meet What Works Clearinghouse standards.

First, tools for building a logic model for a project. IES has funded through the regional educational laboratory program a tool for building education project logic models. The link to the website that has this is here. The ERM application, it's a downloadable computer app that runs locally on Google Chrome and does not require you to connect to the internet. The program guides users through a series of questions, gives opportunities to enter project resources, activities, outputs and outcomes. Once all this information is entered the user's prompted to draw color coded lines between each component illustrating their cause and effect relationship. The end result is a printable logic model which can function as a map for the project team visually connecting intended activities with intended outputs and outcomes. In case that's of use to you there's the URL.

IES also offers resources for finding relevant studies that may provide evidence including studies that may meet What Works Clearinghouse standards or at least provide promising evidence or evidence of promise for a component of a project's logic model. If you're looking evidence in support of particular components of what you propose to do, looking for evidence that that's effective and proving outcomes that you care about according to your logic model, you could first of all do a very broad search go to the ERIC

database, the Education Resources Information Center, and see if there are any studies, education research studies logged there that are relevant to you. I leave it to you to decide what's relevant. There can be assistance from the National Library of Education including librarian assistance in identifying studies. The Regional Education Laboratories can provide assistance in identifying research. Finally, as I've already described, What Works Clearinghouse has a reviewed studies database. This lists studies that have already been reviewed by the WWC, describes the WWC rating of the study, and the reason for the review including links to any relevant What Works Clearinghouse publications describing the reviews in greater detail. The publications include intervention reports and What Works Clearinghouse practice guides.

In addition, the new What Works Clearinghouse website has a specific search tool for finding studies that have meet standards. This is an example of how you can go there and find studies. You can go to the website provided for reviewed studies. Say that you want to look for a study that meets WWC standards which would be with or without reservations and then you might want to look for a study that has at least one statistically significant and positive effect and that's in a topic area of interest. There are a lot of studies that have been reviewed but not all of them meet standards, not all of them have favorable statistically significant effects. You can zero in on those with this search tool.

Here's some additional IES supported online resources for designing project evaluations to meet What Works Clearinghouse standards if you're designing an impact study as part of your project evaluation. A project evaluation including an impact study of a particular project component would be especially useful if that component is not required by the rules of the program and lacks moderate or strong evidence of effectiveness. Note that a project evaluation does not have to be a randomized control trial to meet What Works Clearinghouse standards since quasi-experimental design studies, regression discontinuity studies also, can meet What Works Clearinghouse standards. The IES sponsored resources for evaluators include a website providing general technical assistance materials for conducting rigorous impact evaluations both randomized control trials and quasi-experimental design studies. The What Works Clearinghouse handbooks describe how studies are reviewed by the What Works Clearinghouse. The What Works Clearinghouse has webinars on designing strong studies and designing strong quasi-experimental design studies. There are additional resources that IES has supported on the design of quasi-experimental design studies. Finally, IES has also supported the development of free software for analyzing impacts using randomized control trials or quasi-experimental design studies. This software assumes that you already have identified a treatment group, an intervention group, and a comparison group and it then helps you compare outcomes for them and do the analysis.

I'll turn it back to Jennifer so that we can respond to your questions.

Jennifer Todd: I'm going to address the first question that we had from Rosalie involving naming an evaluator. An evaluator doesn't necessarily need to be named in the application but there are things to consider as far as looking at the section regarding quality of personnel and making sure that even though an evaluator is not identified that [inaudible] the evaluation will be conducted and that that will be part of that bid process is included for the peer reviewers to review to base their scores upon.

Jon Jacobson: Hello. We received a question about guidance on where and how to integrate information about the evidence based evidence of promise into the proposal. Under competitive preference priority two that relates to the extent to which the [inaudible] carry out evidence-based program or rely on evidence-based methods and practices. There are application instructions there about attaching up to two studies that would support that assertion that you're basing your project on evidence. The encouragement is for the studies to be as strong as possible but obviously you have to make a judgment as to what's relevant for your particular project and what you're proposing to do.

Jennifer Todd: I'll add that the specific instructions on that are in the application package on page nine.

I'll now address the question from Tony, "Does the evaluator have to be external to the organization or can we use an internal evaluation department?" It's not specified but it is good practice to have an external evaluator rather than an internal evaluator.

I'm answering the question from AES; this is something we addressed in the webinar as well, "Since magnet themes are often unique for each school in a project does the limit of only two studies per project limit the number of unique themes that can be supported by evidence?" The evidence requirement is for CPP 2 in which as it's outlined on page nine of the application package we are only accepting two studies for CPP2.

Jon Jacobson: We received a question about whether well designed meets the quasi-experimental or experimental study that meets What Works Clearinghouse evidence standards. A study that meets What Works Clearinghouse evidence standards is an example of a well-designed and well-implemented quasi-experimental or experimental study but there might be other studies that are also well designed and well implemented that either haven't been reviewed by the What Works Clearinghouse or perhaps they are studies that are not eligible to be reviewed. The evidence definition does refer to well designed and well implemented correlational studies with statistical controls for selection bias so there's the potential there'll be studies that have not been

reviewed by the Clearinghouse or perhaps not even eligible for review by the clearinghouse that nonetheless could provide evidence in support of your application.

We received a question about how the evidence requirements have changed from previous grant cycles. The major difference here that I would highlight is the evidence definition under competitive preference priority two is the definition of “evidence-based” that's being used by the Department since the passage of the Every Student Succeeds Act. That's a little more detailed definition, it's not specifically referring to evidence of promise although promising evidence is included in that.

We have a question of whether the evidence in the logic model has to be magnet related. It's possible there'll be evidence on a component of a project that was not studied in the setting or the context of magnet schools but it might still be a relevant study for the design of the project and it would be a relevant study to cite if that was one of the two studies you wanted to cite. It's not necessary that the research that's informing what you would propose to do in your project be research that was conducted in magnet settings although obviously that makes that research relevant if that's also something you propose to do.

There's no minimum sample size needed to meet the criterion for evidence of promise. In fact, although I mentioned that a larger sample is more helpful for detecting statistically significant effects under the evidence of promise definition, it's possible to meet that definition if you were to identify an interview and study it and find substantively important effects which might be valuable if you were only able to study it with a small sample. There's no minimum sample size. Obviously the sample needs to be large enough to do some statistical analysis.

Jennifer Todd:

We're going to address the question from Joshua Bogin as we think we understand it. "The last answer seemed not to be responsive it sounded like the question was whether the limitation to two studies also limits the number of magnet themes. Can that be answered." No. The studies do not limit the number of magnet themes. Jon also answered the question that some of the studies may not even be related to magnet. Hopefully that answers that question.

This will conclude our webinar on evidence. Our next webinar is scheduled for next Tuesday, February 7 on logic models. This is being recorded, so the presentation including the webinar and the voice recording will be included on our website within two to three business days. Check back often and there will be links linking you to these presentations. We look forward to the webinar on Tuesday. Thank you.