



Tools

May 2015

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# Logic models for program design, implementation, and evaluation: Workshop toolkit

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## Overview

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This Logic Model Workshop Toolkit is designed to help practitioners learn the overall purpose of a logic model, the different elements of a logic model, and the appropriate steps for developing and using a logic model for program evaluation. This toolkit includes a facilitator workbook, a participant workbook, and a slide deck.



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# Facilitator workbook

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## Introduction to workshop

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A logic model is a visual representation of a theory of action or program logic guiding the design and implementation of a program or policy and can be used as a tool for building a relevant evaluation design. The Regional Educational Laboratory (REL) Northeast & Islands administered by Education Development Center created this workshop to help groups, such as the research alliances affiliated with the 10 RELs, as well as individual alliance members, learn about and build logic models to support program designs and evaluations. Based on feedback from alliance members, REL Northeast & Islands learned that many of its district- and state-based members would like to build their capacity to develop logic models for both evaluating their own programs and working more effectively with evaluators whom they engage to conduct evaluations on their behalf.

This workshop provides a primer on logic modeling and demonstrates how to use logic models as a tool for program evaluation. The overarching goals of the workshop are to:

- Introduce logic models as an effective tool for program or policy design, implementation, and evaluation.
- Practice the elements of a logic model.
- Provide guidance in appropriate steps for building a logic model for a program or initiative.
- Practice using logic models to develop evaluation questions and indicators of success.
- Provide guidance in how to determine the appropriate evaluation for a specific program or policy.

Versions of this workshop were presented to three REL Northeast & Islands research alliances in 2013 in two different formats. The Puerto Rico Research Alliance for Dropout Prevention participated in a three-hour face-to-face workshop focused on supporting the alliance's effort to generate a common vision for dropout prevention work. The Urban School Improvement Alliance and the Northeast Educator Effectiveness Research Alliance both participated in virtual webinars for a broad audience of practitioners interested in developing skills and capacity to develop and use logic models to increase individual and group capacity to design and evaluate programs.

This toolkit provides a complete workbook and slide deck for two sessions. Session I is 120 minutes long, and Session II is 90 minutes long. The first session focuses on the elements of a logic model and the process for developing a logic model for a program or policy. The second session provides guidance on how the logic model can be used as a tool to develop evaluation questions and indicators of success. While the workshops are designed as 90-minute to 2-hour sessions, there are many examples of ways to extend the activities and the learning when more time is available to go in depth on any particular aspect of the materials. These recommended extensions are denoted with a light bulb (💡). The bulk of these recommended supplemental activities are best for a face-to-face workshop rather than a virtual workshop. However, in many cases guidance is provided on how to approach the activity in a virtual context.

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There are 13 notes in session I and 13 notes in session II that focus on supplemental activities and the recommended extensions.

There are also pre-assignment activities that participants are encouraged to complete before the start of the workshop.

The toolkit includes items needed to successfully present this workshop in a face-to-face or virtual setting:

- Facilitator workbook for sessions I and II.
- Participant workbook for sessions I and II.
- Slide deck for sessions I and II (available at <http://www.relnei.org/tools-resources.html>).

It is recommended that the presenter be familiar with logic models and have some familiarity with the content that participants might apply to the skills presented in the workshop. Whenever possible, the facilitator should provide examples that are relevant to the audience for the workshop (for example, for an audience of school administrators, consider examples relevant to their particular work contexts and how they might use a logic model in their work).

Some initial suggestions for tailoring:

- Organize teams of school-, district-, or state-based leaders to attend together, and focus on a particular program or policy.
- Across contexts, focus on a particular type of program or policy, such as dual enrollment (high school and college dual enrollment), educator evaluation, or other particular policies or programs relevant to the participants.
- A pre-assignment is provided at the beginning of the workbook. It is recommended that participants have access to the workbook in advance so they can complete the pre-assignment in preparation for the workshop.
- The slide deck that goes with the workbook can be modified to increase relevance for the participants. For example, if the group is focused on career and technical education, examples could be modified to be more relevant to this content area.

This material can be challenging for some audiences, and the times suggested are based on an experienced facilitator using the toolkit. Therefore, it is important that facilitators know their audience. Facilitators new to logic models may want to first practice using the workbook and slide deck and become familiar with the purposes of the exercises and determine the appropriate pace of the session.

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## Session I. Learning about logic models (2 hours)

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### Agenda

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The times here are suggestions, based on 120 minutes for session I. Adjust these times to suit your setting, format, and focus. A face-to-face workshop may have some extension activities, as described throughout this document, and will therefore be longer than 120 minutes.

5 minutes	Introduction and goals	Facilitator offers introductions followed by an overview of the agenda and purposes of the workshop.
10 minutes	Introducing the cases	Facilitator reviews cases that will be used as examples throughout the workshop. Activity I.1 (7 minutes): Participants brainstorm the goals of the programs in the cases and the types of questions that might be appropriate to ask about the cases.
20 minutes	What is a logic model?	Facilitator introduces logic models as a useful tool for program design, implementation, and evaluation. Facilitator then introduces three types of logic models with three different purposes. Facilitator discusses overall idea of inputs–outputs–outcomes that drives logic model development and the logic of logic models. Activity I.2 (10 minutes): Participants complete an inputs–outputs–outcomes table for the College Ready case.
65 minutes	Elements of a logic model	Facilitator walks through all elements of a logic model. Several individual elements have an associated activity. <ul style="list-style-type: none"><li>• Problem statement: Includes discussion of what a problem statement is and the questions that need to be considered in developing an appropriate problem statement.</li></ul> Activity I.3 (7 minutes): Participants brainstorm their own problem statements. <ul style="list-style-type: none"><li>• Outcomes: Includes discussion of short- to long-term outcomes and impacts, as well as review of what outputs are and how they differ from outcomes. Guidance for generating outcomes is provided.</li></ul> Activity I.4 (15 minutes): Participants fill in a table that helps generate outcomes for their own examples or for one of the case examples. <ul style="list-style-type: none"><li>• Strategies and activities: Focuses on program components and how sequencing and clustering of activities should be considered. There is no workshop activity associated with this element, but there is an activity in the workbook provided as a suggestion for participants to do on their own following the workshop. There is a brief pause here for questions.</li><li>• Resources: Discusses material and intangible resources.</li></ul> Activity I.5 (7 minutes): Participants brainstorm at least five nonmonetary resources available to them in a program. <ul style="list-style-type: none"><li>• Assumptions: Discusses examples of assumptions and the importance of being explicit about assumptions.</li></ul> Activity I.6 (10 minutes): Participants brainstorm internal and external assumptions for their program or initiative.
10 minutes	The logic in a logic model	Facilitator discusses the if–then statements that are embedded within logic models. Facilitator then walks participants through the logic of the if–then statements in the blended learning case. Activity I.7 (7 minutes): Participants practice with the College Ready case and order a series of if–then statements.
10 minutes	Next steps	Facilitator closes with discussion of some next steps for developing a logic model and a reminder of how logic models can support program design and evaluation. Activity I.8 (5 minutes): Participants indicate a next step for their work.

## Pre-assignment

Consider a program or policy that you lead or are actively involved in designing, implementing, or evaluating. Come to the session with the following materials or information:

- For whom is the program or policy designed?
- What are the main goals or objectives of the program or policy?
- What is the timeline and duration of the program or policy?
- What are the major activities or strategies associated with the program or policy?

Program or policy: \_\_\_\_\_

For whom	Main goals or objectives	Timeline and duration	Major activities or strategies



For a face-to-face workshop, invite participants to spend a few minutes writing notes about a particular program or policy on the worksheet, if they have not done so prior to the workshop. Then have them talk to another participant about the example they selected. In particular, ask them to address the questions: For whom is the program or policy designed (and who benefits from the program or policy)? What are the main goals or objectives of the program or policy? If there is time, have them also answer the question: What are the major activities or strategies associated with the program or policy? This pair activity extension will add 15 minutes to the overall time for session I. It may be useful to send the participants the workbooks before the workshop along with the pre-assignment so that they can come to the workshop prepared for this discussion.

## **Goals**

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Supporting materials for this section: slide 4.

Session I of the workshop will:

- Introduce logic models as an effective tool for program and policy design, implementation, and evaluation.
- Invite participants to practice the elements of a logic model.
- Provide guidance in appropriate steps for building a logic model for a program or initiative.

## **Introducing the cases**

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Supporting materials for this section: slide 5.

This section describes the two cases that are used as the examples throughout the workshop (and provides some additional case examples that may be used if more relevant to the particular audience). These examples are based on real programs or policies. These cases provide a common language for discussing all aspects of the logic model. Participants may also want to draw on their pre-assignment, in which they generated their own example, to use throughout the workshop.

### **College readiness high school program**

College Ready is a school-based college access program for students in grades 9–12. Students are identified for the program based on eligibility for free or reduced-price lunch, recommendations from school guidance counselors, and recommendations from grade 8 English and math teachers. Students participate in monthly meetings as a group with the College Ready staff, are provided with one-on-one counseling with College Ready staff, are assigned an adult mentor and a peer mentor, and participate in a series of evening and summer workshops. In addition, families make a commitment to the program and attend a series of workshops specifically designed to prepare the whole family for the college application process. The goal of the program is to significantly increase college attendance among low-income students.

### **Blended learning schools**

An urban district is going to convert a few of its schools into blended learning schools (in which students learn both online and face-to-face with a teacher to personalize their instruction). The schools will be using the individual rotation model, which allows students within a given course or subject to rotate on an individually customized, fixed schedule between online courses and a variety of classroom environments with face-to-face teachers. Individual students have their own netbook and a unique schedule. The model also includes site coordinators and a principal who is involved in daily classroom observation. The goal of the model is to improve student achievement and individualize instruction.

## **Additional case examples**

Three additional cases are provided below. Any may be useful for illustrating the key ideas in this workshop, and all the cases may be drawn on to explain the concepts embedded in a logic model. The cases above were used to support a workshop focused on programs most relevant to urban schools, and the first two cases below were used to support a workshop for practitioners focused on educator effectiveness initiatives. The final case was used in the workshop with the Puerto Rico Research Alliance for Dropout Prevention. In addition, if this workshop is being designed for a group of educators focused on a particular issue, such as English learner students, consider developing an additional case relevant to the participants.

### **Redesigning a district's educator evaluation process**

A school district wants to review and update the teacher evaluation process that it has used for more than 10 years. The new system must reflect the new state guidelines for evaluation, which include a requirement for multiple measures, including a student-learning measure. However, much is left to the district to determine: How decisions will be made, what measures will be used, who will conduct the evaluations, and how the evaluation process will be managed and supported. The district has determined, in keeping with state guidelines, that the new evaluation will assess teachers' professional practice and their impact on student learning. The district leadership would like the system to be supported by teachers, to effectively differentiate among teachers, to support teachers' ongoing professional growth, to lead to improvements in teacher practice, and ultimately to positively influence student learning.

### **Professional development initiative for science teachers**

A state department of education is implementing a new professional development program for science teachers in secondary schools that focuses on promoting inquiry-based approaches. The state will partner with informal science partners, such as museums, and with industry and will develop a series of content courses for teachers. The professional development will use research-based materials and practices so that teachers can build a deep foundation of knowledge that will allow them to grow professionally. In addition, districts will create professional learning communities and ongoing science instruction development opportunities to support inquiry approaches. There will also be professional development offerings that focus on leadership development to support coaches, lead teachers and principals, and curriculum directors in science learning. The goal of this program is to enhance teachers' knowledge in science, increase student participation in science courses, and increase student learning and achievement.

### **Universal prekindergarten policy**

Massachusetts has implemented a policy to provide prekindergarten education to all children through a blend of private and public providers. According to Early Education for All, 70 percent of three- and four-year-olds in Massachusetts attend a formal early education and care program. The challenge is to ensure that the programs they attend are high-quality ones, because as decades of research document, only high-quality prekindergarten delivers lasting benefits, particularly for low-income children.

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### Activity I.1: Discussion of cases

- Individually.

Working on your own for about two minutes and using the worksheet below, consider the College Ready or blended learning case above. What are the goals of the program? What might we want to know about it? Consider questions of implementation, effectiveness, and impact.

- In large-group discussion.

What are your ideas about the goals of the program and what do you want to know about it?

What are the goals of the program or policy?

What do we want to know about the program or policy?

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For a face-to-face workshop, consider adding a teamwork component to activity I.1, in which the participants discuss one of the cases above in small groups. Consider allowing people to select their own case to focus on or divide them into groups to discuss one or more cases. Then ask participants to briefly share the goals and some of their questions. This discussion will add 15 minutes to the overall time for session I.

## What is a logic model?

Supporting materials for this section: slides 6–9.

This section provides a primer on logic models, including different types of logic models and their potential purposes.

In the most basic terms, logic models provide a kind of map for a program or initiative, helping clarify a program or policy's destination, the pathways toward the destination, and markers along the way.

Consider:

- Where are you going?
- How will you get there?
- What will tell you that you have arrived?

Logic models provide a simplified picture of the relationships between the program or policy inputs (resources, strategies, activities) and the desired outcomes of the program.

Logic models present a theory of action or change that drives the program or policy and makes explicit any assumptions about both the resources at the disposal of the program and the rationale behind the effort.

A logic model is valuable in supporting:

- Program planning.
- Program implementation.
- Program monitoring.
- Program evaluation.

Why use a logic model? A logic model:

- Brings detail to broad goals.
- Helps identify gaps in program logic and clarify assumptions.
- Builds understanding and promotes consensus.
- Makes explicit underlying beliefs.
- Helps clarify what is appropriate to evaluate and when.
- Summarizes complex programs for effective communication.

A logic model is useful in designing program and policy evaluation, because a logic model helps clarify both what the program, initiative, or policy is and what it is not. This kind of clarification is helpful in building an evaluation design that can capture the program's or policy's influence and impact.

What are the limitations of a logic model? A logic model is not:

- A strategic or fully developed plan for designing or managing a program or policy.
- An evaluation design or evaluation method.

While logic models are useful tools for building program plans or evaluation designs, additional work is necessary to create both programmatic and evaluation plans.

## Types of logic models

Not all logic models are the same, nor are they designed for the same purpose. Just as logic models may aid in program design, implementation, and evaluation, the type of model developed varies somewhat based on its purpose. There are three main types of logic models:

- Theory approach.
- Activities approach.
- Outcomes approach.

### *Theory approach models*

Logic models that describe the overall theory of change provide a “big picture” of the program and may be useful for program design and overall communication of the program theory. These models provide a clear description of why the developers believe the program or policy will be effective in achieving the goals. In the blended learning case, a theory approach logic model might help clarify the assumptions implicit in the push for alternatives to traditional brick and mortar classrooms and describe the relationship between initiating blended learning and the expected outcomes for students who participate.

Consider:

- What might be the logic in a theory approach model for your own program or policy? (The “big picture” theory of change about your initiative?)

### *Activities approach models*

Activities approach models focus on laying out the specific strategies and activities associated with a program. These models closely examine the relationship among the activities, considering sequence and timing of implementation, as well as how the activities link to outcomes. This type of logic model is most useful in program implementation, monitoring, and management. In the College Ready case, this type of logic model would consider the elements of the program and how they would be optimally ordered and managed. For example, what role would the different mentoring components have? How would they relate to one another? In this type of model, relationships among variables are made explicit with arrows, concentric circles, and other graphic representations of relationships.

Consider:

- Why consider the sequence and relationship among activities in a logic model? How might that help you?

### *Outcomes approach models*

Outcomes approach models are most useful for program evaluation. They consider the strategies and activities as they relate to the desired results of a program or policy. In these models, the focus is on outcomes, and they often divide the outcomes into short-term outcomes, long-term outcomes, and impacts. A theory of change drives these models just as it does the others. But in an outcomes approach logic model, the emphasis is on examining the outcomes and making the case that the program or policy is responsible for the desired outcomes.

Consider:

- Why divide outcomes into short term and long term? What is the difference between outcomes and impacts?



For a face-to-face or small virtual workshop that has the option for participants to discuss, the “consider” questions could be posed for discussion among the whole group or among small groups. This will add 10 minutes to the overall time for session I. If less time is available, these questions can be run through quickly or referenced without discussion, as they are not essential to understanding a basic logic model.

### Inputs–outputs–outcomes

Supporting materials for this section: slides 10–14.

In its simplest form, a logic model is a graphic representation of the relationship among a program’s or policy’s inputs (what is invested in the program), the outputs<sup>1</sup> (what is done with these investments), and what the outcomes are (what are the results).

Take a simple example: You have a headache and you want it to go away.

- What is the input?
  - Quiet time.
  - Water.
  - A hot compress.
  - Two aspirin.
- What is the output (that is, what do you do with the inputs)?
  - Sit quietly for five minutes.
  - Drink a full glass of water.
  - Put hot compress on.
  - Take aspirin.
- What is the outcome?
  - You are more relaxed.
  - You are hydrated.
  - Your headache goes away.
  - You are able to return to your work.

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1. The use of the term “output” here differs from its use when outputs are included as a specific element in a complete logic model. The use here is in terms of the general inputs–outputs–outcomes logic of a logic model. In this case, outputs do not refer to the measurable, targeted activities that are actually completed; rather, they refer more generally to what is done with the inputs to achieve the outcomes—that is, as one part of the overall logic embedded in a logic model. While possibly confusing, the main idea here is that a logic model sets up a logical progression from resources to activities to outcomes. The section that discusses the specific elements of a full logic model separates strategies and activities from outputs.

Below is an example from the blended learning case. Some base inputs, outputs, and outcomes have been laid out, reflecting the overall logic of the program.

Inputs	Outputs	Outcomes
<ul style="list-style-type: none"> <li>Existing technology infrastructure</li> <li>Technology integration staff person for three schools</li> <li>Teachers' enthusiasm in three schools</li> <li>Technology integration grant</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure audit completed</li> <li>Completion of six days of summer teacher professional development</li> <li>Six blended learning classrooms established</li> </ul>	<ul style="list-style-type: none"> <li>Teachers' reported use of diverse instruction strategies increases</li> <li>Student engagement increases</li> <li>Student achievement on district-wide assessments improves</li> </ul>



To extend the activity in a face-to-face workshop, after presenting the headache example, ask participants to think of another example. Or suggest the example of the problem being a house on fire. Then ask them to consider the inputs, outputs, and outcomes associated with solving that problem. Allow them time to generate some ideas on a piece of paper and then ask them to provide some examples. This will add 10 minutes to the overall time for session I. Here are some possible answers:

- Inputs:
  - Ladder.
  - Hose with water.
  - Firefighters.
- Outputs:
  - Firefighters climb the ladder.
  - Firefighters spray water on the fire.
  - Firefighters bring the people down the ladder.
- Outcomes:
  - The fire stops.
  - The people are saved from the fire.



## Elements of a logic model

Supporting materials for this section: slides 15–18.

This section provides an overview of—and opportunities to practice—all elements of a logic model, which are listed below. The pages that follow delineate these elements and use examples from the two cases. The elements are discussed in a different order from their presentation in the simple logic model on slide 15 (and in appendix A) because the order below makes the most logical sense when working through the different elements of a logic model. For example, once a problem statement is determined, thinking about the overall goals would be the next logical step, so discussing outcomes should be considered next.

- Problem statement.
- Short- and long-term outcomes.
- Impacts.
- Outputs.
- Strategies and activities.
- Resources (inputs).
- Assumptions.

### **Problem statement**

The problem statement is the problem or challenge that the program or policy is designed to address.

Consider:

- What is the problem or issue?
- Why is this a problem? (What causes the problem?)
- For whom (individual, household, group, community, society in general) does this problem exist?
- Who has a stake in the problem? (Who cares whether it is resolved?)
- What is known about the problem, issue, or people who are involved? What research or experience is available? What do existing research and experience say?

Finally, ask whether the problem statement is too big or too small. The final problem statement should be targeted and specific, but it should not be a simple restatement of the program as a need. For example, in the blended learning case, “Students lack access to their own netbook” is really a statement about the lack of the program. The problem statement should address the real issues underlying the need for the program, such as “Students have limited one-on-one attention from teachers.”

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### Activity I.3: Problem statement

Consider the problem statement most appropriate to the challenge you face in your work, related to a program you have in place or one you would like to initiate. In other words, consider the problem for which your program or policy is the “answer.” Brainstorm key ideas associated with the relevant problem. Model your brainstorm after the example below, in terms of brevity. There are several different ideas reflected below; in your brainstorm, consider all potential ideas or elements of the problem. Remember that a problem statement should be targeted and specific.

Case: Blended learning

- Students are not actively engaged in their learning.
- Courses are sometimes monotonous.
- Students have limited one-on-one attention from adults.
- Students’ courses are not personalized.
- Students are all expected to work at the same pace.

Your brainstorm:

- \_\_\_\_\_  
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- \_\_\_\_\_  
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- \_\_\_\_\_  
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For a virtual workshop, if the software functionality allows for a chat function, ask participants to type in some bulleted examples from their own contexts. As facilitator, comment on their examples and guide them to specific and focused problem statements. Remind participants that the idea is to be sure that the problem statement they identify is targeted and specific; it should not read as a statement of the need for the program specifically.

### Outcomes

Supporting materials for this section: slides 20–27.

While outcomes are not the next item one sees when one looks from left to right across a traditional logic model, they are a logical next step to discuss when examining the elements of a logic model. Outcomes should be thought of next because knowing the goal in relation to solving the problem defined in the problem statement will help in developing a plan for achieving the outcomes. After identifying the problem, it makes sense to identify the overall goal, or outcomes, next.

Outcomes ask, “What difference does it make?” In other words, what is the difference that the resources, and strategies and activities, taken together, should have on the various participants in these efforts? For example, in the College Ready case, “What difference does the mentoring program have on students’ daily school attendance?” or “What difference does the mentoring program have on students’ grade point average or college attendance?”

Outcomes usually come in stages and fall along a continuum from short- to long-term outcomes. The language to describe these outcomes varies; this workbook refers to short-term outcomes, long-term outcomes, and impact. Other terms include:

- Short-term: initial, immediate, proximal.
- Long-term: medium-term, intermediate, midpoint.
- Impact: long-term, final, ultimate, distal outcome.

### *Short-term outcomes*

Short-term outcomes are the most immediate and measurable results for participants that can be attributed to strategies and activities. For example, a program that promotes increased parent engagement in students’ college planning might have a short-term goal of increased parent participation in the provided parent sessions.

### *Long-term outcomes*

Long-term outcomes are the more distant, though anticipated, results of participation in strategies and activities. When it comes to short- and long-term outcomes, it is good to think about the overall timeframe for the program. Sometimes, short term is considered to be as short as six months or as long as three years. Long term might be two years or as long as six years. The important point is to consider the program and identify the timeframe, specific to the initiative, for short- and long-term outcomes. For example, a long-term outcome for a program focused on increasing college readiness may be improved academic performance of participants in the program.

### *Impacts*

Impacts are the desired outcomes of long-term implementation of strategies and activities that depend on conditions beyond the program’s scope of strategies. These may be called the “blue skies” or the big picture types of objectives that are more distant from the actual strategies and activities and less within the control of the program or policy to realize. Often these are considered to be 7–10 years after initial implementation. For example, an impact of a college readiness program might be an increased percentage of students graduating from post-secondary institutions after participating in their high school’s college readiness program.

### *Outputs versus outcomes*

Some logic models include both outputs and outcomes. Outputs differ from outcomes in that they capture data about what is done rather than what is expected to be achieved as a result of what is done. Outputs can best be described as activity data and are useful for tracking program implementation. They often provide detail about the breadth and reach of strategies and activities. Outputs capture size and scope; they describe or count

strategies and activities, such as the number of parent sessions delivered, the program participation rates, the number of materials developed or distributed, and so forth. Using the College Ready program as an example, another way to think about the difference between outputs and outcomes is to consider the questions:

“Is the parent education program being delivered as intended?” (output question)

versus

“Are parents who participated in the parent education program becoming more actively involved in their children’s education?” Or, a long-term outcome might be, “Is the college acceptance rate for participating students increasing?” (outcome question)

It is important not to confuse outputs for outcomes. A program that is good at delivering activities and services may achieve its outputs without achieving its outcomes. Yet, it is the outcomes that make the difference in response to the problem identified.

### Activity I.4: Focus on outcomes

Being clear about program outcomes is essential for both focused program implementation and effective evaluation. The table below is designed to promote a step-by-step approach to outcome development. The columns are:

- *Who is the target?* Who is the group targeted with the strategy? Is it students? Parents? A school? In this example, based on the College Ready case, the target is participating high school seniors in three high schools that participate in the program.
- *What is the desired change?* Use an action verb to demonstrate a kind of change or an impact. For example: increase, improve, engage.
- *In what?* What is the activity, strategy, or program in which the target population is going to enact this desired change? What is the resulting action in which the target population will engage to achieve the goal?
- *By when?* Here is where the timeline for outcomes is clarified. Is a particular outcome a short- or long-term outcome?

Enter an example from your own context, related to a program or policy initiative you have in place or would like to develop. If you prefer, consider the College Ready or blended learning case and fill in the table with a relevant example from one of those cases.

What is the target?	What is the desired change? (action verb)	In what? (results)	By when?
Participating high school seniors in three urban high schools	Increase	Completed and submitted applications to post-secondary institutions	By June 2014



For a virtual workshop, if the software functionality allows, ask participants to enter their responses to the table above in the chat pod. For a face-to-face workshop, have participants turn to their colleagues and explain their example, in groups of two or three, or invite a participant to read off one of his or her examples and discuss it in a large group.

People occasionally do not stick to the columns and instead present a sentence for their outcome. It is important to follow through with this chart and fill out each column. Doing so ensures that each outcome has a clear target, action, and timeframe. Encourage participants to follow this format, and if someone presents an example that is not in the format, work as a group to place the example into the table columns. This activity will add 10 minutes to the workshop.

### *Outcomes checklist*

Consider the following criteria when examining outcomes:

- Are the outcomes important? Do they represent significant changes or improvements that are valued by participants and key stakeholders? Outcomes may be achievable but not really worth the effort. If the outcomes were achieved, would anyone care?
- Are the outcomes reasonable? Are the outcomes connected to one another and linked in a reasonable order (from short term to long term to impact)? Is it likely that one will lead to the next? Another way to think about this is to consider the if-then statements (or logic statements) embedded in a chain of outcomes. For example, using the College Ready case, will increased parent participation in workshops on college readiness lead to students' completing more college applications? Will access to online courses lead to increased student engagement and achievement? Sequence and timing of activities and intended outcomes are important to consider.
- Are the outcomes realistic given the nature of the problem and available resources and abilities? Will the program lead to or help contribute to these outcomes? (Be careful to ensure that the outcomes are realistic given the level of effort.) In other words, is it realistic to expect an increase in student achievement from one parent education class? Ask hard questions about the outcomes as they relate to the actual program or policy.
- Are unintentional or possibly negative outcomes being attended to? It is important to anticipate and consider the unintended or potentially negative outcomes that might result from the set of strategies and activities. What are potential negative effects of the program or policy? What else might happen that is different from what is intended? How else might the sequence of events unfold? For example, could access to online courses lead to lower student attendance? Considering the unintended consequences allows program and policy designers to consider how to prepare for these possible outcomes and also helps evaluators be attuned to these possible consequences in the evaluation design.

Another common set of criteria for outcomes is the S.M.A.R.T. goals. These are:

- Specific.
- Measurable.
- Action oriented.
- Realistic.
- Timed.

### Strategies and activities

Supporting materials for this section: slides 28–29.

Strategies and activities are the program components, or the game plan for the program or policy. This is an inventory of all the strategies and activities designed to achieve the outcomes. However, it is more than a simple listing of activities. There are two questions to ask when inventorying the activities, services, products, and events that make up the program or policy:

- What is the appropriate sequence or order of these activities?

Consider the College Ready case: It may be important that the mentoring element of the program come prior to the delivery of the parent workshop series. Or perhaps these activities should be concurrent. Consider the appropriate order of activities and how they relate to one another.

- Are there certain activities that, taken together, add up to a kind of overall strategy? Do certain activities bundle or cluster together?

Consider the blended learning case: Perhaps there is a series of training needs related to instituting the blended learning model, such as new professional development offerings for teachers, new demands on the technical support staff at the schools, and new requirements for paraprofessional support to the classrooms, that bundle together as an overarching strategy. Perhaps this is the professional training strategy. This may be different from other strategies associated with the initiative, such as infrastructure or family engagement. Creating these clusters of activities helps streamline the logic model and supports evaluation; the evaluation will then assess a set of strategies, rather than individual activities.

Here is a brief example from the blended learning case, illustrating both the sequence in which activities might unfold and how specific activities relate to a set of core strategies.

Activities	Sequence	Strategy
Develop teacher training materials	1st	Professional training
Deliver summer institute for teachers	2nd	Professional training
Conduct technology audit	1st <sup>a</sup>	Infrastructure

a. Occurs concurrently with the develop teacher training materials activity and prior to the deliver summer institute for teachers activity.



The activity below, in which participants generate and organize their strategies and activities, will add considerable time to the workshop, but in a longer face-to-face workshop in which participants are prepared to work on a particular program or policy, this is the time to conduct this activity. Otherwise, participants may want to address this on their own after the workshop.

It may be premature to ask participants to fill out this type of chart during the workshop. However, if the participants are focused on a particular issue or are working together to build a logic model, a discussion of the key strategies can be useful in setting the stage for further work inventorying the range of activities related to the program or policy. For example, in the workshop with the Puerto Rico Research Alliance for Dropout Prevention, participants brainstormed a list of activities related to dropout prevention and then tried to organize the activities into a set of core strategies. If the participants are working collectively on an issue and may be building a logic model together, an initial conversation about the core strategies could be very valuable at this stage of the workshop.

If you choose to do this activity, here is a possible format:

- Either working in pairs or individually, participants brainstorm activities that they can write on sticky notes. Allow them 10–15 minutes to generate activities related to their program.
- Participants then share one activity from the sticky notes with the whole group.
- Ask participants with similar activities on their sticky notes to come up and place these sticky notes next to the others on the wall.
- Go around the room until all sticky notes have been placed on the wall in groups of related activities.
- Once all sticky notes are grouped in related activities, ask participants to come up with a name that describes the related activities and write it next to them. The name they come up with will be the core strategy that the grouped activities represent.

If you include this activity, assume another 30 minutes to brainstorm activities and begin to generate the core strategies. This may also be a useful extension activity to have participants conduct after the workshop, rather than something to do during this workshop. However, you might explain this activity and suggest to the participants that they employ this type of process to generate their core strategies.

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### Additional activity: Strategies and activities in sequence

Consider a series of activities that are a part of your own work. List some relevant activities, give the sequence or order in which they are supposed to occur, and consider the overarching strategy within which these activities fall. In other words, does your chosen program or initiative have a core set of strategies that guide the activities, events, programs, and the like that you provide? This activity is suggested as something to work on independently after the workshop.

Activities	Sequence	Strategy

 It may be wise to pause and take questions at this point in the workshop. Slide 30 reflects that pause in the workshop.

### Resources (inputs)

Supporting materials for this section: slides 31–33.

Resources include both the material and the intangible contributions that are or could reasonably be expected to be available to address the problem.

- Material resources include:
  - Money.
  - Materials and equipment.
- Intangible resources include:
  - People.
  - Time.
  - Partnerships.

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### Activity I.5: Intangible resources

Brainstorm intangible resources (example from College Ready case).

- Community mentors.
- Local university space for parent meetings.
- Volunteer college admissions directors for application workshop.
- Student volunteers for childcare at parent meetings.

What intangible resources are at your disposal? Brainstorm at least five nonmonetary resources that are available to you in a program you operate or manage:

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  - \_\_\_\_\_  
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  - \_\_\_\_\_  
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  - \_\_\_\_\_  
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  - \_\_\_\_\_  
\_\_\_\_\_
- 

### Assumptions

Supporting materials for this section: slides 34–36.

Assumptions are beliefs about participants, staff, and the program, as well as about how change or improvement may be realized. Being explicit about assumptions is one of the first and most important considerations during program design, implementation, and evaluation.

Consider the College Ready case: The program assumes that students who participate want to go to college and that college enrollment will lead to a better life for participants. Often the assumptions embedded in a program or policy are critical to the success or failure of the overall initiative. Assumptions may be internal (assumptions about participants, resources, and how the program will function) or external (beliefs about how change occurs, values embedded in the program, or findings from prior research).

Recall the headache example from earlier in the workshop. You had a headache, you tried a few things to get rid of it (water, aspirin), and you felt better. The outcome was that the headache went away. However, between the problem (the headache) and the outcome (no headache) were several assumptions. For example, you assumed that you did not have an allergy to aspirin, that there was no loud noise persisting in the background, and so forth. Clarifying and making explicit the assumptions behind the program, in terms of both the specific elements related to implementation and the assumptions embedded in the theory driving the initiative, are critical to developing a thoughtful logic model.

In the blended learning case, internal assumptions might include a belief that the school leadership will support the blended learning classrooms going forward and that the staffing available will be adequate to support implementation. External assumptions might include a belief that access to varied learning modalities will increase student engagement and that increased student engagement will yield increased student achievement. These external assumptions are both related to the theory of action or change driving the initiative.

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### Activity I.6: Uncovering internal and external assumptions

Consider your program or initiative. Brainstorm the range of assumptions embedded in the program design and in the overall theory of action driving the initiative.

Internal assumptions	External assumptions



For a virtual workshop, if the software functionality allows, create two separate chat pods, one for internal assumptions and the other for external assumptions. Have participants enter in the chat pods their own internal and external assumptions. Then comment on the responses as they are typed in.

For a face-to-face workshop where the group includes representatives of several organizations and is not a group that works together, have the participants do some personal brainstorming and then split into smaller groups to share their ideas. If the group shares a common content area or is working on building a logic model together, have them begin to uncover the assumptions that each participant carries about potential program beneficiaries, about the resources available for the program, about the potential impact of the program, and about the way that change may occur. Ask participants to consider their own beliefs and values as they relate both to the problem and to the program intended as a response to the problem. As facilitator, if the group is small enough and the focus is on a particular program or initiative, facilitate one group conversation with a note-taker recording the comments on the board or flip chart paper. Brainstorming and sharing in small groups will add 15 minutes to the overall time for session I; brainstorming assumptions related to a specific program will add 25 minutes.

## The logic in a logic model

Supporting materials for this section: slides 37–39.

The purpose of this section is to understand the logic embedded in a logic model and recognize the need to identify the possible relationships and connections among various elements of a logic model.

Understanding these if–then relationships is essential to uncovering the theory of action or theory of change driving a program or policy. Access to and application of resources will lead to programs that reach the target participants, and when these populations are reached by such programs, unmet needs will be met and circumstances will change, solving the problem that initiated this work.

Consider the blended learning case:

- If the district applies funds to support blended learning in three schools, then the schools will provide teachers with professional learning opportunities and establish the infrastructure to support blended learning.
- If the schools provide teachers with professional learning opportunities and establish infrastructure to support blended learning, then students' access to online courses and varied learning environments will increase.
- If students have increased access to online courses and varied learning environments, then teachers will be able to personalize instruction, and the students will be more engaged in their learning.
- If teachers personalize instruction and students are more engaged in their learning, then students will be able to master content and develop their skills at a pace appropriate to the individual student.
- If students master content and develop their skills at a pace appropriate to the individual student, then they will perform better on standardized assessments of their learning.

The *then* clause in one statement becomes the *if* clause in the next statement. This is important; when the language changes from *then* to *if*, the intention of the statement may change. In some logic models, if–then statements are written right into the model to make the theory of change explicit.

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### Activity I.7: If-then statements

Consider the College Ready case. Move the statements around to make a series of logical if-then statements below. Consider the sequencing of events. The statements below include strategies and activities, traditional outputs, and outcomes.

IF \_\_\_\_\_ THEN/IF \_\_\_\_\_  
THEN/IF \_\_\_\_\_ THEN/IF \_\_\_\_\_  
THEN/IF \_\_\_\_\_ THEN \_\_\_\_\_

1. We develop a series of college readiness workshops for parents.
  2. Parents help their students with the application process.
  3. We recruit parents to participate in the workshops.
  4. Parents better understand the timelines and demands of the college application process.
  5. Students meet financial aid and college application deadlines.
  6. Parents attend the workshops.
- 



For a virtual workshop, if the software functionality allows, present the participants the if-then statements above and have them select the first, second, third, and other statements. Then move the statements around on the screen to show the order of the if-then statements. This virtual activity will add 5–7 minutes to the overall time for session I.

For a face-to-face workshop, hand out all the statements in an envelope and have a group work together to order the statements and paste the statements in order onto a big sheet of paper. They can then present their order to the whole group. For a face-to-face workshop, this activity will add 15 minutes to the overall time for session I.

## Next steps

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Supporting materials for this section: slides 40–42.

In building a logic model, it is important to consider the following questions:

- Do I understand the different elements of the logic model and how they differ?
- Who should I consult in developing the logic model? What colleagues and stakeholders should be participants in developing the logic model?
- Who will be responsible for seeing this through?
- How do I know I have captured the theory of action guiding the program?
- How will we use the logic model once it is developed?

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### Activity I.8: Next steps

Consider what your next step might be with regard to logic models. Consider where you are in the development of a new program or in an evaluation of a program already in place. How can logic models support this work?



For a virtual workshop, if the software functionality allows, ask participants to type in a next step in the chat pod. For a face-to-face workshop or a virtual workshop with a small group and audio capability, have all participants state what they have in mind as a next step in a few words.

## **Final thoughts**

Supporting materials for this section: slides 43–44.

Here are a few quick reminders about what a logic model is and what it is not.

A logic model is:

- A graphic representation of the theory of change driving a program or policy.
- A framework for planning, implementation, monitoring, and evaluation.

A logic model is not:

- A strategic or fully developed plan for designing or managing a program or policy.
- An evaluation design or evaluation method.

While a logic model is not a strategic or fully developed plan or an evaluation design or evaluation method, it can be useful in developing any of these more detailed resources.

A logic model is likely to be much more effective, useful, and honest if the process of generating the logic model has engaged a broad range of stakeholders during the design process. Including key voices such as staff, parents, students, funders, and others in discussions about program design and evaluation will promote the buy-in and ongoing support of these participants as well as increase the authenticity of the model.

Logic models should be living documents that are referred to throughout the life of the program and the evaluation and should be amended as needed. They are also helpful to guide a program as it evolves and to ensure that the work of the program remains focused on the key goals and outcomes.

Logic models are useful for program evaluation, especially when evaluation is considered in concert with creating the logic model at the early stages of program development. It is much better to consider evaluation at the outset of development of a program or policy rather than after or halfway through program implementation.

Good luck with this work, and please contact us with questions!

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## Session II. From logic models to program and policy evaluation (1.5 hours)

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### Agenda

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5 minutes	Introduction and goals	Facilitator reviews the goals of the session and the agenda.
8 minutes	Review of logic models	Facilitator reviews what was learned about logic models, what they are useful for, and what limitations they have. A graphic of a simple logic model and a logic model from one of the cases will be reviewed. If participants come with their own draft logic models, two will be selected for presentation and discussion.
15 minutes	Introducing evaluation	<p>Facilitator introduces the types of questions that evaluation is designed to answer, the value of implementing evaluation at the onset of program development, and the role that logic models play in supporting evaluation. Two purposes of evaluation are presented: evaluation that focuses on improvements and evaluation that focuses on proving or demonstrating the impact or outcomes of an initiative.</p> <p>Activity II.1 (7 minutes): Participants brainstorm ways they know their program or policy is achieving its goal.</p>
13 minutes	Moving from logic model to evaluation questions	<p>Facilitator begins with more about types of evaluation questions, followed by guidelines for good questions. Facilitator then introduces the idea of different audiences desiring different information about a program or policy and therefore asking different questions. Participants will be introduced to a table that delineates different types of audiences, questions, and uses of evaluation.</p> <p>Activity II.2 (4 minutes): Participants brainstorm formative or summative evaluation questions about their own program or policy or for one of the sample cases.</p> <p>Activity II.3 (4 minutes): Participants practice generating questions for different audiences.</p>
25 minutes	Generating indicators	<p>Facilitator introduces the concept of indicators and provides an overview of how indicators are generated from the logic model, specifically from the strategies and activities and outcomes sections of the model. Facilitator provides an example of this for the College Ready case. Section closes with a discussion of qualitative and quantitative indicators and the use and value of both types of measures in an evaluation.</p> <p>Activity II.4 (3 minutes): Participants brainstorm indicators of the flu.</p> <p>Activity II.5 (3 minutes): Participants brainstorm outcome and process indicators based on one of the sample cases.</p>
15 minutes	Building an evaluation design	<p>Facilitator begins this section with the question, “What type of evaluation is right for you?” and suggests that determining the purpose—formative, summative, or hybrid—is critical to building an evaluation. Facilitator transitions to more discussion about data collection, specifically considering the types of data available to participants. Types of data, both quantitative and qualitative, are reviewed. Then facilitator introduces the data collection framework tool, which outlines the outcomes of interest, data sources, responsible parties, and timeline. This is followed by discussion of evaluation design, as distinct from the data collection framework.</p> <p>Activity II.6 (5 minutes): Participants brainstorm their own data sources.</p>
6 minutes	Putting it all together	Facilitator discusses an evaluation prospectus or overview and the key questions to consider when generating this short document, which can serve as the “calling card” for an evaluation, either for potential funders or for potential evaluators. The facilitator closes with a presentation of a Gantt chart as a useful tool for managing an evaluation and considering realistic timelines and deliverables.
3 minutes	Review	Facilitator closes workshop with thank you and invitation to be in touch with further questions.

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## **Pre-assignment**

Based on the work in session I, participants may come to the workshop with a draft logic model for a particular program or policy. If participants do not have their own draft logic model, they should familiarize themselves with the sample logic models in appendixes C and D, as these will be drawn on for examples throughout the workshop.

A sample logic model template is provided in appendix B and may be used to generate a simple logic model. Participants will use this logic model to guide their work in the session.

## **Goals**

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Supporting materials for this section: slide 48.

The purpose of session II is to demonstrate how logic models may be used as a tool specific to developing a program or policy evaluation. The session will:

- Reintroduce logic models as an effective tool, specifically for evaluation.
- Invite participants to practice using logic models to develop evaluation questions and indicators of success.
- Provide guidance in how to determine the appropriate evaluation for a specific program or policy.

## **Example cases revisited**

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### **College readiness high school program**

College Ready is a school-based college access program for students in grades 9–12. Students are identified for the program based on eligibility for free or reduced-price lunch, recommendations from school guidance counselors, and recommendations from grade 8 English and math teachers. Students participate in monthly meetings as a group with the College Ready staff, are provided with one-on-one counseling with College Ready staff, are assigned an adult mentor and a peer mentor, and participate in a series of evening and summer workshops. In addition, families make a commitment to the program and attend a series of workshops specifically designed to prepare the whole family for the college application process. The goal of the program is to significantly increase college attendance among low-income students.

### **Blended learning schools**

An urban district is going to convert a few of its schools into blended learning schools (in which students learn both online and face-to-face with a teacher to personalize their instruction). The schools will be using the individual rotation model, which allows students within a given course or subject to rotate on an individually customized, fixed schedule between online courses and a variety of classroom environments with face-to-face teachers. Individual students have their own netbook and a unique schedule. The model also includes site coordinators and a principal who is involved in daily classroom observation. The goal of the model is to improve student achievement and individualize instruction.

## **Additional case examples**

As with the first session, three additional cases are provided below. Any may serve as useful tools for illustrating the key ideas in this workshop.

### **Redesigning a district's educator evaluation process**

A school district wants to review and update the teacher evaluation process that it has used for more than 10 years. The new system must reflect the new state guidelines for evaluation, which include a requirement for multiple measures, including a student-learning measure. However, much is left to the district to determine: how decisions will be made, what measures will be used, who will conduct the evaluations, and how the evaluation process will be managed and supported. The district has determined, in keeping with state guidelines, that the new evaluation will assess teachers' professional practice and their impact on student learning. The district leadership would like the system to be supported by teachers, to effectively differentiate among teachers, to support teachers' ongoing professional growth, to lead to improvements in teacher practice, and ultimately to positively influence student learning.

### **Professional development initiative for science teachers**

A state department of education is implementing a new professional development program for science teachers in secondary schools that focuses on promoting inquiry-based approaches. The state will partner with informal science partners, such as museums, and with industry and will develop a series of content courses for teachers. The professional development will use research-based materials and practices so that teachers can build a deep foundation of knowledge that will allow them to grow professionally. In addition, districts will create professional learning communities and ongoing science instruction development opportunities to support inquiry approaches. There will also be professional development offerings that focus on leadership development to support coaches, lead teachers and principals, and curriculum directors in science learning. The goal of this program is to enhance teachers' knowledge in science, increase student participation in science courses, and increase student learning and achievement.

### **Universal prekindergarten policy**

Massachusetts has implemented a policy to provide prekindergarten education to all children through a blend of private and public providers. According to Early Education for All, 70 percent of three- and four-year-olds in Massachusetts attend a formal early education and care program. The challenge is to ensure that the programs they attend are high-quality ones, because as decades of research document, only high-quality prekindergarten delivers lasting benefits, particularly for low-income children.

## Review of logic models

Supporting materials for this section: slides 49–52.

Here are a few quick reminders about what a logic model is and what it is not.

A logic model is:

- A graphic representation of the theory of change driving a program or policy.
- A framework for planning, implementation, monitoring, and evaluation.

A logic model is not:

- A strategic or fully developed plan for designing or managing a program or policy.
- An evaluation design or evaluation method.

While a logic model is not a strategic or fully developed plan or an evaluation design or evaluation method, it can be useful in developing any of these more detailed resources. The focus of session II of the workshop is on the latter: How does a logic model support the development of an evaluation plan for a program or policy?

If participants have created draft logic models for a program or policy they are engaged in or considering in their work, the logic model drafts will serve as the template to guide their work throughout this session. If not, they may use the College Ready case logic model on slide 51 (or see the two example logic models, one for the College Ready example and one for an educator evaluation system, in appendixes C and D).

Consider the following questions when evaluating a draft logic model:

- What elements of the logic model were hardest to develop?
- Is the problem statement the right “grain size”?
- Within the strategies and activities, did you identify overarching strategies?
- What assumptions did you uncover?
- What is the timeframe for your outcomes?
- What are the impacts?
- What was your process for developing the model?
- What requires further explanation or discussion?



As an extension of the basic workshop, if the participants come to the workshop with draft logic models, the facilitator can ask participants to consider the questions provided above as they relate to their own draft logic models. Participants can review the questions and brainstorm their answers individually. This may be done in a virtual or face-to-face context. This will add 15 minutes to the overall time for session II.

In a face-to-face context, if the group is small, have a participant share one sample logic model, and walk the group through the model. If the workshop is a large face-to-face gathering, divide participants into smaller groups to discuss the questions above as they relate to their own logic models, and assign a facilitator and a note-taker to each group. Have the small groups bring back summarizing questions and comments to the large group. Sharing logic model samples and the associated discussion will add 20 minutes to session II.

Reviewing participants' logic models will work only if this session is at least a week after session I—to allow participants to generate a draft logic model to use during this session.

## Introducing evaluation

Supporting materials for this section: slides 53–57.

Program and policy evaluation helps answer important questions that inform this work. At a basic level, evaluation answers the questions: Are we successful? Have we had an impact? What are the most influential aspects of the program?

More specifically, evaluations ask questions such as:

- Is the program or policy effective?
- Is the program or policy working as intended?
- What aspects of the program are working? What aspects are not working?

High-quality evaluation is designed to support your work, inform what you do, and enhance your impact. To do so, evaluation should be considered at the onset of program and policy design, ideally when the logic model is being developed. In other words, as a program or policy is conceived, evaluating the same program or policy should be a part of the conversation, by asking questions such as:

- What do we anticipate to be the impact of this policy?
- How will we know if we are successful?
- What do we think will be the most influential aspects of the program?

All these questions suggest directions for evaluation. Do not wait until the program or policy is in the midst of implementation to begin to consider these questions and how to answer them. Invest early in considering these questions and designing an evaluation that will help answer them. It may also be helpful to involve others, including staff and participants, in helping plan the evaluation.

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### **Activity II.1: How will you know?**

Consider your own program or policy logic model. How will you know if one or more of your strategies have been successful? Brainstorm some ways you will know your efforts have yielded the results you hope to achieve.

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For a face-to-face workshop, ask participants to turn to the person next to them and answer the question, “How will I know?” Allow each person to talk for two minutes. You can then ask for a few volunteers to report out to the whole group on their answer. For a virtual workshop, allow people to answer the question in the chat pod on the virtual platform. This activity will add 10 minutes to the agenda.

Evaluations generally have one of two purposes:

- Improve: These are formative, process, or implementation evaluations.
- Prove: These are summative, results, or outcome evaluations.

This workbook refers to these evaluation purposes as formative (improve) and summative (prove). Most evaluation questions emerge from the strategies and outcomes sections of the logic models. You want to know about the strategies that you are trying and how they are going, and you want to know about outcomes and impact.

Generally, evaluations that focus on strategies (and outputs) are formative or process evaluations, or evaluations that are designed to help guide changes or improvements. Evaluations that focus on the outcomes in the logic model are generally summative evaluations—designed to prove the value, merit, or impact of the program or policy.

There are generally four types of evaluations:

- *Needs assessment (formative)*. This type of evaluation determines what is needed (at the onset) and helps set priorities (for example, is more money needed to support blended learning?). These types of evaluations are often designed to help create or build a program or policy, so a logic model might be developed after the needs assessment. In fact, the needs assessment might provide information that helps clarify the problem to which the program or policy is designed to respond.
- *Process evaluation (formative)*. This type of evaluation examines what goes on while a program is in progress. The evaluation assesses what the program is, how it is working, whom it is reaching, and how (for example, are participants attending as anticipated?).
- *Outcome evaluation (summative)*. This type of evaluation determines the results from and consequences of a program, generally for the people most directly affected by the program (for example, did participants increase their knowledge or change their attitudes or behavior?).
- *Impact evaluation (summative)*. This type of evaluation determines the net causal effects of the program beyond its immediate results. Impact evaluation often involves comparing what appeared after the program with what would have appeared without the program. These evaluations generally include comparison groups, interrupted time series, or other designs that allow evaluators to capture what happened to the target compared with what would have happened without the program (for example, achievement scores and acceptance rates).

## Moving from logic model to evaluation questions

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Supporting materials for this section: slides 58–63.

The purpose of this section is to make the connection between the logic model and development of appropriate evaluation questions, using the logic model as a basis for developing the questions. The first step in making the transition from the logic model to a potential evaluation is to consider the questions that are derived from the model that you may want answered.

### Developing evaluation questions

As noted in the previous section, some questions ask about improvements to the program or policy (formative, process, and implementation questions), while others ask about the impacts (summative, results, and outcome questions). Generally:

- Formative questions (improve) are asked while the program is operating and are for the purpose of program improvement or midcourse correction.
- Summative questions (prove) are asked at completion of or after the program and are for the purpose of determining results and assessing effectiveness.

Regardless of the type of questions, there are some guiding questions to consider for all evaluation questions.

- Can the questions be answered given the program? One of the main reasons for building a logic model as part of program evaluation is to determine what questions are appropriate based on the program. By describing what the program is, the logic model helps determine what is appropriate to evaluate.
- Are the questions high-priority? Try to distinguish between what you need to know and what might merely be nice to know. What are the key, most important questions? For whom? Why?
- Are the questions practical and appropriate to the capacity you have to answer them? Consider time, resources, and the availability of assistance needed to answer the questions. As appropriate, bring stakeholders together and negotiate a practical set of questions. Remember, it is better to answer a few questions thoroughly and well.
- Are the questions clear and jargon-free? Apply the “Great Aunt Lucy test.” Would someone like your Great Aunt Lucy or anyone who is not steeped in the language of your particular field understand the question? Avoid the use of jargon or vague words that can have multiple meanings. Always define key terms so that everyone understands the meaning.

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## Activity II.2: Formative and summative evaluation

Come up with a formative and summative evaluation question for one of the sample cases, such as the blended learning case, or for a program or policy from your own work.

- Formative evaluation:  
Topic: Blended learning or \_\_\_\_\_  
Question: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Summative evaluation  
Topic: Blended learning or \_\_\_\_\_  
Question: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



For a virtual workshop, if the software functionality allows, have participants enter their sample questions in one of two chat pods. Label one chat pod “Formative questions” and the other “Summative questions.”

For a face-to-face workshop, have participants fill in examples in their own workbooks, and take some examples from the group to discuss. These activities will add 5–7 minutes to the overall time for session II.

### Considering the audience

Another key aspect of developing good evaluation questions is considering different audiences, or the different stakeholders for a program and policy, the different types of questions they might have, and how they would use the answers to these questions (for example, what decisions would result from answers).

Table 1 outlines some traditional audiences, the types of questions they are likely to have, and how they might apply answers to these questions to make decisions.

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**Table 1. Traditional audiences, evaluation questions, and uses**

Audience	Typical questions	Evaluation use
Program staff	Are we reaching our target population (for example, high school students; low-income families with preschool-age children)?  Are participants in the program engaged? Satisfied?  Is the program being run well?  How can we improve the program?	Day-to-day program operations; changes in program design and delivery
Participants	Is the program helping people like me?  How could the program better serve my needs?  How could I get more out of the program?	Decisions about participation or value to them
Public officials	Who does the program serve?  Is it reaching the target population?  What difference does the program make?  Are participants engaged and satisfied with the program?  Is the program cost-effective?	Decisions about support, commitment, funding, scale-up, and duplication
Funders	Is the program meeting its goals?  Is the program worth the cost?	Decisions about ongoing funding; accountability

**Source:** W.K. Kellogg Foundation, 2006.

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### Activity II.3: Generating questions for different audiences

Think about your own context and consider:

- Audience: Who are the different members of each stakeholder group (staff, participants, and the like)?
- Questions: What questions might different stakeholders have about the program or policy?
- Evaluation use: How might these different stakeholders use the answers to these questions?

Audience	Questions	Evaluation use
Program staff		
Participants		
Public officials		
Funders		



For a face-to-face workshop, have participants work individually on the chart for 10 minutes. Then have them gather in groups of three to share an example from each audience category. Ask the entire group for several examples to talk through how different audiences might inform the types of questions developed.

For a virtual workshop, if the software functionality allows, choose one audience category and have participants enter in the chat pod sample questions that they think this particular audience may have. Then in a second chat pod have participants enter their ideas about how that particular group of stakeholders may use those questions in an evaluation. This activity will add 10 minutes to the overall time for session II.



It may be wise to pause and take questions at this point in the workshop. Slide 64 reflects that pause in the workshop.

## Generating indicators

Supporting materials for this section: slides 65–67.

### Activity II.4: Generating indicators of the flu

How do we know a child has the flu?

Take a moment to brainstorm how we know a child has the flu:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Perhaps we feel her forehead for fever, listen to her sniffles, notice her lethargy, recognize a drop in appetite, and eventually take her temperature. All of these are indicators of the flu. They do not mean absolutely that the child has the flu, but they do provide specific and measurable evidence that suggest the flu.

In developing evaluation questions, you must consider how you will know that you have achieved the program or policy goals and therefore answered the questions of interest. This section demonstrates how the logic model can support generation of good indicators of program or policy success.

If asking “Is the program successful?”, some understanding is needed of how “success” is measured. In other words, the question, “How will we know the program is successful?” has to be answered. The logic model provides some support for this.

Starting with the logic model’s outputs and outcomes, indicators can be developed that answer the question, “How will we know the program is successful?” Indicators are different from the outputs or outcomes included in the logic model: While the outputs or the outcomes are more general goals for program implementation or outcomes, indicators are specific, measurable targets related to the outcomes of interest.

In short, indicators are:

- Specific, measurable targets.
- Seen, heard, read, and felt.
- Connected to strategies, activities, outputs, and outcomes.
- Evidence representing phenomenon of interest (such as the outcome).

For example, if the outcome is increased parent engagement, the indicator is a specific percentage of parents engaged or a specific increase in number of parents engaged. It is these measurable indicators that lead eventually to an answer to the question, “Is the program successful?”

Indicators do not absolutely mean that a policy or program is responsible for the results we measure. To use an example from the College Ready case, a parent engagement program (the program) may not be responsible for the rise in college applications among student participants (the indicator). There might be other factors, such as a decline in college costs or a particularly influential teacher at the school encouraging and supporting applications, that lead to an increase in the number of college applications submitted—rather than the increase being a direct result of the program. But this increase in college applications (the indicator) could reasonably be attributed to a program that works with the students and their parents to support college readiness.

### Using the logic model to generate indicators

Supporting materials for this section: slides 68–76.

Just as the logic model follows the basic format from inputs (resources) to outputs (strategies or activities) to outcomes (from short term to long term to impact), this same logic is used to generate indicators.

As stated above, indicators are related to the logic model categories of resources, strategies or activities, and outcomes or impact. They go a step further and provide clear numbers or percentages, when appropriate, associated with these resources, activities, outputs, or outcomes—or measurable evidence of the phenomenon of interest represented by the outputs or outcomes.

- Indicators related to inputs provide information about the resources used, the timeliness of the resources, and the relevance of the resources (whether tangible or intangible). Indicators related to these inputs may help answer questions about impediments or facilitators of implementation.
- Indicators related to outputs capture the numbers or percentages of workshops presented, the numbers of participants, and other data that provide information about whether the program was implemented as intended. Did it do what it set out to do? Did it reach the right people?
- Indicators related to outcomes or impacts provide data about the results of participation, such as changes in knowledge, skill, behavior, and attitudes among individuals or groups targeted by the program or policy.

For example, if the strategy or activity was to deliver a parent education class, an indicator related to that activity might be the number of classes delivered or the number of parents who attended (indicators related to the activities and outputs, or process indicators). If an outcome is increased parent understanding of the college application process, an indicator would be the number or percentage of parents reporting increased understanding (an indicator related to the outcomes, or an outcome indicator).

When generating indicators based on the various elements of the logic model (inputs, outputs, strategies and activities, and outcomes), ask these basic questions:

- What would achieving the goal reflected in the outcome look like?
- How would we know if we achieved it?
- If I were visiting the program, what would I see, hear, or read that would tell me that the program is doing what it intends?

---

## Activity II.5: Process and outcome indicators

Using the College Ready program case, this table is designed to help you map a path from an activity in the logic model to an output to an outcome to an indicator.

<b>Activity</b>	Deliver a set of parent workshops for college readiness.
<b>Output</b>	Six workshops developed and delivered; 100 parents recruited to participate.
<b>Outcome</b>	Parents increase their understanding of college application process.
<b>Indicator</b>	Process:  Outcome:



If this is a face-to-face workshop, and participants are prepared to do so, ask the participants to start their own table of indicators for their own logic model. They will map a path from a single activity in their logic model, to an output, to an outcome, to an indicator. Allow an additional 20 minutes for this activity.

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### Identifying the right indicators

Supporting materials for this section: slides 77–83.

Different indicators are related to different types of questions.

- To know whether the program has sufficient resources or funding to operate, look at indicators related to the program inputs.
- To know whether the program was implemented as intended, look at indicators related to the strategies and activities or outputs.
- To learn the ultimate value and impact of the program, look at outcome-related indicators.

Some indicators may be more straightforward or easier to measure than others. Sometimes one indicator is all that is needed for a clear explanation. For example, school graduation rate might be the agreed on indicator for the outcome of decreasing the school dropout rate. In other cases, more than one indicator is necessary to capture a more complex outcome.

If the outcome of interest is improved parent involvement in school, several indicators may be necessary, such as:

- Attendance at school meetings.
- Participation in parent–school organization.
- Parent calls made to the school.
- Attendance at school functions.



For a virtual workshop, if the software functionality allows, ask participants to consider what a range of indicators might be to capture the outcome of increased parent involvement in school. Have a chat pod open and have participants brainstorm some of the possible indicators. End by going back to the presentation and showing slide 87, which contains some of the indicators listed.

For a face-to-face workshop, have participants brainstorm with a person next to them some of the possible indicators for parent involvement. Then show some examples of potential indicators on slide 87. This activity will add 5 minutes to the workshop.

### Quantitative and qualitative indicators

Supporting materials for this section: slides 84–87.

Indicators may be quantitative or qualitative. Given the current interest in and demand for measurable outcomes, evaluation questions often focus only on the outcomes in a logic model and only on the quantitative measures associated with those outcomes. However, to attribute quantitative outcomes (such as graduation rates or improvements on standardized tests) to a program, it is important to ask questions about the process that may have contributed to those outcomes. There are some questions that are best answered with a mixture of both quantitative and qualitative data. This suggests the need for both qualitative and quantitative indicators to answer questions of interest.

- Quantitative data are generally best suited to summative evaluations—such as information related to proving the value or impact of the program or policy.
- Qualitative data are generally better suited to formative evaluations—such as those that focus on how to improve the program.

However, this is not to suggest that all formative evaluations should be qualitative and that all summative evaluations should be quantitative. Often, a mix of measures is the best approach. Qualitative data, collected through interviews, observations, and other methods, often provide the depth of information needed to interpret quantitative data, such as test scores or graduation rates. We often want to know both whether a program or policy had the desired impact and how. Thus, a mix of measures is advisable.

It is a good idea to collect different types of data (for example, quantitative and qualitative) from several sources (for example, surveys, interviews, grades) and from different groups of stakeholders (for example, students, parents, mentors, staff, partners such as schools). While some funders may prefer quantitative data on outcomes, others, such as staff or parents, may prefer qualitative data from parents or students.

For example, in the College Ready case, to learn whether the program increased student interest in college, the indicators might include both quantitative (number of applications completed) and qualitative data (guidance counselors' reports on student interest).



If you have additional time and the participants are prepared, you may extend this activity with the task below. If you include the task below, give the participants time to generate examples. Then ask for a few participants to share their ideas, either in the chat function for a virtual workshop, if the software functionality allows, or in a face-to-face workshop. This activity will add 10 minutes to the workshop.

Consider your own programs. Can you think of both quantitative and qualitative indicators of success? Go back to the evaluation questions you generated for different audiences earlier in this workshop, identify two questions, and brainstorm both quantitative and qualitative indicators for each question.

Evaluation question:

Quantitative indicator	Qualitative indicator

Evaluation question:

Quantitative indicator	Qualitative indicator

A few final considerations about indicators. Indicators may:

- Match the outcomes of interest or questions asked.
- Be singular for a given outcome or question.
- Be quantitative or qualitative.
- Vary based on the audience.

## Building an evaluation design

Supporting materials for this section: slides 88–91.

This section provides tools for building an appropriate evaluation design.

Once you have generated a good logic model, come up with the best evaluation questions, and developed what you believe will be the best indicators of program or policy success (either for program improvement or to make the case for program impact), you are ready to build the evaluation design.

### Determining what type of evaluation is best for you

The first question to answer about evaluation design is quite basic: Is the purpose of the evaluation to examine process elements (formative) or to examine overall impact (summative), or is it a hybrid evaluation, with some of each? Answering this question should help clarify what to include in the evaluation.

You should also return to the question of audience. Who is the audience for the evaluation, what does the audience want to know, and how will the information be used?

Consider your capacity: Who will conduct the evaluation, using what resources, and within what timeframe?

Finally, assuming there are some financial, time, or other capacity constraints, what are your priorities? What do you need to know?

### Identifying appropriate data sources

When choosing measures for program evaluation, think about the data collection needs as well as data collection capacity.

- *Access pre-existing data.* Consider collecting from pre-existing sources of data, such as school attendance records or items from surveys that a school district already requires students to take, that will meet your evaluation needs.
- *Use existing instruments.* When data cannot be collected through existing sources, consider existing instruments that measure the same concepts that you are looking to measure. These instruments may be effective as written, a small tweak may be needed, or you may need to adopt only a few items from the entire instrument. It may even be possible to add these instruments or items to existing surveys currently being administered in your school or district.

Consider the types of data sources that might serve as indicators of success, both for process-related questions and for outcome-related questions.

The following data sources may be useful for collecting process and outcome data:

- Administrative data (program documents, activity logs, registration records, and the like).
- Focus groups.
- Interviews.

- Observations.
- Surveys.
- Student test scores and grades.
- Teacher assessments.

---

### Activity II.6: Consider data sources

Consider the data sources available to you in your program. Brainstorm what relevant data sources you already collect, either because they are required or because you choose to collect them:

- \_\_\_\_\_  
\_\_\_\_\_
- \_\_\_\_\_  
\_\_\_\_\_
- \_\_\_\_\_  
\_\_\_\_\_
- \_\_\_\_\_  
\_\_\_\_\_
- \_\_\_\_\_  
\_\_\_\_\_



For a face-to-face workshop, ask for examples from the group. For a virtual workshop, ask people to enter examples into the chat pod, if the software functionality allows. This will add 5 minutes to the workshop.



Case: College Ready program

Strategy or activity	Output or outcome	Formative	Summative	Indicator	Data source	Data collection instrument	When collected	By whom
Parent education strategy	High rate of parent attendance at workshops	✓		70 percent of parents attend five out of six workshops	Administrative data	Attendance log at workshops	At beginning of each session	Program director
Parent education strategy	Increased parent understanding of college application process		✓	85 percent of parents who attend more than four workshops report increased understanding	Parent feedback	Survey and interviews	Beginning of program, end of program	Program staff

It may be useful to distinguish among short-term, long-term, and impact data when creating an outcome-specific data collection table (see the table below). The reason for doing this may be relevant to only some evaluations, depending on the depth and duration of the evaluation plan. However, distinguishing among outcomes in the logic model should help guide the types of data that ought to be collected (and when) to reflect those outcomes. For example, if changes in student test scores are not anticipated until a program has been up and running for three to five years, these data should not be collected (except to serve as a baseline, or point from which change will be measured) until the long-term phase of data collection.

Strategy or activity	Output or outcome	Indicator	Data source	Data collection instrument	When collected	By whom
<b>Short term</b>						
Parent education strategy	Increased parent understanding of college application process	85 percent of parents who attend more than four workshops report increased understanding	Parent feedback	Survey and interviews	Beginning of program, end of program	Program staff
<b>Long term</b>						
Student education strategy	Increased student understanding of college application process	80 percent of students who attend the workshops apply to college and get accepted to at least one college or university	Student feedback	Survey and interviews	End of program	Program staff
<b>Impact</b>						



To extend the discussion of these tables, ask participants to consider what long-term and impact rows might look like for the same College Ready case. For a face-to-face workshop, take some examples from the group and walk through them together, filling in the chart on the board. For a virtual workshop, prompt participants to focus first on the long-term row. Just focus on the strategy, the output or outcome, the data source, and the data collection instrument. This would all be speculative but will help clarify the idea of systematically thinking through the data issues to consider.



It is unlikely that participants will be able to complete the activity below during the workshop. Instead, for a face-to-face workshop where participants have a common program or policy, suggest that participants work in pairs to generate a short-term, a long-term, and an impact example. If time is limited, assign pairs to one of the levels (short term, long term, or impact). Take a few volunteers to share examples. For a virtual workshop, invite participants to select one of the levels (short term, long term, or impact) and type an example into the chat pod. It is often helpful to have a few examples ready to include in the chat to get people thinking and encourage their participation.

### Additional activity: Data collection framework

Try it yourself. Consider your program or policy and generate a data collection strategy. This activity is best completed after having developed a full logic model.

Strategy or activity	Output or outcome	Indicator	Data source	Data collection instrument	When collected	By whom
Short term						
Long term						
Impact						

## Putting it all together

Supporting materials for this section: slides 95–97.

Now that you have a logic model, a set of measurable indicators, some evaluation questions, a data collection framework, and at least some idea about evaluation design, you are nearly ready to proceed with evaluation. What you still need is the overall evaluation plan and timeline. This section provides some tools to help you develop your plan and timeline.

At this point, you have learned about all the steps necessary to get you to the evaluation. In brief, you have learned about how to:

- Develop a logic model, in collaboration with stakeholders.
- Clarify who the audience is for the evaluation and how it will be used.
- Identify and prioritize evaluation questions, based on the logic model.
- Select appropriate indicators, based on the outcomes of interest.
- Identify data sources and a data collection plan (including considering whether the evaluation is serving a formative/process or a summative/outcome goal).
- Consider evaluation design, with awareness of resources, capacity, and timeline.

Once you have completed all these steps, it is still a good idea to develop an evaluation prospectus that lays out much of this information in clear, narrative form.

### Evaluation prospectus

If you are going to look for an external evaluator, or even if you are going to do the evaluation in house, it is wise to have an evaluation prospectus to accompany all the other materials you are generating. This prospectus should provide a clear and straightforward answer to the following questions:

- What are you going to evaluate?
- What is the purpose of the evaluation?
- How will the results of the evaluation be used?
- What specific questions will the evaluation answer?
- What data sources will be necessary to answer these questions?
- How will the data be analyzed (evaluation design)?
- What resources are needed to conduct this evaluation?
- What is the timeline for the evaluation?
- How will the results be shared or disseminated?
- Who will manage the evaluation?

### Evaluation timeline: Example of Gantt chart

One more tool may be helpful in implementing the evaluation plan. Evaluators often work with Gantt charts, which are a kind of timeline, displayed in such a way that readers can immediately see a proportionate, chronological account of the time for each evaluation task. They can be helpful for clarifying the sequence of activities in an evaluation, monitoring progress toward goals, and communicating with others about the products associated with the evaluation.

- The vertical axis shows the tasks to be completed.
- The horizontal axis shows the time scale.
- A shaded area indicates how long each task will take.
- Milestones are denoted with a ★.

Task	January	February	March	April	May	June	July
Develop survey	■	■					
Select sample		■					
Administer survey			■	■			
Analyze survey data					■	■	
Compare survey data to indicators						■	■
Write up findings							★

## Review

Supporting materials for this section: slides 98–99.

When introducing logic models, session I noted that they are a useful tool for program design, implementation, and evaluation. They should be living documents that are referred to throughout the life of the program and the evaluation and amended as needed. They are also helpful for guiding a program as it evolves and for ensuring that the work of the program remains focused on the key goals and outcomes.

Logic models are useful for program evaluation, especially when evaluation is designed in concert with the logic model. It is much better to consider evaluation at the outset of a program's or policy's development than as an afterthought or halfway through program implementation.

Finally, engaging key voices—staff, parents, students, funders, and others—in discussions about program design and evaluation will promote the buy-in and ongoing support of these participants as well as increase the authenticity of the model and the evaluation.

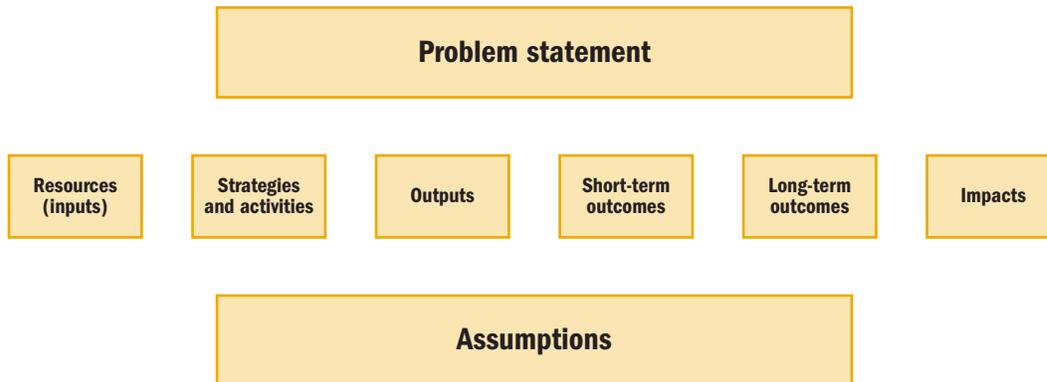


For a virtual workshop, have participants list one thing they learned or will take back to their colleagues in a separate chat pod. For a face-to-face workshop, have participants share their ideas and write them on a whiteboard or large notepad paper.

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## Appendix A. Simple logic model

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## Appendix B. Template for simple logic model

Problem statement: \_\_\_\_\_  
 \_\_\_\_\_

Resources	Strategies and activities	Outputs	Short-term outcomes	Long term outcomes	Impacts
What resources are or could reasonably be available?	What will the activities, events, and such be?	What are the initial products of these activities?	What changes are expected in the short term?	What changes do you want to occur after the initial outcomes?	What are the anticipated changes over the long haul?
• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____
• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____
• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____
• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____
• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____

Assumptions: \_\_\_\_\_  
 \_\_\_\_\_

## Appendix C. Sample logic model for college readiness program

*Problem statement:* Low-income high school students in selected communities attend college at a lower rate than their middle-class peers, leading to more limited opportunities, higher rates of unemployment, and lower earnings.

Resources	Strategies and activities	Outputs	Short-term outcomes	Long term outcomes	Impacts
<p>What resources are or could reasonably be available?</p> <ul style="list-style-type: none"> <li>Partnership with three public high schools.</li> <li>Community mentors.</li> <li>Local university space for parent meetings.</li> <li>Volunteer college admissions directors for application workshop.</li> <li>Student volunteers for childcare at parent meetings.</li> </ul>	<p>What will the activities, events, and such be?</p> <ul style="list-style-type: none"> <li>Establish local college mentorship program.</li> <li>Recruit and prepare peer mentors.</li> <li>Develop and deliver student readiness program (workshops).</li> <li>Develop and deliver parent education (workshops).</li> </ul>	<p>What are the initial products of these activities?</p> <ul style="list-style-type: none"> <li>Recruited adequate number of mentors for student cohort.</li> <li>Developed and delivered 12 workshops on college application process, SAT/ACT, FAFSA, and college life.</li> <li>Developed and delivered six workshops for parents.</li> <li>High interest and attendance demonstrated at all workshops for parents and students.</li> </ul>	<p>What changes are expected in the short term?</p> <ul style="list-style-type: none"> <li>Participating students apply to at least one college on time.</li> <li>Parents report increased understanding of the college application process.</li> <li>Students report increased readiness for college.</li> <li>Participating students complete FAFSA forms on time.</li> </ul>	<p>What changes do you want to occur after the initial outcomes?</p> <ul style="list-style-type: none"> <li>Participating students are accepted to and attend college, remaining enrolled into the third semester of college.</li> <li>Participating students' GPAs are above 3.0 at college, into the third semester.</li> <li>Increased parental engagement in participating high schools' student education.</li> </ul>	<p>What are the anticipated changes over the long haul?</p> <ul style="list-style-type: none"> <li>Low-income students in participating communities attend college at the same rate as middle-class peers.</li> <li>Low-income students in participating communities graduate from college at the same rate as middle-class peers.</li> <li>Participating high schools see increase in parent and student engagement.</li> <li>Participating high schools state test scores increase by x percent.</li> </ul>

*Assumptions:* College attendance is desired goal for participating communities; high school leaders will remain consistent and support program; parents will show interest and participate in program.

## Appendix D. Example of a logic model for an educator evaluation system theory of action

**Context: Implement four pillars of effective teaching: teacher evaluation, teacher preparation, teacher induction, and professional development.**

*Long-term goals:* To support teachers' continuous improvement and to improve student learning and other outcomes.

*Evaluation goal:* To evaluate the implementation of the state teacher evaluation framework in a subset of schools and districts in 2012/13.

Strategies	Participants		Implementation outcomes	Intermediate outcomes	Impact and long-term outcomes
Design and implement new teacher evaluation systems that employ multiple measures including: <ul style="list-style-type: none"> <li>• Teacher observations.</li> <li>• Evaluator and teacher conferences.</li> <li>• Student-learning objectives.</li> <li>• Professional growth plans that place teachers in "tracks" based on experience.</li> <li>• Multiple rating categories.</li> <li>• Teaching standards based on the Danielson framework.<sup>a</sup></li> </ul>	Teachers	➔	District teacher evaluation plans correspond with state guidelines.	Based on information gained from evaluation of implementation: <ul style="list-style-type: none"> <li>• Program changes and modifications to framework for teacher evaluation.</li> <li>• Department of Education provides guidance, training, and support materials for districts.</li> <li>• Individual district modifications to teacher evaluation systems.</li> <li>• Systems differentiate among teachers based on level of experience and performance.</li> </ul>	Alignment of evaluation and professional support systems Improvement in teacher practice. Improvement in student-learning outcomes, including: <ul style="list-style-type: none"> <li>• Higher achievement on standardized assessments.</li> <li>• Decreased dropout rate.</li> </ul>
	Classroom and school specialists		District teacher evaluation systems have been implemented as designed with regard to multiple measures of student learning and teacher performance including:		
	School and district administrators		<ul style="list-style-type: none"> <li>• Teacher observations.</li> <li>• Evaluator and teacher conferences.</li> <li>• Student-learning objectives.</li> <li>• Professional growth plans.</li> </ul>		
	Department of Education	➔	District teacher evaluation systems have been implemented with fidelity with regard to use of multiple rating categories.		
	Students	➔			
	Parents	➔			
	Other stakeholders (such as school committees, school board)	➔			

**a.** Danielson, C. (2007). *Enhancing professional practice: A framework for teaching*. Alexandria, VA: Association for Supervision and Curriculum Development.

*Assumptions:* The Department of Education assumes that educator evaluation is one of four essential pillars of effective teaching. To maximize long-term outcomes, all pillars need to be in place and integrated. The department also assumes that if districts implement reformed teacher evaluation systems that map onto the Blueprint for Effective Teaching in New Hampshire (<http://www.education.nh.gov/teaching/documents/phase1report.pdf>), then district-level systems will lead to long-term outcomes indicated above. It hypothesizes that achievement of outcomes will be influenced by professional climate: Schools with a favorable climate will be more likely to have successful implementation.

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## References and resources

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Many resources are available online for logic modeling and program and policy evaluation. Some of them were used in developing this workshop. Several of the resources below provide links to additional online resources.

### Logic model resources

Coffman, J. (1999). *Learning from logic models: An example of a family-school partnership program*. Cambridge, MA: Harvard Family Research Project. Retrieved March 16, 2013, from <http://www.hfrp.org/publications-resources/browse-our-publications/learning-from-logic-models-an-example-of-a-family-school-partnership-program>

Innovation Network, Inc. (2011). *Logic model workbook*. Washington, DC: Author. Retrieved March 18, 2013, from [http://www.innonet.org/client\\_docs/File/logic\\_model\\_workbook.pdf](http://www.innonet.org/client_docs/File/logic_model_workbook.pdf)

University of Wisconsin Extension School. (2002). *Enhancing program performance with logic models*. [Course.] Madison, WI: Author. <http://www.uwex.edu/ces/lmcourse/#>

W.K. Kellogg Foundation. (2006). *Logic model development guide*. Battle Creek, MI: Author. Retrieved March 16, 2013, from <http://www.wkkf.org/knowledge-center/resources/2006/02/wk-kellogg-foundation-logic-model-development-guide.aspx>

### Evaluation resources

Bond, S., Boyd, S., and Rapp, K. (1997). *Taking stock: A practical guide to evaluating your own programs*. Chapel Hill, NC: Horizon Research, Inc. Retrieved March 16, 2013, from <http://www.horizon-research.com/publications/stock.pdf>

Centers for Disease Control and Prevention. (2012, August). *Implementing evaluations: Learning and growing through evaluation*. Module 2. Atlanta, GA: Author. Retrieved March 16, 2013, from [http://www.cdc.gov/asthma/program\\_eval/guide.htm](http://www.cdc.gov/asthma/program_eval/guide.htm)

Chinman, M., Imm, P., and Wandersman, A. (2004). *Getting to outcomes 2004: Promoting accountability through methods and tools for planning, implementation, and evaluation*. Santa Monica, CA: Rand Corporation. Retrieved March 16, 2013, from [http://www.rand.org/pubs/technical\\_reports/TR101.html](http://www.rand.org/pubs/technical_reports/TR101.html)

Patton, M. Q. (1997). *Utilization-focused evaluation: The new century text*. Thousand Oaks, CA: Sage Publications.

U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research, and Evaluation. (2010). *The program manager's guide to evaluation (2nd ed.)*. Washington, DC: Author. Retrieved March 16, 2013, from <http://www.acf.hhs.gov/programs/opre/resource/the-program-managers-guide-to-evaluation-second-edition>

U.S. Government Accountability Office. (2012, January). *Designing evaluations* Washington, DC: Author. Retrieved March 16, 2013, from <http://www.gao.gov/products/GAO-12-208G>

W.K. Kellogg Foundation. (2010). *Evaluation handbook*. Battle Creek, MI: Author. Retrieved March 16, 2013, from <http://www.wkkf.org/knowledge-center/resources/2010/w-k-kellogg-foundation-evaluation-handbook.aspx>

The Centers for Disease Control and Prevention has a range of evaluation resources, some produced in house and some from other sources:

<http://www.cdc.gov/eval/resources/index.htm>

The Evaluation Center at the Western Michigan University created several checklists that may be useful in planning and monitoring evaluation:

<http://www.wmich.edu/evalctr/checklists/>

# Participant workbook

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## Introduction to workshop

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A logic model is a visual representation of a theory of action or program logic guiding the design and implementation of a program or policy and can be used as a tool for building a relevant evaluation design. The Regional Educational Laboratory (REL) Northeast & Islands administered by Education Development Center created this workshop to help groups, such as the research alliances affiliated with the 10 RELs, as well as individual alliance members, learn about and build logic models to support program designs and evaluations. Based on feedback from alliance members, REL Northeast & Islands learned that many of its district- and state-based members would like to build their capacity to develop logic models for both evaluating their own programs and working more effectively with evaluators whom they engage to conduct evaluations on their behalf.

This workshop provides a primer on logic modeling and demonstrates how to use logic models as a tool for program evaluation. The overarching goals of the workshop are to:

- Introduce logic models as an effective tool for program or policy design, implementation, and evaluation.
- Practice the elements of a logic model.
- Provide guidance in appropriate steps for building a logic model for a program or initiative.
- Practice using logic models to develop evaluation questions and indicators of success.
- Provide guidance in how to determine the appropriate evaluation for a specific program or policy.

Versions of this workshop were presented to three REL Northeast & Islands research alliances in 2013 in two different formats. The Puerto Rico Research Alliance for Dropout Prevention participated in a three-hour face-to-face workshop focused on supporting the alliance's effort to generate a common vision for dropout prevention work. The Urban School Improvement Alliance and the Northeast Educator Effectiveness Research Alliance both participated in virtual webinars for a broad audience of practitioners interested in developing skills and capacity to develop and use logic models to increase individual and group capacity to design and evaluate programs.

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The authors thank the following people from Education Development Center, Inc., for their expertise and resources in developing these materials: Katrina Bledsoe, Leslie Goodyear, Brian Lord, and Anne Wang.

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## Session I. Learning about logic models (2 hours)

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### Agenda

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5 minutes	Introduction and goals	Facilitator offers introductions followed by an overview of the agenda and purposes of the workshop.
10 minutes	Introducing the cases	Facilitator reviews cases that will be used as examples throughout the workshop. Activity I.1 (7 minutes): Participants brainstorm the goals of the programs in the cases and the types of questions that might be appropriate to ask about the cases.
20 minutes	What is a logic model?	Facilitator introduces logic models as a useful tool for program design, implementation, and evaluation. Facilitator then introduces three types of logic models with three different purposes. Facilitator discusses overall idea of inputs-outputs-outcomes that drives logic model development and the logic of logic models. Activity I.2 (10 minutes): Participants complete an inputs-outputs-outcomes table for the College Ready case.
65 minutes	Elements of a logic model	Facilitator walks through all elements of a logic model. Several individual elements have an associated activity. <ul style="list-style-type: none"><li>• Problem statement: Includes discussion of what a problem statement is and the questions that need to be considered in developing an appropriate problem statement.</li></ul> Activity I.3 (7 minutes): Participants brainstorm their own problem statements. <ul style="list-style-type: none"><li>• Outcomes: Includes discussion of short- to long-term outcomes and impacts, as well as review of what outputs are and how they differ from outcomes. Guidance for generating outcomes is provided.</li></ul> Activity I.4 (15 minutes): Participants fill in a table that helps generate outcomes for their own examples or for one of the case examples. <ul style="list-style-type: none"><li>• Strategies and activities: Focuses on program components and how sequencing and clustering of activities should be considered. There is no workshop activity associated with this element, but there is an activity in the workbook provided as a suggestion for participants to do on their own following the workshop. There is a brief pause here for questions.</li><li>• Resources: Discusses material and intangible resources.</li></ul> Activity I.5 (7 minutes): Participants brainstorm at least five nonmonetary resources available to them in a program. <ul style="list-style-type: none"><li>• Assumptions: Discusses examples of assumptions and the importance of being explicit about assumptions.</li></ul> Activity I.6 (10 minutes): Participants brainstorm internal and external assumptions for their program or initiative.
10 minutes	The logic in a logic model	Facilitator discusses the if-then statements that are embedded within logic models. Facilitator then walks participants through the logic of the if-then statements in the blended learning case. Activity I.7 (7 minutes): Participants practice with the College Ready case and order a series of if-then statements.
10 minutes	Next steps	Facilitator closes with discussion of some next steps for developing a logic model and a reminder of how logic models can support program design and evaluation. Activity I.8 (5 minutes): Participants indicate a next step for their work.

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## Pre-assignment

Consider a program or policy that you lead or are actively involved in designing, implementing, or evaluating. Come to the session with the following materials or information:

- For whom is the program or policy designed?
- What are the main goals or objectives of the program or policy?
- What is the timeline and duration of the program or policy?
- What are the major activities or strategies associated with the program or policy?

Program or policy: \_\_\_\_\_

For whom	Main goals or objectives	Timeline and duration	Major activities or strategies

## **Goals**

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Supporting materials for this section: slide 4.

Session I of the workshop will:

- Introduce logic models as an effective tool for program and policy design, implementation, and evaluation.
- Invite participants to practice the elements of a logic model.
- Provide guidance in appropriate steps for building a logic model for a program or initiative.

## **Introducing the cases**

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Supporting materials for this section: slide 5.

This section describes the two cases that are used as the examples throughout the workshop (and provides some additional case examples that may be used if more relevant to the particular audience). These examples are based on real programs or policies. These cases provide a common language for discussing all aspects of the logic model. Participants may also want to draw on their pre-assignment, in which they generated their own example, to use throughout the workshop.

### **College readiness high school program**

College Ready is a school-based college access program for students in grades 9–12. Students are identified for the program based on eligibility for free or reduced-price lunch, recommendations from school guidance counselors, and recommendations from grade 8 English and math teachers. Students participate in monthly meetings as a group with the College Ready staff, are provided with one-on-one counseling with College Ready staff, are assigned an adult mentor and a peer mentor, and participate in a series of evening and summer workshops. In addition, families make a commitment to the program and attend a series of workshops specifically designed to prepare the whole family for the college application process. The goal of the program is to significantly increase college attendance among low-income students.

### **Blended learning schools**

An urban district is going to convert a few of its schools into blended learning schools (in which students learn both online and face-to-face with a teacher to personalize their instruction). The schools will be using the individual rotation model, which allows students within a given course or subject to rotate on an individually customized, fixed schedule between online courses and a variety of classroom environments with face-to-face teachers. Individual students have their own netbook and a unique schedule. The model also includes site coordinators and a principal who is involved in daily classroom observation. The goal of the model is to improve student achievement and individualize instruction.

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### Activity I.1: Discussion of cases

- Individually.

Working on your own for about two minutes and using the worksheet below, consider the College Ready or blended learning case above. What are the goals of the program? What might we want to know about it? Consider questions of implementation, effectiveness, and impact.

- In large-group discussion.

What are your ideas about the goals of the program and what do you want to know about it?

**What are the goals of the program or policy?**

**What do we want to know about the program or policy?**

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## What is a logic model?

Supporting materials for this section: slides 6–9.

This section provides a primer on logic models, including different types of logic models and their potential purposes.

In the most basic terms, logic models provide a kind of map for a program or initiative, helping clarify a program or policy's destination, the pathways toward the destination, and markers along the way.

Consider:

- Where are you going?
- How will you get there?
- What will tell you that you have arrived?

Logic models provide a simplified picture of the relationships between the program or policy inputs (resources, strategies, activities) and the desired outcomes of the program.

Logic models present a theory of action or change that drives the program or policy and makes explicit any assumptions about both the resources at the disposal of the program and the rationale behind the effort.

A logic model is valuable in supporting:

- Program planning.
- Program implementation.
- Program monitoring.
- Program evaluation.

Why use a logic model? A logic model:

- Brings detail to broad goals.
- Helps identify gaps in program logic and clarify assumptions.
- Builds understanding and promotes consensus.
- Makes explicit underlying beliefs.
- Helps clarify what is appropriate to evaluate and when.
- Summarizes complex programs for effective communication.

A logic model is useful in designing program and policy evaluation, because a logic model helps clarify both what the program, initiative, or policy is and what it is not. This kind of clarification is helpful in building an evaluation design that can capture the program's or policy's influence and impact.

What are the limitations of a logic model? A logic model is not:

- A strategic or fully developed plan for designing or managing a program or policy.
- An evaluation design or evaluation method.

While logic models are useful tools for building program plans or evaluation designs, additional work is necessary to create both programmatic and evaluation plans.

## Types of logic models

Not all logic models are the same, nor are they designed for the same purpose. Just as logic models may aid in program design, implementation, and evaluation, the type of model developed varies somewhat based on its purpose. There are three main types of logic models:

- Theory approach.
- Activities approach.
- Outcomes approach.

### *Theory approach models*

Logic models that describe the overall theory of change provide a “big picture” of the program and may be useful for program design and overall communication of the program theory. These models provide a clear description of why the developers believe the program or policy will be effective in achieving the goals. In the blended learning case, a theory approach logic model might help clarify the assumptions implicit in the push for alternatives to traditional brick and mortar classrooms and describe the relationship between initiating blended learning and the expected outcomes for students who participate.

Consider:

- What might be the logic in a theory approach model for your own program or policy? (The “big picture” theory of change about your initiative?)

### *Activities approach models*

Activities approach models focus on laying out the specific strategies and activities associated with a program. These models closely examine the relationship among the activities, considering sequence and timing of implementation, as well as how the activities link to outcomes. This type of logic model is most useful in program implementation, monitoring, and management. In the College Ready case, this type of logic model would consider the elements of the program and how they would be optimally ordered and managed. For example, what role would the different mentoring components have? How would they relate to one another? In this type of model, relationships among variables are made explicit with arrows, concentric circles, and other graphic representations of relationships.

Consider:

- Why consider the sequence and relationship among activities in a logic model? How might that help you?

### *Outcomes approach models*

Outcomes approach models are most useful for program evaluation. They consider the strategies and activities as they relate to the desired results of a program or policy. In these models, the focus is on outcomes, and they often divide the outcomes into short-term outcomes, long-term outcomes, and impacts. A theory of change drives these models just as it does the others. But in an outcomes approach logic model, the emphasis is on examining the outcomes and making the case that the program or policy is responsible for the desired outcomes.

Consider:

- Why divide outcomes into short term and long term? What is the difference between outcomes and impacts?

### Inputs–outputs–outcomes

Supporting materials for this section: slides 10–14.

In its simplest form, a logic model is a graphic representation of the relationship among a program’s or policy’s inputs (what is invested in the program), the outputs<sup>1</sup> (what is done with these investments), and what the outcomes are (what are the results).

Take a simple example: You have a headache and you want it to go away.

- What is the input?
  - Quiet time.
  - Water.
  - A hot compress.
  - Two aspirin.
- What is the output (that is, what do you do with the inputs)?
  - Sit quietly for five minutes.
  - Drink a full glass of water.
  - Put hot compress on.
  - Take aspirin.
- What is the outcome?
  - You are more relaxed.
  - You are hydrated.
  - Your headache goes away.
  - You are able to return to your work.

Below is an example from the blended learning case. Some base inputs, outputs, and outcomes have been laid out, reflecting the overall logic of the program.

Inputs	Outputs	Outcomes
<ul style="list-style-type: none"><li>• Existing technology infrastructure</li><li>• Technology integration staff person for three schools</li><li>• Teachers’ enthusiasm in three schools</li><li>• Technology integration grant</li></ul>	<ul style="list-style-type: none"><li>• Infrastructure audit completed</li><li>• Completion of six days of summer teacher professional development</li><li>• Six blended learning classrooms established</li></ul>	<ul style="list-style-type: none"><li>• Teachers’ reported use of diverse instruction strategies increases</li><li>• Student engagement increases</li><li>• Student achievement on district-wide assessments improves</li></ul>

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1. The use of the term “output” here differs from its use when outputs are included as a specific element in a complete logic model. The use here is in terms of the general inputs–outputs–outcomes logic of a logic model. In this case, outputs do not refer to the measurable, targeted activities that are actually completed; rather, they refer more generally to what is done with the inputs to achieve the outcomes—that is, as one part of the overall logic embedded in a logic model. While possibly confusing, the main idea here is that a logic model sets up a logical progression from resources to activities to outcomes. The section that discusses the specific elements of a full logic model separates strategies and activities from outputs.

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**Activity 1.2: Inputs–outputs–outcomes**

Using one of the example cases (College Ready), consider the inputs, outputs, and outcomes. This activity helps illustrate the basic purpose and premise of logic models, but what is generated is not an actual logic model. Rather, this activity is designed to help you understand the overall logic undergirding logic models. For more information on the elements of the logic model, see the next section.

Inputs	Outputs	Outcomes
<hr/>		

## Elements of a logic model

Supporting materials for this section: slides 15–18.

This section provides an overview of—and opportunities to practice—all elements of a logic model, which are listed below. The pages that follow delineate these elements and use examples from the two cases. The elements are discussed in a different order from their presentation in the simple logic model on slide 15 (and in appendix A) because the order below makes the most logical sense when working through the different elements of a logic model. For example, once a problem statement is determined, thinking about the overall goals would be the next logical step, so discussing outcomes should be considered next.

- Problem statement.
- Short- and long-term outcomes.
- Impacts.
- Outputs.
- Strategies and activities.
- Resources (inputs).
- Assumptions.

### **Problem statement**

The problem statement is the problem or challenge that the program or policy is designed to address.

Consider:

- What is the problem or issue?
- Why is this a problem? (What causes the problem?)
- For whom (individual, household, group, community, society in general) does this problem exist?
- Who has a stake in the problem? (Who cares whether it is resolved?)
- What is known about the problem, issue, or people who are involved? What research or experience is available? What do existing research and experience say?

Finally, ask whether the problem statement is too big or too small. The final problem statement should be targeted and specific, but it should not be a simple restatement of the program as a need. For example, in the blended learning case, “Students lack access to their own netbook” is really a statement about the lack of the program. The problem statement should address the real issues underlying the need for the program, such as “Students have limited one-on-one attention from teachers.”

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### Activity I.3: Problem statement

Consider the problem statement most appropriate to the challenge you face in your work, related to a program you have in place or one you would like to initiate. In other words, consider the problem for which your program or policy is the “answer.” Brainstorm key ideas associated with the relevant problem. Model your brainstorm after the example below, in terms of brevity. There are several different ideas reflected below; in your brainstorm, consider all potential ideas or elements of the problem. Remember that a problem statement should be targeted and specific.

Case: Blended learning

- Students are not actively engaged in their learning.
- Courses are sometimes monotonous.
- Students have limited one-on-one attention from adults.
- Students’ courses are not personalized.
- Students are all expected to work at the same pace.

Your brainstorm:

- \_\_\_\_\_  
\_\_\_\_\_
- \_\_\_\_\_  
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- \_\_\_\_\_  
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- \_\_\_\_\_  
\_\_\_\_\_
- \_\_\_\_\_  
\_\_\_\_\_

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### Outcomes

Supporting materials for this section: slides 20–27.

While outcomes are not the next item one sees when one looks from left to right across a traditional logic model, they are a logical next step to discuss when examining the elements of a logic model. Outcomes should be thought of next because knowing the goal in relation to solving the problem defined in the problem statement will help in developing a plan for achieving the outcomes. After identifying the problem, it makes sense to identify the overall goal, or outcomes, next.

Outcomes ask, “What difference does it make?” In other words, what is the difference that the resources, and strategies and activities, taken together, should have on the various participants in these efforts? For example, in the College Ready case, “What difference does the mentoring program have on students’ daily school attendance?” or “What difference does the mentoring program have on students’ grade point average or college attendance?”

Outcomes usually come in stages and fall along a continuum from short- to long-term outcomes. The language to describe these outcomes varies; this workbook refers to short-term outcomes, long-term outcomes, and impact. Other terms include:

- Short-term: initial, immediate, proximal.
- Long-term: medium-term, intermediate, midpoint.
- Impact: long-term, final, ultimate, distal outcome.

### *Short-term outcomes*

Short-term outcomes are the most immediate and measurable results for participants that can be attributed to strategies and activities. For example, a program that promotes increased parent engagement in students' college planning might have a short-term goal of increased parent participation in the provided parent sessions.

### *Long-term outcomes*

Long-term outcomes are the more distant, though anticipated, results of participation in strategies and activities. When it comes to short- and long-term outcomes, it is good to think about the overall timeframe for the program. Sometimes, short term is considered to be as short as six months or as long as three years. Long term might be two years or as long as six years. The important point is to consider the program and identify the timeframe, specific to the initiative, for short- and long-term outcomes. For example, a long-term outcome for a program focused on increasing college readiness may be improved academic performance of participants in the program.

### *Impacts*

Impacts are the desired outcomes of long-term implementation of strategies and activities that depend on conditions beyond the program's scope of strategies. These may be called the "blue skies" or the big picture types of objectives that are more distant from the actual strategies and activities and less within the control of the program or policy to realize. Often these are considered to be 7–10 years after initial implementation. For example, an impact of a college readiness program might be an increased percentage of students graduating from post-secondary institutions after participating in their high school's college readiness program.

### *Outputs versus outcomes*

Some logic models include both outputs and outcomes. Outputs differ from outcomes in that they capture data about what is done rather than what is expected to be achieved as a result of what is done. Outputs can best be described as activity data and are useful for tracking program implementation. They often provide detail about the breadth and reach of strategies and activities. Outputs capture size and scope; they describe or count strategies and activities, such as the number of parent sessions delivered, the program participation rates, the number of materials developed or distributed, and so forth. Using the

College Ready program as an example, another way to think about the difference between outputs and outcomes is to consider the questions:

“Is the parent education program being delivered as intended?” (output question)

versus

“Are parents who participate in the parent education program becoming more actively involved in their children’s education?” Or, a long-term outcome might be, “Is the college acceptance rate for participating students increasing?” (outcome question)

It is important not to confuse outputs for outcomes. A program that is good at delivering activities and services may achieve its outputs without achieving its outcomes. Yet, it is the outcomes that make the difference in response to the problem identified.

---

### Activity I.4: Focus on outcomes

Being clear about program outcomes is essential for both focused program implementation and effective evaluation. The table below is designed to promote a step-by-step approach to outcome development. The columns are:

- *Who is the target?* Who is the group targeted with the strategy? Is it students? Parents? A school? In this example, based on the College Ready case, the target is participating high school seniors in three high schools that participate in the program.
- *What is the desired change?* Use an action verb to demonstrate a kind of change or an impact. For example: increase, improve, engage.
- *In what?* What is the activity, strategy, or program in which the target population is going to enact this desired change? What is the resulting action in which the target population will engage to achieve the goal?
- *By when?* Here is where the timeline for outcomes is clarified. Is a particular outcome a short- or long-term outcome?

Enter an example from your own context, related to a program or policy initiative you have in place or would like to develop. If you prefer, consider the College Ready or blended learning case and fill in the table with a relevant example from one of those cases.

What is the target?	What is the desired change? (action verb)	In what? (results)	By when?
Participating high school seniors in three urban high schools	Increase	Completed and submitted applications to post-secondary institutions	By June 2014

## Outcomes checklist

Consider the following criteria when examining outcomes:

- Are the outcomes important? Do they represent significant changes or improvements that are valued by participants and key stakeholders? Outcomes may be achievable but not really worth the effort. If the outcomes were achieved, would anyone care?
- Are the outcomes reasonable? Are the outcomes connected to one another and linked in a reasonable order (from short term to long term to impact)? Is it likely that one will lead to the next? Another way to think about this is to consider the if-then statements (or logic statements) embedded in a chain of outcomes. For example, using the College Ready case, will increased parent participation in workshops on college readiness lead to students' completing more college applications? Will access to online courses lead to increased student engagement and achievement? Sequence and timing of activities and intended outcomes are important to consider.
- Are the outcomes realistic given the nature of the problem and available resources and abilities? Will the program lead to or help contribute to these outcomes? (Be careful to ensure that the outcomes are realistic given the level of effort.) In other words, is it realistic to expect an increase in student achievement from one parent education class? Ask hard questions about the outcomes as they relate to the actual program or policy.
- Are unintentional or possibly negative outcomes being attended to? It is important to anticipate and consider the unintended or potentially negative outcomes that might result from the set of strategies and activities. What are potential negative effects of the program or policy? What else might happen that is different from what is intended? How else might the sequence of events unfold? For example, could access to online courses lead to lower student attendance? Considering the unintended consequences allows program and policy designers to consider how to prepare for these possible outcomes and also helps evaluators be attuned to these possible consequences in the evaluation design.

Another common set of criteria for outcomes is the S.M.A.R.T. goals. These are:

- Specific.
- Measurable.
- Action oriented.
- Realistic.
- Timed.

## Strategies and activities

Supporting materials for this section: slides 28–29.

Strategies and activities are the program components, or the game plan for the program or policy. This is an inventory of all the strategies and activities designed to achieve the outcomes. However, it is more than a simple listing of activities. There are two questions to ask when inventorying the activities, services, products, and events that make up the program or policy:

- What is the appropriate sequence or order of these activities?

Consider the College Ready case: It may be important that the mentoring element of the program come prior to the delivery of the parent workshop series. Or perhaps these activities should be concurrent. Consider the appropriate order of activities and how they relate to one another.

- Are there certain activities that, taken together, add up to a kind of overall strategy? Do certain activities bundle or cluster together?

Consider the blended learning case: Perhaps there is a series of training needs related to instituting the blended learning model, such as new professional development offerings for teachers, new demands on the technical support staff at the schools, and new requirements for paraprofessional support to the classrooms, that bundle together as an overarching strategy. Perhaps this is the professional training strategy. This may be different from other strategies associated with the initiative, such as infrastructure or family engagement. Creating these clusters of activities helps streamline the logic model and supports evaluation; the evaluation will then assess a set of strategies, rather than individual activities.

Here is a brief example from the blended learning case, illustrating both the sequence in which activities might unfold and how specific activities relate to a set of core strategies.

Activities	Sequence	Strategy
Develop teacher training materials	1st	Professional training
Deliver summer institute for teachers	2nd	Professional training
Conduct technology audit	1st <sup>a</sup>	Infrastructure

**a.** Occurs concurrently with the develop teacher training materials activity and prior to the deliver summer institute for teachers activity.



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### Activity I.5: Intangible resources

Brainstorm intangible resources (example from College Ready case).

- Community mentors.
- Local university space for parent meetings.
- Volunteer college admissions directors for application workshop.
- Student volunteers for childcare at parent meetings.

What intangible resources are at your disposal? Brainstorm at least five nonmonetary resources that are available to you in a program you operate or manage:

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\_\_\_\_\_
  - \_\_\_\_\_  
\_\_\_\_\_
  - \_\_\_\_\_  
\_\_\_\_\_
  - \_\_\_\_\_  
\_\_\_\_\_
  - \_\_\_\_\_  
\_\_\_\_\_
- 

### Assumptions

Supporting materials for this section: slides 34–36.

Assumptions are beliefs about participants, staff, and the program, as well as about how change or improvement may be realized. Being explicit about assumptions is one of the first and most important considerations during program design, implementation, and evaluation.

Consider the College Ready case: The program assumes that students who participate want to go to college and that college enrollment will lead to a better life for participants. Often the assumptions embedded in a program or policy are critical to the success or failure of the overall initiative. Assumptions may be internal (assumptions about participants, resources, and how the program will function) or external (beliefs about how change occurs, values embedded in the program, or findings from prior research).

Recall the headache example from earlier in the workshop. You had a headache, you tried a few things to get rid of it (water, aspirin), and you felt better. The outcome was that the headache went away. However, between the problem (the headache) and the outcome (no headache) were several assumptions. For example, you assumed that you did not have an allergy to aspirin, that there was no loud noise persisting in the background, and so forth. Clarifying and making explicit the assumptions behind the program, in terms of both the specific elements related to implementation and the assumptions embedded in the theory driving the initiative, are critical to developing a thoughtful logic model.

In the blended learning case, internal assumptions might include a belief that the school leadership will support the blended learning classrooms going forward and that the staffing available will be adequate to support implementation. External assumptions might include a belief that access to varied learning modalities will increase student engagement and that increased student engagement will yield increased student achievement. These external assumptions are both related to the theory of action or change driving the initiative.

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**Activity I.6: Uncovering internal and external assumptions**

Consider your program or initiative. Brainstorm the range of assumptions embedded in the program design and in the overall theory of action driving the initiative.

Internal assumptions	External assumptions

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## The logic in a logic model

Supporting materials for this section: slides 37–39.

The purpose of this section is to understand the logic embedded in a logic model and recognize the need to identify the possible relationships and connections among various elements of a logic model.

Understanding these if–then relationships is essential to uncovering the theory of action or theory of change driving a program or policy. Access to and application of resources will lead to programs that reach the target participants, and when these populations are reached by such programs, unmet needs will be met and circumstances will change, solving the problem that initiated this work.

Consider the blended learning case:

- If the district applies funds to support blended learning in three schools, then the schools will provide teachers with professional learning opportunities and establish the infrastructure to support blended learning.
- If the schools provide teachers with professional learning opportunities and establish infrastructure to support blended learning, then students' access to online courses and varied learning environments will increase.
- If students have increased access to online courses and varied learning environments, then teachers will be able to personalize instruction and the students will be more engaged in their learning.
- If teachers personalize instruction and students are more engaged in their learning, then students will be able to master content and develop their skills at a pace appropriate to the individual student.
- If students master content and develop their skills at a pace appropriate to the individual student, then they will perform better on standardized assessments of their learning.

The *then* clause in one statement becomes the *if* clause in the next statement. This is important; when the language changes from *then* to *if*, the intention of the statement may change. In some logic models, if–then statements are written right into the model to make the theory of change explicit.

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**Activity I.7: If-then statements**

Consider the College Ready case. Move the statements around to make a series of logical if-then statements below. Consider the sequencing of events. The statements below include strategies and activities, traditional outputs, and outcomes.

IF \_\_\_\_\_ THEN/IF \_\_\_\_\_  
THEN/IF \_\_\_\_\_ THEN/IF \_\_\_\_\_  
THEN/IF \_\_\_\_\_ THEN \_\_\_\_\_

1. We develop a series of college readiness workshops for parents.
  2. Parents help their students with the application process.
  3. We recruit parents to participate in the workshops.
  4. Parents better understand the timelines and demands of the college application process.
  5. Students meet financial aid and college application deadlines.
  6. Parents attend the workshops.
-

## Next steps

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Supporting materials for this section: slides 40–42.

In building a logic model, it is important to consider the following questions:

- Do I understand the different elements of the logic model and how they differ?
- Who should I consult in developing the logic model? What colleagues and stakeholders should be participants in developing the logic model?
- Who will be responsible for seeing this through?
- How do I know I have captured the theory of action guiding the program?
- How will we use the logic model once it is developed?

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### Activity I.8: Next steps

Consider what your next step might be with regard to logic models. Consider where you are in the development of a new program or in an evaluation of a program already in place. How can logic models support this work?

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## **Final thoughts**

Supporting materials for this section: slides 43–44.

Here are a few quick reminders about what a logic model is and what it is not.

A logic model is:

- A graphic representation of the theory of change driving a program or policy.
- A framework for planning, implementation, monitoring, and evaluation.

A logic model is not:

- A strategic or fully developed plan for designing or managing a program or policy.
- An evaluation design or evaluation method.

While a logic model is not a strategic or fully developed plan or an evaluation design or evaluation method, it can be useful in developing any of these more detailed resources.

A logic model is likely to be much more effective, useful, and honest if the process of generating the logic model has engaged a broad range of stakeholders during the design process. Including key voices such as staff, parents, students, funders, and others in discussions about program design and evaluation will promote the buy-in and ongoing support of these participants as well as increase the authenticity of the model.

Logic models should be living documents that are referred to throughout the life of the program and the evaluation and should be amended as needed. They are also helpful to guide a program as it evolves and to ensure that the work of the program remains focused on the key goals and outcomes.

Logic models are useful for program evaluation, especially when evaluation is considered in concert with creating the logic model at the early stages of program development. It is much better to consider evaluation at the outset of development of a program or policy rather than after or halfway through program implementation.

Good luck with this work, and please contact us with questions!

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## Session II. From logic models to program and policy evaluation (1.5 hours)

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### Agenda

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5 minutes	Introduction and goals	Facilitator reviews the goals of the session and the agenda.
8 minutes	Review of logic models	Facilitator reviews what was learned about logic models, what they are useful for, and what limitations they have. A graphic of a simple logic model and a logic model from one of the cases will be reviewed. If participants come with their own draft logic models, two will be selected for presentation and discussion.
15 minutes	Introducing evaluation	<p>Facilitator introduces the types of questions that evaluation is designed to answer, the value of implementing evaluation at the onset of program development, and the role that logic models play in supporting evaluation. Two purposes of evaluation are presented: evaluation that focuses on improvements and evaluation that focuses on proving or demonstrating the impact or outcomes of an initiative.</p> <p>Activity II.1 (7 minutes): Participants brainstorm ways they know their program or policy is achieving its goal.</p>
13 minutes	Moving from logic model to evaluation questions	<p>Facilitator begins with more about types of evaluation questions, followed by guidelines for good questions. Facilitator then introduces the idea of different audiences desiring different information about a program or policy and therefore asking different questions. Participants will be introduced to a table that delineates different types of audiences, questions, and uses of evaluation.</p> <p>Activity II.2 (4 minutes): Participants brainstorm formative or summative evaluation questions about their own program or policy or for one of the sample cases.</p> <p>Activity II.3 (4 minutes): Participants practice generating questions for different audiences.</p>
25 minutes	Generating indicators	<p>Facilitator introduces the concept of indicators and provides an overview of how indicators are generated from the logic model, specifically from the strategies and activities and outcomes sections of the model. Facilitator provides an example of this for the College Ready case. Section closes with a discussion of qualitative and quantitative indicators and the use and value of both types of measures in an evaluation.</p> <p>Activity II.4 (3 minutes): Participants brainstorm indicators of the flu.</p> <p>Activity II.5 (3 minutes): Participants brainstorm outcome and process indicators based on one of the sample cases.</p>
15 minutes	Building an evaluation design	<p>Facilitator begins this section with the question, “What type of evaluation is right for you?” and suggests that determining the purpose—formative, summative, or hybrid—is critical to building an evaluation. Facilitator transitions to more discussion about data collection, specifically considering the types of data available to participants. Types of data, both quantitative and qualitative, are reviewed. Then facilitator introduces the data collection framework tool, which outlines the outcomes of interest, data sources, responsible parties, and timeline. This is followed by discussion of evaluation design, as distinct from the data collection framework.</p> <p>Activity II.6 (5 minutes): Participants brainstorm their own data sources.</p>
6 minutes	Putting it all together	Facilitator discusses an evaluation prospectus or overview and the key questions to consider when generating this short document, which can serve as the “calling card” for an evaluation, either for potential funders or for potential evaluators. The facilitator closes with a presentation of a Gantt chart as a useful tool for managing an evaluation and considering realistic timelines and deliverables.
3 minutes	Review	Facilitator closes workshop with thank you and invitation to be in touch with further questions.

## **Pre-assignment**

Based on the work in session I, participants may come to the workshop with a draft logic model for a particular program or policy. If participants do not have their own draft logic model, they should familiarize themselves with the sample logic models in appendixes C and D, as these will be drawn on for examples throughout the workshop.

A sample logic model template is provided in appendix B and may be used to generate a simple logic model. Participants will use this logic model to guide their work in the session.

## **Goals**

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Supporting materials for this section: slide 48.

The purpose of session II is to demonstrate how logic models may be used as a tool specific to developing a program or policy evaluation. The session will:

- Reintroduce logic models as an effective tool, specifically for evaluation.
- Invite participants to practice using logic models to develop evaluation questions and indicators of success.
- Provide guidance in how to determine the appropriate evaluation for a specific program or policy.

## **Example cases revisited**

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### **College readiness high school program**

College Ready is a school-based college access program for students in grades 9–12. Students are identified for the program based on eligibility for free or reduced-price lunch, recommendations from school guidance counselors, and recommendations from grade 8 English and math teachers. Students participate in monthly meetings as a group with the College Ready staff, are provided with one-on-one counseling with College Ready staff, are assigned an adult mentor and a peer mentor, and participate in a series of evening and summer workshops. In addition, families make a commitment to the program and attend a series of workshops specifically designed to prepare the whole family for the college application process. The goal of the program is to significantly increase college attendance among low-income students.

### **Blended learning schools**

An urban district is going to convert a few of its schools into blended learning schools (in which students learn both online and face-to-face with a teacher to personalize their instruction). The schools will be using the individual rotation model, which allows students within a given course or subject to rotate on an individually customized, fixed schedule between online courses and a variety of classroom environments with face-to-face teachers. Individual students have their own netbook and a unique schedule. The model also includes site coordinators and a principal who is involved in daily classroom observation. The goal of the model is to improve student achievement and individualize instruction.

## Review of logic models

Supporting materials for this section: slides 49–52.

Here are a few quick reminders about what a logic model is and what it is not.

A logic model is:

- A graphic representation of the theory of change driving a program or policy.
- A framework for planning, implementation, monitoring, and evaluation.

A logic model is not:

- A strategic or fully developed plan for designing or managing a program or policy.
- An evaluation design or evaluation method.

While a logic model is not a strategic or fully developed plan or an evaluation design or evaluation method, it can be useful in developing any of these more detailed resources. The focus of session II of the workshop is on the latter: How does a logic model support the development of an evaluation plan for a program or policy?

If participants have created draft logic models for a program or policy they are engaged in or considering in their work, the logic model drafts will serve as the template to guide their work throughout this session. If not, they may use the College Ready case logic model on slide 51 (or see the two example logic models, one for the College Ready example and one for an educator evaluation system, in appendixes C and D).

Consider the following questions when evaluating a draft logic model:

- What elements of the logic model were hardest to develop?
- Is the problem statement the right “grain size”?
- Within the strategies and activities, did you identify overarching strategies?
- What assumptions did you uncover?
- What is the timeframe for your outcomes?
- What are the impacts?
- What was your process for developing the model?
- What requires further explanation or discussion?

## Introducing evaluation

Supporting materials for this section: slides 53–57.

Program and policy evaluation helps answer important questions that inform this work. At a basic level, evaluation answers the questions: Are we successful? Have we had an impact? What are the most influential aspects of the program?

More specifically, evaluations ask questions such as:

- Is the program or policy effective?
- Is the program or policy working as intended?
- What aspects of the program are working? What aspects are not working?

High-quality evaluation is designed to support your work, inform what you do, and enhance your impact. To do so, evaluation should be considered at the onset of program and policy design, ideally when the logic model is being developed. In other words, as a program or policy is conceived, evaluating the same program or policy should be a part of the conversation, by asking questions such as:

- What do we anticipate to be the impact of this policy?
- How will we know if we are successful?
- What do we think will be the most influential aspects of the program?

All these questions suggest directions for evaluation. Do not wait until the program or policy is in the midst of implementation to begin to consider these questions and how to answer them. Invest early in considering these questions and designing an evaluation that will help answer them. It may also be helpful to involve others, including staff and participants, in helping plan the evaluation.

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### **Activity II.1: How will you know?**

Consider your own program or policy logic model. How will you know if one or more of your strategies have been successful? Brainstorm some ways you will know your efforts have yielded the results you hope to achieve.

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- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

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Evaluations generally have one of two purposes:

- Improve: These are formative, process, or implementation evaluations.
- Prove: These are summative, results, or outcome evaluations.

This workbook refers to these evaluation purposes as formative (improve) and summative (prove). Most evaluation questions emerge from the strategies and outcomes sections of the logic models. You want to know about the strategies that you are trying and how they are going, and you want to know about outcomes and impact.

Generally, evaluations that focus on strategies (and outputs) are formative or process evaluations, or evaluations that are designed to help guide changes or improvements. Evaluations that focus on the outcomes in the logic model are generally summative evaluations—designed to prove the value, merit, or impact of the program or policy.

There are generally four types of evaluations:

- *Needs assessment (formative)*. This type of evaluation determines what is needed (at the onset) and helps set priorities (for example, is more money needed to support blended learning?). These types of evaluations are often designed to help create or build a program or policy, so a logic model might be developed after the needs assessment. In fact, the needs assessment might provide information that helps clarify the problem to which the program or policy is designed to respond.
- *Process evaluation (formative)*. This type of evaluation examines what goes on while a program is in progress. The evaluation assesses what the program is, how it is working, whom it is reaching, and how (for example, are participants attending as anticipated?).
- *Outcome evaluation (summative)*. This type of evaluation determines the results from and consequences of a program, generally for the people most directly affected by the program (for example, did participants increase their knowledge or change their attitudes or behavior?).
- *Impact evaluation (summative)*. This type of evaluation determines the net causal effects of the program beyond its immediate results. Impact evaluation often involves comparing what appeared after the program with what would have appeared without the program. These evaluations generally include comparison groups, interrupted time series, or other designs that allow evaluators to capture what happened to the target compared with what would have happened without the program (for example, achievement scores and acceptance rates).

## Moving from logic model to evaluation questions

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Supporting materials for this section: slides 58–63.

The purpose of this section is to make the connection between the logic model and development of appropriate evaluation questions, using the logic model as a basis for developing the questions. The first step in making the transition from the logic model to a potential evaluation is to consider the questions that are derived from the model that you may want answered.

### Developing evaluation questions

As noted in the previous section, some questions ask about improvements to the program or policy (formative, process, and implementation questions), while others ask about the impacts (summative, results, and outcome questions). Generally:

- Formative questions (improve) are asked while the program is operating and are for the purpose of program improvement or midcourse correction.
- Summative questions (prove) are asked at completion of or after the program and are for the purpose of determining results and assessing effectiveness.

Regardless of the type of questions, there are some guiding questions to consider for all evaluation questions.

- Can the questions be answered given the program? One of the main reasons for building a logic model as part of program evaluation is to determine what questions are appropriate based on the program. By describing what the program is, the logic model helps determine what is appropriate to evaluate.
- Are the questions high-priority? Try to distinguish between what you need to know and what might merely be nice to know. What are the key, most important questions? For whom? Why?
- Are the questions practical and appropriate to the capacity you have to answer them? Consider time, resources, and the availability of assistance needed to answer the questions. As appropriate, bring stakeholders together and negotiate a practical set of questions. Remember, it is better to answer a few questions thoroughly and well.
- Are the questions clear and jargon-free? Apply the “Great Aunt Lucy test.” Would someone like your Great Aunt Lucy or anyone who is not steeped in the language of your particular field understand the question? Avoid the use of jargon or vague words that can have multiple meanings. Always define key terms so that everyone understands the meaning.

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## Activity II.2: Formative and summative evaluation

Come up with a formative and summative evaluation question for one of the sample cases, such as the blended learning case, or for a program or policy from your own work.

- Formative evaluation:

Topic: Blended learning or \_\_\_\_\_

Question: \_\_\_\_\_

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- Summative evaluation

Topic: Blended learning or \_\_\_\_\_

Question: \_\_\_\_\_

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## Considering the audience

Another key aspect of developing good evaluation questions is considering different audiences, or the different stakeholders for a program and policy, the different types of questions they might have, and how they would use the answers to these questions (for example, what decisions would result from answers).

Table 1 outlines some traditional audiences, the types of questions they are likely to have, and how they might apply answers to these questions to make decisions.

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**Table 1. Traditional audiences, evaluation questions, and uses**

Audience	Typical questions	Evaluation use
Program staff	Are we reaching our target population (for example, high school students; low-income families with preschool-age children)?  Are participants in the program engaged? Satisfied?  Is the program being run well?  How can we improve the program?	Day-to-day program operations; changes in program design and delivery
Participants	Is the program helping people like me?  How could the program better serve my needs?  How could I get more out of the program?	Decisions about participation or value to them
Public officials	Who does the program serve?  Is it reaching the target population?  What difference does the program make?  Are participants engaged and satisfied with the program?  Is the program cost-effective?	Decisions about support, commitment, funding, scale-up, and duplication
Funders	Is the program meeting its goals?  Is the program worth the cost?	Decisions about ongoing funding; accountability

**Source:** W.K. Kellogg Foundation, 2006.

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### Activity II.3: Generating questions for different audiences

Think about your own context and consider:

- Audience: Who are the different members of each stakeholder group (staff, participants, and the like)?
- Questions: What questions might different stakeholders have about the program or policy?
- Evaluation use: How might these different stakeholders use the answers to these questions?

Audience	Questions	Evaluation use
Program staff		
Participants		
Public officials		
Funders		

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## Generating indicators

Supporting materials for this section: slides 65–67.

### Activity II.4: Generating indicators of the flu

How do we know a child has the flu?

Take a moment to brainstorm how we know a child has the flu:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Perhaps we feel her forehead for fever, listen to her sniffles, notice her lethargy, recognize a drop in appetite, and eventually take her temperature. All of these are indicators of the flu. They do not mean absolutely that the child has the flu, but they do provide specific and measurable evidence that suggest the flu.

In developing evaluation questions, you must consider how you will know that you have achieved the program or policy goals and therefore answered the questions of interest. This section demonstrates how the logic model can support generation of good indicators of program or policy success.

If asking “Is the program successful?”, some understanding is needed of how “success” is measured. In other words, the question, “How will we know the program is successful?” has to be answered. The logic model provides some support for this.

Starting with the logic model’s outputs and outcomes, indicators can be developed that answer the question, “How will we know the program is successful?” Indicators are different from the outputs or outcomes included in the logic model: While the outputs or the outcomes are more general goals for program implementation or outcomes, indicators are specific, measurable targets related to the outcomes of interest.

In short, indicators are:

- Specific, measurable targets.
- Seen, heard, read, and felt.
- Connected to strategies, activities, outputs, and outcomes.
- Evidence representing phenomenon of interest (such as the outcome).

For example, if the outcome is increased parent engagement, the indicator is a specific percentage of parents engaged or a specific increase in number of parents engaged. It is these measurable indicators that lead eventually to an answer to the question, “Is the program successful?”

Indicators do not absolutely mean that a policy or program is responsible for the results we measure. To use an example from the College Ready case, a parent engagement program (the program) may not be responsible for the rise in college applications among student participants (the indicator). There might be other factors, such as a decline in college costs or a particularly influential teacher at the school encouraging and supporting applications, that lead to an increase in the number of college applications submitted—rather than the increase being a direct result of the program. But this increase in college applications (the indicator) could reasonably be attributed to a program that works with the students and their parents to support college readiness.

### Using the logic model to generate indicators

Supporting materials for this section: slides 68–76.

Just as the logic model follows the basic format from inputs (resources) to outputs (strategies or activities) to outcomes (from short term to long term to impact), this same logic is used to generate indicators.

As stated above, indicators are related to the logic model categories of resources, strategies or activities, and outcomes or impact. They go a step further and provide clear numbers or percentages, when appropriate, associated with these resources, activities, outputs, or outcomes—or measurable evidence of the phenomenon of interest represented by the outputs or outcomes.

- Indicators related to inputs provide information about the resources used, the timeliness of the resources, and the relevance of the resources (whether tangible or intangible). Indicators related to these inputs may help answer questions about impediments or facilitators of implementation.
- Indicators related to outputs capture the numbers or percentages of workshops presented, the numbers of participants, and other data that provide information about whether the program was implemented as intended. Did it do what it set out to do? Did it reach the right people?
- Indicators related to outcomes or impacts provide data about the results of participation, such as changes in knowledge, skill, behavior, and attitudes among individuals or groups targeted by the program or policy.

For example, if the strategy or activity was to deliver a parent education class, an indicator related to that activity might be the number of classes delivered or the number of parents who attended (indicators related to the activities and outputs, or process indicators). If an outcome is increased parent understanding of the college application process, an indicator would be the number or percentage of parents reporting increased understanding (an indicator related to the outcomes, or an outcome indicator).

When generating indicators based on the various elements of the logic model (inputs, outputs, strategies and activities, and outcomes), ask these basic questions:

- What would achieving the goal reflected in the outcome look like?
- How would we know if we achieved it?
- If I were visiting the program, what would I see, hear, or read that would tell me that the program is doing what it intends?

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## Activity II.5: Process and outcome indicators

Using the College Ready program case, this table is designed to help you map a path from an activity in the logic model to an output to an outcome to an indicator.

<b>Activity</b>	Deliver a set of parent workshops for college readiness.
<b>Output</b>	Six workshops developed and delivered; 100 parents recruited to participate.
<b>Outcome</b>	Parents increase their understanding of college application process.
<b>Indicator</b>	Process:  Outcome:

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### Identifying the right indicators

Supporting materials for this section: slides 77–83.

Different indicators are related to different types of questions.

- To know whether the program has sufficient resources or funding to operate, look at indicators related to the program inputs.
- To know whether the program was implemented as intended, look at indicators related to the strategies and activities or outputs.
- To learn the ultimate value and impact of the program, look at outcome-related indicators.

Some indicators may be more straightforward or easier to measure than others. Sometimes one indicator is all that is needed for a clear explanation. For example, school graduation rate might be the agreed on indicator for the outcome of decreasing the school dropout rate. In other cases, more than one indicator is necessary to capture a more complex outcome.

If the outcome of interest is improved parent involvement in school, several indicators may be necessary, such as:

- Attendance at school meetings.
- Participation in parent–school organization.
- Parent calls made to the school.
- Attendance at school functions.

### Quantitative and qualitative indicators

Supporting materials for this section: slides 84–87.

Indicators may be quantitative or qualitative. Given the current interest in and demand for measurable outcomes, evaluation questions often focus only on the outcomes in a logic model and only on the quantitative measures associated with those outcomes. However, to attribute quantitative outcomes (such as graduation rates or improvements on standardized tests) to a program, it is important to ask questions about the process that may have contributed to those outcomes. There are some questions that are best answered with a mixture of both quantitative and qualitative data. This suggests the need for both qualitative and quantitative indicators to answer questions of interest.

- Quantitative data are generally best suited to summative evaluations—such as information related to proving the value or impact of the program or policy.
- Qualitative data are generally better suited to formative evaluations—such as those that focus on how to improve the program.

However, this is not to suggest that all formative evaluations should be qualitative and that all summative evaluations should be quantitative. Often, a mix of measures is the best approach. Qualitative data, collected through interviews, observations, and other methods, often provide the depth of information needed to interpret quantitative data, such as test scores or graduation rates. We often want to know both whether a program or policy had the desired impact and how. Thus, a mix of measures is advisable.

It is a good idea to collect different types of data (for example, quantitative and qualitative) from several sources (for example, surveys, interviews, grades) and from different groups of stakeholders (for example, students, parents, mentors, staff, partners such as schools). While some funders may prefer quantitative data on outcomes, others, such as staff or parents, may prefer qualitative data from parents or students.

For example, in the College Ready case, to learn whether the program increased student interest in college, the indicators might include both quantitative (number of applications completed) and qualitative data (guidance counselors' reports on student interest).

A few final considerations about indicators. Indicators may:

- Match the outcomes of interest or questions asked.
- Be singular for a given outcome or question.
- Be quantitative or qualitative.
- Vary based on the audience.

## **Building an evaluation design**

Supporting materials for this section: slides 88–91.

This section provides tools for building an appropriate evaluation design.

Once you have generated a good logic model, come up with the best evaluation questions, and developed what you believe will be the best indicators of program or policy success (either for program improvement or to make the case for program impact), you are ready to build the evaluation design.

### **Determining what type of evaluation is best for you**

The first question to answer about evaluation design is quite basic: Is the purpose of the evaluation to examine process elements (formative) or to examine overall impact (summative), or is it a hybrid evaluation, with some of each? Answering this question should help clarify what to include in the evaluation.

You should also return to the question of audience. Who is the audience for the evaluation, what does the audience want to know, and how will the information be used?

Consider your capacity: Who will conduct the evaluation, using what resources, and within what timeframe?

Finally, assuming there are some financial, time, or other capacity constraints, what are your priorities? What do you need to know?

### **Identifying appropriate data sources**

When choosing measures for program evaluation, think about the data collection needs as well as data collection capacity.

- *Access pre-existing data.* Consider collecting from pre-existing sources of data, such as school attendance records or items from surveys that a school district already requires students to take, that will meet your evaluation needs.
- *Use existing instruments.* When data cannot be collected through existing sources, consider existing instruments that measure the same concepts that you are looking to measure. These instruments may be effective as written, a small tweak may be needed, or you may need to adopt only a few items from the entire instrument. It may even be possible to add these instruments or items to existing surveys currently being administered in your school or district.

Consider the types of data sources that might serve as indicators of success, both for process-related questions and for outcome-related questions.

The following are data sources that may be useful for collecting process and outcome data:

- Administrative data (program documents, activity logs, registration records, and the like).
- Focus groups.
- Interviews.

- Observations.
- Surveys.
- Student test scores and grades.
- Teacher assessments.

### Activity II.6: Consider data sources

Consider the data sources available to you in your program. Brainstorm what relevant data sources you already collect, either because they are required or because you choose to collect them:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### Creating a data collection framework

Supporting materials for this section: slides 92–94.

In addition to identifying potential data sources, the details of data collection must be ironed out early in planning for the evaluation. It is important to develop a clear sense of what types of data are available, who collects and manages the data, and when the data are collected. Developing a data collection framework linked to the activities and outcomes of interest will help guide the evaluation process. In some cases, the data collection framework may look different for process evaluation and outcome evaluation. However, in many cases an evaluation will include some process, or formative, and some outcome, or summative, components. As such, these may be combined into one framework, as in the table below.

Case: College Ready program

Strategy or activity	Output or outcome	Formative	Summative	Indicator	Data source	Data collection instrument	When collected	By whom
Parent education strategy	High rate of parent attendance at workshops	✓		70 percent of parents attend five out of six workshops	Administrative data	Attendance log at workshops	At beginning of each session	Program director
Parent education strategy	Increased parent understanding of college application process		✓	85 percent of parents who attend more than four workshops report increased understanding	Parent feedback	Survey and interviews	Beginning of program, end of program	Program staff

It may be useful to distinguish among short-term, long-term, and impact data when creating an outcome-specific data collection table (see the table below). The reason for doing this may be relevant to only some evaluations, depending on the depth and duration of the evaluation plan. However, distinguishing among outcomes in the logic model should help guide the types of data that ought to be collected (and when) to reflect those outcomes. For example, if changes in student test scores are not anticipated until a program has been up and running for three to five years, these data should not be collected (except to serve as a baseline, or point from which change will be measured) until the long-term phase of data collection.

Strategy or activity	Output or outcome	Indicator	Data source	Data collection instrument	When collected	By whom
<b>Short term</b>						
Parent education strategy	Increased parent understanding of college application process	85 percent of parents who attend more than four workshops report increased understanding	Parent feedback	Survey and interviews	Beginning of program, end of program	Program staff
<b>Long term</b>						
Student education strategy	Increased student understanding of college application process	80 percent of students who attend the workshops apply to college and get accepted to at least one college or university	Student feedback	Survey and interviews	End of program	Program staff
<b>Impact</b>						

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### Additional activity: Data collection framework

Try it yourself. Consider your program or policy and generate a data collection strategy. This activity is best completed after having developed a full logic model.

Strategy or activity	Output or outcome	Indicator	Data source	Data collection instrument	When collected	By whom
Short term						
Long term						
Impact						

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## Putting it all together

Supporting materials for this section: slides 95–97.

Now that you have a logic model, a set of measurable indicators, some evaluation questions, a data collection framework, and at least some idea about evaluation design, you are nearly ready to proceed with evaluation. What you still need is the overall evaluation plan and timeline. This section provides some tools to help you develop your plan and timeline.

At this point, you have learned about all the steps necessary to get you to the evaluation. In brief, you have learned about how to:

- Develop a logic model, in collaboration with stakeholders.
- Clarify who the audience is for the evaluation and how it will be used.
- Identify and prioritize evaluation questions, based on the logic model.
- Select appropriate indicators, based on the outcomes of interest.
- Identify data sources and a data collection plan (including considering whether the evaluation is serving a formative/process or a summative/outcome goal).
- Consider evaluation design, with awareness of resources, capacity, and timeline.

Once you have completed all these steps, it is still a good idea to develop an evaluation prospectus that lays out much of this information in clear, narrative form.

### Evaluation prospectus

If you are going to look for an external evaluator, or even if you are going to do the evaluation in house, it is wise to have an evaluation prospectus to accompany all the other materials you are generating. This prospectus should provide a clear and straightforward answer to the following questions:

- What are you going to evaluate?
- What is the purpose of the evaluation?
- How will the results of the evaluation be used?
- What specific questions will the evaluation answer?
- What data sources will be necessary to answer these questions?
- How will the data be analyzed (evaluation design)?
- What resources are needed to conduct this evaluation?
- What is the timeline for the evaluation?
- How will the results be shared or disseminated?
- Who will manage the evaluation?

### Evaluation timeline: Example of Gantt chart

One more tool may be helpful in implementing the evaluation plan. Evaluators often work with Gantt charts, which are a kind of timeline, displayed in such a way that readers can immediately see a proportionate, chronological account of the time for each evaluation task. They can be helpful for clarifying the sequence of activities in an evaluation, monitoring progress toward goals, and communicating with others about the products associated with the evaluation.

- The vertical axis shows the tasks to be completed.
- The horizontal axis shows the time scale.
- A shaded area indicates how long each task will take.
- Milestones are denoted with a ★.

Task	January	February	March	April	May	June	July
Develop survey	■	■					
Select sample		■					
Administer survey			■	■			
Analyze survey data					■	■	
Compare survey data to indicators						■	■
Write up findings							★

## **Review**

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Supporting materials for this section: slides 98–99.

When introducing logic models, session I noted that they are a useful tool for program design, implementation, and evaluation. They should be living documents that are referred to throughout the life of the program and the evaluation and amended as needed. They are also helpful for guiding a program as it evolves and for ensuring that the work of the program remains focused on the key goals and outcomes.

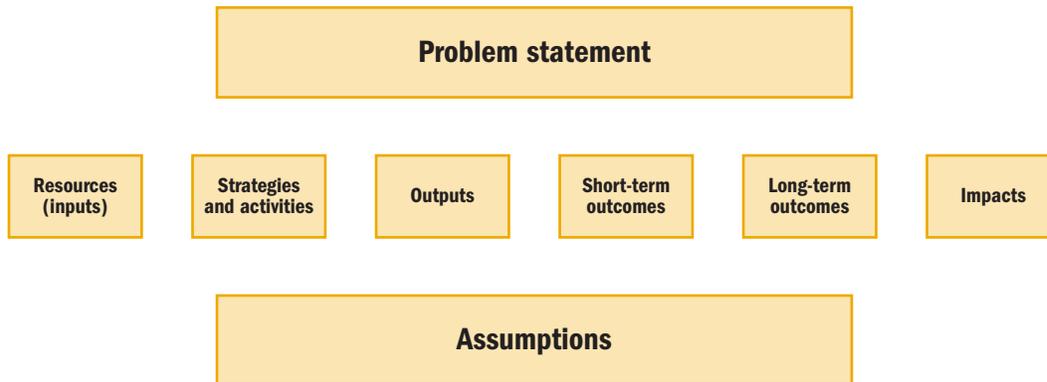
Logic models are useful for program evaluation, especially when evaluation is designed in concert with the logic model. It is much better to consider evaluation at the outset of a program's or policy's development rather than as an afterthought or halfway through program implementation.

Finally, engaging key voices—staff, parents, students, funders, and others—in discussions about program design and evaluation will promote the buy-in and ongoing support of these participants as well as increase the authenticity of the model and the evaluation.

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## Appendix A. Simple logic model

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## Appendix B. Template for simple logic model

Problem statement: \_\_\_\_\_  
 \_\_\_\_\_

Resources	Strategies and activities	Outputs	Short-term outcomes	Long term outcomes	Impacts
What resources are or could reasonably be available?	What will the activities, events, and such be?	What are the initial products of these activities?	What changes are expected in the short term?	What changes do you want to occur after the initial outcomes?	What are the anticipated changes over the long haul?
• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____
• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____
• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____
• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____
• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____	• _____ _____

Assumptions: \_\_\_\_\_  
 \_\_\_\_\_

## Appendix C. Sample logic model for college readiness program

*Problem statement:* Low-income high school students in selected communities attend college at a lower rate than their middle-class peers, leading to more limited opportunities, higher rates of unemployment, and lower earnings.

Resources	Strategies and activities	Outputs	Short-term outcomes	Long term outcomes	Impacts
<p>What resources are or could reasonably be available?</p> <ul style="list-style-type: none"> <li>Partnership with three public high schools.</li> <li>Community mentors.</li> <li>Local university space for parent meetings.</li> <li>Volunteer college admissions directors for application workshop.</li> <li>Student volunteers for childcare at parent meetings.</li> </ul>	<p>What will the activities, events, and such be?</p> <ul style="list-style-type: none"> <li>Establish local college mentorship program.</li> <li>Recruit and prepare peer mentors.</li> <li>Develop and deliver student readiness program (workshops).</li> <li>Develop and deliver parent education (workshops).</li> </ul>	<p>What are the initial products of these activities?</p> <ul style="list-style-type: none"> <li>Recruited adequate number of mentors for student cohort.</li> <li>Developed and delivered 12 workshops on college application process, SAT/ACT, FAFSA, and college life.</li> <li>Developed and delivered six workshops for parents.</li> <li>High interest and attendance demonstrated at all workshops for parents and students.</li> </ul>	<p>What changes are expected in the short term?</p> <ul style="list-style-type: none"> <li>Participating students apply to at least one college on time.</li> <li>Parents report increased understanding of the college application process.</li> <li>Students report increased readiness for college.</li> <li>Participating students complete FAFSA forms on time.</li> </ul>	<p>What changes do you want to occur after the initial outcomes?</p> <ul style="list-style-type: none"> <li>Participating students are accepted to and attend college, remaining enrolled into the third semester of college.</li> <li>Participating students' GPAs are above 3.0 at college, into the third semester.</li> <li>Increased parental engagement in participating high schools' student education.</li> </ul>	<p>What are the anticipated changes over the long haul?</p> <ul style="list-style-type: none"> <li>Low-income students in participating communities attend college at the same rate as middle-class peers.</li> <li>Low-income students in participating communities graduate from college at the same rate as middle-class peers.</li> <li>Participating high schools see increase in parent and student engagement.</li> <li>Participating high schools state test scores increase by x percent.</li> </ul>

*Assumptions:* College attendance is desired goal for participating communities; high school leaders will remain consistent and support program; parents will show interest and participate in program.

## Appendix D. Example of a logic model for an educator evaluation system theory of action

**Context: Implement four pillars of effective teaching: teacher evaluation, teacher preparation, teacher induction, and professional development.**

*Long-term goals:* To support teachers' continuous improvement and to improve student learning and other outcomes.

*Evaluation goal:* To evaluate the implementation of the state teacher evaluation framework in a subset of schools and districts in 2012/13.

Strategies	Participants		Implementation outcomes	Intermediate outcomes	Impact and long-term outcomes
Design and implement new teacher evaluation systems that employ multiple measures including: <ul style="list-style-type: none"> <li>• Teacher observations.</li> <li>• Evaluator and teacher conferences.</li> <li>• Student-learning objectives.</li> <li>• Professional growth plans that place teachers in "tracks" based on experience.</li> <li>• Multiple rating categories.</li> <li>• Teaching standards based on the Danielson framework.<sup>a</sup></li> </ul>	Teachers	➔	District teacher evaluation plans correspond with state guidelines.	Based on information gained from evaluation of implementation: <ul style="list-style-type: none"> <li>• Program changes and modifications to framework for teacher evaluation.</li> <li>• Department of Education provides guidance, training, and support materials for districts.</li> <li>• Individual district modifications to teacher evaluation systems.</li> <li>• Systems differentiate among teachers based on level of experience and performance.</li> </ul>	Alignment of evaluation and professional support systems  Improvement in teacher practice.  Improvement in student-learning outcomes, including: <ul style="list-style-type: none"> <li>• Higher achievement on standardized assessments.</li> <li>• Decreased dropout rate.</li> </ul>
	Classroom and school specialists		District teacher evaluation systems have been implemented as designed with regard to multiple measures of student learning and teacher performance including:		
	School and district administrators		<ul style="list-style-type: none"> <li>• Teacher observations.</li> <li>• Evaluator and teacher conferences.</li> <li>• Student-learning objectives.</li> <li>• Professional growth plans.</li> </ul>		
	Department of Education	➔	District teacher evaluation systems have been implemented with fidelity with regard to use of multiple rating categories.		
	Students				
	Parents				
	Other stakeholders (such as school committees, school board)	➔			

a. Danielson, C. (2007). *Enhancing professional practice: A framework for teaching*. Alexandria, VA: Association for Supervision and Curriculum Development.

*Assumptions:* The Department of Education assumes that educator evaluation is one of four essential pillars of effective teaching. To maximize long-term outcomes, all pillars need to be in place and integrated. The department also assumes that if districts implement reformed teacher evaluation systems that map onto the Blueprint for Effective Teaching in New Hampshire (<http://www.education.nh.gov/teaching/documents/phase1report.pdf>), then district-level systems will lead to long-term outcomes indicated above. It hypothesizes that achievement of outcomes will be influenced by professional climate: Schools with a favorable climate will be more likely to have successful implementation.

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## References and resources

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Many resources are available online for logic modeling and program and policy evaluation. Some of them were used in developing this workshop. Several of the resources below provide links to additional online resources.

### Logic model resources

Coffman, J. (1999). *Learning from logic models: An example of a family-school partnership program*. Cambridge, MA: Harvard Family Research Project. Retrieved March 16, 2013, from <http://www.hfrp.org/publications-resources/browse-our-publications/learning-from-logic-models-an-example-of-a-family-school-partnership-program>

Innovation Network, Inc. (2011). *Logic model workbook*. Washington, DC: Author. Retrieved March 18, 2013, from [http://www.innonet.org/client\\_docs/File/logic\\_model\\_workbook.pdf](http://www.innonet.org/client_docs/File/logic_model_workbook.pdf)

University of Wisconsin Extension School. (2002). *Enhancing program performance with logic models*. [Course.] Madison, WI: Author. <http://www.uwex.edu/ces/lmcourse/#>

W.K. Kellogg Foundation. (2006). *Logic model development guide*. Battle Creek, MI: Author. Retrieved March 16, 2013, from <http://www.wkkf.org/knowledge-center/resources/2006/02/wk-kellogg-foundation-logic-model-development-guide.aspx>

### Evaluation resources

Bond, S., Boyd, S., and Rapp, K. (1997). *Taking stock: A practical guide to evaluating your own programs*. Chapel Hill, NC: Horizon Research, Inc. Retrieved March 16, 2013, from <http://www.horizon-research.com/publications/stock.pdf>

Centers for Disease Control and Prevention. (2012, August). *Implementing evaluations: Learning and growing through evaluation*. Module 2. Atlanta, GA: Author. Retrieved March 16, 2013, from [http://www.cdc.gov/asthma/program\\_eval/guide.htm](http://www.cdc.gov/asthma/program_eval/guide.htm)

Chinman, M., Imm, P., and Wandersman, A. (2004). *Getting to outcomes 2004: Promoting accountability through methods and tools for planning, implementation, and evaluation*. Santa Monica, CA: Rand Corporation. Retrieved March 16, 2013, from [http://www.rand.org/pubs/technical\\_reports/TR101.html](http://www.rand.org/pubs/technical_reports/TR101.html)

Patton, M. Q. (1997). *Utilization-focused evaluation: The new century text*. Thousand Oaks, CA: Sage Publications.

U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research, and Evaluation. (2010). *The program manager's guide to evaluation (2nd ed.)*. Washington, DC: Author. Retrieved March 16, 2013, from <http://www.acf.hhs.gov/programs/opre/resource/the-program-managers-guide-to-evaluation-second-edition>

U.S. Government Accountability Office. (2012, January). *Designing evaluations* Washington, DC: Author. Retrieved March 16, 2013, from <http://www.gao.gov/products/GAO-12-208G>

W.K. Kellogg Foundation. (2010). *Evaluation handbook*. Battle Creek, MI: Author. Retrieved March 16, 2013, from <http://www.wkkf.org/knowledge-center/resources/2010/w-k-kellogg-foundation-evaluation-handbook.aspx>

The Centers for Disease Control and Prevention has a range of evaluation resources, some produced in house and some from other sources:

<http://www.cdc.gov/eval/resources/index.htm>

The Evaluation Center at the Western Michigan University created several checklists that may be useful in planning and monitoring evaluation:

<http://www.wmich.edu/evalctr/checklists/>

## The Regional Educational Laboratory Program produces 7 types of reports



### **Making Connections**

Studies of correlational relationships



### **Making an Impact**

Studies of cause and effect



### **What's Happening**

Descriptions of policies, programs, implementation status, or data trends



### **What's Known**

Summaries of previous research



### **Stated Briefly**

Summaries of research findings for specific audiences



### **Applied Research Methods**

Research methods for educational settings



### **Tools**

Help for planning, gathering, analyzing, or reporting data or research