Magnet Schools Assistance Program
Pre-Application Webinar: Evidence of Promise
March 22, 2022

Manya Walton: Hello, welcome to the Magnet Schools Assistance Program fiscal year 2022 grant competition pre-application webinar. Today, Dr. Ginger Stoker, a What Works Clearinghouse certified reviewer, will provide information on competitive preference priority two and the quality of project evaluations. But before we start, I'll review basic webinar logistics. We're making an audio recording of this session. The recording and transcript will be posted online. The link will be available on the MSAP page at the U.S. Department of Education's website. To reduce background noise, we've muted everyone's phone. To speak, press star six to unmute your phone. You will also press star six to mute your phone again. You can ask questions throughout the presentation by using the chat feature. Go to the chat pod in the lower right corner of your screen and type in your questions. Please be aware that your questions will be seen by everyone participating in this webinar. Now I'll turn the session over to Dr. Stoker.

Ginger Stoker: Welcome. Hi, I'm Ginger Stoker. Welcome to today's session. The goals for today's sessions are to review the criteria for competitive preference priority 2, and the quality of the project evaluation. For competitive preference priority two or CPP2, we will go over the factors that are taken into consideration for CPP2, what is meant by an evidence-based component, what applicants need to do to apply for CPP2, and how applicants can find studies to submit for CPP2. For the quality of the evaluation, we'll review the factors that are considered by reviewers when assessing the quality of the project evaluation, what is meant by evidence of promise, how applicants can design evaluations that meet evidence of promise, and what applicants can do if they would like their evaluations to meet moderate or strong evidence standards.

First, let's talk about the factors that are considered for competitive preference priority 2. According to the notice of invitation for application, CPP2 focuses on providing strength of evidence to support new or revised magnet school projects. Applicants can earn three additional points by successfully applying to CPP2. In order to earn points for CPP2, applicants must either, one, plan to carry out a new evidence-based magnet school program; two, significantly revise an existing magnet school program using evidence-based methods and practices as available; or three, replicate an existing magnet school program that has a demonstrated record of success in increasing student academic achievement and reducing isolation of minority groups.
Okay. As you probably noticed, those criteria refer to evidence-based components. For the U.S. Department of Education, evidence-based components have a specific meaning. So we're going to review what is meant by an evidence based component.

Okay. In order for a component to be considered evidence based, research on that component needs to meet one of two criteria. First, the research on the component can demonstrate a statistically significant effect on improving student outcomes or other relevant outcomes based on 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. Or the research component needs to demonstrate 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 include ongoing efforts to examine the effects of such an activity, strategy, or intervention.

Many of you will recognize these as related to the ESSA tiers of evidence. This chart illustrates what reviewers are looking for when assessing whether or not the research for a component meets requirements to be considered evidence based. For tier four, demonstrates a rationale, it's expected that the research cited includes a well-defined logic model that itself is based on rigorous research and there is an effort planned or currently underway to study the effects of the intervention. For tier three, promising evidence, it's expected that the research cited includes a well-designed and well-implemented correlational study that includes statistical control for selection bias, demonstrates a statistically significant and positive effect on a relevant outcome, and there are not strong negative findings from other experimental or quasi experimental studies.

For tier two, moderate evidence, it's expected that the research cited includes a well-designed and well-implemented quasi-experimental study that meets What Works Clearinghouse standards with reservation, demonstrates a statistically significant and positive effect on a relevant outcome, that there are not strong negative findings from other experimental or quasi experimental studies, and that the research cited includes at least 350 participants located in one or more school or district and that the population included in the study cited has a similar population or setting to your schools or students. Finally, for tier, one strong evidence, it's expected that the research cited includes a well-designed and well-implemented experimental study that meets What Works Clearinghouse standards without reservations, demonstrates a statistically significant and positive effect on a relevant outcome, and that there are not strong negative findings from other experimental or quasi-experimental studies.
studies, and that the research cited includes at least 350 participants located in more than one school or district and that the population included the study cited has a similar population and setting to your school or students.

Okay, now that we've talked about the factors that are considered for CPP2 and defined what an evidence-based component is, let's review how applicants can apply for CPP2. To apply for CPP2, applicants have to meet two requirements. First, they have to complete table five, evidence supporting new or revised projects. And second, they have to submit evidence and an optional evidence form or provide similar information for the evidence-based component that is to be included in the MSAP project.

The first requirement to apply CPP2 is to complete table five, evidence supporting new or revised projects. So on your screen, I've included a snapshot of table five, and we're going to review really quickly how to complete this table. So first, if all of the schools participating in the MSAP project are new magnet schools, all you have to do is indicate no revised magnet schools in the project in the first box, and you're done, and you can move on to providing evidence. However, if you have existing magnet schools that you're proposing to revise, for each magnet school, you need to briefly describe the nature of the change that is being made to the magnet school of that program and explain the significance of the revision to the magnet school. I basically just included the examples that are included up in the text in here just so you can see where they go in the boxes. Then you need to provide the evidence to demonstrate that the schools are evidence based. And that's the bulk of the effort, and that's what we're going to talk about next.

The second part of the requirement to apply for CPP2 is to submit evidence in the optional evidence form or provide similar information. So for CPP2, applicants need to specify the intervention or interventions they are planning to implement that they have determined are evidence based. So a few slides ago we reviewed what evidence based means. And to just recap, evidence-based means that the intervention is supported by research that meets one of the four ESSA tiers of evidence. So for the intervention specified, applicants need to locate the study or studies that they believe demonstrate that the intervention is evidence based and submit the citation for this study or studies for review. As part of the submission, applicants need to specify the page numbers of applicable tables or information located in the study or studies that specifically refer to findings from the study that demonstrate that the study is evidence based. Applicants can submit up to two studies.

Please note the Department will not consider a study citation or citations that applicants fail to clearly identify for review for CPP2. So please make
it super obvious in your application, especially if you choose not to use the
optional evidence form, which study citations you intend to be reviewed
for CPP2. In addition, when providing a citation for a study, applicants
must include a link to a publicly available full text copy of the original
study in their applications. This means that when the Department or
reviewer attempts to access the link, they'll be able to access and read a
PDF version of the entire original study. Please note that references to the
citation or citations to the study without a link to a publicly accessible full
text copy of the study or studies being submitted are not in and of
themselves sufficient. Reviewers need to be able to access and read the
cited studies, so links to journal websites or other websites that provide
only an abstract or require payment for accessing the studies do not meet
CPP2 requirements and will not be reviewed.

When providing evidence for CPP2, it's suggested that you include the
following pieces of information in your response. First, provide the full
citation for each study that you are putting forth for consideration. If the
study's been reviewed by the WWC, please include the rating that it
received. Remember to include a link to a publicly available full-text
version of the study. Also describe the outcomes in the study presented
and how those outcomes are statistically significant and how the outcomes
in the evidence relate to the outcomes in your project. Please remember to
include page numbers for findings and related tables. Third, briefly
describe the intervention used in the study presented as evidence. When
doing this, you may wish to include answers to the following questions.
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 or study? If applicable,
explain how the population in your proposed project is similar to that cited
in the study.

Okay. Although you're not required to use it, the easiest way to provide
evidence for CPP2 is to complete and submit the optional evidence form.
So I'm going to use this to provide an example of how to provide the
required evidence for CPP2 using the example information that's actually
included in the study form. So first, you are asked to specify the level of
effectiveness for which you are applying. Again, recall our discussion of
the ESSA tiers of evidence. This is where you're going to select the level
of evidence that you have for the intervention that you are proposing to
implement for CPP2. So for my example, I'm going to cite a WWC
practice guide and the practice guide that I'm citing is supported by strong
evidence. So I'm going to check the box next to strong evidence.

Next, you are asked to provide the citation and supporting information for
the study that you are submitting as evidence. So first, you need to submit
the citation for your study. So my practice guide is called Teaching
Secondary Students to Write Effectively, and I've included the full citation to the practice guide as well as the link to where you can access the practice guide. And I've also noted that the practice guide is prepared under version 3.0 of the WWC handbook. Then you need to enter relevant information about the outcomes and findings for the study, including page numbers where the department and reviewers can locate this information. So for my example, I am planning to implement recommendation one, explicitly teaching appropriate strategies using a model practice reflect instructional cycle in my MSAP project. So I've noted that table one on page four of my practice guide demonstrates that my strategy is characterized and backed by strong evidence. I've also cited table D2 on page 70 to 72 of appendix D, which indicates that studies contributing to the strong evidence supporting my strategy reported statistically significant and positive impacts of the practice on the student outcomes of genre element, organization, writing output, and overall quality.

And then finally, applicants should indicate how this is related to the proposed project. So for this example, as I mentioned, I'm planning to implement recommendation one, explicitly teach appropriate strategies using a model, practice, reflect instructional strategies when I'm providing writing instruction in my MSAP project. And I've noted that the studies contributing to the strong evidence supporting the effectiveness of recommendation one were conducted using study samples in settings that are similar to those of my proposed project.

I'm going to call out again, please do remember that you must include a link to a publicly available full-text copy of the study that you are citing in your application.

Okay. Now we've talked a little bit about how to apply to CPP2. So you might be wondering where you can find studies that you can submit for CPP2. So we're going to spend a little bit more time talking about that. So there are quite a few places that you can locate studies that'll meet CPP2 requirements. And some of these include the Education Resources Information Center, or ERIC, which contains a searchable digital database of education studies, many, many of which include full text. You can look at the What Works Clearinghouse website. You might want to visit the OESE Technical Assistance Center's websites. You can go to some of the websites for the Regional Educational Laboratories. Your state may provide intervention lists that may also come with additional resources. You can look at other online journals and reports. You could talk to academic or non-academic researchers, or look for information in professional associations.

But I do want to point out two sources of information that can be used separately or in combination when applying for CPP2 that can be really
handy. So the first is the What Works Clearinghouse website. So the What Works Clearinghouse develops these standards and procedures for reviewing education studies and it provides ratings for studies that have been reviewed on its website. So using the WWC website, you can search through reviews of individual studies, intervention reports which summarize the findings from multiple studies on the same intervention or intervention types, and practice guides which summarize strategies and procedures that have been shown to be effective in studies reviewed by the What Works Clearinghouse.

The second source of information that I want to point out is the Education Research Information Center, or ERIC, which has a functioning search engine to help you find education articles and reports, many of which are full text. Helpfully, if you click on this advanced search links tab, it will provide the information that you see here that provides you with additional information on how to do ERIC searches that may pull up the most relevant studies for you or help you find the study that you're looking for.

But what's really particularly helpful to look for information for CPP2 is to combine the WWC and ERIC together. So for example, you can use the WWC website to see if the intervention that you're interested in implementing has been reviewed by the WWC. You may have found that intervention on your state intervention list, heard about some colleagues, heard about some other evaluators, learned about it from a curriculum representative. If it's something that your district is interested in implementing, you can have found it through many, many different sources. Or you can use the WWC database to find interventions or strategies that you might be interested in implementing. Either way, you can use the WWC website and database to identify whether there is evidence to support the use of the intervention to improve your outcome of interest and you can use it to find the supporting study on the ERIC website.

So the reviews of individual studies tab, which is what you can see on your screen here, allows you to search for studies in a wide variety of ways. So for example, you can search for studies with specific WWC ratings on specific topics and that use specific study designs. You can also use the evidence rating filter that I have highlighted on my screen here to select the levels of evidence that you want your study outcomes to meet. You can also a search for a specific study, author, or intervention. So for the example that I'm going to be going to show you right now, I was interested in finding support for the effect of career and technical education programs on students postsecondary outcomes. And I wanted to make sure that the evidence for the studies meets strong, moderate, or promising evidence. So to do that, I selected postsecondary from the topics dropdown box, I entered career and technical education into the
search box, and I selected tiers one through three in the evidence rating dropdown box to see if there are studies on interventions that are similar to mine or that I'm entered in implementing.

Okay. Following my example, I found a study conducted by REL Central called The Impact of Career and Technical Education on Post-Secondary Outcomes in Nebraska and South Dakota. And clicking on the findings tab, it brings up the screen that you see in front of you. And I can see that the intervention has statistically significant and positive effects on three outcomes, attaining up to an associate's degree, postsecondary enrollment, and high school graduation. I can also see that all three of these met tier two moderate evidence standards. And really helpfully, I can use the link at the top of the page to locate the study in ERIC. And by clicking on that link, it'll take me to the ERIC page for this study. And from here, I can click on the download full text link to access a full-text PDF copy of the study. So to meet CPP2, I can click on the download text link and then I can copy and paste the URL from that download page into MSAP application and reviewers will be able to access a publicly available full-text copy of the study. This is feasible for a very large number of studies that's available in the WWC and a helpful way to find information and full text studies that you can use for CPP2.

I do want to point out a couple of things when using the WWC to find evidence about interventions. First, please do note that the WWC ratings such as meets standards without reservations are applied to each study finding. They're not applied to the intervention overall itself. So it's highly recommended that you click on the findings tab to see how each particular outcome is rated, sort of like I did where you can and see how each one was rated as well as you could see its ESSA tier. The study as a whole will receive a rating that's related to the highest rated finding reviewed by the WWC. This may be different from the finding that is relevant for your project. So again, click on the findings tab to see how each particular outcome is rated.

A high study rating is also not the WWC's endorsement of an intervention or a determination that either an intervention or a finding is relevant for your project. Please make sure that the study that you select focuses on similar outcomes to those in your logic model. Also, the sign size and statistical of the estimated effect are indeed reported by the WWC, but they don't affect the WWC study rating. So a study rating of meets WWC standards does not mean that the intervention is effective. Make sure that the study you select demonstrated a statistically significant positive effect on your outcome of interest. And finally, those ESSA tiers that I highlighted within the WWC website can help direct you to findings that will meet CPP2 standards. So check for the designations of tier one, two, or three next to your outcome of interest.
All right. At this point, I have been talking for a while a lot about CPP2. So please let me know if there are any questions. I do see one in the chat box that says, "How do we cite a current MSAP-funded magnet study our district has conducted that demonstrates tier one or two evidence that hasn't been published yet? If it's published on our district website for download, is that okay?" Yes. It needs to be publicly available. So long as you can provide a link where somebody can access your study, it's considered publicly available. And if it's full text, it will meet the qualifications for this.

You're welcome, Lisa. Yeah. My demonstration used ERIC because it's handy and because it has a lot of full-text sites. You are more than welcome to find other full text sites that provide full-text copies of the study. Just please be sure not to include links to any journal sites that require you to pay for the actual article. Okay. So question from Jia. Just to confirm, the interventions cited do not need to have been reviewed or reported by the WWC? No. They don't need to have been reviewed by the WWC. That can be done as part of the evidence review. Whatever you cite just needs to have enough information included in it for a reviewer to be able to determine whether or not it would meet the ESSA tiers of evidence for CPP2.

And if we're interested in doing an intervention at a teacher level, the sample size should be of students or teachers. ESSA is most focus on students. So the idea is that it would be affecting students. And honestly, the goal would be that whatever you're having teachers do would affect students. So it's generally applied to students. That said, you only need to have that many participants in order to meet those higher levels. So if you have something that, let's say, meets WWC standards in tier two, but it doesn't have enough participants, it would still be able to meet the promising evidence standard, tier three, and you would still meet CPP2 requirements. So either way, you would be fine with that.

We've got a couple people typing so I'm going to wait for a couple more questions before moving on. So it says if you're measuring student outcomes, it can be 350 students, but teacher outcomes, it would also be 350 teachers. So technically if you wanted to be able to reach those higher tier levels, the answer would be yes. To meet CPP2 though, you only really need to meet the promising evidence tier, which you need to meet any of those tiers. So if you don't have the higher sample size, you'll still be able to meet CPP2. Technically it wouldn't maybe meet moderate standards, but it will still meet the CPP2 requirements.

So it says the evidence of promise needs to address the outcome of student achievement or other relevant outcome. Can I give you an example of another relevant outcome? Sure. The idea is that CPP2 would be ...
whatever you're doing for CPP2 would be related to the outcomes that you have in your logic model. And I'm sure there's lots of things in your logic model that you think your intervention is going to affect. So it might ...

Another example would be any sort of SEL measure, whether or not you think it's going to improve motivation, engagement. One of the outcomes for MSAP is to reduce minority gaps. You can look at that. Some people have mentioned that they want to look at ... that some of their outcomes are related to teachers. You could have teacher outcomes that that would be related to, although I will say the idea is that whatever your teachers are doing, that that would filter down to students and ultimately have the impact on a student outcome.

Question: Did the awarded points vary if it's tier one or tier four? Very good question. And, no, it doesn't. You can get up to all three points by meeting any of those tiers. You just need to meet the requirements, which are completing the forms and providing the evidence.

Okay. I am going to go ahead and move on to the evaluation section. So having covered CPP2, we're now going to move on to the quality of the evaluation section for MSAP applications. And we're going to start by reviewing the factors that are considered when assessing the quality of the evaluation section. So according to the notice of invitation to applicants, three factors are taken into consideration when assessing the quality of the evaluation for MSAP applications. One, how the applicant will assess, monitor, and evaluate the impact of the activities funded under this part on student achievement and integration. Two, the extent to which the methods of the evaluation will use 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 three, the extent to which the methods of evaluation will, if well implemented, produce promising evidence about the project of effectiveness.

So in this presentation, I'm going to focus on the third element, the extent to which the methods of evaluation will produce promising evidence about the project effectiveness. But before I go on, I want to make it clear that the evidence of promise study does not need to be related to the intervention specified in CPP2 if you're applying to CPP2. The evidence of promise study all also doesn't have to cover all of the progress of the project or be related to the project's performance measures. The evidence of promise study is meant to focus on an aspect of the project that can support the capacity of the LEA to continue to operate the magnet schools at high levels after federal funding ends.

Okay. So earlier we were reviewed what the Department means by evidence based. Now we're going to talk about what is meant by evidence of promise. It's a related concept, but it's slightly different. So the
Department defines evidence of promise as empirical evidence to support the theoretical languages between at least one critical component and one relevant outcome presented in the logic model for the proposed process, product, strategy, or practice. And this must include one study that is either a correlational study with statistical controls or selection bias, regardless of whether it meets WWC evidence standards, a quasi-experimental design study that meets WWC standards with reservations, or a randomized control trial that meets WWC evidence standards with or without reservations.

Okay. So if you recall the table demonstrating ESSA tiers of evidence, you can see that evidence of promise omits ESSA tier four, demonstrates a rationale. So a study that meets tier four, demonstrates a rationale, does not provide evidence of promise. To produce promising evidence, at a minimum, an MSAP evaluation evidence of promise study must meet tier three, promising evidence requirements. This means that the evaluation must at least be a well designed and implemented correlational study that includes statistical controls for selection bias, ideally finds a statistically significant and positive effect on a relevant outcome, and that it's not focused on an intervention for which there are strong negative findings from other experimental or quasi-experimental studies.

Okay. So the remainder of this presentation is going to focus on how applicants can design evaluations that are able to produce evidence of promise. So as I just mentioned, at a minimum MSAP evaluations must meet promising evidence standards, which involves conducting a well-designed and implemented correlational study with statistical controls for selection bias. A correlational study looked at associations or relationships between participation in the intervention and the outcomes, and a correlational study does not demonstrate causation. For MSAP, correlational studies need a defined intervention that is included in your logic model and is related to at least one specified outcome, a comparison group who doesn't received the intervention, and statistical control for selection bias which are the co-variants included in the outcomes analysis to account for preexisting differences between intervention and comparison groups.

When planning your evidence of promise evaluation, you'll first need to identify and define the intervention that is being evaluated. The department defines an intervention as a critical component of the process, a product, strategy, or practice being proposed that's designed to improve a relevant outcome that's consistent with the specific goals of the program. For MSAP, your evidence of promise study does not have to focus on the impact of your entire MSAP project. You can focus on specific intervention strategies or practices that are implemented as part of the program. And then also just to reiterate, the intervention for your evidence
of promise study does not have to be the intervention you specified in CPP2 if you are applying to CPP2.

When selecting and defining the intervention on which to focus your evidence of promise study, you may want to consider the following questions. So first, which intervention will you study that according to your project logic model is supposed to affect a relevant outcome? So this is a not-so-subtle hint that the intervention for your evidence of promise study should be identifiable in your logic model and that the intervention should be related to one or more outcomes that are included in your logic model that you expect to be changed through your MSAP project. Two, is this an intervention received by all students in your project or only some students? If it's an intervention that is received by all students, you're going to need to look outside your MSAP schools to find a comparison group. While if only some students receive the intervention, you may be able to identify a comparison group within your MSAP schools from students who do not participate in the intervention. And then three, what services will be received by students in the comparison group and do they offer a service contrast with the intervention? If there's very little difference between what's happening with your intervention group in your comparison group, you are going to be very unlikely to find a statistically significant and positive impact of your intervention on student outcomes.

And just to note, the intervention you select and who receives it will influence who is going to be in your intervention and comparison groups.

Okay. So in order to demonstrate evidence of promise, MSAP evaluations must include an intervention and comparison group. Your groups can be defined in a large number of ways, as long as subjects in the intervention and comparison groups are exclusive. That is, subjects are a member of your intervention or your comparison group. For your evidence of promise study, you cannot compare these same students to themselves either in the same school year or in subsequent school years. Evidence of promise studies do not allow for single group pre/post designs. Your comparison group is intended to estimate what would've happened in your intervention group if they hadn't received the intervention. And the ultimate goal is to identify comparison group that is as similar as possible to students in the intervention group.

When determining your comparison group, it's important to define eligibility criteria that are applicable to both the intervention and comparison groups to ensure that the groups are as similar as possible. So on this slide, I've provided an example, defining the school and eligibility for a made up reading intervention for struggling students in grades three through five. So for my example, at the school level, schools are eligible to participate in my intervention or comparison groups if they're located in
my sample district, include grades three through five, and are not currently implementing or have not recently implemented my selected or similar intervention. And at the student level, students are eligible to participate in my intervention if they are in grades three through five, are struggling in reading, and are not currently receiving or have not previously received the selected or similar intervention.

Depending on how your intervention is implemented, you may need to specify eligibility criteria at multiple levels, such as I did here for schools and students, or at only one of those levels. When you are determining your comparison group, an important consideration is availability of pre-intervention or baseline data, and outcome data for students. The pre-intervention data and outcome data must be the same for students in the intervention and the comparison groups. So in determining a comparison group, some questions that you might want to consider are: Can you obtain the same pre-intervention and outcome data for students in the intervention in comparison groups? Will you be able to use extent data, for example, administrative data, or will you need to collect pre-intervention or outcome data for students in the intervention and comparison groups? And can you obtain pre-intervention and outcome data for students in non-MSAP schools if necessary?

How you answer these questions may influence how you define your comparison group and how you need to design your study. Typically it's easier to obtain outcome data if the outcome is a state or a district test that our students are required to take. It can be more time consuming and costly if the outcome is a test or a survey that must be administered as part of the evaluation. It's not impossible to collect this data, and it can be easy if students are all part of your MSAP project, but it means that you need to think about whether and how you will collect this information from student students who are not participating in the intervention, particularly if these students are in non-MSAP schools. In your application, you will need to explain how you are going to collect pre-intervention and outcome data for your evidence of promise study for your treatment and your comparison group.

Okay. Once you determine the eligibility criteria for the intervention and comparison groups and assess availability of pre-intervention and outcome data, you're going to need to determine how you're going to select your comparison group. So there's three primary categories for creating a comparison group, which are random assignments, non-random assignment using matching or waiting, and then non-random assignment using a convenient sample. And within each of these three categories there are endless numbers of ways of selecting a comparison group. I'm just going to provide a few examples for each type. So for random assignment, you could use a lottery to select students to enroll in the MSAP schools
with students not selected serving as your comparison group. Or you could use a statistical program to randomly assign students within MSAP schools to participate in the intervention or to continue as business as usual, and they would be your comparison group.

For non-random assignment, if you're going to use matching or weighting, you can match MSAP schools with other schools in the same or other districts using propensity score matching or other formal matching procedures, or you can match students within MSAP schools to receive the intervention with other students in the same MSAP school or non MSAP schools who do not receive the intervention using propensity score matching or some other type of matching procedure. You can also use non-random assignment convenient samples. So for example, you can identify similar schools in the same or other district as your MSAP schools without formal matching procedures. And you can identify students in the same MSAP schools who participated in the intervention and did not participate in the intervention without formal matching procedures.

However, how you select your comparison group is going to determine the highest level of evidence that your study can meet. Studies can use non-random assignment to meet moderate or promising evidence standards, but studies must demonstrate baseline equivalents to meet moderate evidence standards, which might be easier to achieve using matching or waiting. If you want to meet strong evidence standards, your study will need to use random assignments. So just a lot of different things to think about when you are considering how you want to select your comparison group.

The final thing, final criteria to meet promising evidence standards is that the outcomes analyses have to include statistical controls for selection bias. So typically outcomes analyses are conducted as a single or multilevel regression analysis with a dummy variable indicator, which would be like a one for your treatment group and a zero for your comparison group, that's included in your analysis at the level of assignment. And you would also include pretest or student background characteristics as statistical controls in the model. For example, typically people include achievement test scores such as in math or reading or other pre-intervention measures of the outcome, students' gender, measures of students' race and ethnicity, or student socioeconomic status. To make it clear that evidence of promise studies will include statistical control for selection bias, it's highly recommended that your application include the statistical model that you plan to use to analyze the data.

So on my screen, using my made up reading example, I've included a potential two level model specifying the co-variants that would be included to control for selection bias at both the school and the student levels of the model. And if this was my application, I would include this. I
would include my model and I would include what I intended to use as the co-variants that I would include in my analysis. This would make it clear to reviewers that I am conducting analysis that includes statistical controls for selection bias.

All right. To recap this discussion of the evidence of promise study, there's a few critical components that reviewers will be looking for when reviewing your evidence of promise study. And to maximize the number of points that you can receive on this section, you'll want to make you include the following things in your application. So you're going to want to define your intervention from your MSAP evidence of promise study. You're going to want to specify the eligibility for your intervention and your comparison groups. You're going to want to describe how you're going to obtain your intervention and comparison groups. You're going to want to list your pre-intervention and outcome measures. And you're going to want to describe how you're going to obtain data on the same pre-intervention and outcome measures for your intervention and comparison groups. And you're going to want to describe your outcomes analyses including your analytic model. And you're going to want to specify the statistical controls for selection bias, which are the co-variants such as your pretest and your demographic variables, etc., that will be included in your analytic model. And it's also highly recommended that you include your analytic model in your application.

Okay. Since this presentation has focused on meeting promising evidence standards, you may be wondering whether or not applicants can propose evaluations that meet strong or moderate evidence standards. And the answer to that is of course. The primary focus of this presentation has been on meeting promising evidence standards to ensure that the evidence of promise evaluations meet the minimum requirements for the MSAP competition. However, many applicants choose to meet moderate or strong evidence standards. So to meet moderate evidence standards, your study would also need to meet a higher level of requirements. These studies must use a quasi-experimental design including meeting WWC criteria for baseline equivalent. The studies must not include confounds, which are components other than the intervention that are completely aligned with either the treatment of the comparison group. They need to use valid and reliable outcome measures that are not aligned with the intervention, use outcomes that fit into WWC outcome domains, and include at least 350 students in more than one school or district.

And then finally, to meet strong evidence standards, evaluations would need to meet the same qualifications as moderate evidence evaluations with regard to sample size, outcomes, and compounds, but they must use an experimental design, which means that schools or student must be randomly assigned to treatment or control conditions. They also must meet
the WWC criteria for low attrition and meet WWC standards with regards to joiners. Studies meeting strong evidence standards don't need to demonstrate based on equivalents.

Regardless of the level of evidence that you are hoping that your evaluation may eventually meet, it is strongly recommended that you include statistical control for selection bias in your outcomes analyses and you specify these in your application, ideally with the inclusion of your statistical model. This way, your evaluation will be able to meet promising evidence standards even if you don't meet all the criteria for strong or moderate evidence. It's very important that your evaluation at the very minimum meet the promising evidence standards and it's helpful if you use these particular techniques to go ahead and do that.

All right. If you do want to design your evidence of promise study to meet moderate or strong evidence standards, it's highly recommended that you and your evaluator review the WWC standards and procedures handbook, the WWC study review protocol, and the WWC webinars on evidence tiers and study ratings to provide you with some additional information to do that.

And that is the end of my presentation. I'm going to go ahead and look to see what questions are in the chat box. It looks like Gillian very helpfully responded to the question regarding whether or not your evidence of promise study has to be aligned with CPP2, and it does not. Or let's see, there is a question from Lisa that says, "Do the awarded points vary in the evidence of promise section depending on if you are conducting a tier one, two, or three study?" The answer is no. And that's one of the reasons why I specifically talk about what the minimum requirements are. You need to produce a study that is able to produce evidence of promise. So you need to include something that can meet tier three. If you want to do something that can meet tier one or tier two, that's fantastic. It's great. You're more than welcome to do that. But I will tell you that you don't earn any more points by meeting tier one or tier two than you do if you meet tier three. It's whether or not you meet the stated requirements, which is to produce evidence of promise.

Okay. I see there's another question coming, so I'm going to just wait a couple minutes. Okay. There's another question about CPP2. It says, "We're planning to serve grades K through 12 with our MSAP project, but the two articles we have found to meet the evidence requirement for CPP2 both includes samples of students in grades eight through 12. To receive the full points for CPP2 do we need to include an article that also includes the earlier grades?" No, actually you don't. You only need to have the overlap of the students for the higher tier levels. So, no. You would actually be fine submitting that and you'd still be able to at least meet tier
three. And so you could meet your full CPP2 points by submitting articles that only cover part of your student sample.

Okay. I am not seeing any other questions. So I'm going to say thank you for attending the presentation today. I'm also going to direct you to the slide that's on your screen now that says to please direct any questions about the grant application to the MSAP team at the U.S. Department of Education at MSAP.team@ed.gov. I don't know if you are coming back online yet or not, but otherwise thank you very much for listening.


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