MSAP Pre-Application Webinar: Logic Models
February 7, 2017

Jennifer Todd: Good afternoon, and welcome to the 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 Justice Tuia. For our final webinar within our pre-application series, Brandon Coffee-Borden, from Community Science, will provide the information on logic model. We ask that you submit questions via the webinar Q&A function. Only submit questions relevant to the topic being addressed by the current speaker. Due to time constraints, we might not be able to answer all of the questions. If your question is not addressed, you can submit it to msap.team@ed.gov. We will regularly update the FAQs on our website.

All of our webinars were held at 1 p.m. Eastern Time. Recordings are posted on the first business day after the live webinar at msapcenter.com. We held a webinar on the Notice Inviting Applications Overview on January 26th, School Integration on January 31st, Evidence and Evidence-Based Information on February 2nd, and this is our final webinar in the pre-application series, on Logic Models. At this time, I will turn it over to Brandon from Community Science.

Brandon Coffee-Borden: Thank you so much. My name is Brandon Coffee-Borden, and I'm a managing associate with Community Science, and I want to thank all of you for joining us today for our webinar on logic models.

The purpose of today's webinar is to introduce you to logic modeling as part of the program planning process. Today we're going to discuss the key elements of a logic model; how to develop a logic model; how to create alignment between activities and outcomes within a logic model; how to create alignment between a school district and school level logic models; how to ensure coherence across those logic models; and then how to move from a logic model to a measurement framework.

As I mentioned, today's webinar is focused on how logic models can be used for program planning and design. Logic models have several benefits for this purpose. Logic models can help you find gaps in the theory or the logic of you program, so that you can resolve these gaps during the planning and design stage, and before implementation begins. Logic models also build a shared understanding of what a program or a project is all about, and how the different parts of that program or project work together. Logic models define program activities, and anticipate outcomes before the implementation process begins, and in doing so, helps ensure that these activities and outcomes are both plausible and possible, and that there's a shared understanding of what the program is working toward.

I've talked about some of the benefits of logic models for program planning and design, but logic models also have benefits for other phases of a program implementation process. Logic models also benefit the program implementation management. They help maintain a focus on key activities and strategies, and the connections between actions and the desired results of those actions. Logic models can also contribute to evaluation. They provide an understanding of the key outcomes a program is working to achieve, and then how it work to achieve them. It can also provide a foundation for the creation of evaluation questions and the development of measures of progress and indicators.

The figure that you see here on slide four highlights a program process that's really an iterative cycle. That cycle begins with the program planning process, and then moves through implementation and evaluation. Following evaluation, it's critical to return to the planning process to reflect on what's been learned, and what needs to change to make the program more effective. It's also an opportunity to revisit the logic model itself, and check to ensure that it still functions as an accurate representation of the program. I'd encourage to you not approach the logic modeling process as something that's only useful for the grant application, or something that happens on the side and separate, independent of your projects. The logic model is really meant to be a living document, and should be reviewed and revised and reflected on over time.

In general, a logic model is a theory of action. It provides a conceptual framework that gives an overview of your project. It provides a roadmap that shows a pathway for the change that you envision. It depicts what you'll do, and what will be produced and accomplished as a result of that. It identifies components of the proposed process, product strategy, or practice. It describes the relationship among the key components and outcomes. Then it helps to ensure that you understand what to evaluate, and what to measure.

Over time, logic models have been often popularized by evaluators, but logic models should, of course, be of interest for those designing and planning programs, because in the context of program design, as I mentioned earlier, it helps to create a shared understanding, as well as make explicit the assumptions underlying the program logic and the kinds of changes that are expected to be seen in a given timeframe. Logic models are important because they provide a map. It shows you where you're trying to go, and how you're going to get there. Again, it checks everyone's understanding about how you'll get to your destination, and their assumptions about that process.

The logic modeling process is beneficial in that it helps to surface differences among key stakeholders in their understanding and approach to the work. We'll touch on that a little bit later. It helps you think about what resources you are going to need to implement your activities and to get to your destination. It makes you think about what will be different when you've arrived at your destination, and then how you actually know that you've arrived. It also encourages you to think about external factors that will impact your journey. These can be the history of your community, a local economic context, or social norms.

Before talking about the core elements of a logic model, I think it is important to consider what a logic model does not do. Logic models do not convey the underlying theory or assumptions of the program in and of themselves, although they do act as a theory of action. Depicting that underlying theory or those underlying assumptions is really the function of a theory of change. Sometimes people use theory of change and logic model interchangeably and they do go hand-in-hand, but aren't necessarily the same thing. Your theory of change describes, in word or in a visual form, why and how one thinks doing A, B, C will lead to changes X, Y and Z. I'll touch on that a little bit later, as well.

The logic model illustrates the theory of action, and puts that theory of action to a visual form. Logic models don't represent reality. Rather they focus on what a program intends to do, and its expected outcomes. Logic models also tend to focus on positive change. Of course, change isn't always positive. Logic models also don't prove that a specific activity causes a specific outcome, but rather highlights an expected relationship between activities and outcomes. Logic models can also simplify the complex nature of causal attribution, where many factors may influence process and outcomes. A logic model also cannot tell you that you're doing the "right thing." It simply highlights what you plan to do, and what you think the program will achieve. Whether or not you're doing the right thing really should come from a theory of change, which is based on evidence-based practices and research and evaluation studies. A logic model is an input into the evaluation process, but it's not an evaluation model or method in and of itself.

This slide shows the basic structure of a logic model. Essentially it describes what you invest, what you do, what you produce, and what you affect. What you invest, that's resources. Those are the human, the financial, the organizational, and community resources available to direct toward your project work. For example, staff time or grant funding. Your activities are the processes, the tools, the events, the technology, and the actions, that are going to be an intentional part of program implementation. They are the components that propose process, product strategy, or practice. For example, the design and implementation of a lottery, or the restructuring of

a curriculum to incorporate other content. These are your critical components. Outputs are direct products of your activities. These may include types and levels and targets of services to be delivered by a program. For example, successful implementation of a lottery.

Outcomes are changes in behavior, beliefs, knowledge, skills, status, levels of functioning, policies, procedures, and practices. For example, the elimination, reduction, and prevention of minority group isolation. These are you relevant outcomes. Outcomes can further be broken down into short-term, medium-term, and long-term outcomes. Sometimes the term immediate outcome, and short-term outcome, those terms are used interchangeably. Sometimes intermediate outcome and medium-term outcome are used interchangeably. Sometimes impact and long-term outcomes, those terms are used interchangeably, as well. Short-term, medium-term, and long-term outcomes, they might describe progressively higher levels of skill development, attitudinal change, or behavioral change, or in the long-term, maybe you seek to impact systems or policies.

Context refers to the relevant demographic, economic, community, historical, cultural, political, or other social factors that influence activities and outcomes. For example, the conditions from the community, the socioeconomic status of students, and similar conditions. Again, this shows the skeleton, or the basic structure of a logic model. It's important to note that logic models can come in different shapes, sizes, levels of complexity. But you will find this basic structure in all of them. Logic models are usually best when they're kept to one page and are easily understandable.

What's the difference between a logic model and theory of change? As I mentioned earlier, I'd touch on this. A logic model illustrates connections between your resources, your activities, your outputs, and your outcomes. It provides your theory of action. A logic model depicts outcomes and activities to explain how and why a desired change is expected to occur. A logic model usually starts with a program and illustrates its components. A theory of change may start with a program, but typically they start with some overarching goal before deciding what program and approaches are needed.

For the development of a theory of change, typically it's important to be clear about what is desired to be produced through an initiative. Oftentimes group members may find that they have different ideas about what they're working towards. Then stakeholders need to think about all the preconditions or the building blocks, or requirements that must exist in order to reach some kind of long-term goal. You can see that depicted here in slide nine. These things need to be considered in light of the big picture perspective and really zeroing in on what preconditions a group of stakeholders is going to take responsibility for producing. Recognizing that

all preconditions may not be within reach, or could be affected by a given program.

As I mentioned, usually there's a subset of outcomes or conditions that are beyond the sphere of influence of any single initiative. For example, creating a stable economy or producing enough jobs to increase socioeconomic conditions in a community. The stakeholders could suggest ways that a particular program may be able to influence other programs, or act in ways that they could identify for strategic collaboration, things like that.

This shows an example of some components that you might find in a logic model vs. what you might find in a theory of change. For a logic model, an afterschool program, which is an activity, is expected to improve math scores in the long-term. For example, attendance in this program may serve as a medium-term outcome.

In a theory of change, you might find students need to attend the after school programs at least 4 days per week for minimum of 90 days, and the curriculum was focused on a love of math and basic skills in order for test scores to rise. So the theory of change as you can see, is threading a little more detail on the underlying assumptions regarding that after school program. So a logic model relative through change is important and very useful when you need to show someone something that they can understand at a glance, that can demonstrate that you've identified the basic resources, outputs and outcomes for work. Then to summarize a complex theory into a basic category and distill that into your basic theory of action.

So a logic model is really, at its core, a series of "if-then" statements. Again, as I mentioned earlier it focuses on what you invest, what you do, and what you produce, and then what you affect. So the logic model recognizes that you're going to need certain resources to implement your activities. Then if you have access to those resources then you can accomplish your planned activities. If you implement the planned activities as you intend, then hopefully you'll deliver the product or service that you intend. If you complete that product or that service then you'll produce certain benefits. In this case we're saying within 6 months to 1 year. If you produce certain benefits in the short term, then you'll produce certain benefits in the long term, in this case, in this example, 1 to 3 years.

Then if you produce certain benefits in the medium term, then you'll produce certain benefits in the long term, in this case 3 years or more. So the series of "if-then" statements ... Then your context ... Your context recognizes that there will be certain external environmental factors, some of which may be pre-existing and stable and others of which will be dynamic and constantly shifting and changing. That set the stage for your activities

and can serve to either facilitate or undermine your ability to implement your activities as planned and reach your intended outcomes.

As I mentioned earlier, one of the most useful aspects of creating the logic model, the during the planning phase, is that it allows you to identify gaps in your theory or your logic of your program. It will let you resolve these gaps during the planning phase. These gaps often occur as a misalignment between your planned activities and your intended outcomes. So you can identify misalignment by scrutinizing your "if-then" statement that we just discussed by going from left to right to ensure that your activities naturally and logically will be to the outcomes you want to achieve. Then you can move from right to left to check that your outcomes naturally lead back to the activities that you plan to implement. It's also important to recognize that a single strategy or activity may lead to multiple different outcomes.

So here is a simplified example of how you can approach checking for alignment within your logic model. As you look at this slide you'll notice that this is a pillar example which really focuses on the link between an activity and its associated short-term, medium-term, and long-term outcomes. You'll see that we've removed the output column here to highlight that connection.

Let's say for example an applicant intends to implement an activity where teachers meet at least an hour a week in small groups to work collaboratively on improving instruction and student learning. According to this example in the short term. They think that the teachers will increase catenary knowledge through this collaboration then develop shared values and vision, emphasizing learning and research based strategies. Then in the medium term, teachers will adapt effective instructional practices, including increased use of differentiating instruction, and then increase their level and quality of collaboration. Then students will increase their engagement in the learning process.

In the long term, that could result in reduced minority student isolation and reduced socio economic inequality and increased student achievement on state wide, school and classroom assessments for example.

Let's start by checking for alignment by moving from left to right. So we'll do this using the "if-then" statements that underlie our logic model that we talked about earlier. If teachers engage in small group work, then they will increase catenary knowledge and develop shared values and vision. If they increase catenary knowledge then they'll adopt effective instructional practices. If they develop shared values and vision then they'll increase their level of collaboration and equality. If teachers increase catenary knowledge and develop shared values and vision, then will students somehow increase their engagement in the learning process? Not necessarily.

Even though the short-term outcome focuses on attitudes and knowledge but not necessarily changes in behaviors and practice which could impact student engagement. So this will be a case of misalignment. In this instance, increased student engagement might be best thought of as a long-term outcome which could result from the adoption of more effective instructional practices.

Similarly if teachers adopt more effective instructional practices, and increase their level and quality of collaboration, will that naturally and logically lead to minority group, reduce minority group isolation, or reduce socio economic inequality?

Again, not necessarily. This might be another case of misalignment and to impact these two outcomes, the applicant will need to consider adopting additional activities or just rethinking the outcomes that would come from the activities at hand.

You can also see this misalignment by going from right to left. Ultimately reduce minority group isolation and reduce socio economic inequality are unlikely to result from teach (meaning at least one hour per week) in small groups, work collaboratively on improving instruction student learning.

So in this example one might benefit from doing a little bit more additional thinking about how to better align core activities and desired outcomes. So for example, some potential changes here could be to have an outcome focused on student engagement in the learning process as a long term outcome. Outcomes related to minority group isolation and socioeconomic inequality could be removed because they don't logically flow from that specific activity.

Then one might also want to add in an additional outcome. So in the long term integration of professional learning communities into teachers' daily work and routine over the long term.

So sometimes, of course, one is working to implement a program within a larger system and you know this is of course a case when there are schools working within a district. If one doesn't illustrate the connection between an individual school and that larger system, you may risk making parallel changes that might not align and may not result in the impact that you're looking for.

So the alignment between the logic model for a school district and the alignment between schools within that district, it's critical to keep everyone's eyes on the same prize. Even if implementation will look different at the school level than it will at the district level and vice versa.

So here's a shell of a logic model that shows the connections between resources, activities, outputs and outcomes at the district and school level. Just as you see here, the district will have certain resources. It's going to engage in certain activities. It's going to produce certain outputs. In schools, similarly, are going to have certain resources and engage in certain activities and produce certain outputs from their work.

But in both cases, typically the school district is going to be working toward a certain set of common short-term outcomes. The school will be working towards a certain set of common short-term, medium-term and long-term outcomes. Now again, some outcomes may accrue to the work between activities of the district. Some outcomes may accrue to the work of the school. In general they're going to be working toward a similar set of outcomes. Then also they'll be working within a similar set of contextual factors, a similar set of contextual limitations and facilitators.

It's also important to note here that things happening at the district level, you know, policies, procedures and practices, are going to inherently impact schools nested within that district. Of course activities within the schools are going to fill back up to impact the district. So ultimately both the district and the schools are again working toward a similar set of outcomes. Recognize again that in some cases the school district will be working toward a set of independent outcomes and a school might be working toward a certain set of individual outcomes based on its activities.

So next, let's take a look at an example of a district-level and a school-level logic model. So it's important to note here that this is simply an example. You know, again, logic models can come in many different shapes and sizes and each of your logic models is going to look different. This provides an illustration of what a district logic model might look like.

In this case, the district has, again, certain resources. Two full time staff. Three part time staff. Three point two million dollars in funds. Knowledge about evidence based strategies. At the district level, the district is working to educate the community about a magnet school offering through partnerships with youth serving organizations of the year schools. It's going to implement a student choice of school in a magnet program lottery. It's going to provide district wide professional employment opportunities on evidence based strategies that promote racial integration. The output to those activities over two hundred informational packages distributed. Twenty in-person informational sessions conducted. Student choice of lottery at magnet school program lottery implemented. Then three or more trainings conducted by each magnet school.

In the short term, this attempt will lead to community awareness about magnet schools, increased enrollment of minority students and improve parents' knowledge and perception of magnet schools. So in this case magnet schools A, B and C also have certain resources, teachers and administration staff and knowledge about evidence based practices. At the school level, the school's going to work to develop partnerships with local colleges and universities. They're going to integrate a STEM [inaudible] across the schools and develop an annual professional development retreat and leadership retreat for school leaders, teachers and administrative staff. They will expand their parent resource centers. The outputs of those activities, the partnerships with the local colleges and universities will be established. The curriculum will be restructured to integrate STEM. There will be increased parent participation at the parent resource center. All teachers and staff will participate in an annual professional development retreat. Then all school leaders will participate in a leadership retreat.

Some of the short term outcomes will be increased minority student interest in STEM careers. Improved parent teacher student relations. Enhanced instructional competency to teachers. Enhanced communication skills of school leaders, teachers and administrative staff. In the medium term, the district and the schools are working toward a relatively common set of medium term outcomes. There will be increased community parent support for magnet schools. Increased socio economic and racial diversity in magnet schools. Improved school parent relations. Institutionalization of evidence based strategies. Improved student academic achievement. Improved student preparation for college and in STEM related careers and reduce minority group isolation.

In the long term, they're hoping to achieve decreased disparities in graduation rates. Increase rates of college acceptance and attendance. And an increased sense of belonging and in school bonding among minority students. In terms of the context over time there's been, in this case, a negative perception of school board effectiveness. There's been a lack of diversity in STEM related professions. There's been an increased racial, ethnic and socio economic and other disparities in graduation rates in the broader states. There's been a gradual decline in graduation rates in the school district in the past five years. There's been limited cooperation and exchange between higher education institutions in K-12 schools.

So this is what a logic model might look like for Magnet School A that's working within this district on these activities described here. So you'll notice here that a lot of the resources, activities and the outputs and the outcomes parallel the district logic model but there's a little bit more detail here that's specific to the work of Magnet School A. So as noted in the district logic model, Magnet School A is working to develop partnerships with local colleges and universities. It's working to integrate the curriculum

across the school with a focus on minority students and develop an annual professional development retreat for teachers and administrative staff.

But here, we provide a little more detail on what professional development retreat looks like. It's going to focus on communication with students and parents, collaboration among staff, and instructional strategies that are evidence-based, particularly in support of minority students. They're going to work to develop an annual leadership retreat for school leaders, but again, a little bit more detail on that that leadership retreat is going to look like. It's going to focus on collaboration with other school leaders, communication with parents, and then again, evidence-based strategies for creating a welcoming and inclusive school climate. Also, as noted in the district logic model, School A is going to work to expand parent resource centers to be more inclusive of minority students.

In terms of it's output, again, a little bit more detail specific to Magnet School A so the partnerships are going to be established with two colleges, one university in the region. The curriculum is going to be restructured with the focus on promoting knowledge of students, especially minority students, in competencies required for higher education and STEM, and preparedness of students, especially minority students, for STEM-related careers. There will be more parent participation in the parent resource center. All teachers and staff will successfully participate and complete the annual professional development retreat. Then, all school leaders will participate in the leadership retreat.

In the short term, there'll be increased student interest in careers in STEM, improve teacher-student relations, enhance instructional competencies of teachers, enhance collaboration across schools in the district, but also improve communication skills of school leaders, teachers, and administrative staff in a more welcoming and inclusive school climate.

In the medium term, there will be increased community and parent support for magnet schools, increased socioeconomic and racially diverse magnet school, improve school-parent relations, institutionalization of evidence-based strategies, improve student academic achievement, and improve student preparation for college and STEM-related careers, and reduce minority group isolation.

In the long term, there will be decreased disparities in graduation rates, increased rates of college acceptance and attendance, and an increased sense of belonging and school bonding among minority students. Then, looking at the context, you will note the context is very similar to the context of the district logic model.

Comparing the school logic model to the district logic model, broadly there's a few things to note here. The school-level logic model provides more detail on school level activities and outputs than the district-level logic model because these activities are more directly relevant to the school's work. Although there's a detailed account of activities and outputs here, the logic model includes several of the outcomes that are included in the district logic model. It recognizes the connection between what's happening in the district level and what's happening at the school level, and the fact that the school's nested within the district.

The context of the school is similar, as you can see, to the district logic model, but it's also slightly different. That's just a note that there might be some distinct characteristics and surrounding factors, the impact of the school as an institution relative to the district as a whole.

So far, we've talked about what a logic model is. Next, I'd like to turn to what does it actually take to develop a logic model. A lot of this work is going to overlap with work that you're naturally doing as part of developing your application. A core step in developing a logic model is to clarify the purpose of the logic model and then how it's going to be used. One clear purpose is for the logic model to be included in your application. However, a logic model is an important tool for the planning process and it also has benefits for program implementation and evaluation and generating thoughts and discussion on program improvement, so think about some purposes that the logic model can serve for those activities as well.

Next, you want to determine who should be involved in the creation of the logic model and who will facilitate its development. Begin to think about who are the key stakeholders that should be involved in the logic model development process, those that have a stake in the execution and the success of your project. These stakeholders might include district staff, school staff, students, even community members or community institutions. Next, you'll want to set boundaries for the logic model in terms of the level of detail and the focus. Of course, you'll be including a logic model as part of your application, however, the level of detail of each logic model may vary. For example, a district with one school might have more detail for school level activities than the district logic model than it might in a school level logic model for a district that has three schools, for example.

Next, you'll want to seek to understand the situation. If you have a problem that's giving rise to the need of the magnet program, then begin to explore the evidence base to determine what is known about the problem, similar [inaudible], similar context, then relevant barriers and facilitators. Then, based on that knowledge and understanding, you can identify effective strategies and activities, as well as short-, medium-term, and long-term outcomes that will result from those activities.

Next, what are some approaches to actually developing a logic model? One method is to start with your long-term outcomes and then move backwards. You start with your long-term outcomes. Long-term outcomes, they represent the ultimate change that you want to see. You want to begin by asking yourself what will be different after you've implemented your program consistently for your long-term time frame, for example, 3 years or more.

Next, you'll move to your medium-term outcomes, so you'll take one step backward and you'll ask what will be different after you've implemented your program consistently for a medium-term timeframe, for example, 1 to 3 years, that tells you that you're on your way to achieving the long-term outcomes that you've identified. These, of course, represent your medium-term outcomes.

Next, you'll take another step backward and you'll move to your short-term outcomes. You'll ask what will be different after you've implemented your program consistently for your short-term period, for example, 6 months to 1 year, that tells you you're on your way to achieving your medium-term outcomes. These, of course, represent your short-term outcomes.

Then you'll take one more step backwards and you'll ask what will you produce as a result of implementing your intended activities. Then move backwards to say what activities must be provided to complete and achieve your outputs. Then you'll take one final step backward and think about what resources, what staff capacity, funds, partnerships, etc. are needed to make sure you achieve the activities that you intend to implement. Then finally you want to represent your context by starting to write down what factors in the surrounding environment will impact implementation of activities and your progress toward your intended outcomes.

The second method is to start with your resources and move forward through the logic model. You'll start with those resources and then you'll ask what resources, again, things like staff capacity, funds, and partnerships, are needed to implement the activities that you planned. Next, you'll move to your activities and then write down your activities that you plan to implement. Then for each activity, you'll ask if we do this activity, then what output will occur. That will allow you to identify your intended output for your activities. Once you have your outputs, you can ask, okay, if this output occurs or is produced, then what short-term outcomes will occur, again, for the sake of argument, within 6 months to 1 year. Then you'll be able to write down your short-term outcomes and identify those. For each of those outcomes, you can ask yourself if this short-term outcome occurs, then what medium-term outcomes will occur within 1 to 3 years. Then you'll be able to write down those medium-term outcomes. Once you've

identified those medium-term outcomes, you can ask if each of these medium-term outcomes are achieved, then what long-term outcomes will occur within three or more years, for example. Then you'll identify your long-term outcomes.

Again, you'll want to identify the context by writing down the surrounding environmental factors that will impact implementation of your activities and progress toward your intended goals.

Next, I'm going to talk a little bit about how involved stakeholders in the logic model development process. There's a lot of different ways to developing logic models. I know that all of you have had various experiences with logic model development and you come in with different levels of knowledge. You may have engaged in different kinds of approaches in the past. Of course you could do logic model development through a series of meetings. I think in my experience I would recommend bring all stakeholders together at a specific time and place to develop the logic model. Get everyone around the same table. It just kind of facilitates a more effective logic model development process.

You may not be able to create a logic model in one sitting, but it's important to understand the development of a logic model is a process and the more that you engage your stakeholders, the more buy in you'll have, the more you'll be able to understand what it's going to take to achieve a successful program.

During that logic model development process, it's important to keep in mind that disagreements may arise. As I mentioned earlier, oftentimes different stakeholders bring to the table different assumptions and beliefs about the activities that will be implemented and what will result from those activities. That's natural and that's actually a healthy part of the logic model development process as the group grapples with differences in perceptions and differing assumptions about the work. I would encourage, if possible, that you engage a skilled facilitator to help the group developing the logic model work through these kinds of disagreements effectively and efficiently. It just tends to help the group process move along a little bit better.

If it's a fairly largely group, you may want to design a process that allows for small group discussion. These small groups could be organized in a few different ways. For example, you could have groups organized by stakeholder type, maybe a group of teachers versus a group of school leaders, or it could be a mix of different kinds of stakeholders depending upon what your preference is. I'd recommend that you keep in mind differences in power among different stakeholders. That can some times cause some people to be less vocal and others to be inadvertently louder

than others. There are a few ways you can manage this. You can make sure to orient and prepare the different stakeholder groups with less power before the meeting so they know what to expect and feel confident in their contribution to the process. You may also want to use a round robin technique to make sure every one has a chance to talk and to provide feedback. Then again, you can also use different exercises to allow participants to write down their thoughts and hand in written notes, which could help increase participation of those who may be shy about speaking in front of a larger group.

Of course sometimes people engage better when they have something to react to. If you think that approach will work better for your group, you could create a draft logic model and then convene your group of stakeholders to discuss that draft logic model. It would be helpful if you do develop that draft logic model to develop a set of questions to structure and guide that discussion. Then also keep in mind that if you do it this way, be sure to stress that the version that you're providing is just a draft and be clear about the parameters for the revision and the process for moving toward a final logic model because you don't want people to think that they can change anything. You don't want to risk certain people becoming disengaged, that their input isn't being integrated into a revised version. You want to make sure explicit parameters around that process.

Once you've been able to develop a logic model in consultation and collaboration with your stakeholders, it may be useful to share that draft with everyone who's been involved. Getting [inaudible] comments, checking to make sure it's an accurate reflection of what was discussed, then revise the logic model accordingly to move toward a final logic model.

It's important to note when considering elements of logic model development, there's really no right way to develop a logic model. It all depends on your purpose and how you will use the logic model, who will be using the logic model and your contacts and available resources. At the end of the day, a logic model needs to convey what is meaningful and something that is meaningful and understandable to its intended users. For example, a logic model that you're using for internal planning and implementation and evaluation purposes may be more detailed than one used for communication with external audiences. I discussed earlier when we touched on trying to create coherence and alignment between the school district logic model and a school-level logic model for complex multilevel or multi-component initiatives, several logic models may be needed. Just remember that a logic model is not supposed to be an exact representation of your project. It doesn't show all your detail, it's just a model.

I mentioned this briefly earlier but, a logic model really does work best when it can fit on one page. If you're running out of space as you're

developing your logic model then you probably need less detail. You may need to develop another logic model as I just mentioned for complex, multilevel or multi-component initiatives, you may need several logic models. Or, you may want to add a supplement that has key details or a clarifying notation that accompanies the logic model. It's also important to remember that a logic model doesn't typically include an extremely detailed account of the situation, a basic statement about the broader situation can be included in a logic model. It can include a detailed list of assumptions that underlie the logic model. A logic model doesn't typically include a detailed list of all external factors that will implement implementation and will effect progress towards intended outcomes. As noted earlier, broad contextual factors should be recognized within the logic model.

A logic model doesn't typically include an account of evaluation methods or measures. I just mentioned that a detailed account of assumptions is not typically included in the logic model itself. As I discussed, a logic model development and revision process should help clarify assumptions and get everyone on the same page. These assumptions are the beliefs we have about the program, the people involved, how we think the program will work. They also include ideas about the problem or the situation, how individuals learn and behave, their motivation and so on, the resources and the staff, the external environment that will effect the program project, knowledge about the evidence base as well as the internal environment. Often times it's faulty assumptions that are the reason for poor results. So, that's why logic modeling is so beneficial to bring these different assumptions to light and try to resolve them during the program planning phase.

Again, the reason one size fits all template for logic models. The level of detail versus the level of generality is going to vary by context. But nonetheless, here are some general guidelines for balancing detail versus generality when describing resources, activities, outputs and outcomes in your logic model. For example, for resources, something that might be too specific, again this is all going to turn on the context but, something that might be too specific would be one full-time marketing coordinator, one full-time project director, three part-time after school coordinators. Something that would be too general would be to say staff as a resource. Something that might be closer to just right, two full-time a few part-time district staff or teachers, counselors, and school administrators.

For your activities, something that might be too specific create three brochures, print 500 copies each. Something that might be too general, market schools. Something that might be closer to the appropriate level of detail, develop and disseminate marketing materials. For outputs, something that may be too detailed and often times for outputs it depends if one is able to confidently quantify an output that's asked of every school to do as a

measure of implementation. Something that may be too specific, again depending on the context, might be to provide one workshop on cultural competency, one workshop on project-based learning, one workshop on STEM. Something that might be too general, is provide professional development. Something that's closer to just right, provide professional development on cultural competency or provide professional development workshops on cultural competency, project based learning and STEM.

In terms of outcomes, something that might be a bit too specific, by October 1, 2019 reduce racial isolation for Hispanic students by 5 percent. Something that might be too general, desegregate schools. Something that might be just right, reduce minority group isolation for Hispanic students. So again, these are just general guidelines for balancing detail and generality. Again, the degree of specificity versus generality is going to depend on the context and your goals for the logic model.

Logic modeling is an important step in the program planning process, as I've talked about. It's one of the first and most important steps that can attribute to design and then also implementation evaluation. You can also use a logic model for foundation for developing a measurement framework, which can serve as an evaluation planning tool. Developing a measurement framework can allow you to determine how to assess progress towards achieving your evaluation outcomes and help you answer your evaluation questions.

Here are some potential elements of a measurement framework. I think it's important to note that, of course, just as there's a lot of different ways to develop a logic model, that logic models come in many different shapes and sizes, there's also a lot of different ways to develop a measurement framework to examine progress toward intended outcomes. It's your linkage between what you're measuring and outcomes and outputs including your logic model. There's a lot of different ways to do that. This is just one potential framework to do that.

There are two elements in this measurement framework that are drawn directly from the logic model. The first is your outputs. These are what you produce as a result of implementing your activities. Then also your outcomes. These are the short-, medium-term, and long-term changes or benefits that you'll need to document. There are a few additional elements; so an indicator so this would be a measurement of an attribute, a change or some kind of marker of success so you can measure progress towards your intended outcomes. Your data collection method, this is how you will collect your data. This may include quantitative methods, such as conducting surveys or analyzing existing data using administrative data, or it could be qualitative methods such as conducting interviews or conducting a document analysis.

Your data sources, this is where the data will be obtained from. It could be a program survey and from whom, could be your participants or your students and so on. Then also, your frequency of data collection is how often you plan to collect the data. Then actions, how do you actually intend to use the data you're collecting? How is that going to be an input into your program implementation, program planning, implementation and evaluation process?

This slide shows what this measurement framework might look like. On the columns, we have output and outcome, indicators, data collection methods, the data sources, the frequency of data collection and the actions, the elements described in the previous slide. On the rows, those will be populated by directly from your logic model. The outputs that you identify from your logic model, the short-term outcomes identified in the logic model, the medium-term outcomes identified in the logic model and, the long-term outcomes that are identified in the logic model.

Here you have an example of what a filled in measurement framework might look like for a sample medium term outcome here. This was taken from School A's logic model. This is the increased minority pursuing interest in careers in STEM. The indicator might be the change in the percentage of students reporting that they're likely to pursue a STEM career. The data collection methods might include a school survey. The data source would be from students. The frequency of data collection would be once per year. Then the actions would be reviewed. To review this information during an annual review and planning meeting regarding the program to inform improvements in the work. So, that's just an example of how one could develop a measurement framework that links directly to the components of your logic model.

I thank you all for your attention and I'm happy to answer any questions. Thank you so much for your time.

All right, so there's a question here from Allison that asks, "Is a theory of change the same thing as a theory of action?" The difference between the theory of change and the theory of action, the logic model really represents your theory of action. It's connecting your resources to your anticipated activities to what you expect to produce as a result of those activities and then connecting that to the ultimate outcomes that you try to achieve. The theory of change really goes a little bit deeper to talk about the how and why that one expects. The how and why behind why one expects implementing certain activities will achieve a set of intended outcomes. So, it goes a bit deeper to identify preconditions and assumptions that are typically included in your logic model, which really describes your theory of actions.

Jennifer Todd: We'll address the question from Rebecca. “Do we need to submit a measurement framework with our application?” Brandon has mentioned throughout the presentation that there should be some alignment between the logic model and the evaluation and the measurements used. So, in the peer review process, it needs to be easy for peer reviewers to identify the measurement framework that is being used as it relates to the logic model and within the evaluation.

I'll address Christina's question. "If you have multiple magnet schools in your district, should you include a logic model specific to each magnet school as well as a district model?" As Brandon mentioned in the presentation as well, depending on your application and the number of schools, aligning your program in a way that is clear to peer reviewers what the inputs and outputs are is on the applicant to present so that is up to you. But as he said, as you prepare your application, it may behoove you to include several logic models to let the peer reviewers know and to be able to identify, for your project, what the inputs and outputs are for each school and within the district.

Brandon Coffee-Borden: I'm going to answer this question about other websites that have logic model templates that can help you with this work. Of course, the Department of Education has resources on logic model development. That would be, of course, one place to turn to. The Kellogg Foundation has also developed a very detailed guide for logic model development that might be another resource. But certainly, there are other resources and guides out there that might be useful.

Jennifer Todd: We have now answered all of the questions that have been presented. Thank you for attending the last webinar in our pre-application series for the FY 2017 MSAP competition. If you have any further questions, please direct them to MSAP.team@ed.gov and visit our website frequently. We will update our FAQ with your questions. Thank you.

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