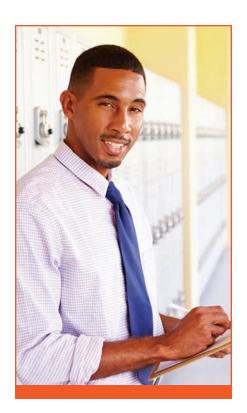
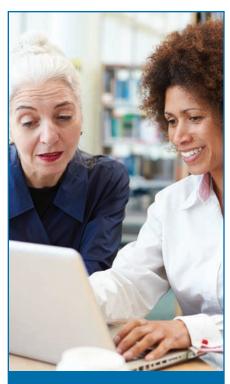
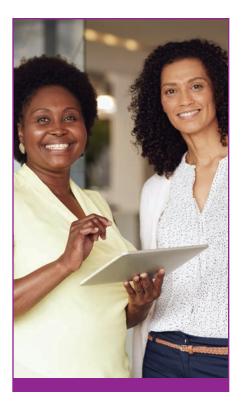
# Logic Models for Selecting, Designing, and Implementing Evidence-Based School Leadership Interventions

Companion Guide to
School Leadership Interventions Under the Every Student Succeeds Act

LINDSAY DAUGHERTY, REBECCA HERMAN, AND FATIH UNLU











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## **Preface**

The reauthorization of the U.S. Elementary and Secondary Education Act, referred to as the Every Student Succeeds Act (ESSA), emphasizes evidence-based initiatives while providing new flexibilities to states and districts with regard to the use of federal funds, including funds to promote effective school leadership. To support education decision makers, the RAND Corporation conducted a synthesis of the evidence base on school leadership interventions, School Leadership Interventions Under the Every Student Succeeds Act: Evidence Review. The current tool, Logic Models for Selecting, Designing, and Implementing Evidence-Based School Leadership Interventions, expands on the evidence review by describing each of the six types of school leadership interventions and unpacking the relationship between the intervention type and student outcomes, showing the key steps through logic model. It should serve as a useful tool to help state and district policymakers to design, implement, and evaluate evidence-based school leadership interventions.

The research required to develop both the review and the current tool was conducted by RAND Education, with support from the Wallace Foundation. We are grateful to staff of the Wallace Foundation who provided funding for the project and input on the report. Specifically, we appreciate the probing questions and insights from Ed Pauly, Jody Spiro, Jessica Schwartz, and Pam Mendels. The Wallace Foundation is committed to improving school leadership through better training, hiring, support, and evaluation of principals. For more than a decade, it has invested in research, initiatives, and evaluations to improve school and district leadership and contribute to an evidence base in this area. We also appreciate the thoughtful input from leadership experts and peer reviewers, including Gina Ikemoto, Jason Grissom, Susanna Loeb, Tracey Weinstein, Ayesha Hashim, Katie Drucker, Glenn Pethel, Mikel Royal, Marina Colfield, Jevelyn Bonner-Reed, Susan Gates, Stephani Wrabel, and Ben Master. Finally, we thank Chandra Garber, Rachel Ross, Emilio Chavez-Herrerias, Aziza Arifkhanova, and Andiy Bega for their help in creating this document.

## Introduction

#### Why focus on school leadership?

Research indicates that principals play a critical role in the educational achievement of students (Branch, Hanushek, and Rivkin, 2012; Grissom, Kalogrides, and Loeb, 2015; Leithwood et al., 2004). Principals also play a role in driving key teacher outcomes (Boyd et al., 2011; Grissom, 2011; Ladd, 2011; Loeb, Kalogrides, and Béteille, 2012). Based on this evidence, states and districts have made efforts to build leadership capacity, a key element of many educational reforms.

#### Whom is this guide for?

This guide is for state and district policymakers, as well as organizations involved in the design and delivery of leadership interventions.

#### Why use this guide?

The Every Student Succeeds Act (ESSA) provides avenues for funding leadership interventions, and ESSA requires that funded interventions be evidence-based. According to ESSA, the minimum standards for an evidence-based intervention are that the intervention should be represented by a logic model, which (as defined in the U.S. Department of Education's nonregulatory guidance to ESSA) presents "a well-specified conceptual framework that identifies key components of the proposed process, product, strategy, or practice (i.e., the active 'ingredients' that are hypothesized to be

critical to achieving the relevant outcomes) and describes the relationships among the key components and outcomes, theoretically and operationally" (U.S. Department of Education, 2016). This is not only the law; it also makes sense. To maximize the impact of educational investments, education policymakers should have a clear vision of how an investment is expected to change education practices and lead to better student outcomes. Unfortunately, until now, education policymakers have not had a resource that systematically shows the path from investment to impact for school leadership improvement interventions.

To support states and districts in identifying the evidence base for school leadership interventions, we have produced a series of logic models that present key components of six types of school leadership interventions, and the ways in which these components are expected to lead to better student outcomes. State and district education policymakers, as well as intervention designers and implementers, can use this guide to

- understand the theory behind various ways in which leadership intervention types work to improve student outcomes
- identify the key components of evidence-based programs to inform the design, adoption, or refinement of aligned interventions
- develop or refine logic models and evaluation measures.

#### What is in this guide?

This document presents a step-by-step guide for understanding how logic models work and how such models can describe common school leadership interventions to establish an evidence-based theory of change. The guide is organized into the following sections:

"Road Map" to Logic Model Components: We start with a "road map" that discusses the various aspects of a logic model and describes how the sections of the guide can be used to build logic models.

<sup>&</sup>lt;sup>1</sup> ESSA defines four tiers of evidence, in order of rigor, for judging whether an activity is evidence-based. While the first three tiers describe required levels of evidence for impact, tier IV instead requires a research-based rationale that the intervention will have the desired impact, coupled with ongoing evaluation of the intervention to build an evidence base on the impact of that intervention. The companion report to this tool, *School Leadership Interventions Under the Every Student Succeeds Act: Evidence Review: Updated and Expanded*, provides a more thorough discussion of ESSA requirements and a detailed review of studies and programs that currently meet these evidence requirements.

#### Six Types of Leadership Interventions and the Problems They Address:

Next, we briefly review six common types of school leadership interventions: principal preparation programs; strategic staff management (recruitment, selection, and placement); professional learning; leader evaluation; working conditions; and school improvement. We also describe the problem each intervention type intends to address. This is an important step, as different types of school leadership interventions address different challenges, and selecting the right intervention will depend on where in the educational system problems are arising.

The Link from Leadership Interventions to Student Outcomes: In this section, we provide an illustration of the way that leadership interventions commonly work to improve outcomes, specifically principal competencies, school-level outcomes, and finally student outcomes.

**Logic Models:** The next section presents individual logic models for each of the six intervention types, with a focus on activities and outputs. We describe promising practices and provide samples of indicators that can be used to evaluate whether interventions are being implemented as planned.

A Word About Resources: Finally, we address the issue of what resources may be needed for leadership interventions. In environments where resources are particularly constrained, it may be useful to identify available resources before selecting an intervention or developing a logic model to guide your approach.

#### Methods for creating logic models

To develop the six logic models, we used program documentation and research literature for specific leadership intervention programs to identify or develop program-specific logic models, and then aggregated these program-specific

logic models into logic models that describe the range of programs under an intervention type. We used the following four-step process:

1) Identified programs for each intervention type: First, we identified a set of programs we could analyze to build the logic models. We started with the list of programs that met ESSA evidence standards in Herman et al. (2017). We supplemented these programs with others highlighted in reviews of promising leadership programs (e.g., George W. Bush Institute), as well as those recommended by a panel of 12 experts, including six RAND researchers and six external experts in leadership. To include an intervention's information in this process, we required at least one peer-reviewed study with positive outcomes and/or public documentation of evidence-based theory.<sup>2</sup> We did not aim to identify every evidence-based program for our six intervention types, but we did aim to identify a sufficient number of programs to capture the range of approaches in an area. For example, we wanted to ensure that we had a variety of providers represented for principal preparation programs, including university providers, university/district partnerships, and alternative providers. We classified our lists of programs according to these key characteristics and continued to add programs until we had at least two programs of each preidentified category. The table on page 6 summarizes the total number of programs identified by intervention type.<sup>3</sup>

<sup>&</sup>lt;sup>2</sup> We did not limit this analysis to the interventions found to meet ESSA evidence standards in *School Leadership Interventions Under the Every Student Succeeds Act*. Some programs did not have visual logic models that allowed them to meet Tier IV evidence standards, but did have sufficient description of theory in program documentation to create a logic model. It was important to cast a broad net so we would not systematically exclude promising types of interventions that have not yet been proven.

<sup>&</sup>lt;sup>3</sup> Many of the programs reviewed were implemented and evaluated in large urban school districts, and generalizability of these evidence-based practices to other settings is unknown. Further, information on the study settings and the target setting for interventions was not always available. Users should consider, as much as possible, whether a given intervention is well suited for and effective in a context like their own.

- 2) Collected or developed program-specific logic models: We searched public documentation to describe programs and develop program-specific logic models, including research studies, program websites, user manuals, and other public documentation available online. Programs without sufficient information to develop logic models were excluded. Total counts of logic models included 29 for principal preparation; 11 for professional learning; eight each for leader evaluation, working conditions, and school improvement; and three for strategic staff management.
- 3) Aggregated program-specific logic models: We identified the features of logic models across programs and determined which components were found across all programs and which components were found only in

- some programs. We gathered additional information on implementation, outputs, and outcome measures to add detail to the logic models.
- 4) *Gathered expert feedback and refined logic models:* Internal leadership experts provided feedback on several drafts of each logic model, and the logic models were refined in response to this feedback.

Most of the information in the document comes from analysis of program data, with a few exceptions. RAND largely generated the sample output measures and resource questions, as opposed to drawing them from program materials.

#### **Programs Reviewed by Intervention Type**

	RAND ESSA Report	Other Literature	Expert Recommendation	Total
Principal preparation programs	9	7	13	29
Strategic staff management	2	1	0	3
<b>Professional learning</b>	5	2	4	11
Leader evaluation systems	2	4	2	8
Working conditions	3	4	1	8
School improvement	2	0	6	8

## "Road Map" to Logic Model Components

On this page, we provide a "road map" to the different parts of a logic model, including what information we have developed for each component and how that information can be used to build or refine your own logic model.

Problem Statement "What issue am I addressing?"

In this document, we describe each of our six intervention types according to the problem they aim to address (see pages 9 and 10).

How to use it: Use these problem statements to help you focus on logic models related to the types of interventions that most directly apply to your needs and priorities.

## Resources "What do I need?"

In this document, we identify a list of resource types and some questions about needed resources for states and districts to consider asking (see pages 36 and 37).

How to use it: When identifying an intervention and the primary activities, use our guiding questions to identify resources. If sufficient resources are not available, consider other intervention types.

## Activities "What do I do?"

In the logic models, we identify activities associated with each of the six categories of leadership interventions and report additional detail on how specific interventions we reviewed undertake these activities (see pages 12 to 35).

How to use it: Determine whether your current or future intervention has the activities commonly found in evidence-based programs.

## Outputs "What happens immediately?"

In the logic models, we identify outputs—or the immediate things that should happen if the intervention is implemented effectively—for each of the six intervention categories, and indicate possible indicators that can be used to measure implementation success (see pages 12 to 35).

How to use it: Identify the key outputs that you might want to examine and measure to determine whether the intervention is being implemented properly.

## Outcomes "What are my goals?"

In this document, we identify a number of common short-, medium-, and long-term outcomes for school leadership interventions (see page 11).

How to use it: Understand how leadership interventions work to achieve improved outcomes for students, identify the principal competencies the current or future intervention aims to affect, and align the design of the intervention with outcomes.

#### Additional considerations in using this guide

Logic modeling often works best when done backward. Many logic model guides suggest starting logic models at the end (outcomes) and moving backward (to resources), so we suggest using a similar approach.<sup>4</sup> After identifying which intervention type(s) are best suited for the needs of your state or district, start by identifying the ultimate outcomes you aim to affect. Then identify which intermediate- and short-term outcomes are required to achieve the longer-term impacts. Next determine the primary activities that the intervention will consist of, and the immediate outputs associated with those activities. Finally, list the resources needed to carry out the activities, and determine whether these resources can be mobilized to ensure successful implementation.

Logic models may be integrated when describing interventions that include more than one intervention type. While we present separate logic models for each of our six intervention types, some interventions combine aspects from multiple intervention types into one integrated and coordinated

set of reforms. For these types of interventions, states and districts may find it useful to create an integrated logic model that covers the full range of intervention components to ensure that implementation and evaluation are coordinated across the full intervention. There may also be benefits to fleshing out the specifics of the reforms through separate logic models for intervention subcomponents. For example, the Wallace Pipeline Project requires districts to reform aspects of principal preparation, strategic staffing, and leader evaluation. In designing a logic model for this type of multifaceted reform, one might first develop individual logic models for each of the three subcomponents, to fully unpack the model change process, and then eventually aggregate them into one large, integrated logic model to promote continuity across the full initiative. Alternatively, the integrated logic model could be developed first, followed by creation of more-detailed breakouts of the three subcomponents as needed.

**Logic models should not be static.** As the outcomes of interest shift and the intervention activities are refined, the logic model should be updated to reflect the current state of the interventions.

<sup>&</sup>lt;sup>4</sup> Logic model design guidance in this document was informed by other logic model resources, including Funnell and Rogers, 2011; Wyatt Knowlton and Phillips, 2013; McLaughlin and Jordan, 1999; and Shakman and Rodriguez, 2015.

## **Understanding Different Leadership Intervention Types**

Next we describe six types of leadership interventions. We define leadership interventions broadly to include any deliberate effort to systematically improve leadership capacity in schools by altering programs, practices, or policies. Interventions can include specialized programs that target certain groups of principals or districtwide/statewide practices that affect all principals. Interventions can be developed in-house by states and districts, purchased from external organizations, or developed collaboratively. Choosing the right intervention type(s) includes understanding where the challenges are in the current pipeline and state/district environment, identifying the areas of the pipeline and environment where policymakers have the leverage to make change, and ensuring that the intervention can be designed and implemented to meet the goals of the state/district. In some cases, multiple intervention types may be combined, to be implemented together (see previous section).

#### **Principal Preparation Programs**

Problem: Many states and districts struggle with a shortage of new principals who possess competencies needed for effective leadership. While attending training programs, principal candidates often do not receive academic coursework and clinical experiences that adequately prepare them for leadership positions in real life. After graduation, new principals often do not receive sufficient support and mentoring tailored to their individual needs to guide them in the first few years in leadership positions.

**Intervention:** Principal preparation programs aim to prepare current and aspiring educators to become principals through training that combines high-quality classroom instruction and some type of school-based internship. These programs can lead to an advanced degree or certification. They may be provided by universities, districts, or independent organizations, or some combination of the three.

# Strategic Staff Management (Recruitment, Selection, and Placement)

**Problem:** Many states and districts struggle to hire leaders who possess the competencies needed for effective leadership. In addition, school leaders may not be assigned to schools in an optimal way. High-needs schools, in particular, struggle to attract and retain effective leaders and replace ineffective leaders.

**Intervention:** Strategic staff management includes activities to improve recruitment and selection processes and the assignment of principals to schools. Recruitment and retention interventions may include, for example, communication strategies to broaden the candidate pool or specialized processes and tools to screen and evaluate candidates (e.g., performance-based interview tasks). Interventions may also attempt to place effective principals into specific schools (based on need or on principal-school match) and/or replace ineffective principals.

#### **Professional Learning**

**Problem:** The ongoing training, support, and professional development offered to principals may fail to meet the needs of all principals, especially early-career principals and those placed in the most challenging schools. The amount of professional learning offered may be insufficient, the content of professional learning may not necessarily be aligned with principal or school needs, and/or the delivery of content may not be effective.

**Intervention:** Professional learning interventions aim to provide to principals more effective support that is closely aligned with principal needs. Professional learning can include workshops (single sessions or a series), professional learning communities, and coaching/mentoring. These opportunities may be available throughout a principal's career, although they often are most intensive early in his or her career.

#### **Leader Evaluation Systems**

**Problem:** Districts often have limited information on the competencies and effectiveness of their school leaders, and principals often receive inadequate feedback on their abilities and progress. This can limit the ability of individual leaders to engage in professional growth and limit the ability of districts to assess leadership capacity and target efforts to improve capacity through other leadership interventions.

Intervention: Leader evaluation systems are a set of processes, tools, and metrics designed to evaluate principals' strengths and needs—for either accountability or developmental purposes. In theory and policy, these systems should be aligned with rigorous leadership standards (e.g., state standards or the Professional Standards for Educational Leaders [National Policy Board for Educational Administration, 2015]); draw on multiple perspectives (e.g., the principal's supervisor, teachers); and incorporate different types of evidence (e.g., student-achievement data, observations, surveys).

#### **Working Conditions**

**Problem:** Potentially effective principals may not be achieving their full potential due to unclear expectations, lack of incentives, limited autonomy, bureaucratic central office processes, or insufficient support from supervisors and other departments.

**Intervention:** The intervention aims to affect one or more aspects of the school leaders' working conditions. Examples include—but are not limited to—providing incentives to recruit and retain school leaders, autonomy so leaders can make decisions typically made at the district level, redesign of principal supervisor roles to be more supportive of principals, and shifts in central office structures, processes, and culture in support of principals.

#### **School Improvement**

Problem: School turnaround research repeatedly shows that an effective principal is at the core of every successful school turnaround; however, not every principal is well equipped to effectively lead such an effort. Intervention: School improvement models aim to improve low-performing schools through multiple components (e.g., changes to the curriculum, instruction, staffing, management). Many models include school leadership as one of these components. The school leadership component may include extensive principal professional development, changing the role of the principal to focus more on instruction, replacing the principal, granting the principal greater control over school decisions, and many other strategies explored under the other types of school leadership interventions. The unique element of this type of intervention is that the school leadership piece is integrated into a larger, schoolwide set of reforms and cannot be examined in isolation.

# The Link Between Leadership Interventions and Student Outcomes

Leadership interventions use different strategies to achieve a common set of outcomes. While the ultimate goals of leadership interventions are to improve student outcomes, leaders must first improve the schools. Leadership interventions work to improve schools and students by improving the competencies of principals within schools. Principal competencies are a combination of the skills and abilities of principals and their behaviors, including where they focus time and effort. While this is not an exhaustive list, we provide examples of the outcomes mentioned by evidence-based leadership programs here.

#### **Short-term outcomes**

Improved leadership capacity in the following competencies:

## **Leadership** interventions

- Sets directions, vision, and goals
- Develops professional learning of staff
- Manages instructional program
- Manages school environment
- Manages time strategically and effectively
- Challenges status quo where it is ineffective
- Uses theory, data, and evidence to drive practice
- Interacts with external stakeholders
- Communicates and connects effectively
- Adapts to school needs
- Inspires staff and promotes innovation

#### **Medium-term outcomes**

Improved schools in the following areas:

- Instructional quality
- School culture/climate/ environment
- Retention of high-quality staff

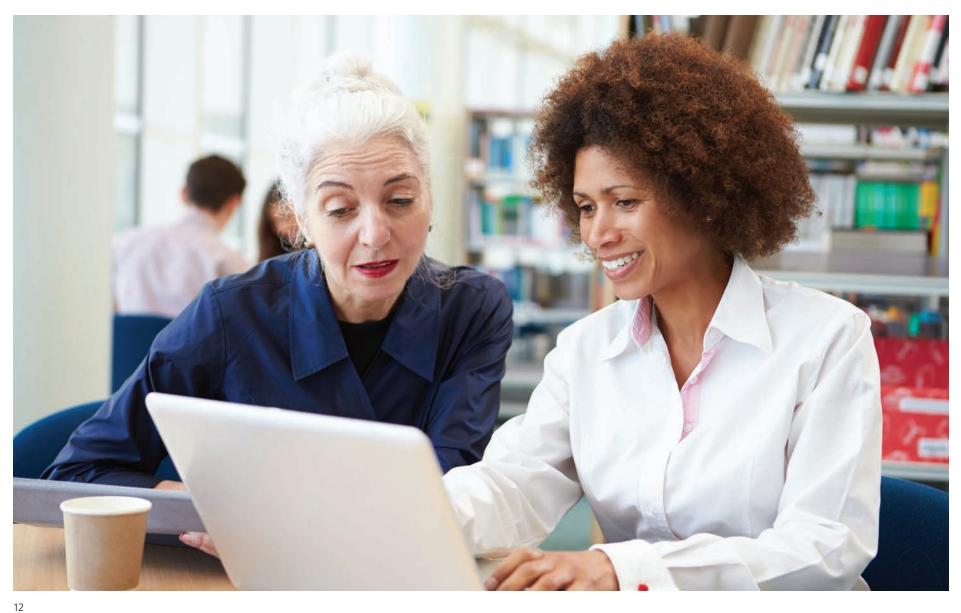
#### **Long-term outcomes**

Increased student success in the following areas:

- Student attendance
- Student behavior
- Student achievement
- Graduation
- College and career success

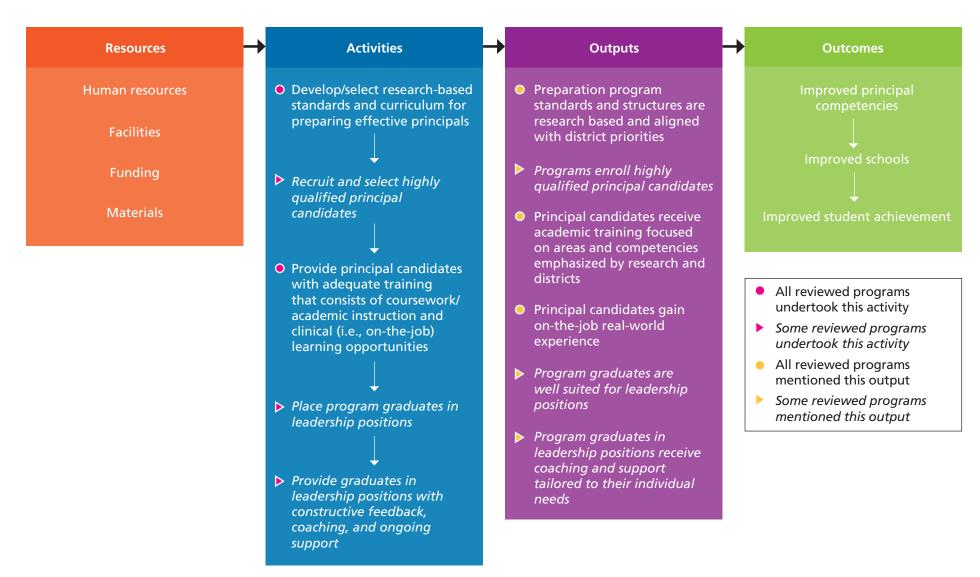
<sup>&</sup>lt;sup>5</sup> Leadership interventions may aim to increase the impact of an individual principal (e.g., targeted professional development) or of the principal pipeline across a district or state (e.g., improving the percentage of principals who master competencies). At the program/district/state level, leadership interventions may aim to improve the distribution of outcomes, such as ensuring that certain schools are staffed with principals who have mastered competencies, and achieving greater equity in outcomes for students.

# **Logic Model—Principal Preparation Programs**



## **Logic Model—Principal Preparation Programs**

**The problem:** Many states and districts struggle with the shortage of new principals who possess competencies needed for effective leadership. While attending training programs, principal candidates often do not receive academic coursework and clinical experiences that adequately prepare them for leadership positions in real life. After graduation, new principals often do not receive sufficient support and mentoring tailored to their individual needs to guide them in the first few years in leadership positions.



#### Logic model—Principal preparation programs: Details on activities reviewed in evidence-based programs

Activities All reviewed Develop/select research- Preparation programs (often in coordination with district partners) developed or selected programs based standards and curricula and program structures around research-based standards and competencies for undertook curriculum for preparing effective leadership. this activity effective principals Some reviewed programs ▶ Recruit and select highly In many university-district partnerships, districts were involved in outreach, recruitment, undertook qualified principal and selection of highly qualified applicants who possessed leadership competencies. this activity • Some programs used a centralized process that utilized selection criteria developed to candidates choose the most-qualified candidates from the pool of applicants. Provide principal candidates • Principal candidates were provided coursework and other forms of academic instruction (e.g., seminars and workshops) about school leadership that varied in delivery mechanism, with adequate training that consists of coursework/ length, and whether it led to a degree or certificate. academic instruction and • Some clinical practices were implemented during the coursework phase, while some programs placed candidates in structured residency or apprenticeship components (e.g., as clinical (i.e., on-the-job) a district or school partner, being mentored by an experienced leader or principal, or being learning opportunities coached by program staff). • Programs typically assessed leadership skills and competencies of principal candidates as they went through and before they completed the program. ▶ Place program graduates in Some programs endorsed graduates and helped them find leadership positions in partner leadership positions districts. > Provide graduates in Some programs offered graduates continued support (mentoring and coaching) informed leadership positions with by assessment results and customized to their needs during the first few years on the job. constructive feedback, coaching, and ongoing support

#### Logic model—Principal preparation programs: Sample indicators to track progress on outputs

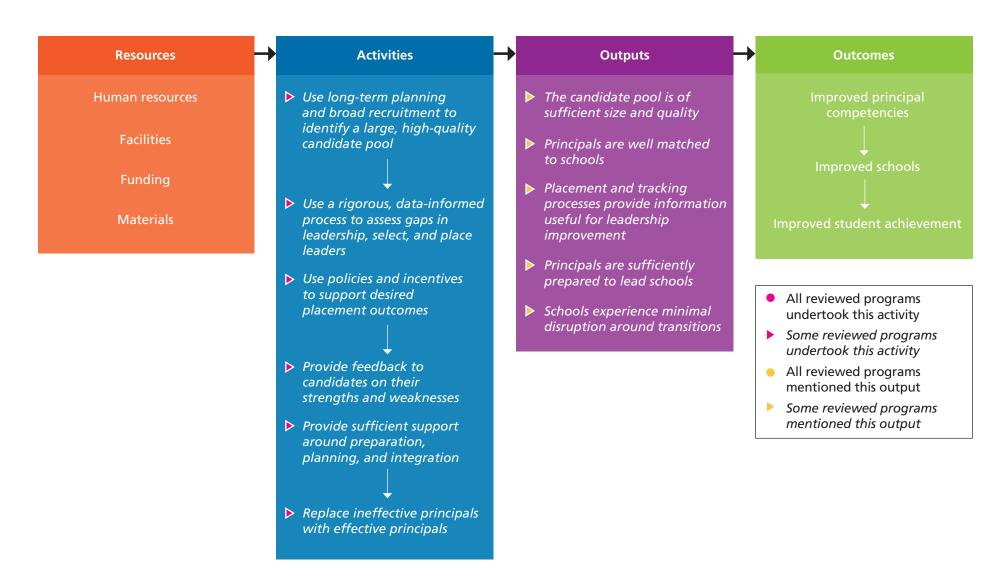
Outputs All reviewed Preparation program • Extent to which standards and structures of principal preparation programs are aligned with programs standards and structures are district priorities mentioned research-based and aligned this output with district priorities ▶ Some reviewed ▶ Programs enroll highly • Number of highly qualified applications received programs qualified principal • Rate of acceptance of highly qualified applicants mentioned candidates this output Principal candidates • Length and intensity of coursework or other type of academic instruction • Extent to which coursework is high-quality and relevant for real-life leadership positions in receive academic training focused on areas and districts and schools competencies emphasized by research and districts Principal candidates gain • Length and intensity of residency, apprenticeship, or other clinical practices on-the-job real-world • Proportion of principal candidates who reported receiving high-quality mentorship during experience clinical practice • Extent to which short-term training or coursework is aligned with clinical experiences ▶ Program graduates • Percentage of program graduates placed in leadership positions in a particular time frame • Extent to which program graduates' skills and training match with the needs of the are well suited for leadership positions leadership positions in which they were placed • Duration and frequency of coaching and support received by program graduates > Program graduates in leadership positions • Type and focus of the feedback and coaching received by program graduates • Extent to which coaching topics are aligned with areas of weakness receive coaching and support tailored to their individual needs

# Logic Model—Strategic Staff Management (Recruitment, Selection, and Placement)



## Logic Model—Strategic Staff Management (Recruitment, Selection, and Placement)

**The problem:** Many states and districts struggle to hire leaders who possess the competencies needed for effective leadership. In addition, school leaders may not be assigned to schools in an optimal way. High-needs schools, in particular, struggle to attract and retain effective leaders and replace ineffective leaders.



#### Logic model—Strategic staff management: Details on activities reviewed in evidence-based programs

Activities All reviewed ▶ Use long-term planning Some programs created policies requiring projections of vacancies to facilitate long-term programs and broad recruitment to planning. undertook identify a large, high-quality Some programs developed ongoing processes for identifying, nominating, and developing this activity candidate pool aspiring leaders, some several years in advance of placement. ▶ Some reviewed • Many programs created leader tracking systems or used other strategies to systematically collect Use a rigorous, dataprograms and assess data on aspiring and current leaders around training, experience, performance, and informed process to undertook competencies. These data were used to identify gaps in the existing and future pool of leaders identify leadership gaps this activity and inform selection, placement, and professional learning. and inform selection, • Some programs included multiple rounds of selection to ensure that the best candidates ended up placement, and training as principals (e.g., first selected for preparation program, then assistant principal, then principal). of leaders Some programs incorporated assessments that required leaders to demonstrate competencies in real-life scenarios. Examples of tasks include teacher observation and feedback and data analysis. Programs made efforts to match leaders to schools based on the needs of the school and the strengths of the leaders. ▶ Use policies and incentives • Some programs offered additional compensation, autonomy in hiring, and other incentives to to support desired attract highly effective principals to high-needs schools that were hard to staff. • Some programs required principals to commit to remaining in a district or school for a minimum placement outcomes time period (e.g., three years). ▶ Identify strengths and • Feedback on strengths and weakness was provided by some programs to both successful and weaknesses and provide unsuccessful candidates to facilitate improvement. feedback Provide sufficient support Research indicates that, in many cases, principal turnover adversely impacts students. Ensuring a around preparation, smooth transition may be critical. planning, and integration Many programs integrated preservice training with recruitment and placement process. • Programs occasionally shifted placement earlier in the year to provide principals more time for planning in advance of the school year. Many programs required principals to engage in planning processes for their new schools. Many programs offered coaching and professional development for new principals that can help to facilitate planning and successful integration into the school. ▶ Replace ineffective Some programs faced challenges when focusing on removing ineffective principals without principals with effective ensuring a sufficient pool of effective candidates to serve as replacements. principals • Some programs focused on ensuring that principals who replaced ineffective principals have demonstrated turnaround success.

#### Logic model—Strategic staff management: Sample indicators to track progress on outputs

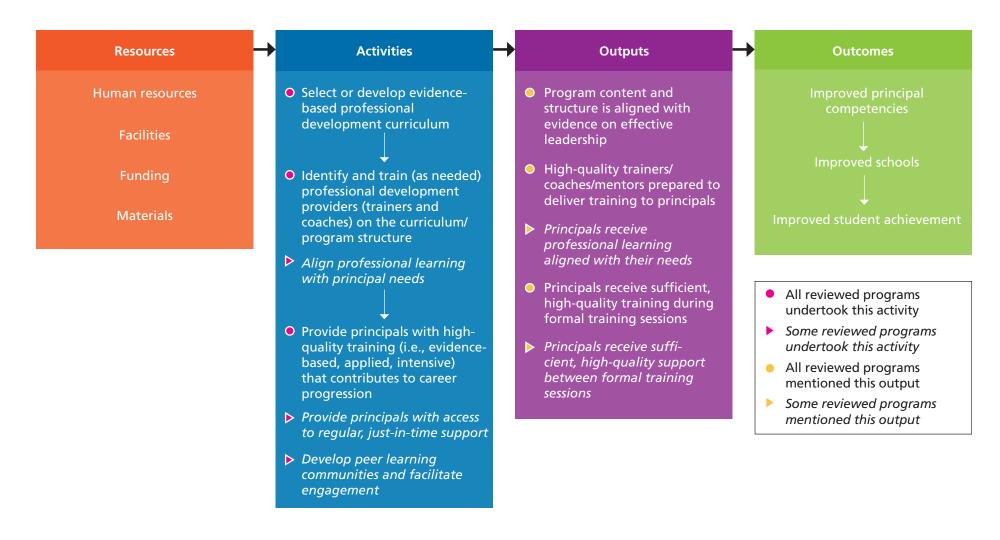
Outputs All reviewed ▶ The candidate pool is of • Average time between date vacancy is identified and date principal is placed programs sufficient size and quality • Number of candidates (as a proportion of the number of vacancies) mentioned • Proportion of candidates demonstrating high levels of quality with regard to mastery of this output competencies and ability to meet standards Some • Proportion of candidates placed into schools reviewed programs Principals are well • Extent to which needs of school align with the strengths and weaknesses of principal mentioned matched to schools • Proportion of principals for whom administrators report that school is a good fit this output • Proportion of principals seeking placements in other schools • Proportion of school staff who are satisfied with the principal Placement and tracking Proportion of principals reporting that they better understand their strengths and processes provide information useful for • Proportion of principals reporting that they took actions (e.g., professional learning) to leadership improvement address weaknesses • Extent to which staff report they are able to better anticipate vacancies • Degree to which professional learning offerings align with gaps in leader capacity • Proportion of principals who received high-quality preservice training ▶ Principals are sufficiently • Average length of time between placement and start of school year prepared to lead schools • Number of hours of professional learning principal engages in prior to placement, in between placement and start of school, and in first school year Schools experience Average length of time school does not have a principal • Average length of time between placement and start of the school year minimal negative • Average length of time effective principals remain in a school disruption around • Extent to which staff are able to continue key activities required for instruction and school transitions operations • Degree to which staff report they were able to make changes for principal seamlessly

# **Logic Model—Professional Learning**



## **Logic Model—Professional Learning**

**The problem:** The ongoing training, support, and professional development offered to principals may fail to meet the needs of all principals, especially early-career principals and those placed in the most challenging schools. The amount of professional learning offered may be insufficient, the content of professional learning may not necessarily be aligned with principal or school needs, and/or the delivery of content may not be effective.



#### Logic model—Professional learning: Details on activities reviewed in evidence-based programs

**Activities** All reviewed Select or develop evidence-• Programs typically fell in one of two categories (or occasionally had both): one-on-one programs based professional training by coaches/mentors, and/or group training provided via classrooms, workshops, undertook development curriculum/ and conferences. this activity program structure • Programs selected/developed professional learning around leadership competencies (e.g., Some "learner-centered" leadership and "building and maintaining collaborative relationships"). reviewed programs undertook • Identify and train (as needed) Programs were developed by both vendors and district staff. this activity Some vendors offer both direct training to principals and training of coaches/mentors, professional development while others focus on a single population. providers (trainers and coaches) on the curriculum/ program structure ▶ Align professional learning One-on-one coaching/mentoring programs typically described needs assessment and tailoring of professional learning and matching of coaches to principals around principal with principal needs needs. Several (group instruction) programs did not mention any needs assessment or links to evaluation. Provide principals with Programs typically included the following characteristics: high-quality training (i.e., - Sustained and intensive participation in multiple sessions over at least several months. evidence-based, applied, - A structured curriculum and/or coaching approach designed around theory and evidence - Requirements that principals apply lessons on the job and reflect on these experiences intensive) that contributes to career progression (e.g., on-the-job observation and feedback, projects, residencies) • Programs occasionally emphasized the importance of ensuring that training was structured to satisfy district/state professional learning requirements and/or count as credit toward degrees. Many programs, especially one-on-one coaching/mentoring programs, offered regular ▶ Provide principals with access to regular just-in-time support access to support by Internet, phone, or in person. ▶ Develop peer learning Some programs offered explicit activities to engage peers in supporting learning. This was done within training sessions or through outside opportunities for engagement (e.g., online communities and facilitate platforms). engagement

#### Logic model—Professional learning: Sample indicators to track progress on outputs

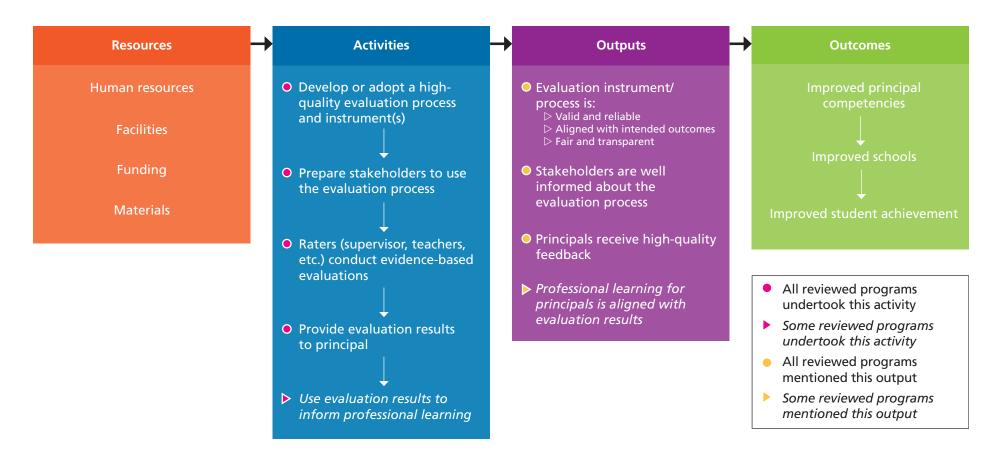
Resources Outputs All reviewed Program content and • Extent to which curriculum emphasizes principal competencies highlighted in the literature programs structure is aligned with mentioned evidence on effective this output leadership Some reviewed High-quality trainers/ Proportion of trainers with relevant incoming knowledge/experience (e.g., former principals) programs coaches/mentors • Proportion of trainers participating in training on curriculum and program structure mentioned • Proportion of trainers who report being adequately prepared to deliver training prepared to deliver this output training to principals > Principals receive • Extent to which goals and/or areas of weakness are aligned with the content of professional learning professional development sessions aligned with their needs Proportion of principals and/or trainers who complete a needs-focused professional learning plan • Extent to which professional learning is aligned with district policies and standards • Proportion of principals reporting that trainings are relevant to issues they face on the job • Proportion of principals able to apply concepts from trainings on the job Principals receive • Proportion of principals able to demonstrate improved knowledge, skills, or abilities on sufficient, high-quality training during formal key learning objectives for the training • Proportion of principals reporting that training was sufficient in duration and intensity to training sessions provide adequate support ▶ Principals receive Degree to which principals engage in high-quality support discussions within learning sufficient, high-quality communities support outside of Proportion of principals reporting adequate access to just-in-time support formal training sessions • Proportion of principals reporting that the help they received was useful

# **Logic Model—Leader Evaluation Systems**

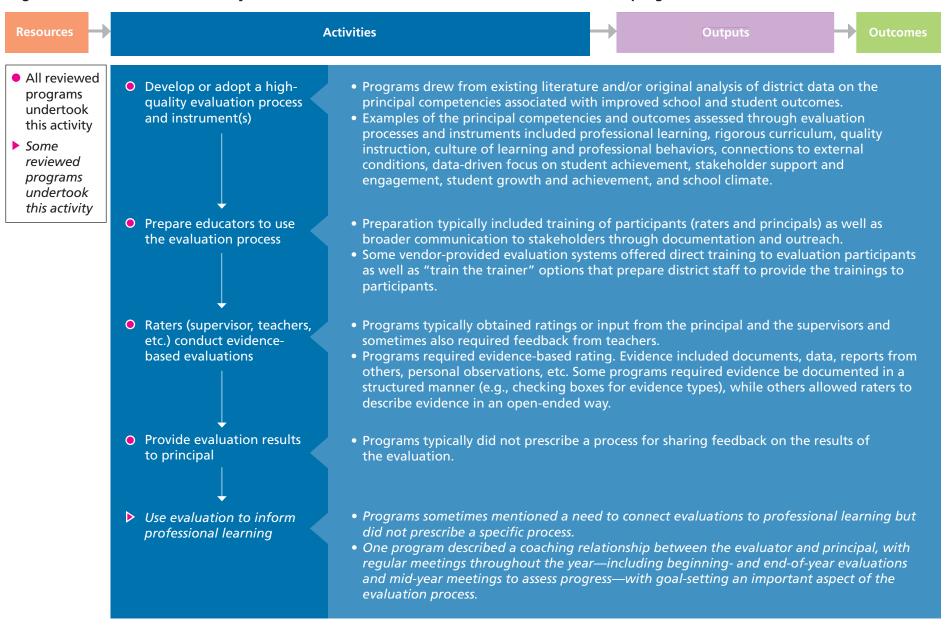


### **Logic Model—Leader Evaluation Systems**

**The problem:** Districts often have limited information on the competencies and effectiveness of their school leaders, and principals often receive inadequate feedback on their abilities and progress. This can limit the ability of individual leaders to engage in professional growth and limit the ability of districts to assess leadership capacity and target efforts to improve capacity through other leadership interventions.



#### Logic model—Leader evaluation systems: Details on activities reviewed in evidence-based programs



#### Logic model—Leader evaluation systems: Sample indicators to track progress on outputs

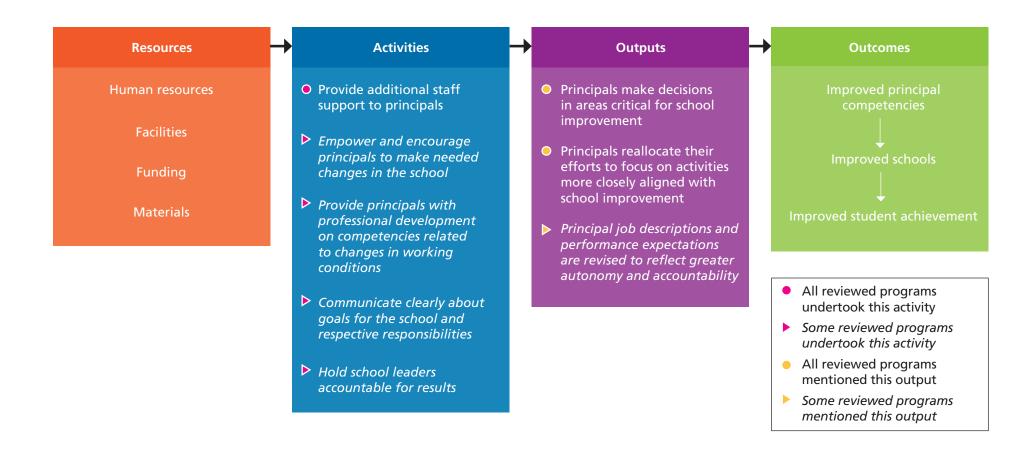
Resources **Outputs** All reviewed Evaluation instrument/ • Extent to which evaluation results are correlated with other independent measures of programs effectiveness (e.g., test score gains where these are not incorporated into the evaluation system, process is... mentioned ratings of independent evaluators) this output Valid and reliable • Extent to which the evaluation rating is well supported by evidence (i.e., number of pieces of Some evidence cited, mix or quality of evidence) • Reliability estimates for the instruments (e.g., inter-rater reliability, internal consistency) reviewed programs Aligned with intended • Extent to which the evaluation instrument evaluates principal competencies mentioned • Extent to which the evaluation instrument requires evidence on school and student outcomes outcomes this output • Proportion of stakeholders (e.g., raters, principals, teachers) who perceive the process as fair Fair and transparent and transparent • Proportion of principals disputing results of evaluations • Extent to which the instrument and process assess areas the principal can control Stakeholders are well • Rate of participation in trainings • Proportion of stakeholders who can accurately describe the evaluation process informed about the • Proportion of stakeholders who understand their roles and responsibilities evaluation process • Proportion of stakeholders who perceive the system as being transparent • Degree to which evaluation feedback sessions align with the prescribed structure and content Principals receive high-• Proportion of principals who report that evaluation feedback was clear and actionable quality feedback • Proportion of principals who have improved understanding of their strengths and weaknesses after evaluation session > Professional learning for Amount of professional learning received • Extent to which professional learning topics are aligned with areas of weakness identified principals is aligned with evaluation results in the evaluation

# **Logic Model—Working Conditions**



## **Logic Model—Working Conditions**

**The problem:** Potentially effective principals may not be achieving their full potential due to unclear expectations, lack of incentives, limited autonomy, bureaucratic central office processes, or insufficient support from supervisors and other departments.



#### Logic model—Working conditions: Details on activities reviewed in evidence-based programs

Activities Resources All reviewed Provide additional staff • Staff at the district or school level provided support, such as taking on some of the programs support to principals principal's management responsibilities, enabling the principal to focus on instructional undertook leadership and other key activities. The school staff role, one of the resources named across this activity school leadership interventions, is particularly central for working conditions. Some reviewed ▶ Empower and encourage programs Some principals were given the authority to make decisions at the school level, and policies undertook principals to make needed that may have impeded them were revised or removed. changes in the school this activity • Some principals were offered compensation (e.g., incentive bonuses, pay-for-performance) tied to improved student outcomes. Provide principals with • Professional development included topics such as time management skills, making human professional development resource decisions, and delegating. on competencies related to changes in working conditions ▶ Communicate clearly about • Key aspects of working condition changes tended to be communicated clearly. Such changes included which responsibilities were allocated to the principal and which goals for the school and respective responsibilities remained with the district. ▶ Hold school leaders • Expected school results were generally clearly stated. • School leader performance was measured, at least in part, by school results. accountable for results

#### Logic model—Working conditions: Sample indicators to track progress on outputs

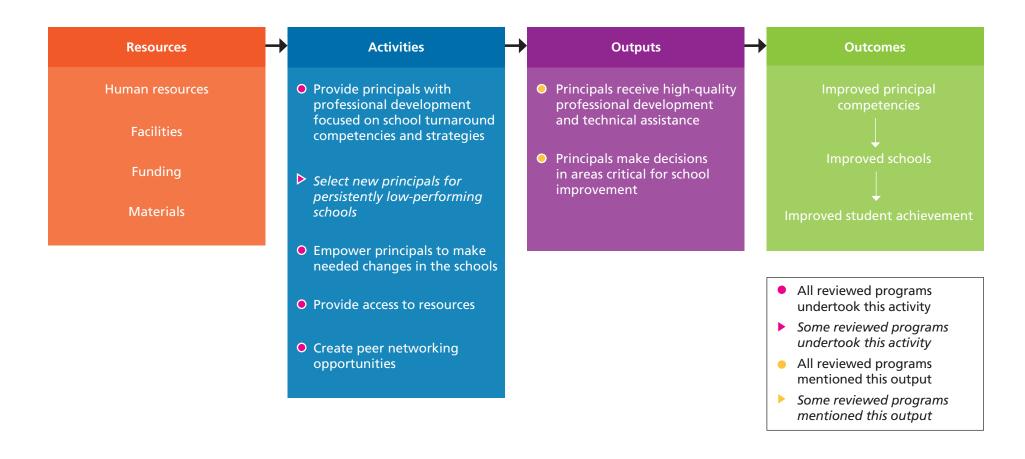
Outputs All reviewed Principals make decisions • Proportion of human resource decisions, such as hiring, releasing, promoting, and rewarding programs school staff, made by principals in areas critical for school mentioned • Proportion of school costs (e.g., personnel) budgeted at the school level improvement this output • Proportion of programmatic decisions, such as supports for students needing extra help, made ▶ Some by principals • Extent to which decisions in areas critical for school improvement are aligned with local school reviewed needs and conditions. For example, the principal prioritizes hiring staff with prior success programs mentioned working with school's demographic this output Principals reallocate Proportion of time principals spend on instructional support, human resources, budget, and their efforts to focus on similar areas, compared to management activities that can be conducted by others (e.g., activities more closely cafeteria duty) aligned with school improvement Principal job descriptions • Extent to which principal job descriptions focus on instructional leadership and school and performance improvement expectations are • Extent to which principal performance expectations are related to student and teacher/school revised to reflect greater autonomy and accountability

# **Logic Model—School Improvement**



## **Logic Model—School Improvement**

**The problem:** School turnaround research repeatedly shows that an effective principal is at the core of every successful school turnaround; however, not every principal is well equipped to effectively lead such an effort.



#### Logic model—School improvement: Details on activities reviewed in evidence-based programs

Activities All reviewed • Schools provided principals professional development that was Provide principals with programs professional development - intensive, undertook • In some cases, professional development took the form of multiday, offsite events, focused on school turnaround this activity involving cohorts of turnaround principals and/or leadership teams. competencies and strategies • In some cases, professional development took the form of frequent site-based mentoring. ▶ Some reviewed - job-embedded, - usually focused on topics associated with successful school turnaround, such as achieving programs consensus around goals, using data to improve instruction and programming, and undertook accomplishing quick wins. this activity • Professional development included supports after principals were in place. • Some professional development programs provided training on how to design, apply for, and open a charter school. Select new principals • Professional development included supports after principals were in place. for persistently low-• Some professional development programs provided training on how to design, apply for, performing schools and open a charter school. Empower principals to Principals were given the authority to make decisions at the school level, and policies that may have impeded them were revised or removed. make needed changes in the schools Provide access to • Schools provided access to a library of research on effective practices. resources Schools provided tools to guide planning, goal setting, and other school improvement activities. Create peer networking • Principals were given time to share approaches with colleagues in similar situations. • Training events were used to develop peer networks. opportunities Principals were paired with effective leaders within the district or network who served as mentors.

#### Logic model—School improvement: Sample indicators to track progress on outputs

Outputs All reviewed Principals receive high-• Extent to which high-quality professional development is delivered as planned programs quality professional • Extent to which high-quality professional development is job-embedded (e.g., residency, mentioned development and working within one's own school) this output • Proportion of high-quality professional development that is delivered over at least one year, technical assistance Some or longer reviewed programs mentioned • Proportion of human resource decisions, such as hiring, releasing, promoting, and rewarding Principals make decisions this output in areas critical for school school staff, made by principals • Proportion of school costs (e.g., personnel) budgeted at the school level improvement • Proportion of programmatic decisions, such as supports for students needing extra help, made by principals

## **Considering Resources**

Before selecting a school leadership intervention, states and districts should identify the resources needed for successful implementation and determine whether the intervention is feasible, given constraints on available resources. In addition to identifying resources that support implementation, it can be useful to capture other aspects of the state or district context that might hinder the intervention. Given that the programs reviewed did not provide sufficient information on resources, we instead suggest a set of questions that programs might ask themselves as a first step to identifying the resources required for the logic model and program implementation.

#### **Human resources**

- Who is receiving the intervention?
  - o Is the intervention for aspiring principals, new principals, and/or experienced principals?
  - o Does the intervention involve other members of the leadership team?
  - o What types of schools will the leaders serve in, and what will their constraints be on participation in the intervention?
  - o What are the incoming competencies of leaders served by the intervention?
- Who is responsible for providing the intervention?
  - o Who is directly involved in the intervention activities, and where will these staff members come from?
  - o If an intervention is adopted from a vendor, what role does the vendor play in supporting the intervention?
- Who else might affect the implementation and effectiveness of the intervention?
  - o Who inside of the education system (e.g., teachers, students) might be important?
  - o What external partners might be important?

- How much time is needed from each of the individuals involved? Is additional staff required?
- How will stakeholders involved in the intervention communicate and interact?
  - o Should committees or boards be convened to oversee design, implementation, and/or evaluation?
  - o How will participants interact with each other and intervention staff, and to what degree should this be formally laid out under the intervention?
  - o Are there existing barriers to intervention-related interactions to consider?
- What are the constraints on human resources available in the state or district?
  - o How much existing capacity is available among current employees?
  - o What are the processes and restrictions around hiring new staff?
  - o Is there a population of individuals ready to participate in the intervention?
  - o Are there barriers to external partnerships?

What human resources are needed to implement the intervention? Are those human resources available?

#### **Facilities**

- Where will the intervention activities take place?
  - o Does the intervention require technology, software, or online components?
  - o Are there other physical supplies or equipment required for the intervention?
- What are the constraints on facilities in the state or district?

What facilities are needed to implement the intervention? Are those facilities available?

#### **Funding**

- What are the estimated costs to support the intervention at various stages (i.e., development, ongoing implementation, evaluation, and adjustment)?
- Who will provide direct funding for the intervention, and through what mechanisms?
- Who will provide in-kind donations for the intervention, and through what mechanisms?
- What are the constraints on funding and in-kind donations in the state or district?

What financial resources are needed to implement the intervention? Are those financial resources available?

#### **Materials**

- What other materials are needed to support the intervention?
  - o Do any of the intervention activities require physical or digital materials?
  - o Are there other physical or digital materials required to inform stakeholders about the intervention?
  - o Are there any constraints on the production or distribution of physical or digital materials?

What materials are needed to implement the intervention? Are those materials available?

#### **Data**

- What data are needed to support the intervention?
  - o Are there existing data that can inform planning?
  - o What data need to be used to support implementation?
  - o What data need to be collected to assess implementation and impact?
  - o What are the constraints around collecting, storing, or using data?

What data are needed to implement the intervention? Are those data available?

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The reauthorization of the U.S. Elementary and Secondary Education Act, referred to as the Every Student Succeeds Act (ESSA), emphasizes evidence-based initiatives while providing new flexibilities to states and districts with regard to the use of federal funds, including funds to promote effective school leadership. In response, state and district policymakers are engaged in efforts to design, implement, and evaluate evidence-based school leadership interventions. This guide describes six types of school leadership interventions: principal preparation programs, strategic staff management (recruitment, selection and placement), professional learning, leader evaluation systems, working conditions, and school improvement. The guide summarizes common components of evidence-based interventions and unpacks the relationships between the intervention activities and student outcomes. It also provides guidance on creating logic models.

The guide expands on RAND's 2017 synthesis of the evidence base on school leadership interventions, School Leadership Interventions Under the Every Student Succeeds Act: Evidence Review: Updated and Expanded.



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