Understanding Leadership in Early Care and Education: A Literature Review

ExCELS

Understanding Leadership in Early Care and Education: A Literature Review

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OVERVIEW

Leadership is widely recognized as an essential driver of organizational performance and improvement, but little is known about who participates in leadership in early care and education (ECE) center-based settings and its role in improving quality and outcomes for staff and children. Additionally, information on how to define key constructs associated with leadership and the activities that demonstrate leadership is lacking.

Introduction

The goals of the Early Care and Education Leadership Study (ExCELS) project are to: (1) fill the definitional and measurement gaps to understand what leadership looks like as defined by who participates in leadership in center-based ECE settings and the ways in which leaders can improve quality experiences for children in ECE settings, (2) develop a short-form measure of ECE leadership, and (3) identify actionable leadership quality improvement (QI) initiatives and methods of evaluating them. The initial work of ExCELS focused on two foundational products that will guide the rest of the work: this literature review to inform a theory of change of ECE leadership for quality improvement, and a separate compendium of existing measures of leadership. The information from these products will inform the design of a descriptive study to develop and test a new measure of ECE leadership.

Purpose and primary research questions

This review and the ExCELS project as a whole focus on leadership within center-based ECE settings, at the building or center level. The ExCELS project approaches leadership as a construct that defines the range of people who participate in leadership in ECE centers—who leaders are— as well as what they bring to leadership, and what they do as leaders. *Leadership*, defined in this way, is broader than one *leader*, even while a strong center leader may be an essential ingredient to effective leadership.

The purpose of this literature review is to understand what is known about what leadership looks like within center-based ECE settings and how it functions to improve center quality and, in turn, children's experiences and outcomes. We look to the literature to understand what evidence exists about the features, practices, and outcomes of ECE leadership so we can build a theory of change that will guide the rest of the work of ExCELS.

Six research questions guided the literature review:

1. Who participates in leadership in center-based ECE settings?
2. What do ECE center leaders and teaching staff bring to their work that might influence their role or success in leadership?

Building a theory of change of ECE leadership for quality improvement: Key terms and definitions

This review and the Early Care and Education Leadership Study (ExCELS) as a whole focus on leadership within center-based ECE settings. We refer to a **center** to mean one physical site or building.

A first task of the Early Care and Leadership Study (ExCELS) was to build a theory of change informed by the literature through this review. The theory of change will guide the development of a measure of ECE leadership—the end product of the study.

We started with the hypothesis that a leadership construct could be comprised of three parts and we further developed and specified them based upon the literature. These include:

1. Who leaders are: Defined by who participates in leadership by contributing to decision-making and influencing change and quality improvement. Leadership can include center leaders and teacher leaders. Center leaders include the primary center (or site) leader and other persons who hold formal responsibility for overseeing administrative, operational, and instructional activities within the center. Teacher leaders include teaching staff who carry responsibilities in the classroom and (1) hold formal responsibilities to supervise and support other teachers and make decisions or (2) who informally contribute to decision making and influencing change and improvement.

2. What leaders bring: Defined as the education, training, experience, knowledge, skills, attributes, and values and beliefs about ECE that individuals bring to leadership as well as what they develop in these areas over time. It is hypothesized that these can alter who contributes to leadership and in what ways.

3. What leaders do: Defined as the actions individuals take and practices they pursue as part of their leadership. These practices include those that cover a range of responsibilities related to managing center operations, guiding the educational program and instructional practice, and creating an environment that encourages positive communication and fosters respect among all staff, parents, and children.

We further hypothesized that leadership might not influence child outcomes directly but that there are certain pathways through which leadership can be more influential than others in achieving positive outcomes for staff, families, and children. The literature shed light on these pathways, particularly through the connection between leadership and the center climate, workplace relationships, and communication. Central elements from the literature that build this connection include:

Relational coordination defined as shared goals, shared knowledge, mutual respect, and high-quality communication among center leaders, teacher leaders, other center staff, and families.

Distributed leadership, defined as leadership that recognizes behaviors or actions rather than job title or formal position alone, and that involves the primary center leader along with a range of staff—including teaching staff—in learning, decision-making, and planning and implementing change for improvement.

3. What do leaders do—what actions do they take or what practices do they pursue—to produce positive outcomes for staff, families, center quality, and children?

4. What are the pathways by which ECE leadership can influence outcomes, including center quality and children's learning?

5. What are the contextual influences on how ECE leadership is developed, improved, and sustained?

6. What evidence exists from K–12 and other fields to guide understanding of leadership in center-based ECE settings?

Key findings and highlights

Effective leadership is a driver of quality improvement in the literature we reviewed from the fields of K–12 education, management, and health. The ECE leadership literature is limited but emerging, and it identifies essential elements of leadership that align with aspects of effective leadership demonstrated in other fields. Little research or rigorous evidence exists in the ECE field about how ECE leadership may be effective in promoting quality and providing positive experiences for children that can lead to good outcomes. Using the research base available, we developed a draft theory of change of ECE leadership for quality improvement (Exhibit 1). The report discusses key findings such as:

- Distributed forms of leadership that involve teaching staff as leaders might be particularly effective in achieving positive outcomes in center-based ECE settings.

- Pedagogical and management knowledge in combination with level of education, experience, or training, and other skills and values shape what leaders are able to do to promote quality improvement and positive outcomes. In this way, what leaders do (the actions they take or practices they pursue) in center-based ECE settings builds on what they bring to leadership and continue to develop.

- The ECE leadership literature identifies a set of practices that leaders pursue or are expected to pursue that can lead to a positive work environment, strong instructional practice, healthy partnerships between leaders and staff and staff and families, and sustainable operations. These leadership practices mirror those with evidence of effectiveness in the management and K-12 fields.

- The context within a center—what happens in the center—interacts with leadership to influence outcomes. The literature informs potential pathways through which ECE leadership can improve outcomes for staff, center quality, and children and families. The ability of leadership to achieve positive outcomes may rest on building relational coordination that fosters organizational learning and improvement.

Exhibit 1. Theory of change of ECE leadership for quality improvement

What influences ECE leadership

What leadership in center-based ECE settings looks like

What ECE leadership can influence

Community, state, and national context

- Value placed on the importance of ECE for children
- Community involvement in ECE
- Economic conditions and workforce supply

Center characteristics

- Size (number of children served)
- Part of a larger program or organization
- Funding mix and related regulations and standards
- Child, family, and staff demographics

Policy, regulatory, and fiscal infrastructure

- Program policies based on state/local funding context
- Oversight and influence of larger organization/agency
- Funding for additional services/supports

External professional development and workforce supports

- Access to training and professional and leadership development opportunities
- Access to mentors and ongoing supports
- Leadership standards for ECE

What happens in the center

Who leaders are

Formal and informal leadership roles

What teacher leaders do

What center leaders do

What center leaders bring

What teacher leaders bring

Leaders build relational coordination

Relational coordination cultivates distributed leadership

Center culture, climate, and communication

culture of respect, shared growth, and learning; collaboration among staff; family relationships

Participation in decision-making, change, and improvement

Center structures and staff supports

training and professional development; collaborative planning time; conflict resolution; accountability structures

Center practices

operational procedures and policies; regular assessment of program, classroom, and children; family engagement

Improved child and family outcomes

- Cognitive development
- Social-emotional development
- Physical health and well-being
- Approaches to learning, executive function
- Family involvement in children's learning

ECE center quality outcomes

- Positive teacher-child interactions
- Positive learning environment
- Strong staff skills and practice for teaching and caregiving

Staff outcomes

- Motivated, engaged staff
- Retention of highly qualified staff
- Positive psychological well-being and mental health

- Contextual influences, such as the broader policy, regulatory, and economic environment as well as professional development and workforce supports that are external to the center, can affect what happens in a center as well as what leaders bring and do as leaders. The characteristics of the center itself (such as size, auspice, profit status, or embedded in a larger organization or part of a chain) can influence who participates in leadership within a center.

Methods

The process for conducting the review consisted of searching for relevant literature and summarizing key information about each study. We used a two-tiered search strategy comprising:

1. A comprehensive search on leadership in ECE, focusing on leaders within center-based settings; and

2. A targeted search for reviews, syntheses, or meta-analyses of leadership in the K–12, health, and management fields that best apply to the unique qualities of ECE settings and ECE leadership.

Our intent in searching other fields was not to be exhaustive but to identify commonalities in defining leadership and the unique contributions that come from perspectives outside of ECE. This review draws from 51 studies; for each study, we documented the leadership measures used; data sources and respondents; leadership elements examined; and whether and how the association between leadership and outcomes was assessed.

Implications for next steps

We plan to use the theory of change to guide the work of the ExCELS project, which will result in a new measure that addresses the gaps in understanding ECE leadership. We have developed a compendium of existing measures as a companion piece to this literature review. Together, they are the foundational products of the project. Our review of the literature and the resulting theory of change provides some directions for the measurement of ECE leadership.

- Few studies in ECE have looked at leadership as practiced across a range of teaching staff. Most studies focus on leadership by the lead or head teacher as the teacher most responsible for children's learning. A complete measure of ECE leadership, drawing from the distributed leadership literature, should *examine the role that all teaching staff contribute to leadership*—in formal or informal ways.

- Literature from other fields suggests that a *focus on measuring practices* (rather than knowledge, skills, and abilities) might maximize an understanding of who exhibits leadership and the extent to which it might influence outcomes.

- The literature makes clear that leaders should create a supportive work environment, but it remains *unclear about whether the environment is a mediator of the influence of*

leadership on center quality. Although possible that a supportive work environment directly influences staff and center quality outcomes independent of specific ECE leadership actions, research suggests that a supportive work environment may be a necessary condition—or set of conditions—of the center-based ECE setting that, in turn, facilitates effective leadership. In testing a measure of leadership, it will be important to measure the work environment to understand the pathway of influence that leadership might have on both center quality and child outcomes.

- Much of the empirical work we reviewed was ***not conducted in a range of ECE settings that include Head Start and centers funded primarily by Child Care and Development Fund (CCDF) subsidies***. Further exploration is needed to ensure the specific contexts and influences of leadership in these settings that serve low-income children is addressed.

I. INTRODUCTION

Leadership is widely recognized as an essential driver of organizational performance and improvement, but little is known about its role in improving the quality of early care and education settings or outcomes for staff and children. In this report, we summarize the findings of a literature review conducted as part of the Early Care and Education Leadership Study (ExCELS). The goal of ExCELS is to fill the definitional and measurement gaps to help the early childhood field better understand who participates in leadership in early care and education (ECE) center-based settings and how leadership can improve the quality of experiences for children.

Leadership has not been well defined or measured in ECE (Dunlop 2008; Douglass 2017). ECE leadership is generally defined as "influencing or motivating groups of people to work together toward change, to accomplish a goal or solve a problem" (Douglass 2018; Nicholson et al. 2018). One review from the health field notes four common elements of leadership: (1) it is a process, (2) it entails influence, (3) it occurs within a group setting or context, and (4) it involves achieving goals that reflect a common vision (Cummings et al. 2010). Other studies in the education, health care, and management fields note similar concepts in defining leadership (Gumus et al. 2018; Hitt and Tucker 2016; Wong et al. 2013; Montano et al. 2017; Dunst et al. 2018).

This review and the ExCELS project focus on leadership within the center-based ECE context, at the building or site level. The ExCELS project approaches leadership as a construct that reflects the range of people who participate in leadership in ECE centers—who leaders are—as well as what they bring to leadership, and what they do as leaders. The study team will specify the elements of a leadership construct, map out and test the associations between leadership and staff and center outcomes, and develop a short-form instrument to measure ECE leadership in center-based settings.

> **ExCELS will examine:**
>
> Leadership in center-based ECE settings at a *physical site or building level*, referenced throughout this report as the **center**.
>
> **Who leaders are** in ECE centers defined by who participates in leadership by contributing to decision-making and quality improvement.
>
> **What leaders bring**, defined by education, knowledge, skills, attributes, and values about ECE.
>
> **What leaders do**, defined by taking action or pursuing practices that can promote positive outcomes.

ECE context for leadership

The ECE context in which leaders function is complex. ECE center leaders must often attend to many and varied responsibilities beyond center administration. For example, ECE center leaders might need to provide classroom coverage, assist with food preparation, or respond to a child's health or behavioral problem on a moment's notice. In this way, ECE center leaders might have little control over the time they can exclusively devote to administration and leadership. ECE center or teacher leaders might also

have limited training and few structural supports to support their ability to lead successfully.

Who participates in leadership is likely to vary across center-based ECE settings given the variations in size, organizational structures, auspice, and funding mix. Just under half (49 percent) of all ECE centers serve 50 or fewer children, and about one-third serve at least 75 children (NSECE 2014). Some centers are stand-alone, independent entities that might be run as small businesses; others are part of larger organizations or entities (such as Head Start program grantees or for-profit chains). Unlike in K–12 schools (or most other fields), there might not always be one person who serves as the official leader in an ECE setting (or building) in the way a principal or chief executive does. And when there is a designated leader, the amount of autonomy they have to make decisions or take leadership actions likely depends on whether the leader is accountable to an owner who is not always (or not often) on-site, or to a larger administrative entity that sets standard operating procedures and structures.

For the past several decades, there have been periodic calls for more attention to understanding and developing leadership in ECE, yet leadership has remained at the margins of research and policy (Goffin and Washington 2007; Hinitz 2013; Kagan and Bowman 1997). Currently, there are signs that leadership is moving out of the margins and toward the center in ECE policy, research, and practice. For example, there is growing attention to including and assessing indicators of leadership in ECE policy and standards—such as in quality rating and improvement systems (QRIS)—that set standards on which programs are assessed and rated based on state-determined definitions of quality, the federal Head Start Program Performance Standards, and the Head Start Management Systems Wheel (Early Childhood Learning and Knowledge Center [ECLKC] 2019a). The Institute of Medicine (IOM) included leadership recommendations to guide policies and standards for ECE leadership preparation, certification, and professional development in its Transforming the Workforce report (IOM and National Research Council 2015).

Practice in the ECE field is also broadening the view of leadership beyond just management functions, to include leadership for change, improvement, and innovation. Initiatives such as the Culture of Continuous Learning project funded by the Office of Planning, Research, and Evaluation views teaching staff and directors together as leaders of improvement in their centers

This literature review and the work of ExCELS are intended to support a range of stakeholders and purposes:

- Help policymakers and program administrators develop policies or funding to support ECE leaders as agents of quality improvement.
- Guide approaches to defining and measuring leadership in ECE centers for research and practice.
- Indicate how ECE leadership might be developed and sustained through training, technical assistance, or professional development activities.

(Douglass et al. 2019). This focus on leadership for quality improvement is also reflected in the ongoing work to connect leadership initiatives and professional development with goals for school readiness (Head Start Early Learning Outcomes Framework; ECLKC 2019b) and work with families and communities (Parent, Family, and Community Engagement Framework; ECLKC 2018).

Overview of ExCELS

The work of the ExCELS project is situated within this shifting policy and practice context that is placing a focus on how leadership in ECE settings can affect change for quality improvement. The K–12 literature has established the importance of having the principal and teachers work collaboratively to affect change and improve student outcomes (Bryk et al. 2010; May et al. 2016). The ExCELS project builds on the premise that leadership in ECE centers, as a construct, includes both center leaders and teachers in facilitating quality improvement in ECE settings.

We are interested in learning about the primary center leader—the individual who holds responsibility over the core administrative functions of the center, including operations and the educational program. In addition, we are interested in exploring who, beyond the primary center leader may also be involved in leadership. In particular, we want to examine the role that teaching staff—lead and assistant teachers--play as leaders in ECE centers and the extent to which these roles are formally designated leadership positions or make informal contributions to leadership based on their level of participation in decision-making and quality improvement for their classroom or the center as a whole.

> **Key definitions**
>
> **Center leaders:** can be one or more persons who hold formal responsibility for overseeing administrative, operational, and instructional activities within an ECE center
>
> **Teacher leaders:** teaching staff who carry responsibilities in the classroom and hold formal responsibilities to supervise and support other teachers or informally contribute to decision making and improvement
>
> **Leadership:** the combination of center and teacher leaders that exist within an ECE center

The findings from this literature review inform a theory of change—presented in the last chapter—that shows how ECE leaders can act as change agents for quality improvement and that reflects the unique elements of ECE settings (Exhibit I.1). The foundational work of the ExCELS project—this literature review and a compendium of existing measures of leadership—will help us identify indicators of ECE leadership in center-based settings that are important to measure and test because they are likely to contribute to positive outcomes for staff, center quality, and families and children. We will then conduct a descriptive study in center-based settings that receive funding from Head Start or the Child Care and Development Fund to test a draft measure of leadership comprised of key indicators with hypothesized positive relationships to outcomes in the theory of change. As part of the project, we will also identify promising initiatives for improving the effectiveness of ECE leadership. The work of this project will culminate in a short-form measure of ECE leadership.

Exhibit I.1. ExCELS methods to develop a measure of ECE leadership
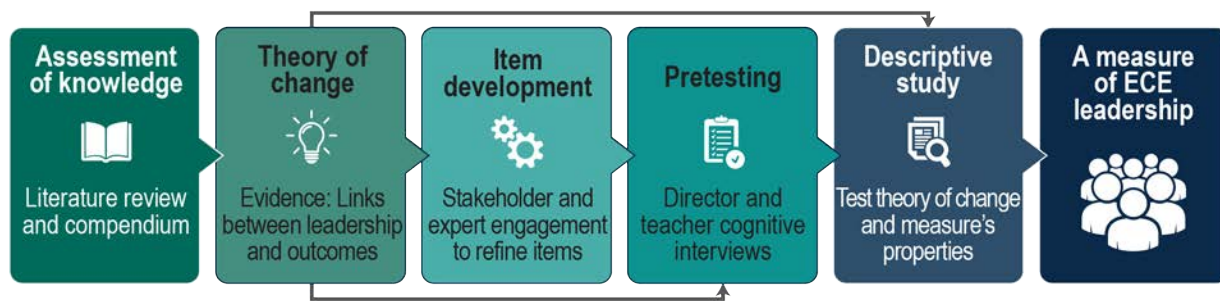
Purpose and methodology of the literature review

The purpose of this literature review is to better understand who participates in leadership within center-based ECE settings and how leadership functions to improve center quality and children's experiences and outcomes. We look to the literature to understand what evidence exists about the approaches, features, practices, and outcomes of ECE leadership that informed a theory of change that will guide the rest of the work of ExCELS.

The process for conducting the review consisted of searching for relevant literature and summarizing key information about each study. We conducted the searches in December 2018 and January 2019, using a two-tiered search strategy comprising (1) a comprehensive search on leadership in ECE, focusing on leaders within center-based settings and (2) a targeted search for reviews, syntheses, or meta-analyses of leadership in the K–12, health, and management fields that best apply to the unique qualities of ECE settings and ECE leadership. Our intent in searching other fields was not to be exhaustive but to identify commonalities in defining leadership and the unique contributions that come from perspectives outside of ECE. The management field has extensively pursued the study of leadership and contributes significantly to an overall understanding of the role and influence of leaders in an organization.

The K–12 field is most closely connected to ECE in its shared focus on children's outcomes and the potential for teachers to contribute to leadership in formal and informal ways. The health field contributes another perspective from a system that also delivers care to children and families and that similarly relies on a mix of public and private funding and, often, a low-paid, entry-level workforce. In addition to conducting a comprehensive search of electronic databases, journals, and websites, we asked selected experts from the management, K-12 education, and health fields to recommend key articles and foundational reviews, existing measures, and leadership quality improvement initiatives to include in the review. (Exhibit A.1 in Appendix A lists the search terms and databases, journals, and websites searched).

We screened and reviewed sources stemming from our comprehensive search and expert suggestions using a set of defined criteria and a documentation template. The screening process eliminated materials that were not based on empirical research (such as descriptive program materials), studies that were off topic, and duplicate references. When multiple sources for the same study were identified, we selected the most comprehensive and, typically, most recent source. Multiple sources for related work were maintained when they presented distinct findings. After completing screening, reviewers noted the key findings of each study. It was beyond the scope of this review to assess study quality in a systematic way, as would be done in an evidence review. (Exhibit A.2 in Appendix A lists the key dimensions reviewers documented for each study).

> **Literature review approach**
>
> **Screening criteria**
> - Publication date: within 10 years
> - Language of publication: English
> - Topical relevance
> - Country/region: studies conducted either in or outside the United States
>
> **Findings documented**
> - Leadership measures used
> - Data sources and respondents
> - Leadership elements examined
> - Whether and how the association between leadership and outcomes was assessed

This review draws from 51 studies spanning several areas of research—including ECE, management, health, and K–12 education (Exhibit I.2)—many of which describe conceptual frameworks or theories of change for leadership. The state of literature in the ECE field is such that there are few rigorous impact studies to inform our work. Throughout this report, we note whether the findings are informed by empirical studies, theoretical work, or research syntheses.

Exhibit I.2. Overview of the literature reviewed for ExCELS

Category	ECE	K–12	Health	Management	Total
Study counts by source type					
Empirical (quantitative, descriptive)[a,b]	12	3	0	0	15
Empirical (quantitative, impact)	1	1	1	0	3
Empirical (qualitative)	8	0	0	0	8
Theoretical	5	0	0	1	6
Literature review of a range of theoretical and empirical work (qualitative and quantitative)	4	2	0	4	10
Research synthesis of qualitative work	0	0	1	0	1
Research synthesis of quantitative work	0	2	4	0	6
Meta-analysis (quantitative, descriptive)	0	0	0	2	2
Source involved international work	11	3	5	5	24
Total	30	8	6	7	51

Source: ExCELS literature review conducted January and February 2019.

[a] The empirical (quantitative, descriptive) category includes studies that collected data through surveys, observations, and assessments that were analyzed quantitatively. This category includes some studies that collected qualitative in addition to quantitative data. Study designs included observational studies as well as studies of interventions that do not involve a comparison group. No sources are double-counted among source types; studies that included both qualitative and quantitative analyses were included in the quantitative categories. Findings based on different methods are noted throughout the text.

[b] We included one ECE quantitative study that was published beyond our 10-year window (Lower and Cassidy 2007) because it was cited in numerous studies we reviewed and it was recommended for inclusion by our expert reviewers.

Limitations of the ECE literature and use of literature from other fields

Overall, there is a lack of evidence on exactly which approaches, features, and practices of leadership in center-based ECE settings lead to improved outcomes for staff, center quality, and children; therefore, we cannot identify what is effective about ECE leadership. The ECE literature is suggestive of approaches to who participates in leadership and what leaders bring and do that might support quality improvement and lead to good outcomes for staff, quality, and children based predominantly on descriptive work. We identified just one experimental study in the ECE field that could attribute causality in outcomes to a certain practice. Empirical research on ECE leadership in the United States is limited; therefore, this review includes empirical work conducted in the United Kingdom, Finland, Australia, and Chile. The context in which ECE operates in different countries might vary and may not be generalizable to the experiences in the United States. However, findings from ECE studies in different countries help identify how contextual factors might affect the influence leadership can have, and the factors that are important for further study in U.S. settings.

The literature in K–12 and other fields is more conclusive about what effective leadership looks like, in terms of who participates, and what it does to produce positive outcomes for staff, organizational climate, or the people it is intended to serve. In each chapter, we detail findings from an in-depth review of the relevant ECE literature and bring in findings from other fields— including K–12 education, management, and health—to confirm findings or identify unique elements or perspectives that the ECE field could explore.

Road map of the report

In the rest of this report, we describe the literature review findings in more detail. In Chapter II, we present findings on who participates in leadership in center-based ECE settings. In Chapter III, we discuss what ECE staff bring to or develop in their work that might influence their role or success as leaders. In Chapter IV, we present leadership practices that might contribute to ECE leaders' ability to be agents of quality improvement. In Chapter V, we discuss the pathways through which ECE leadership can transform quality and the experiences of children. In Chapter VI, we summarize how leadership is developed and sustained, including the contextual factors that influence leadership. Chapters II through VI each end with implications of the literature for the theory of change. Finally, in Chapter VII, we consider the implications of the literature review findings and present a working theory of change that will guide the tasks ahead.

II. WHO PARTICIPATES IN LEADERSHIP IN CENTER-BASED ECE SETTINGS?

Though leadership exists at all levels of the early care and education system, in ExCELS we are interested in defining and measuring leadership *within* a center-based setting (one physical site or building). We first want to examine who participates in leadership—who holds responsibility for and contributes to the ongoing vision, decision making, and improvement of administrative, operational, and instructional activities related to the care and education of young children within center-based settings. The literature focuses on the primary center (or site) leader and the participation of other staff, primarily teachers, in leadership. Formal leadership roles (such as those shown on an organizational chart) might be held primarily by a single individual such as a center director, or they may be shared by several different people and might include teachers. The number and type of formal leaders with official position titles can be a reflection of the variation in size, funding mix, auspice, and organizational framework within which each center function.

> **Leadership can consist of:**
>
> *Center leaders* (all individuals who hold administrative positions that oversee operations and the educational program) and *teacher leaders* (those in formal and informal positions of leadership)

The focus of our inquiry is on who participates in ECE leadership by contributing to decision-making and improvement within the classroom and the center as whole. The center leader (or leaders, if more than one) may set the tone, or approach, for who participates in leadership. For definitional purposes, we distinguish between center leader and teacher leader roles, but both can be part of the overall leadership within a center.

> **Findings about who participates in leadership**
>
> - A variety of formal leadership and supervisory positions likely exist within center-based ECE programs, but a full picture of the number, type, and structure of these roles is not known
> - Distributed leadership recognizes the participation of teachers or other staff in leadership
> - The literature suggests that teacher participation in leadership may be essential to fostering a culture of continuous quality improvement
> - ECE literature posits that broad participation in leadership may be well suited to the ECE context
> - Evidence of the effectiveness of teacher participation in leadership is emerging in K-12 education, but has not been rigorously explored in ECE contexts
> - Leadership may evolve even within the same setting based on the gained knowledge and experience of staff or changing context

A variety of formal leadership and supervisory positions likely exist within center-based ECE programs, but a full picture of the number, type, and structure of these roles is not known

Center-based programs have various administrative structures that may stem from auspice, size, their connection to other entities, and other factors. For example, data from the NSECE show that half (50 percent) of centers are not for profit, 32 percent are for profit, and 14 percent are run by a government agency (NSECE 2014). Only 32 percent of centers have 75 or more children enrolled. The majority of centers (63 percent) are independent, stand-alone programs, compared to 34 percent that are sponsored by another organization or are part of a larger franchise or chain. Specific information about how these characteristics might relate to leadership structures and roles within center-based settings is not known. We might expect, however, that larger programs and those with specialized services (such as Head Start) will have a larger number of formal leadership positions than smaller programs and those that offer fewer support services to children and families.

Just one study we reviewed provides concrete information about what leadership roles in center-based ECE settings look like and suggests a range in the roles that primary site leaders play and that other staff play in formal leadership or supervisory roles. Whitebook et al. (2016) found a range of formal leadership and supervisory roles among 98 center-based programs in Alameda County, California. For example, the site leader (the person responsible for daily operations) may have an active and regular role in the classroom, possibly even as part of the teaching staff. Alternately, the site leader might have no direct supervision of teachers or classroom role (beyond providing coverage, if needed). About half the teaching staff reported that they had a direct supervisor who was also the site leader. The other teaching staff reported having a supervisor who was another teacher (about one-third), or someone who was a center administrator but not the site leader (such as an educational coordinator). Just over one-third (37 percent) of teaching staff reported that their site leaders can determine policies for the program. This suggests that many ECE centers operate under the administrative authority of a larger entity that provides at least some of the leadership and decision making at a higher level, limiting the decisions that a site leader may be able to make on their own.

Whitebook et al. (2016) also examined teaching staff's perceptions of leaders. For example, teaching staff assessed their site leader more positively (for example, in terms of having respect for teaching staff roles and expertise and considering teaching staff input about classroom and program policies) when their site leader was not also their direct supervisor (Whitebook et al. 2016). In these cases, the teacher supervisor could have been an educational coordinator or a lead teacher, for example, but was not the site leader. This might suggest that staff had a more favorable opinion of leaders who were not providing them with direct feedback about their practice, or that it might require special skills for the same person to effectively provide both supervision and site management.

Dunlop's (2008) literature review reported findings from a study in England in which teachers reported different views of who leaders are based on the type of setting. Teachers in preschool settings housed within public schools or predominantly privately funded settings perceived leadership as held only by the formal leader—for example, the head teacher or owner. Teachers in community-based settings that received predominantly public funding reported perceptions that a broader set of staff within the setting were leaders.

Distributed leadership recognizes the participation of teachers or other staff in leadership

Traditional notions of leadership emphasize individual attributes and centralized decision-making of leaders identified as those serving in formal roles of authority (Douglass 2017; Nicholson et al. 2018; Dunlop 2008). Distributed leadership is a recognition that leadership can be exercised by a range of staff at any level who may hold formal or informal leadership roles within an organization (Douglass 2017). In this way, leadership is a process of influencing change in a social context, rather than just the presence or actions of a formal authority (Dunlop 2008). There may be growing recognition of distributed leadership approaches in ECE. For example, Nicholson et al. (2018), which reviewed 81 sources, found that many authors discuss ECE leadership using a traditional top-down hierarchical view (with centralized decision-making): nearly half of the most recent articles wrote about ECE leadership in this way, but distributed conceptions of ECE leadership in the literature have grown substantially since 2006.

Distributed forms of leadership (also referred to as collaborative, relational, or shared leadership) value the expertise that each individual brings to the role and depend on positive interactions and relationships between multiple people who can effect organizational change. Distributed forms recognize leadership as a behavior or set of actions rather than only a job title or formal position (Nicholson et al. 2018; Douglass 2017; Aubrey et al. 2013; Heikka and Hujala 2013; Leeson et al. 2012; Dunlop 2008). The ECE literature that discusses distributed leadership frequently references the seminal work of Spillane (2001), which describes how distributed leadership in schools can occur between school administrators, teachers, and specialists through formal mechanisms and informal interactions.

> **Distributed leadership** involves the primary center leader along with a range of staff—including teachers—in learning, decision-making, and planning and implementing change for improvement.
>
> **Centralized leadership** is held by one or few directors or managers who make decisions for the center without broad staff input.

The literature describes teachers serving in formal positions such as lead teacher, mentor, or coach when they take on responsibilities beyond their classroom, such as helping their peers or contributing to program-wide initiatives (Pacchiano et al. 2018; Wang and Ho 2018; Heikka and Hujala 2013). This definition and role of a lead teacher is emerging in Head Start settings. European ECE literature on distributed leadership discusses the importance of organizational structures and supports that enable teachers to lead—such as clearly defined and formalized

teacher leader roles, professional development for teacher leadership, administrator supports, and planning time for teacher leaders (Kangas et al. 2015; Heikka 2015).

Other studies describe teachers leading in their practices and actions but not as part of a formal role they hold within the center's leadership structure (Wang and Ho 2018). Wang and Ho (2018) note in their review that a traditional leadership structure with centralized decision-making might inhibit teachers from holding informal leadership roles by limiting their autonomy for making decisions about their classrooms or contributing to discussions about practice. This supports the idea that centers can and may need to establish structures to support and promote teacher leadership when implementing distributed leadership.

Teacher leadership (formal or informal) is gaining attention in ECE based on its contributions to quality improvement and instructional practice, typically measured through classroom observations. For example, teachers who took part in a quality improvement initiative together with formal leaders in Chilean child care centers reported that they experienced increased respect and visibility from site leaders, who now sought out their input about instructional practices to improve quality (Arbour et al. 2016). Wang and Ho (2018) summarize literature asserting that teachers as informal leaders who contribute to curriculum, professional development of colleagues, and parent and community involvement can drive quality improvement as much as, or possibly more than, formal leaders. Pachianno (2016) states that "leaders are drivers of change, teacher collaboration is the vehicle for improvement" (p. 11). When leaders enable and support teachers to collaboratively plan for improving their practices, teachers can play an essential role in leading improvement in classroom quality.

The literature suggests that teacher participation in leadership may be essential to fostering a culture of continuous quality improvement

The ECE literature suggests that change and improvement might be most likely to occur in contexts where leaders and teaching staff interact and collaborate (Dunlop 2008). The literature theorizes that (1) educational leadership is essential for quality improvement and involves relational and shared leadership and (2) inspiring change and innovation depends on building relationships among staff, regardless of roles and independent of power status (Sims and Waniganayake 2015; Aubrey et al. 2013). Descriptive studies show that distributed leadership can empower teaching staff to use their expertise to drive change in program delivery (Sims and Waniganayake 2015; Derrick-Mills et al. 2014). Others suggest that traditional top-down leadership styles with centralized decision-making are outdated or not effective in the current economic, political, and technological world of constant change, noting that collaboration and teamwork are better suited for inspiring and mobilizing change (Aubrey et al. 2013). The one experimental study we identified from the ECE literature found that a training and coaching intervention for teachers in public preschools in Chile was more effective in improving child outcomes when teachers were also collaboratively engaged in leading a process of continuous quality improvement (CQI) alongside center leaders, than when teachers received the training and coaching without involvement in CQI (Arbour et al. 2016).

Several qualitative studies describe variation in the extent of teacher participation in leadership in ECE settings depending on the focus of leadership. For example, a collective case study in 12 ECE settings in England found that the organizations were (1) centralized in structure and decision making at the strategic planning level and (2) collaborative, or distributed, at the operational level (Aubrey et al. 2013). This study also found that leaders in centers with distributed leadership were observed (through video sampling) to spend more time on leadership activities (direction, vision and staff empowerment) over administrative (daily technical tasks and efficiency) and operational (management) functions (Aubrey et al. 2013). A range of staff, including teachers, held leadership roles in these centers, which required that the leader establish effective communication and coordination; this created an environment of teamwork and shared decision making, particularly regarding teaching practices.

Another qualitative study with municipal leaders, center directors, and teachers in Finland found that ECE leadership was viewed largely as centralized, particularly as it related to implementing and monitoring quality standards (Heikka and Hujala 2013). Center directors and teachers reported cooperation but not shared responsibility. In the context of implementing new quality standards, center directors felt the pressure to achieve quality improvement but were stretched across many tasks. Directors and teachers believed that shared leadership practices could foster innovation and change. Based on their reports, distributing leadership responsibilities in ways that enhance teachers' participation in decision making and action could expand the capacity of the center staff as a whole to help address changing standards and competing leadership demands.

One other qualitative study of ECE leaders in Australia suggests that a focus on compliance and accountability through centralized leadership and decision-making might create an environment that supports teachers in ways that improve practice when there is a shared and consistent understanding of how quality is defined, such as by national standards (Sims et al. 2015). The authors found that teachers were supported but not engaged in decision making or problem solving on instructional practices within unique contexts. The authors posited that an alternative to this centralized leadership approach (i.e., one that engages teachers in instructional leadership) depends on teachers who are highly trained in early childhood pedagogy to be successful. While these findings represent a single small study, they may suggest that there is more than one way to approach leadership in an organization, and that contextual factors in the organization (such as teacher training) may inform the extent that teachers can successfully participate in leadership.

Our review of literature in other fields found that organizations that created collaborative settings to support quality improvement engaged staff at all levels in decision making. One literature review from the health field documents the participation of nurses in decision making to support quality improvement (Wong et al. 2013). In the K–12 education field, a research synthesis summarized findings that engaging teachers in school-level decision making contributed to staff commitment to improving school-level outcomes (Hitt and Tucker 2016).

ECE literature posits that broad participation in leadership may be suited to the ECE context

ECE researchers have theorized that distributed leadership reflects relational perspectives that focus on social justice and an ethic of care through collaboration, shared power, and inclusivity; they are thus considered well suited to the ECE context, values, and goals of the field (Nicholson et al. 2018; Austin 2014; Dunlop 2008; Douglass 2017; Sims and Waniganayake 2015; Leeson et al. 2012). Dunlop's (2008) review of the literature on ECE leadership asserts that leadership that relies on reciprocal relationships and collaboration is aligned with pedagogical approaches in early childhood that emphasize creating nurturing environments for teaching and learning. When staff experience positive, respectful relationships in the ECE workplace, they may be more likely to engage in positive and respectful relationships with children and families (Douglass and Klerman 2012). Another literature review asserts that leadership that values relationships and collaboration among a range of ECE staff—including directors, teachers, special education professionals, and operational support staff—as well as families and members of the community is suited to the ECE field because it incorporates multidisciplinary and diverse perspectives to meet the wide-ranging needs of children and families (Nicholson et al. 2018). These theories and findings connect the importance of relational and collaborative leadership among ECE center leaders, staff, and parents with the essential role these relationships play as a vehicle for learning and development in the early childhood years.

Some of the ECE literature considers how and when a distributed leadership *approach* to decision-making and quality improvement can be practiced in different types of formal leadership *structures*. Both distributed and centralized approaches to leadership can occur in hierarchical leadership structures. Distributed leadership may still allow for a primary leader who holds ultimate accountability for decision-making; as a leadership approach it means that there is broader participation in leadership beyond only the primary leader. One important question is whether in distributed structures there is sometimes a need for a hierarchical command and control approach versus a dynamic, co-constructed, relational approach (Sims et al. 2015). For example, some have questioned whether distributed leadership approaches work as effectively as centralized leadership approaches for decision-making in crisis situations (Leeson et al. 2012; Aubrey et al. 2013; Dunlop 2008). A study that found both centralized and distributed leadership *structures* across a range of ECE settings in England concluded that different authority and leadership *approaches* may be warranted under different scenarios. Flexible (or situational) leadership that responds to specific circumstances—regardless of formal structure—may be most appropriate for the diverse sector of ECE, given continually changing and evolving quality standards, partnerships with other entities, and professional development opportunities (Aubrey et al. 2013).

Evidence of the effectiveness of teacher participation in leadership is emerging in K-12 education, but has not been rigorously explored in ECE contexts

Although authors have noted an alignment between distributed leadership approaches that involve teachers and the ECE context for serving children and families, there is no literature that explores the effectiveness of distributed leadership in ECE settings in the United States. (The Arbour et al. study found positive impacts on child outcomes when teachers and formal center leaders worked together on continuous quality improvement in ECE centers in Chile). The K–12 education research offers more evidence about the role of teachers in leadership. Teachers can lead by supporting professional learning and development in their schools, by participating in decision making, and by helping improve and change the school to better accomplish its educational mission (Gumus et al. 2018; Wenner and Campbell 2017). Gumus et al. (2018) documented the extent to which different leadership models in K–12 education are studied and found that distributed or collaborative leadership and instructional leadership were the two most widely studied. This research defined the distributed leadership model as one in which the formal, central leaders (such as principals and administrators) and other staff (teachers, other school personnel) are jointly involved in learning, decision making, and school processes, and all have a stake in achieving positive outcomes for students. The instructional leadership studies defined the model as one that is focused on principals' role in providing direction and supervision in an effort to improve instruction and teaching. These two leadership models were the most studied in the field over time, with increasing attention to these models in recent years. Since 2010, there have been 118 papers published on distributed/collaborative leadership and 85 papers published on instructional leadership in K–12 settings.

A literature review of generally qualitative work focused on teacher leadership suggested that in K–12 schools, teachers in leader roles produced mixed results regarding work culture. The authors summarized findings across studies, based primarily on teacher reports, that teacher participation in leadership contributed to increased confidence and empowerment but also created tension among peers to whom teacher leaders were providing feedback on practices, and it increased stress for the teacher leaders who needed to balance their classroom and leadership responsibilities (Wenner and Campbell 2017).

Distributed leadership with shared participation in leadership throughout the organization is seldom addressed as a concept in the health care research we reviewed. One literature review of empirical studies, however, summarized the roles and activities of medical staff serving in both formal and informal leadership roles (Berghout et al. 2017). Most studies were qualitative in nature, using interviews, observations, document analyses, or focus groups, while a smaller number of quantitative studies used self-administered surveys. The review found that studies identified both formal medical leaders (managerial roles, medical directors at the executive level, clinical directors) and informal ones (doctors who act as leaders within their daily clinical work, doctors who are involved in quality improvement projects). The review concludes that future research needs to examine the effectiveness of these features in relation to outcomes such as

quality and efficiency. Distributed leadership appears to exist in multiple sectors, as does the call for more research to understand how it influences organizational conditions and outcomes.

The ECE literature, though limited, presents some contrasting findings and considerations about the role of teachers in leadership and what kinds of supports might be needed for teachers to successfully serve as leaders. The literature suggests that teacher leadership is focused on instructional practice, quality improvement, and building relationships with families; teachers might be less involved in decision-making around administrative or operational practices. For example, a randomized controlled trial for a program invention to develop master teachers in ECE settings found that classrooms with master teachers demonstrated higher instructional quality than classrooms without master teachers, as measured by the CLASS (Wang et al. 2015). Positive results were seen for enhancing a setting-wide culture of collaboration and trust and building family partnerships only for treatment schools that had medium- to high-fidelity implementation. Whitebook et al. (2016) found that centers in which teaching staff reported having considerable discretion in making decisions about classroom practice and having input into center-level decision making had higher scores on the CLASS Instructional Support dimension than centers in which teaching staff reported having less discretion and less input into practice. However, the study also found, through surveys, that a majority of teaching staff in center-based settings agreed that they have given input about the classrooms in which they teach, but far less (about 30 percent) agreed that they have been asked to give input into center decision making like how funds or resources are used.

Wang and Ho (2018) note research in which ECE teachers are hesitant to exhibit leadership because they are concerned about how it might be viewed by formal center leaders. In addition, ECE teachers may not be aware (or be given recognition) that they are contributing to instructional leadership or quality improvement when leading without an official designation or leadership title. Some note that distributed leadership relies on the knowledge, skills, and practical intelligence among staff that comes from both expertise and experience (Aubrey et al. 2013). These findings and concerns connect to the previously noted European studies of distributed leadership in ECE settings (for example, Kangas et al. 2015; Heikka 2015) showing that organizational structures and systems are needed to define and support teacher leadership, and that without these structures in place, distributed leadership may be difficult to implement effectively.

Leadership may evolve even within the same setting based on the gained knowledge and experience of staff or changing context

The literature describes various pathways to leadership under different approaches to leadership. Traditional leadership structures that emphasize only formal roles tend to assume that individuals go through a linear career progression of moving from follower to formal leader—for example, from teacher to director (Nicholson et al. 2018). In distributed leadership approaches, leadership may be more fluid, and roles may change between leaders and followers within a particular situation or context, or over time (Nicholson et al. 2018; Douglass 2017; Dunlop 2008). Teachers

may also move into leadership roles through formal, supported, developmental processes (Pacchiano et al. 2016; Douglass 2017; Austin 2014). Nicholson et al. (2018) described that helping teachers grow in leadership roles within centers might help address inequities within the workforce and contribute to professionalizing the field from within.

Settings may rely on centralized leadership approaches that do not include teachers if teachers lack, or are perceived to lack, the skills and abilities to contribute to instructional practice, quality improvement, or program development. For example, a qualitative study found that some center directors did not trust the teachers' capacity to contribute to leadership because they lacked qualifications (Heikka and Hujala 2013). Teachers can also feel discomfort in providing guidance or exhibiting leadership with their peers, particularly on pedagogical practice. A survey about perceptions of leadership among a range of early childhood professionals in Australia who were about to participate in a course on early childhood found that many were hesitant to provide pedagogical leadership (Sims et al. 2015). Center leaders may also lack the knowledge, skills, or abilities to develop a distributed leadership approach. Sims et al. (2015) suggest, based on findings from a descriptive study, that program leaders early in their career might be more focused on compliance and not yet comfortable enough in their abilities to empower others in a drive toward quality. As a result, they may be reluctant to involve others in participating in leadership.

Implications for the theory of change

In this chapter, we used findings from the literature to explore who participates in leadership in ECE settings, and particularly, the role of teachers in leadership. Distributed leadership recognizes a range of staff from all levels within an organization who contribute to decision-making or influence change or improvement as those who participate in leadership, beyond just individuals who hold formal roles as leaders. The literature suggests that distributed forms of leadership that involve teachers as leaders might be particularly successful in achieving positive outcomes in center-based ECE settings. While few ECE studies examined leadership roles among teaching staff more broadly (for example, to include assistant teachers), the literature on distributed leadership urges inclusion of a range of staff and roles.

Who leaders are

- Staff who participate in decision-making, leading for change and quality improvement
  - ❖ Primary center leader and other formal leaders
  - ❖ Teacher leaders, including all teaching staff

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III. WHAT DO ECE STAFF BRING TO THEIR WORK THAT MIGHT INFLUENCE THEIR ROLE OR SUCCESS IN LEADERSHIP?

ECE staff who are center or teacher leaders bring a range of backgrounds, experiences, and characteristics to the task of leadership. In this chapter, we summarize what we found in the literature relevant to what leaders bring to their work in terms of the following: (1) qualifications involving education, training, and experience; (2) values, beliefs, and attributes; and (3) knowledge, skills, and abilities. The articles we reviewed differed in whether they focused on center leaders, teacher leaders, or both, with formal center leaders receiving the most focus overall. Studies that included both center and teacher leaders did not typically distinguish the backgrounds and characteristics important to one type or the other, so our summary is limited in distinguishing between what center leaders and teacher leaders bring to their roles.

Leaders bring to their work varying:

- Education, training, and experience
- Values and beliefs about ECE
- Knowledge, skills, and attributes

We look to the leadership literature in this review with future measurement in mind. The leader characteristics mentioned in this chapter serve as a foundation for understanding why and how leaders can act effectively. Knowledge, skills, and attributes can inform a competency framework, which is useful for hiring, training, and supporting leaders. We can also view these as the characteristics leaders need to effectively engage in certain practices and behaviors. For example, any leader can attempt to resolve conflicts between staff, but a leader with greater interpersonal and team-building skills might do so more effectively than a leader with weaker skills in this area. Accordingly, we focus on findings about which elements that leaders bring to their work might influence their leadership practices and approach, and, ultimately, their effectiveness.

Findings about what ECE leaders bring

- The level of education and type of training or experience an ECE center director has might influence their confidence as a leader, their approach to leadership and teacher supports, and the quality of practices they pursue
- Values, beliefs, and other attributes might influence who leaders are and what they do in center-based ECE settings
- Knowledge, skills, and abilities might influence what leaders do in center-based ECE settings

The level of education and type of training or experience an ECE center director has might influence their confidence as a leader, their approach to leadership and teacher supports, and the quality of practices they pursue

The ECE field provides a growing body of literature that examines the influence of director qualifications on practices and outcomes. Studies have found associations between a director's level of formal education and a center's program quality, accreditation, and the supports it provides teachers for professional development (Talan et al. 2014). Director qualifications are easier to measure and regulate than other aspects of ECE. Accordingly, ECE center directors (or site leaders) must often meet standards for education and training as set by funding through Head Start or state pre-K programs, or to participate in a Quality Rating and Improvement System (QRIS). For example, approximately 80 percent of Head Start and Early Head Start center directors have at least a bachelor's degree, and about 30 percent have a graduate or professional degree (Moiduddin et al. 2017; Xue et al. forthcoming).

We could not, in the scope of this work, review all the literature related to director or teacher qualifications and the effect of qualifications on classroom quality and child outcomes. Within the ECE literature on leadership that we reviewed, we looked for evidence of how education, training, and qualifications might affect leadership approaches or outcomes. The level of evidence we found was limited, but some studies explored these potential effects. Studies addressed both general qualifications (such as having a bachelor's or master's degree) and ECE-specific qualifications (such as a credential or certificate or training program specifically designed for ECE directors or teachers).

Center leaders. The literature suggests that directors with formal degrees and ECE-specific training might have more confidence in their ability to be a formal leader and to pursue practices that support classroom teaching and strong administration of the center.

Empirical studies in the ECE field suggest that formal education and learned ECE knowledge influence the confidence of directors in their role as leaders, the type of leaders they are, and the way they make decisions. An analysis of data from pre and post surveys conducted with 182 participants in two different ECE leadership training programs found that participants' perceptions of their increased competence as a formal leader (such as a center director) were linked more strongly to level of education than to years of experience (Bella and Bloom 2003, as cited in Dunlop 2008). Through an analysis of qualitative interview data, Aubrey et al. (2013) found that leaders and teachers who held a teaching qualification or master's degree endorsed qualities and actions that the researchers associated with leaders as guides (such as warmth, coaching, mentoring, and guidance). By comparison, leaders and teachers with lower education levels or degrees not related to ECE endorsed qualities and actions associated with leaders as strategists (systematic planning, risk taking, and empowerment). The differences in how leaders and teachers with different qualifications conceive of leadership might carry over into different practical approaches to leading their organizations (including teacher leadership for the teachers).

Additional evidence on the value of education and training comes from Rohacek et al. (2010), who found that directors in centers with high quality classrooms integrated knowledge they had learned from education or training with their intrinsic beliefs to guide center operations and support staff responsibilities and professional development. These directors tended to look to external standards beyond those of licensing requirements, such as accreditation standards specified by the National Association for the Education of Young Children, to make decisions about program direction and improvement. Directors in centers of lower quality reported making decisions based primarily on their instincts or experience, absent additional learned knowledge gained through education or training specific to ECE or their role as an ECE director. The authors developed these findings based on interviews with directors of 38 centers in four counties across four states, and on classroom observations of quality within each center using the CLASS and three subscales of the Early Childhood Environment Rating Scale-Revised (ECERS-R) (space and furnishings, activities in the classroom, and program structure).

Other studies found that education and training can influence instructional supports that leaders put into place and the quality of the administrative practices they pursue. Based on regression analyses, Smith et al. (2019) found that pre-K leaders (education directors in community-based settings or site leaders or assistant principals in public school settings) with a state certification that included pre-service training on supervising teachers were more likely to (1) use strong coaching strategies with teachers during classroom visits and (2) provide strong support for teachers regarding effective instructional practices, such as those that promote children's language and social-emotional growth. The McCormick Center for Early Childhood Leadership (2010) examined correlations involving Head Start director qualifications, the quality of administrative practices (as measured by the Program Administration Scale [PAS] [Talan and Bloom 2004]), and classroom quality (as measured by the ECERS-R [Harms et al. 1998]).[1] The researchers found positive correlations between high quality administrative practices and director qualifications: Centers in which the director held a master's degree and had taken 10 or more credits in management coursework had high PAS scores. Classroom quality was also positively correlated with director qualifications: Classrooms in centers whose director held a bachelor's degree and had done 24 hours or more of ECE coursework had high ECERS-R scores.

Teacher leaders. Education and training qualifications might also contribute significantly to teachers' confidence in serving as leaders and the role that teachers might play as leaders. However, just one of the sources we reviewed addressed this directly. Sims and Waniganayake (2015) reviewed the findings of several studies that examined the implementation of the Early Years Professional Status (EYPS) advanced qualification, a credential for skilled teachers in the United Kingdom. The credential is roughly equivalent to a bachelor's degree combined with specific ECE coursework or work experience. The authors concluded that the EYPS graduates became more confident as leaders after having earned the credential. The findings across studies

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[1] The quality of administrative practices was measured using 21 items in 9 subscales of the PAS that assessed practices related to human resources development, personnel cost and staffing allocation, center operations, child assessment, fiscal management, program planning and evaluation, family partnerships, marketing and public relations, and technology.

also suggested that teachers who earned the EYPS qualification became more comfortable guiding their peers to improve quality through such means as mentoring. The authors also posited that teachers contributed to increases in their programs' quality, although the authors did not specify the approach to measuring quality.

Values, beliefs, and other attributes might influence who leaders are and what they do in center-based ECE settings

The ECE literature identifies many values, beliefs, and attributes that may contribute to ECE leadership. These qualities are listed in Exhibit III.1. Study authors identified certain qualities as important for leaders through (1) discussions based on theory or existing literature (for example, Abel et al. 2017; Derrick-Mills et al. 2014; Dunlop 2008); (2) descriptive work, such as qualitative interviews or surveys about the favorable attributes of ECE leaders (for example, Sims et al. 2015); and (3) self-reports by ECE leaders or teachers (for example, Aubrey et al. 2013; Pacchiano 2018). None have been empirically tested for their relationship to leadership practices or quality outcomes. It is not possible to know which of these, or which combination, might best help an ECE leader drive change and quality improvement.

Potential to learn. The ECE literature we reviewed emphasized, primarily theoretically or by referencing other work, that leadership can be learned and is not necessarily driven by specific traits that are sometimes viewed as inherent in leaders (Heikka and Hujala 2013; Sims et al. 2015; Douglass 2017; Wang and Ho 2018; Leeson et al. 2012; Dunlop 2008; Nicholson et al. 2018). Nevertheless, identifying these qualities as values, beliefs, and especially attributes invokes concepts that people tend to think of as fixed traits. Doing so prompts them to view leadership as an inherent quality that some people possess and others do not. The ECE literature on leadership pushes against this notion and emphasizes that individuals can develop their potential for leadership.

Identity as a leader. A key finding throughout the ECE literature on leadership is the importance of individuals' professional identity and sense of themselves as leaders. Authors theorize or report empirical findings about the critical role of self-efficacy, self-conception, sense of empowerment, and sense of purpose as a leader. They also explain that it is valuable to instill these not only in formal leaders but also in staff who might identify more narrowly as educators or practitioners (Abel et al. 2017; Wang and Ho 2018; Talan et al. 2014; Douglass 2017; Douglass 2018; Sims et al. 2015; Shivers 2012; Dunlop 2008).

Beliefs and values about ECE. How leaders understand and view the work of teaching and caring for young children can be as important as their identity and sense of self. In other words, their externally focused beliefs and values are as essential as their internally focused self-conceptions. For example, Pacchiano et al. (2018) found that leaders' mindsets about teaching, learning, engaging families, and other ECE activities were critical drivers of differences in observed program vision, leadership operating models and practices, and approaches to developing and supporting staff capacity. Study authors also described the importance of

mindsets about how to change and improve, such as embracing best practices and continuous learning (Barblett and Kirk 2018; Dunlop 2008; Sims et al. 2015). Similarly, a recent theory of change brief on building a culture of continuous learning in ECE noted the importance of an inquiry mindset to learning and quality improvement (Douglass et al. 2019).

Exhibit III.1. Values, beliefs, and attributes that might contribute to effective ECE leadership

Leadership beliefs and values	Leadership attributes
• Have a vision for children's learning that is purpose driven, grounded in developmental science to include educational and social-emotional development, and a belief that they hold a responsibility to foster it • Believe in high quality teaching that involves collaboration among teachers and that should have strong supports from formal leaders and the rest of the organization • Value the importance of family engagement as a means of promoting children's learning • Committed to improving the organization and the quality of its teaching, and view themselves as change agents • Oriented toward achieving goals through intentional actions and willing to set high expectations • Value the importance of following best practices and view themselves as lifelong learners with an inquiry mindset, ready to take part in professional learning communities and question practices, and prepared to change *(Pacchiano et al. 2016; Pacchiano et al. 2018; Ehrlich et al. 2018; Heikka and Hujala 2013; Barblett and Kirk 2018; Dunlop 2008; Sims et al. 2015)*	• Committed, dedicated, determined, perseverant • Energetic, enthusiastic, optimistic, passionate • Inspiring, charismatic • Empathetic, kind, warm, friendly, nurturing • Visionary, wise, courageous • Confident, assertive, strong, proactive • Intelligent, rational, logical, analytical • Creative, adaptable, flexible, innovative • Authentic, humble, respectful, transparent, humorous *(Abel et al. 2017; Nicholson et al. 2018; Talan et al. 2014; Douglass 2017; Pacchiano et al. 2018; Aubrey et al. 2013; Derrick-Mills et al. 2014; Sims et al. 2015; Dunlop 2008)*

Source: ExCELS literature review conducted January and February 2019.

Knowledge, skills, and abilities might influence what leaders do in center-based ECE settings

As with values, beliefs, and attitudes, the ECE literature provides ideas for the knowledge, skills, and abilities that ECE leaders have or should have but not empirical evidence of which ones contribute to effective leadership. The list shown in Exhibit III.2 draws on information from across the literature we reviewed. It is based on sources that present an explicit framework of leader competencies based on expert consensus (for example, The Whole Leadership Framework presented in Abel et al. 2017), sources that either theorize about or summarize other literature on the relevance of a variety of knowledge and skills (for example, Dunlop 2008), sources that developed lists of knowledge and skills from descriptive work (for example, Aubrey et al. 2013), and sources that reported results, such as knowledge and skills gains, from leadership development programs (for example, Talan et al. 2014).

Our review of knowledge, skills, and abilities also has some implications that are especially instructive when we compare them to other fields, particularly K–12 education where leadership has historically been the subject of more research. These include the following:

Type of organization. The importance of particular knowledge and skills might depend on the type of organization, which can vary within and between fields. For example, an ECE center might be one branch of a large program funded by Head Start, or a small, for-profit business funded by parent tuition and child care subsidies. Both types have analogues in other fields; a Head Start center might be similar to a public school, and the for-profit business might resemble a medical practice or a private school. For example, entrepreneurial leadership skills may be particularly important for leaders of ECE centers that operate as small businesses, but may be less important in settings or countries in which ECE centers are part of the public sector. Accordingly, in one study, ECE leaders and staff in England rated business and entrepreneurial skills as less important compared to other types of skills (Aubrey et al. 2013). In contrast, one U.S.-based framework listed entrepreneurial focus as an important aspect of leadership (Abel et al. 2017; Douglass, 2017).

Standards and competencies. Sets of professional standards or competency frameworks can serve as a structure to organize the specific knowledge and skills needed to successfully execute one's role or task. The ECE field does not yet have leadership standards or frameworks to match those in the K–12 education field, such as the Professional Standards for Educational Leaders (National Policy Board for Educational Administration 2015) and the Teacher Leader Model Standards (Teacher Leadership Exploratory Consortium 2011). However, the "Transforming the Workforce for Children Birth Through Age 8" report from the Institute of Medicine and National Research Council (2015) has developed and recommended competencies, through expert consensus, for all professional staff who work directly with young children. The report also presented an additional set of competencies for ECE site leaders, including center directors. These competencies specify the child development and pedagogical knowledge that all staff must hold. In addition to these competencies, center leaders should have skills to support teachers and instruction and to operate and manage a center.

> ## Emerging ECE Leadership competency frameworks
>
> The **Whole Leadership Framework for Early Childhood Programs** draws from existing standards, expert consensus, and stakeholder input (Abel et al. 2017). The framework presents knowledge, skills, and abilities as Tools for Leadership.
>
> **A Foundation for Professional Knowledge and** Competencies included in the Transforming the Workforce for Children Birth Through Age 8 report (Institute of Medicine and National Research Council 2015) delineates competencies for ECE staff in three categories:
>
> - Foundational knowledge and competencies for all adults with professional responsibilities for young children
> - Knowledge and competencies for educators of children birth through age 8
> - Knowledge and competencies for leadership in settings with children birth through age 8

Emphasis on actions. Despite the presence of professional standards for school and district leaders, the K–12 education and health care literature we reviewed placed less emphasis on knowledge, skills, and abilities, instead focusing on leaders' actions and behaviors. One review described identifying knowledge, skills, and abilities as less useful because they are more difficult to change, compared to the actions and bundles of activities that reflect them (Hitt and Tucker 2016). This interconnection between abilities and actions is reflected in another review in which "influencing" was considered a skill in some studies and an activity in others (Berghout et al. 2017).

Exhibit III.2. Knowledge, skills, and abilities that might contribute to ECE leadership

Personal development and critical-thinking knowledge and skills

- Knowledge of ethical conduct to lead by example
- Self-reflection, self-awareness, and self-knowledge skills
- Self-transformation and self-improvement skills
- Resiliency skills
- Critical-thinking, decision-making, and problem-solving skills

(Abel et al. 2017; Nicholson et al. 2018; Pacchiano et al. 2016; Talan et al. 2014; Aubrey et al. 2013; Dunlop 2008)

Interpersonal and team-building knowledge and skills

- Knowledge of adult learning, learning styles, and personality typologies
- Knowledge of group dynamics and organizational theory
- Collaboration and inclusion skills, including the ability to be aware of and open to differing viewpoints or perspectives
- Cultural competency skills
- Group and interpersonal communication skills; group facilitation skills
- Team-building skills, including ability to motivate, guide, inspire, and build trust
- Supervisory skills, including giving and receiving feedback
- Conflict resolution or negotiation skills, including having difficult conversations with staff, and implementing organizational change in non-threatening ways
- Ability to promote staff emotional and mental well-being

(Abel et al. 2017; Talan et al. 2014; Douglass 2017; Derrick-Mills et al. 2014; Austin 2014; Nicholson et al. 2018; Pacchiano et al. 2016; Dunlop 2008)

Pedagogical and instructional knowledge and skills

- Knowledge of child development and ECE
- Knowledge of ECE curricula and resources available
- Knowledge of evidence-based pedagogy and teaching strategies
- Skill in supporting teachers and developing their knowledge and skills, including through coaching and mentoring
- Analytic skills and the capacity to conduct continuous quality improvement
- Skills to conduct and interpret child assessments

(Abel et al. 2017; Pacchiano et al. 2016; Arbour et al. 2016; Derrick-Mills et al. 2015; Nicholson et al. 2018; Talan et al. 2014; Whitebook et al. 2016; Austin 2014; Dunlop 2008)

Advocacy and community-building skills and knowledge of systems and policies

- Public speaking and other public engagement skills
- Ability to advocate for systems and policy changes
- Ability to develop networks and contacts, including with ECE agencies and K–12 colleagues
- Political strategy skills, including negotiating among competing priorities and resources
- Knowledge of local community and contextual issues
- Knowledge of systems theory and ECE systems
- Knowledge of public policy, including history of ECE policies, equity, and social justice

(Abel et al. 2017; Nicholson et al. 2018; Talan et al. 2014; Austin 2014; Aubrey et al. 2013; Dunlop 2008)

Administrative, business, and management knowledge and skills

- Knowledge of ECE program operational regulations
- Financial and budgeting knowledge and skills
- Ability to manage grants and contracts
- Outreach skills, including public relations, marketing, and pursuing funding
- Strategic planning skills and ability to diagnose organizational issues
- Ability to lead implementation of new policies and initiatives; change management skills
- General organizational and management skills

(Abel et al. 2017; Talan et al. 2014; Austin 2014; Dunlop 2008)

Source: ExCELS literature review conducted January and February 2019.

Implications for the theory of change
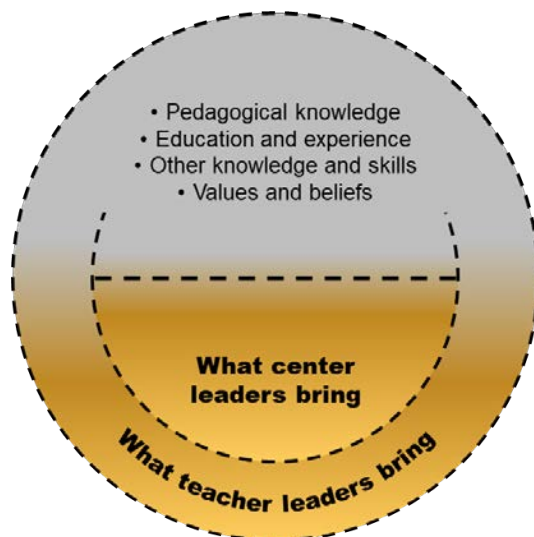
While there is limited evidence of certain education, experience, knowledge, and values and beliefs about ECE that make for effective ECE leaders, there is theoretical work and emerging frameworks built through expert opinion that are coalescing around what successful leaders bring to leadership. The findings from the ECE literature presented in this chapter suggest that pedagogical knowledge in combination with education, management, and other skills and values shape what leaders are able to do to promote quality improvement and positive outcomes. In this way, what leaders do in center-based ECE settings rests on what they bring to and develop as leaders.

IV. WHAT DO LEADERS DO TO PROMOTE POSITIVE OUTCOMES FOR STAFF, FAMILIES, CENTER QUALITY, AND CHILDREN?

Understanding what leaders do (or should do) in center-based settings is essential to understanding how leaders can influence positive outcomes. The ECE literature describes actions leaders take or practices they pursue in support of positive outcomes for staff, center quality, families, and children. The leadership practices described in the ECE literature tend to fall into similar categories across sources. While there appears to be agreement about the types of actions and practices that seem important, the ECE literature at this time offers few empirical findings that point to which practices are effective in improving staff, center, or child outcomes. Literature from other fields is particularly useful in providing evidence of effective leadership practices that are well-aligned to the types of practices discussed in the ECE literature.

In this chapter, we first map out the categories of leadership practices we identified in the ECE literature and summarize the types of empirical findings on which they draw. We then describe in more detail the findings about particular categories of practices within the ECE literature. Finally, we connect the evidence on leadership practices from other fields to the practices identified as important to leadership in the ECE literature.

Findings about what leaders do

- The ECE literature identifies leadership practices in five categories that might be expected to influence positive outcomes
- Practices that support instructional quality and that promote relational coordination go hand in hand in the ECE leadership literature to influence positive outcomes
- Operational practices have limited empirical support for their connection to outcomes in the ECE leadership literature included in this review, yet they are essential to center leadership
- Leadership practices that have empirical evidence in other fields are aligned with the practices identified in the ECE literature as important.

The ECE literature identifies leadership practices in five categories that might be expected to influence positive outcomes

Identifying leadership practices and actions reveals how leadership can be a process of "influencing positive change to achieve a desired goal or generate a new solution to a problem" (Douglass 2018, p. 388). Leadership practices can be demonstrated by one or more individuals representing a variety of roles, defined by what they do rather than by their job title (Douglass 2017; Douglass 2018; Heikka and Hujala 2013; Dunlop 2008). For example, in one study, teachers reported collaborating by observing each other's practice, reviewing data, and

developing instructional strategies together (Ehrlich et al. 2018). In this way, defining leadership by actions and practices is inclusive of teachers as well as center directors.

Much of the literature focuses on what the center (or site) leader does. However, practices of teachers can reflect leadership beyond formal roles. For example, Wang and Ho (2018) describe teachers as influencing peers, members of the school community, and others to improve instructional practice and children's learning. Dunlop's (2008) literature review reports that prior descriptive work in Scotland that explored concepts of leadership found that teachers perceived areas both within and outside the classroom in which they lead, including teaching; instructional planning; assessing children; identifying children's developmental needs; organizing time, space, and materials; and working with parents. In a qualitative study, teachers expressed interest in helping to orient new teachers to the centers' instructional approaches (Heikka and Hujala 2013). Teacher leadership might also include empowering and collaborating with assistants and aides, for example, on how to make changes to meet quality standards (Barblett and Kirk 2018). Arbour et al. (2016) found that when teachers and center leaders were involved in a process of pursuing continuous quality improvement, this collective action had a positive impact on center quality and children's language development, suggesting that teachers play an essential role in leadership for change.

In looking across the ECE literature, we were interested in identifying the practices of center leaders and teachers that contribute to leadership in the center as a whole. We found a broad range of practices based on theory and descriptive findings but little causal evidence of the effectiveness of particular practices on outcomes. We found similarities in the categories of practices discussed in the ECE literature with those of evidence-based practices in the management (Dunst et al. 2018) and K-12 education fields (Hitt and Tucker 2016). The categories generally focus on promoting quality of services (specific to a field), setting a shared strategic vision and mission, creating collaborative relationships between management, staff, and customers (or patients, families, etc.), and managing the operations of the organization to achieve and maintain long-term stability and financial health.

We organized leadership practices found in the ECE literature into five categories by adapting frameworks or categories of practices from the literature from other fields to ECE settings. In Exhibit IV.1, we summarize the type of research findings about each practice addressed in the ECE literature organized within the five categories—moving from theoretical to qualitative and descriptive findings about practices perceived as useful, and then to quantitative associations with key outcomes. The quantitative findings (the last column of Exhibit IV.1) present the strongest evidence available to date that is suggestive of practices that might contribute to effective leadership in ECE. In addition to documenting the practices that formal leaders pursue, some of the literature also explicitly discusses the practices that teachers perform as leaders (noted with a plus sign in Exhibit IV.1). Findings in Exhibit IV.1 about teacher practices as leaders are aligned with the findings discussed in Chapter II, that teachers primarily contribute to leadership in instructional practice, continuous quality improvement, and building relationships

with families. Throughout this chapter, we refer to this exhibit in connection with our findings from the review.

Five categories of ECE leadership practices expected to promote outcomes in center-based settings

- **Instructional quality:** practices that promote, facilitate, and enable high quality teaching and classroom quality
- **Relational coordination within the center:** practices that create and sustain a culture of respect, collaboration, and continuous learning
- **Relational coordination beyond the center:** practices that promote family and community partnerships
- **Strategic:** practices that establish and implement a shared strategic vision
- **Operational:** practices that establish and manage consistent, efficient organizational structures, operations, and performance management

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Practices that support instructional quality and that promote relational coordination go hand in hand in the ECE leadership literature to influence positive outcomes

Two areas of practice—building relationships with staff (referred to as facilitative, collaborative, or relational coordination) and promoting instructional quality—are often connected in the literature as essential practices for effective ECE leaders (Pacchiano et al. 2016; Douglass 2017). The interactive and collaborative nature of many of these practices is reflected in the discussions or explorations in the literature. For example, the authors of a qualitative study of ECE leadership stated, "Pedagogical leadership has a focus on mentoring and supporting staff development enacted through the relationships between staff members; in other words, relationships with staff are a tool that enables pedagogical leaders to improve overall service quality" (Sims et al. 2015, p. 160).

The two categories of practices—instructional quality and relational coordination within the center— are those with empirical quantitative findings across a range of studies in the ECE leadership literature (as shown in Exhibit IV.1). Practices within these two categories have been demonstrated to be positively associated with classroom quality and child outcomes and are generally bundled together for analysis. It is not possible to isolate the influence of practices that support instruction and classroom quality from those that promote a supportive work environment through relational coordination. Empirical work has demonstrated that the Collaborative Teachers domain of the Early Education Essentials survey is positively associated with quality as measured through CLASS scores (Ehrlich et al. 2018). This domain includes items that represent the use of observation and feedback to help teachers improve (instructional quality practices), as well as items that measure the emphasis on staff participation and collaborative learning (relational coordination practices) (Exhibit IV.1).

Exhibit IV.1. Findings from the ECE literature about practices that might contribute to effective leadership

Practice	Theorized or from expert consensus	Descriptive findings about perceptions of practices deemed important for leaders to pursue	Descriptive findings about practices pursued by leaders perceived as successful	Quantitative evidence of positive associations between practice and outcomes
Instructional quality practices: Promote, facilitate, and enable high quality teaching and classroom quality				
Use observation and feedback to help teachers (or peers) improve	√		√+	Included in Collaborative Teachers domain of Early Ed Essentials found to be associated with classroom quality (Ehrlich et al. 2018) Included as component of PD program found to be associated with more growth in children's social-emotional development (Whalen et al. 2016)
Promote ambitious instruction and learning	√+	√	√+	Part of CQI component of intervention found to result in improved language skills for children through experimental design (Arbour et al. 2016) Included in Effective Instructional Leaders domain of Early Ed Essentials found to be associated with classroom quality (Ehrlich et al. 2018) Included as component of PD program found to be associated with more growth in children's social-emotional development (Whalen et al. 2016)
Use data for improvement	√		√+	Part of CQI component of intervention found to result in improved language skills for children through experimental design (Arbour et al. 2016)
Dedicate time for collaborative instructional planning and supports	√		√+	
Support professional development	√+	√	√	
Relational coordination within the center to create and sustain a culture of respect, collaboration, and continuous learning				
Build and sustain relationships with and between staff	√	√	√	Included as component of PD program found to be associated with more growth in children's social-emotional development (Whalen et al. 2016)

Exhibit IV.1 *(continued)*

Practice	Theorized or from expert consensus	Descriptive findings about perceptions of practices deemed important for leaders to pursue	Descriptive findings about practices pursued by leaders perceived as successful	Quantitative evidence of positive associations between practice and outcomes
Foster a positive workplace and organizational climate	√	√	√+	Teacher-Leader Trust included in Effective Instructional Leaders domain of Early Ed Essentials found to be associated with classroom quality (Ehrlich et al. 2018) Teacher-Teacher Trust included in Collaborative Teachers domain of Early Ed Essentials found to be associated with classroom quality (Ehrlich et al. 2018)
Emphasize participation and collaboration across staff levels and among peers	√	√	√+	Part of CQI component of intervention found to result in improved language skills for children through experimental design (Arbour et al. 2016) Teacher Influence included in Effective Instructional Leaders domain of Early Ed Essentials found to be associated with classroom quality (Ehrlich et al. 2018) Collective Responsibility included in Collaborative Teachers domain of Early Ed Essentials found to be associated with classroom quality (Ehrlich et al. 2018) Teacher Input dimension, Job Crafting domain of the SEQUAL found to be associated with classroom quality (Whitebook et al. 2016) Included as component of PD program found to be associated with more growth in children's social-emotional development (Whalen et al. 2016)
Establish structures that support communication and relational coordination		√	√+	Included in Collaborative Teachers domain of Early Ed Essentials found to be associated with classroom quality (Ehrlich et al. 2018)
Relational coordination to promote family and community partnerships beyond the center				
Set policies to promote family partnerships	√		√	
Conduct activities to engage with families	√		√+	Included in Involved Families domain of Early Ed Essentials found to be associated with student attendance, but not classroom quality (Ehrlich et al. 2018)
Engage with the community and field	√	√	√	

Exhibit IV.1 *(continued)*

Practice	Theorized or from expert consensus	Descriptive findings about perceptions of practices deemed important for leaders to pursue	Descriptive findings about practices pursued by leaders perceived as successful	Quantitative evidence of positive associations between practice and outcomes
Advocate for ECE and children	√	√		
Strategic practices: Establish and implement a shared strategic vision				
Establish and follow a vision	√	√	√	
Conduct strategic planning	√	√	√	
Implement strategic plans	√	√	√	
Evaluate strategic plans	√	√		
Engage in self-reflection and learning	√	√		Included in motivational interviewing component of PD initiative found to be associated with higher growth in children's social-emotional development (Whalen et al. 2016)
Operational practices: Manage consistent, efficient organizational and fiscal operations and performance management				
Comply with regulations and requirements	√	√	√+	Descriptive pattern observed that centers with higher classroom observation scores in study sample had directors who complied with standards beyond licensing (Rohacek et al.2010)
Carry out operational activities	√	√	√	Significant relationship between the quality of center-based leadership and management practices (measured through the PAS) and the supportive work environment and classroom learning environment (Lower and Cassidy 2007; Talan and Bloom 2011)
Ensure smooth operations and fiscal management	√		√	

Source: ExCELS literature review conducted January and February 2019.

Note: Table summarizes findings from the ECE literature only. Empty cells indicate that no explicit references or findings were identified in the ECE literature reviewed. See Appendix B for further details about practices and sources.

[a] Practices are not often examined on their own but are combined with others.

√ Explicitly named in ECE theoretical research or explored in ECE empirical work.

+ Also discussed or explored as a practice pursued by teachers who contribute to leadership.

PD = Professional Development

SEQUAL = Supportive Environmental Quality Underlying Adult Learning

The combination of the two practices might also affect child outcomes. A quasi-experimental study of a professional development program found that when directors and teachers adopted (1) practices that promote ambitious instruction and learning and (2) practices that emphasize staff participation and collaboration, there was more growth in children's social-emotional development (Whalen et al. 2016). The only experimental study found in the ECE literature and included in this review also included practices that promote ambitious instruction and learning, use of data for improvement, and emphasized staff participation and collaboration. The bundle of practices together had positive impacts on classroom quality and children's language development (Arbour et al. 2016).

The absence of quantitative findings for the other categories of practice does not reflect their lack of importance. In some cases, they might be harder to measure (such as promoting a shared vision), or they might not have been captured in this particular body of literature that focuses holistically on leadership. Practices that are strategic—that establish and implement a shared strategic vision—and practices that focus on relational coordination beyond the center by promoting family and community partnerships are well studied in the ECE theoretical and qualitative literature we reviewed. One strategic practice was explored empirically. Engaging in self-reflection and learning, with a focus on personal and organizational change, was one of the practices (adopted after a professional development program) found to be associated with higher growth in children's social-emotional development (Whalen et al. 2016).

Operational practices have limited empirical support for their connection to outcomes in the ECE leadership literature included in this review, yet they are essential to center leadership

Many of the ECE studies we reviewed distinguish between leadership and management. *Leadership* is described as future oriented, focused on vision and strategic planning, and inspiring teamwork and quality improvement. *Management* is described as present oriented, focused on performing daily functions and coordinating operations (Aubrey et al. 2013; Leeson et al. 2012; Dunlop 2008). Similarly, education and health care studies described leadership and management as related but distinct concepts and noted that management was characterized by more formal roles and authority, and involved resources, operations, and policies (Berghout 2017; Gumus et al. 2018).

Nonetheless, leadership and management functions are interdependent dimensions of the broader

> The **Whole Leadership Framework for Early Childhood Programs** (Abel et al. 2017) contributes to understanding what leaders do by describing the essential functions of a leader as those related to pedagogical leadership and administrative leadership.
>
> - **Pedagogical Leadership** includes instructional leadership and family engagement
>
> - **Administrative Leadership** includes organizational leadership, strategic leadership, advocacy leadership, and community leadership.
>
> They function together to contribute to Whole Leadership and rest on the Leadership Essentials that delineate knowledge, skills, and abilities.

leadership construct, and both are assumed necessary (Sims et al. 2015; Dunlop 2008). Several authors discuss these functions in relation to the use of time by ECE leaders, noting that management functions demand much of leaders' time but that other tasks—such as instructional leadership—warrant greater attention and development (Pacchiano et al. 2016; Heikka and Hujala 2013; Smith et al. 2019). In the McCormick Center for Early Childhood Leadership's Whole Leadership Framework (Abel et al. 2017) developed through expert consensus and stakeholder input, pedagogical leadership (that we have categorized as instructional quality) and administrative leadership (that we have categorized as operational) are depicted as essential and connected practices of ECE leaders. Administrative leadership is defined as "coordinating work and mobilizing people to ensure the organization remains stable and continues to grow" (Abel et al. 2017, p. 2).

As shown in Exhibit IV.1, operational practices have some empirical support for associations with outcomes in the ECE leadership literature we reviewed. Two studies have demonstrated that high quality operational practices, as measured by the Program Administration Scale (PAS), are associated with a positive work environment and high quality classroom environments (measured through classroom observations) (Lower and Cassidy 2007; Talan and Bloom 2011). The PAS measures practices in 10 domains, eight of which focus on operational practices in a center, including human resources development, personnel cost and allocation, center operations, fiscal management, program planning and evaluation, marketing and public relations, technology, and staff qualifications (Talan and Bloom 2004). The PAS is used in practice and policy contexts to contribute to quality improvement. ECE center leaders can self-administer the PAS to identify areas in need of attention. Thirteen states currently use the PAS as part of a framework of indicators to determine a quality rating level in their QRIS systems (McCormick Center for Early Childhood Leadership, 2020).

The limited findings about operational practices could, in part, be because this review focuses on leadership as a whole rather than taking a deep dive into the findings related to management practices. For example, this literature likely focuses more heavily on leaders within ECE settings who may or may not also manage the daily fiscal and administrative functions of the center.

Despite the limited empirical support, strong leadership around operational practices is essential in center-based ECE settings. Establishing and maintaining strong fiscal health can enable ECE programs to build organizational capacity, improve job quality, deepen community engagement, and promote investments in quality and long-term sustainability (Opportunities Exchange, n.d.). Head Start programs receive guidance and technical assistance on management practices identified as essential in the Head Start Management Systems Wheel (ECLKC 2019a).

> The **Head Start Management Systems Wheel** depicts twelve program management, planning, and oversight systems that are viewed as essential to providing high-quality services to young children. Leadership and governance surround the wheel representing their importance in pursuing and promoting practices that support each system.

In addition, we know that some center directors are also small business owners who must rely on strong financial and management practices to remain viable. Yet the business aspects of ECE

programs have received relatively little scholarly attention and few evidence-based interventions are available (Stoney & Blank, 2011). Financial instability can have a negative impact on quality by limiting ECE providers' capacities and resources that otherwise would be devoted to supporting staff, children and their families (Stoney, 2010). This suggests a need for greater understanding of business and administrative practices of ECE program leadership (Zeng et al. 2020).

Leadership practices that have empirical evidence in other fields are aligned with the practices identified in the ECE literature as important

While the ECE field has a set of professional standards for educators (National Association for the Education of Young Children 2010, 2020), it does not yet have a set of formal leadership standards. We can look to the K–12 education field, which does have a set of standards for school leaders based on empirical research and broad input from researchers and school and district leaders. The Professional Standards for Educational Leaders (PSEL) are focused primarily on school principals and assistant principals (National Policy Board for Educational Administration 2015). They will not transfer directly to the experiences of leaders and the structures for leadership in center-based ECE settings, but they provide some validation of the leadership practices that might effectively foster strong staff and child outcomes in ECE centers. Many of the practices presented in Exhibit IV.1 align with standards included in the PSEL as shown in Exhibit IV.2. We did not identify specific practices in the ECE literature on leadership that align with the PSEL standards around ethics and professional norms or equity and cultural responsiveness. The ECE standards for educators address ethical practices and the use of culturally relevant and anti-bias approaches in educators' practices with children and families. The PSEL standards for equity and cultural responsiveness focus on practices related to the student, but could be transferable to ECE settings with a change of focus to children and families and might be more prevalent in work that is specifically focused on family engagement.

Exhibit IV.2. Alignment of practices for ECE leaders as identified from the literature and Professional Standards for Educational Leaders (PSEL)

ExCELS practices	PSEL
• Establish and follow a vision • Conduct strategic planning • Implement strategic plans • Evaluate strategic plans	**Mission, Vision, and Core Values** *Develop, advocate, and enact a shared mission, vision, and core values of high-quality education and academic success and well-being of each student.*
	Ethics and Professional Norms *Act ethically and according to professional norms to promote each student's academic success and well-being.*
	Equity and Cultural Responsiveness *Strive for equity of educational opportunity and culturally responsive practices to promote each student's academic success and well-being.*

ExCELS practices	PSEL
• Use observation and feedback to help teachers (or peers) improve • Promote ambitious instruction and learning • Use data for improvement	**Curriculum, Instruction, and Assessment** *Develop and support intellectually rigorous and coherent systems of curriculum, instruction, and assessment to promote each student's academic success and well-being.*
• Support professional development • Engage in self-reflection and learning	**Professional Capacity of School Personnel** *Develop the professional capacity and practice of school personnel to promote each student's academic success and well-being.*
• Dedicate time for collaborative instructional planning and supports • Build and sustain relationships with and between staff • Foster a positive workplace and organizational climate • Emphasize participation and collaboration across staff levels and among peers • Establish structures that support communication and relational coordination	**Professional Community for Teachers and Staff** *Foster a professional community of teachers and other professional staff to promote each student's academic success and well-being.*
• Set polices to promote family partnerships • Conduct activities to engage with families • Engage with the community and field • Advocate for ECE and children	**Meaningful Engagement of Families and Community** *Engage families and the community in meaningful, reciprocal, and mutually beneficial ways to promote each student's academic success and well-being.*
• Carry out operational activities • Comply with regulations and requirements • Ensure smooth operations and fiscal management	**Operations and Management** *Manage school operations and resources to promote each student's academic success and well-being.*

Source: ExCELS literature review conducted January and February 2019; (National Policy Board for Educational Administration 2015)

Note: We did not include the PSEL standards for Community of Care and Supports for Students and School Improvement because they are specific to K-12 settings.

Other work from the K–12 education field further supports what we found about what leaders should do in the ECE literature. Bryk et al. (2010) conducted extensive analyses of data from public elementary schools in Chicago over the course of seven years to identify the essential elements that contribute to school improvement (as reflected in student outcomes). The study found that effective leadership that enhances student engagement and expands academic learning must focus on (1) improving the pedagogical knowledge and technical skills of educators to improve teaching and learning (instructional quality) and (2) building relational trust between school leaders, teachers, families, and the community (relational coordination). These same core responsibilities rose to the forefront of the ECE literature, as previously described. Additionally, Hitt and Tucker (2016) reviewed 56 articles associated with three empirically based leadership frameworks in the K–12 field to identify practices that influence student achievement. Broadly

grouped, they include facilitating a high-quality learning experience for students; creating a supportive organization for learning; building professional capacity; establishing and conveying the vision; and connecting with external partners, including families. The authors discuss the distributive nature of many of these practices; they are expected of principals but are often pursued by informal leaders, particularly teachers, within the school.

Dunst et al. (2018) conducted a meta-analysis using correlation-based measures of effect sizes, drawing from findings from 112 empirical studies in the management field, to identify relationships between leadership practices and organizational and employee outcomes. The authors identified 11 leadership practices that were associated with positive outcomes such as organizational engagement, team effectiveness, job satisfaction, and job performance. These leadership practices included organizational visioning, modeling desired behavior, encouraging employee input and feedback, shared decision making, relationship-building practices, and confidence-building practices. These align with the practices and actions we found in the ECE and K–12 studies.

Implications for the theory of change
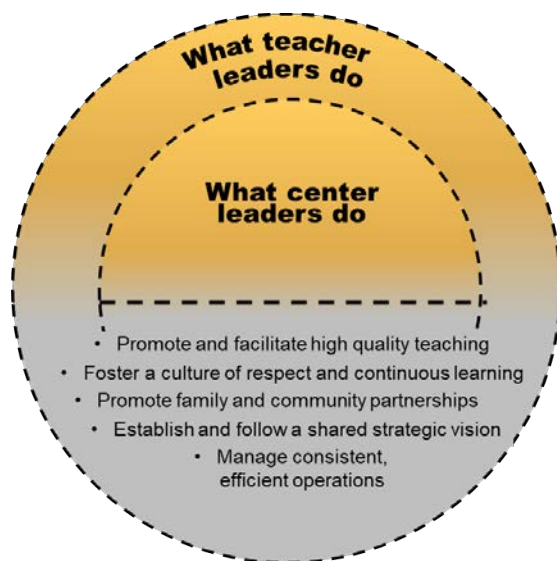
The ECE leadership literature identifies a set of practices that leaders pursue or are expected to pursue that can lead to a positive work environment, strong instructional practice, healthy partnerships between leaders and staff and staff and families, and sustainable operations. Although there is little empirical evidence from the ECE literature that the practices identified represent effective leadership that will produce good outcomes, there is empirical support for similar practices from the K-12 education and management. The set of practices that fall under five categories represent what leaders do in center-based ECE settings that might affect quality improvement. Because what center leaders and teacher leaders do may be intertwined and evolve based on who participates in leadership, we include dotted lines between them.

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V. HOW CAN ECE LEADERSHIP IMPROVE QUALITY AND THE EXPERIENCES OF CHILDREN?

In the prior chapters, we looked into how we might define leadership in a field in which structures, settings, and funding vary so dramatically by specifying who participates in leadership, what leaders bring, and what leaders do in center-based ECE. In this chapter, we describe what the literature can help us understand about the role that leadership can play in improving the quality of care and education in center-based settings and the outcomes of young children across the variety of these settings.

The motivation for the ExCELS project comes in part from longstanding questions in the field about what changes might yield improved outcomes for children in early care and education centers, particularly those that serve low-income children. Data indicate that observed quality as measured by the Classroom Assessment Scoring System (CLASS) is, on average, moderate for the Classroom Organization and Emotional Support domains and low for Instructional Support in Head Start programs, for example, (Moiduddin et al. 2012; Vogel et al. 2015), while evidence confirms that high, not just moderate, quality is necessary for improving academic and social outcomes for children from low-income families (Burchinal et al. 2010; Aikens et al. 2015). Understanding leadership in ECE and its role in promoting quality improvement may be an important contributor to better understanding ways to improve outcomes for young children.

Findings about potential pathways of influence of ECE leadership on outcomes

- What happens in a center is highly integrated with who is involved in leadership, what leaders do, and how leaders can develop and be successful
- What happens in a center—the environment, practices, and structures that exist—is related to classroom quality
- The primary center leader might produce positive staff and organizational outcomes by fostering deliberate, respectful, and collaborative interactions among staff and with families (relational coordination)
- Leaders might improve children's learning by building a positive organizational climate and relational trust with teachers
- The pathway of influence of ECE leadership on quality or child outcomes involves teachers as leaders

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Leadership, however, might not influence child and family outcomes directly given the many and varied inputs to these outcomes of interest. This chapter begins by discussing the elements that leadership can most immediately influence, based on findings from the literature, and follows the pathway of influence to child outcomes.

Literature that informs the pathways of influence of ECE leadership on outcomes

The recent U.S. ECE literature that informs the pathways through which leadership can influence outcomes draws primarily from (1) work to validate organizational environment measures, some of which encompass center activities that might reflect leadership actions within the broader measures and (2) evaluations of leadership development programs that suggest that improved leadership knowledge or practices can produce positive outcomes. In this chapter, we look to this work to discuss findings about the pathways of influence. Later chapters delve into the specifics of what these studies contribute to an understanding of the attributes and skills of leaders and the practices that leaders pursue.

We also examine what is known from other fields about how leadership affects intended outcomes. The K–12 education literature provides some rigorous evidence about the role that teacher leadership plays in the pathway from principal leadership to classroom quality and student achievement. The K–12 education, health, and management leadership literature provides empirical support of the notion that the school or work environment mediates the influence of leadership on intended staff outcomes.

We approach leadership as something staff participate in that is not just restricted to the center director or those with formal leadership positions. With this lens, we explore what research reveals about the interconnectedness between center (organizational) leaders, teacher (frontline) leaders, and the organizational climate or environment in promoting quality and child (or student) outcomes. Given the limited empirical work, it is unclear whether a supportive work environment directly influences staff and center quality outcomes independent of specific ECE leadership actions, or whether it is a mediator of the influence of leadership on center quality.

Measurement of ECE center leaders, practices, and environment

Research conducted to validate measures for use in center-based ECE settings made a substantial contribution to the literature relevant for this work. Key measures include:

- *Program Administration Scale (PAS)* measures administrative and management functions in center-based early care and education settings through interviews, observations, and document reviews.

- *Early Education Essentials* includes teacher and parent surveys that measure the organizational conditions that support ECE teachers as well as teacher, child, and family relationships.

- *Supportive Environmental Quality Underlying Adult Learning (SEQUAL)* is a self-administered survey of teachers to assess their perceptions of their work environment and the supports and conditions that are perceived to affect their practice.

- *Early Childhood Work Environment Survey, third edition, (ECWES)* is a self-administered online survey to measure staff perceptions of center policies and practices and staff work attitudes in early care and education settings.

A companion piece to this literature review is a Compendium of Existing Measures for Understanding Leadership in Early Care and Education that includes profiles of 24 measures, including those listed above.

For example, Ehrlich et al. 2018 noted the association of classroom quality independently with effective leadership (what leaders do) and collaborative teaching (as an aspect of a supportive work environment). An exploration of leadership, therefore, must consider the role of the center environment—what happens in a center—as both the result of leadership decisions and actions and the context in which leadership may develop. It may not be possible, or necessary, to fully disentangle the directionality, but rather to acknowledge the interdependent relationship between leadership and the center environment. Understanding the interconnectedness might help us measure and test the role of leadership more accurately.

We begin this chapter by exploring what we know about the connection between leadership and what happens in a center—the environment, practices, and structures that exist—and then between what happens in a center (or organization) and quality. We draw on findings from other fields to further develop the notion that the connection between leadership and what happens in a center is facilitated in large part by relational coordination and trust. We look to the K–12 education field to inform the connections among school leaders, the environment, and teacher leaders for improving student achievement, and end with findings that suggest the essential role that teachers might play in leadership that influences child outcomes.

What happens in a center is highly integrated with who is involved in leadership, what leaders do, and how leaders can develop and be successful
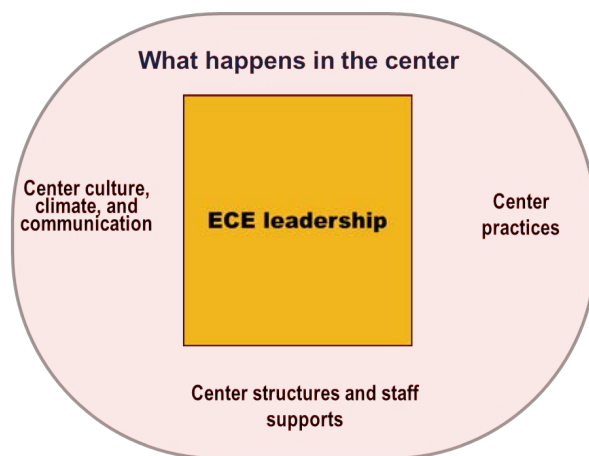
Leadership is developed and carried out within each specific center. Formal center leaders might set the tone for the center environment, structures, and practices, and teaching staff might develop as leaders as a result. Together, center leaders and teacher leaders form ECE leadership. The literature suggests a few essential connections between what happens in a center and the center's leadership, demonstrating that the relationship is not one-directional: What happens in a center can be both an influence on and a result of leadership and how successful it might be. This suggests that leadership, as a construct, must be situated within the broader picture of what happens in a center and must allow for exploration of the direction of influence.

A collaborative, respectful culture in which continued learning and quality improvement is valued can influence *who participates in leadership* by fostering leadership development across a range of staff. Some authors assert that positive relationships based on mutual respect and shared power between formal and informal leaders are the foundation for developing leadership and affecting organizational change (Douglass 2017; Heikka and Hujala 2013; Derrick-Mills et al. 2014).

Center leaders can affect what happens in a center through *what they do* to support the professional development of teachers and encourage broader participation in leadership. Formal leaders often set the tone for the perceived value of professional development for teachers within a center (Sims and Waniganayake 2015). ECE leaders can establish policies and supports to prioritize staff development within a center (Talan et al. 2014; Wang and Ho 2018; Derrick-Mills et al. 2014). Three sources (two empirical studies and one research synthesis) suggest that offering professional development opportunities and supports that are collaborative and embedded in the workplace can create an environment that views professional development as essential, welcomes new practices, and involves teaching staff in leadership (Pacchiano et al. 2016; Whitebook et al. 2016; Douglass 2017).

Positive and collaborative environments can *develop what leaders bring to leadership and support their success*. A research synthesis in the K–12 education field found that a supportive environment and structures that emphasize continued learning facilitated the development of the principal's competencies (Daugherty et al. 2017). Another education literature review found that environments that support peer learning among teachers and provide opportunities for principals to work collaboratively with teachers influence principals' ability to lead successfully (Wenner and Campbell 2017).

Empirical work in the ECE field, though limited, finds that what happens in a center—the environment, practices, and structures that exist—is associated with classroom quality
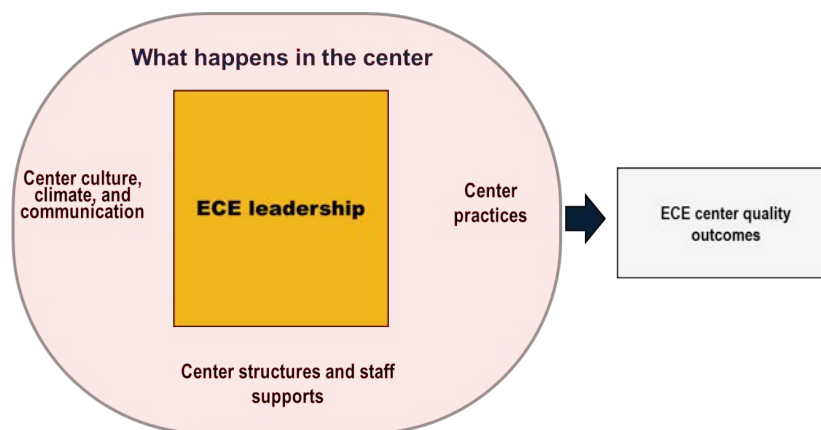
To understand how leadership might influence outcomes, we must explore what we know about the various connections between elements that can lead to outcomes. These elements include the center culture, climate, and communication; center practices; and the center's structures and staff supports.

Center culture, climate, and communication. Two quantitative studies that we reviewed found positive associations between the ECE center work environment and quality measures. A study that surveyed preschool teachers (one in a 3- and 4-year-old classroom) in 37 centers serving low-income families in a northeastern city found significant associations between organizational climate and classroom quality, controlling for other factors (Dennis and O'Connor 2012). Researchers used a measure of overall organizational climate at the center level and found an independent and significant effect on classroom process quality (measured with 23 of the 43 ECERS-R items). Similarly, an earlier study in 26 centers in North Carolina found a significant

positive correlation between organizational climate at the center level and classroom global quality (Lower and Cassidy 2007). The study measured organizational climate through the Early Childhood Work Environment Survey (ECWES) (Bloom et al. 1998), which is based on teacher surveys that ask about 10 dimensions of the center environment—including collegiality, professional growth, supervisor support, decision making, and goal consensus, among others. The researchers measured classroom quality through the ECERS-R.

Another quantitative study suggests there is an essential connection between classroom quality and what leaders do to support teaching staff and create a collaborative, positive work environment that engages teachers in leadership. The study, which was a validation study of a measure of ECE work environment conditions, found that scores on three domains predicted variation in CLASS instructional support scores but not in ECERS-R scores (Whitebook et al. 2016). Centers that received high ratings based on teaching staff surveys in the domains of providing teaching supports, involving teaching staff in decision making, and supporting adult well-being (such as quality of work life and wellness supports) had higher CLASS scores for instructional support than centers with lower scores in each domain. The teaching staff surveys were administered in 35 programs, all of which participated in the QRIS in the state or were Head Start programs. The domains that measured learning community (such as professional development opportunities) and perceptions of program leadership were not associated with CLASS scores.

Center practices. The limited empirical findings from the ECE literature similarly suggest that center practices (that may be a result of strong leadership practices) are related to the work environment and observed classroom quality. A study of Taking Charge of Change, a leadership development program, found, in centers whose directors were program graduates, that there were improvements in some, but not all, scales of the Early Childhood Work Environment Survey (ECWES)—including collegiality, opportunities for professional growth, supervisor support, clarity, reward system, decision making, goal consensus, task orientation, physical setting, and innovativeness (Talan et al. 2014). The study also found lower staff turnover rates in centers with program graduates (compared to before participation), which may suggest a change in leadership practices that can better attract and retain committed staff.

Two studies found a significant relationship between the quality of center-based leadership and management practices and the supportive work environment and classroom learning environment. The Program Administration Scale (PAS) measures center practices in 10 domains, including human resources development, child assessment, program planning and evaluation, family partnerships, and staff qualifications, among others (Talan and Bloom 2004). Lower and Cassidy (2007) and Talan and Bloom (2011) found positive, significant associations between PAS overall scores and the ECWES and ECERS-R.
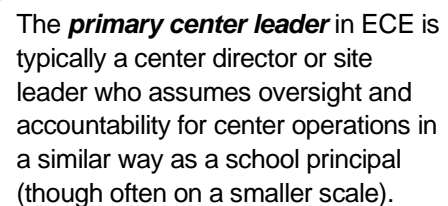
Center structures and staff supports. One study found an association between professional development supports for teachers and classroom quality. Rohacek et al. (2010) found that directors in centers with high classroom observation scores (based on the CLASS and three

subscales of the ECERS-R) reported paying for teachers' coursework and training, providing teachers with information about professional development opportunities, and providing release time for teachers to attend training. The K–12 work from which a recent measure of the work environment in ECE is drawn, found that high quality professional development supports for teachers had only modest effects on student achievement on its own. The effects of professional development supports were larger in elementary schools that also had supportive and collaborative work environments (Bryk et al. 2010). These findings suggest that leadership might play a central role in maximizing the interplay of environment, supports, and practices within a center to produce desired outcomes.

Findings across fields suggest that the primary center leader might produce positive staff and organizational outcomes by fostering deliberate, respectful and collaborative interactions among staff and with families (relational coordination)

A growing cross-disciplinary and global body of research shows that relational coordination is an important predictor of organizational outcomes and performance, and that relational leadership is an essential component (Gittell & Logan 2018). Relational coordination is an empirically validated construct that refers to the quality of communication and interactions in organizations, and the relational capacity of organizations to achieve high performance outcomes.

Relational coordination is strong when there is mutual respect, shared knowledge and goals, and high quality communication between and among leaders, staff, and clients. Relational leadership is a core element of relational coordination. Relational leadership is defined as shared power among leaders, workers, and clients. Relational leaders recognize the unique expertise each party brings and value these perspectives in decision making and organizational change processes (Gittell and Douglass 2012).

> The ***primary center leader*** in ECE is typically a center director or site leader who assumes oversight and accountability for center operations in a similar way as a school principal (though often on a smaller scale).

Research in the health and management fields has found that practices associated with relational leadership contribute to staff's psychological well-being (positive states such as optimism, happiness, and hope) and help diminish burnout and insecurity (Alilyyani et al. 2018; Dunst et al. 2018; Gardner et al. 2011; Montano et al. 2017). Relational coordination research in the management field has found that positive workplace relationships and high quality communications (among leaders, workers, and clients) leads to improved worker outcomes and improved organizational outcomes such as higher quality; improved outcomes for safety, operations, and performance; and organizational learning (Gittell 2016).
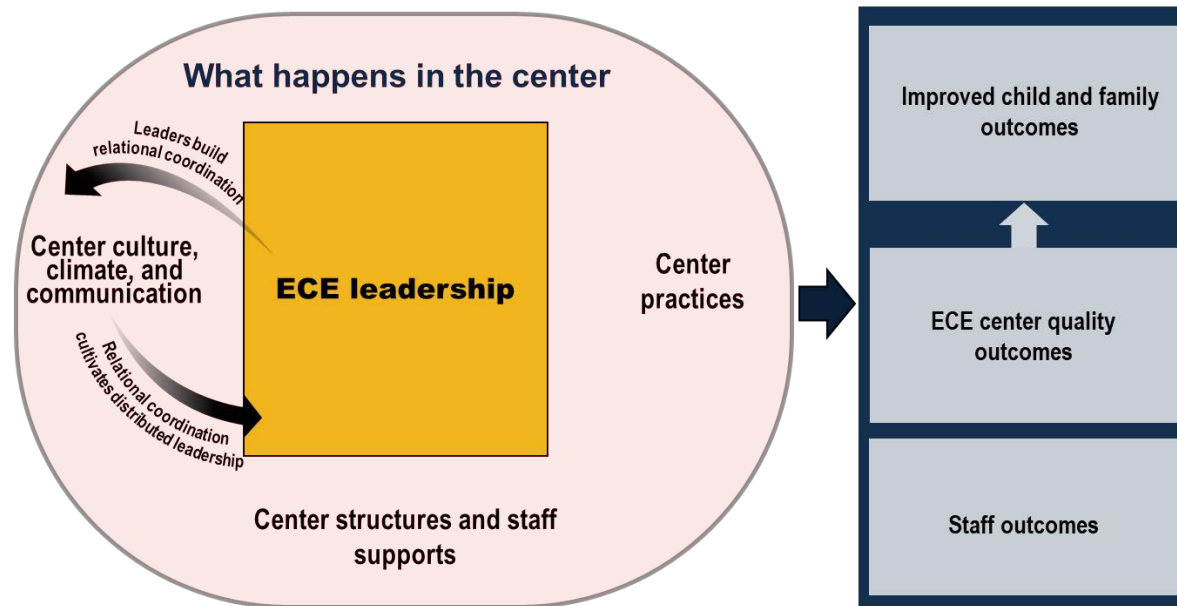
Relational leaders build structures to support relational capacity

Relational coordination research, and the theory behind it, finds that leaders establish relational organizational structures to enable and sustain positive workplace relationships (Gittell and Douglass 2012). These structures include cross-role meetings, hiring for relational and other skills, shared accountability structures, training for relational competencies, shared protocols and routines, and shared conflict resolution (Gittell 2016).

The ECE literature theorizes that center leaders can strengthen relational coordination and positive work environments by putting specific organizational structures into place that foster collaborative relationships associated with higher quality outcomes (Douglass and Gittell 2012; Douglass 2011). An empirical example of the positive influence of relational structures comes from a qualitative study of select center-based programs in Chicago. This study found that leaders of programs who were considered to be "strongly organized" were reported by teachers to build trust with the staff, create a shared understanding of the program's vision and purpose, and cultivate a collective responsibility among staff to create an emotionally supportive environment for children and adults (Pacchiano et al. 2018). The authors classified strongly organized programs as having facilitative and relational leadership styles. Teachers in these settings reported a high degree of collaboration to address children's learning needs and to build their own and each other's capacity through continuous professional learning. Teaching staff in the strongly organized programs with supportive work environments also discussed having higher levels of motivation, action, and persistence (Pacchiano et al. 2018). In contrast, leaders of weakly organized programs were reported to be focused on compliance with standards and requirements, which caused teachers to feel watched over but not supported; the authors classified this as a *transactional* leadership style. Teachers in these settings felt isolated in figuring out ways to improve instruction or address the various learning needs of their students.

Relational leadership involves sharing power with staff and families which may, in turn, influence staff, center quality and child outcomes-

Other empirical work in ECE describes how fostering a positive work environment that encourages collaboration between leaders and teachers might influence quality. A qualitative study that interviewed ECE leaders in Australia reported that fostering strong relationships among staff is a pathway by which they believe they can drive overall service quality and quality improvement efforts (Sims et al. 2015). Another qualitative study found that experienced early-learning educators with graduate degrees who participated in a leadership development program rooted in concepts of relational leadership reported growth in their confidence as a leader. They achieved this by connecting their expanded skills and knowledge with collaborative approaches to problem solving that value the expertise of teachers (Douglass 2018).

Several ECE studies point to the role of leaders in creating an organizational culture that respects the expertise of families and shares power with them to promote positive outcomes for children. A qualitative study of family engagement quality found that program leaders in high quality centers modeled respectful relationships and shared power and built organizational structures to support and reward collaborative relationships with parents (Douglass 2011). Bryk et al. (2010) and Ehrlich et al. (2018) both emphasize that leaders must promote involved and engaged families—in K–12 and ECE settings, respectively—as essential elements to strong organizations that are focused on children's learning and continual improvement.

Research syntheses in the health field found that leadership focused on innovation and improvement had positive influences on various aspects of the work environment—including trust, collaboration, and empowerment—as well as on outcomes among health care workers, such as reduced burnout among staff, increased job satisfaction, greater productivity and commitment, and higher staff retention (Alilyyani et al. 2018; Cummings et al. 2010; Gittell 2016).

Similarly, structures that program leaders put into place to increase worker autonomy (notably empowerment) and relational coordination had positive influences on worker performance (Germain and Cumming 2010; Gittell 2016). Alilyyani et al. (2018) found that trust and work culture mediated the associations between leadership and staff outcomes. A review of theoretical and empirically based management leadership strategies found that authentic leadership fostered greater staff trust in managers, an increased sense of empowerment, a more supportive and collaborative work environment, and improved staff outcomes, such as less burnout, higher job satisfaction and performance, and greater commitment to the organization (Gardner et al. 2011). We reviewed an experimental study of a frontline leadership development program in the health field. The study found that nurse leaders who employed the learned strategies were better able to manage change and emphasize the use of evidence-based practices by clinicians (Aarons et al. 2015).

Relational leadership shapes a positive workplace climate

A quantitative study in ECE suggests that center leaders can shape the organizational climate in ways that improve quality by working collaboratively with teachers. Dennis and O'Connor (2012) found that relational climate in 37 centers serving low-income families in a northeastern city in the U.S. had an independent and significant positive association with classroom process quality (measured with 23 of the 43 ECERS-R items). The authors examined more closely the survey items on the relational climate measure from teachers in one classroom at each extreme of the ECERS-R scores to explore descriptive information about how the leader affected the climate. The teacher with the highest classroom quality reported that the director seeks out and listens to teachers' input and shows them respect and appreciation; teachers were also collaborative with and respectful of each other. The opposite was reported by the teacher with the lowest classroom quality.

Another ECE study found that relational leadership and positive relationships were associated with higher classroom quality. Rohacek et al. (2010) interviewed 38 center directors in one county in each of four states and found that directors in centers in which the sampled classroom was of low quality (measured by observations in the one classroom using CLASS and three ECERS-R subscales) tended to focus on basic work expectations for teachers such as their degree of flexibility, their ability to take direction, and their success in showing up for work. Directors in the higher quality centers within the study sample, in contrast, set high expectations for teachers, had a high level of confidence in teachers' abilities, and had a collaborative, team-based orientation to the work of the center. Directors in the higher quality centers within the study sample also viewed teachers as partners in decision making and invested in teacher supports such as wages, benefits, and professional development to instill confidence and promote independence. This finding supports the research summarized above on respecting and empowering staff.

Similarly, empirical evidence in the health and management fields demonstrates that leaders can influence staff outcomes by creating a supportive work environment or by supporting specific practice knowledge. A meta-analysis of this aspect of leadership that resulted in organizational innovation in the management field found that this aspect of leadership reduced staff burnout primarily by producing positive mental health outcomes, such as lower anxiety, fewer health complaints, and greater psychological functioning (Montano et al. 2017). Work environment outcomes were not examined. A review of descriptive studies of nursing leadership strategies found that nurse leaders who successfully adopted new leadership styles, behaviors, or practices built trust among staff and reduced staff turnover, improved staff performance, and increased teamwork in support of coordinated patient care (Wong et al. 2013).

Emerging evidence from the K–12 education literature indicates that leaders might improve children's learning by building a positive organizational climate and relational trust with teachers

The K–12 education literature provides evidence of the role a leader can play in improving student outcomes. It is encouraging for the ECE field to be able to look to the K–12 education field to discern how leaders can be agents for improvement and foster positive experiences and outcomes for children. We acknowledge, however, that the structure and scale of K–12 education is quite different from that of ECE settings. Nonetheless, the essential role that teachers play and their direct connection with children is similar and undergirds the importance of formal leaders building a positive, collaborative climate that supports teachers in order to produce better outcomes.

The work of Bryk et al. (2010) is particularly useful because it deeply explores drivers of improvement in elementary schools and because it serves as the foundation on which the Early Education Essentials was built. The work examines improvement in Chicago K–12 elementary schools using extensive data over a seven-year period and identifies the school leader as the "driver" for change, but notes that the leader on his or her own will not produce change and improvement. Leaders must develop and support broader leadership among teachers and parents, build teacher professional capacity, set clear guidance for instructional practice, and create a climate that supports student learning. These essential elements are integrated and mutually reinforcing, so that each element interacts with the others. The authors highlight relational coordination as a critical element of a supportive environment that promotes teacher instructional practice and leadership, and ultimately results in improved outcomes for students.

A recent empirical study with Chicago high schools that builds on the foundation of Bryk et al. (2010) further exemplifies the pathways by which principal leadership improves instructional quality and student achievement (Sebastian and Allensworth 2012). In particular, principals' leadership (defined by teacher perceptions of principal instructional leadership and principal–teacher trust) was associated with quality and student outcomes through the learning climate (such as the teacher perception of crime and safety and the school's orientation toward academic accomplishments).

Similarly, Seashore Louis et al. (2010) found that leadership is significantly associated with student achievement, operating through leadership's influence on teacher motivation and the work environment. This multi-year study included more than 2,000 teacher and 500 school administrator surveys, detailed interviews with more than 500 teachers and administrators, and more than 300 classroom observations, complemented by administrative data on elementary and secondary school student achievement. The study found that teachers' holding both formal and informal leadership roles was associated with teacher motivation, knowledge, and skills, work setting, and student achievement. The study also found positive correlations between the level of influence of staff teams and parents and student outcomes.

Last, two research summaries in the K–12 education area identify similar pathways through which leaders influence student outcomes. One research synthesis developed logic models built through six different evidence-based school leadership interventions to demonstrate the causal pathways from leadership capacity to student outcomes. Each model demonstrates that improved leadership improves schools and leads to increased student success (Daugherty et al. 2017). The connection from leadership to student outcomes is through the school culture and environment, instructional quality, and retention of high quality staff. Another literature review was focused on building a framework of leadership practices with demonstrated effectiveness in improving student outcomes. The review indicates that variations in student outcomes from leadership practices stem from the level of teacher trust in the school leader and teacher quality (Hitt and Tucker 2016).

The limited evidence in the ECE literature similarly suggests that the pathway of influence of ECE leadership on quality or child outcomes involves teachers as leaders

The literature posits that ECE leaders can influence pedagogical practices to improve classroom quality (Abel et al. 2017; Douglass 2018; Douglass 2017; Whalen et al. 2016), but empirical work is limited in testing the effect of leaders in this way. Two studies suggest this pathway is effective. Shivers (2012) found that a leadership development program for program or center leaders that included an individual project component focusing on language and literacy led to increases in classroom quality (before and after), as measured by the Early Language and Literacy Classroom Observation (ELLCO) for preschool children. Another program that developed program leaders to be inclusive and collaborative with teachers in problem solving and decision making, and to provide consistent guidance and support to teachers around instructional practice, found increases in the knowledge linked to implementing high quality interactions, compared to leaders who did not participate in the program (Whalen et al. 2016). No significant differences were observed in the quality of teacher–child interactions in preschool classrooms as measured by the CLASS, which may have been due to the small sample size (fewer than 10 centers in each group). The study also found statistically significant growth in social-emotional development and a trend emerging for language development among preschool age children at the centers in which the leaders completed the program. Significant differences in growth, as assessed by Teaching Strategies GOLD, were not evident for other developmental domains (literacy, mathematics, or cognition).

We identified two quantitative studies that provide information about the association between leadership and child outcomes. Both studies combined elements of leadership and teacher collaboration. The first was an experimental study in Chile. This study found significantly higher language skills (but not early literacy skills) for children in public preschools who had teachers and teachers' aides who engaged in a process of continuous quality improvement (CQI) along with the formal school leadership, than for children whose teachers participated in the intervention alone (Arbour et al. 2016). The CQI component focused on a culture of facilitated and shared growth. Formal school leaders and teachers reported the culture changed from one of

judgement and accountability to one of learning and improvement, primarily because of the increased role of teachers as leaders and collaborators in the work.
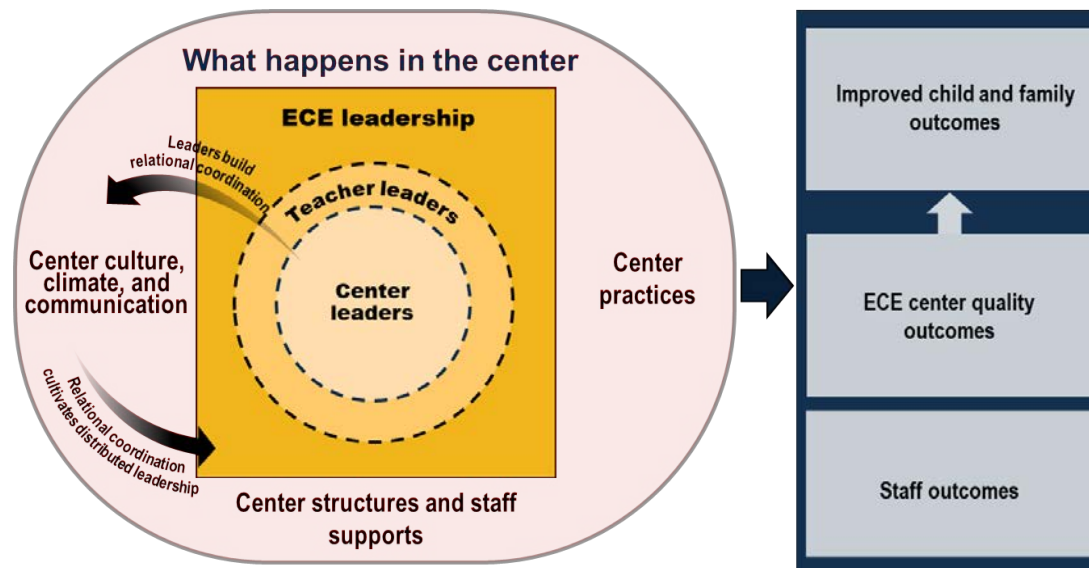
A study to examine the concurrent validity of a new survey measure of organizational conditions—the Early Education Essentials—found that two of the five organizational domains were significantly associated with the quality of classroom practices and that almost all domains were significantly associated with children's attendance outcomes (Ehrlich et al. 2018). Strong instructional leadership and strong teacher collaboration and influence in decision making were related to the Instructional Support and Classroom Organization domain scores of the CLASS. Results for the CLASS Emotional Support domain were mixed. The Early Education Essentials surveys measure teacher/staff experiences with five domains of organization (Effective Instructional Leaders, Collaborative Teachers, Involved Families, Supportive Environments, and Ambitious Instruction), and a sixth essential (Parent Voice) is measured by a parent survey. The surveys were administered in school- and community-based settings that served 3- to 5-year-olds, excluding programs that did not receive public funding and those that received only child care subsidies (but no other public funding, such as Head Start or state pre-K funding); therefore, caution should be used when generalizing the findings presented above. This study examined correlations and does not provide evidence of causality.

Implications for the theory of change

Findings from the literature presented in this chapter build the foundation for understanding that the situational context within a center—what happens in the center—interacts with leadership to influence outcomes. From the literature, we can build potential pathways through which ECE leadership can improve outcomes for staff, center quality, and children and families. The literature suggests that the ability of leadership to achieve positive outcomes rests on building

relational coordination and a supportive work environment that engages teachers in leading improvement.
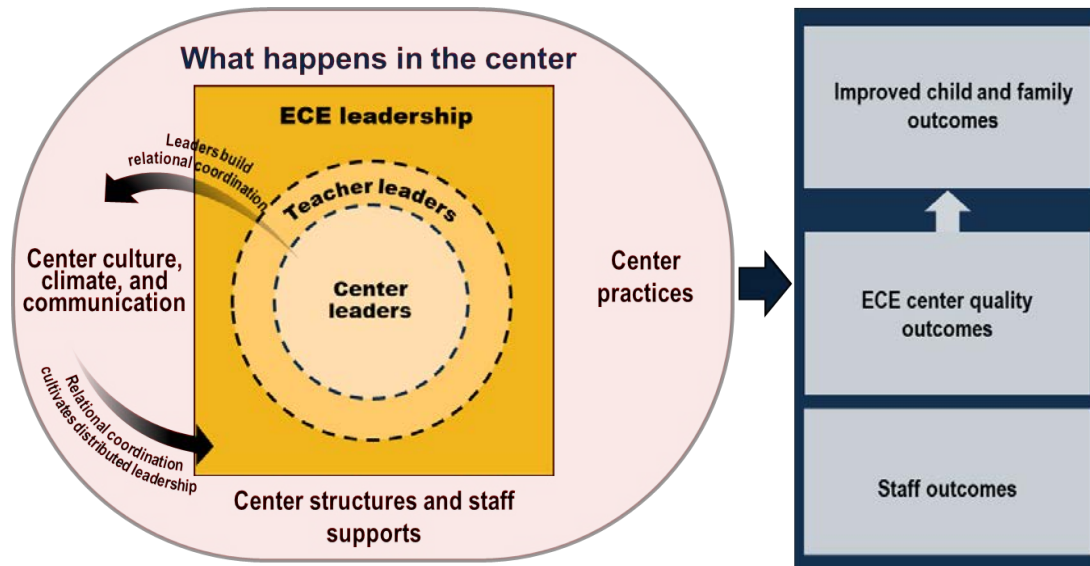
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VI. WHAT ARE THE CONTEXTUAL INFLUENCES ON HOW ECE LEADERSHIP IS DEVELOPED AND SUSTAINED AND HOW EFFECTIVE LEADERSHIP CAN BE?

Who leaders are, what they bring or can contribute to leadership, and what they can do are influenced by contextual factors within the setting in which they work, as well as within the broader community and the policy and funding environment in which they operate. A literature review in the management field documented a range of contextual factors, identified through empirical work, that shape the leadership process and its outcomes (Oc 2018), including (1) where the leadership is taking place (stature given to ECE within the culture, institutional forces, type of organizations); (2) who is involved (gender composition of group, other demographics); (3) when the leadership is occurring (economic conditions, organizational change, crises); (4) social factors (team, organizational, and social network characteristics); (5) physical factors (geographical distance); and (6) temporal factors (time pressures).

These contextual factors were found to be associated with leadership outcomes such as staff cognition (for example, perceived support), attitude (trust in leader, commitment), and behavior (turnover). There is little empirical evidence from the ECE field about the influence of contextual factors on leadership. This chapter explores the contextual factors, like those discussed in Oc (2018), that might influence what leadership looks like in an ECE center as well as how leadership might be supported and developed in center-based settings.

Findings about the contextual influences on ECE leadership

- Factors within the community, state, and national context might influence what leaders do and who becomes a leader in ECE settings
- Characteristics of the ECE center and the children it serves might influence who contributes to leadership, what they can do, and the structure leadership takes
- The policy and regulatory environment in which an ECE center operates might influence what leaders can do
- The availability of professional development and workforce supports might influence how an ECE leader is developed and supported

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Factors within the community, state, and national context might influence what leaders do and who becomes a leader in ECE settings

Leaders work within unique local, state, and national contexts that may have different societal perceptions, economic conditions, and labor economics. These factors have implications for what leaders can do and who is able to become a leader.

Community, state, and national context

Societal perceptions. Leadership in ECE is different from other fields, including K-12 education, in that women hold formal leadership roles at much higher rates. Women are known to be the majority of formal leaders (such as center directors) in center-based settings, based on data collected for specific studies (such as Whitebook et al. 2016). Data on the demographic characteristics of center directors from nationally representative samples of Head Start, Early Head Start, and all center-based programs are collected from the Head Start Family and Child Experiences Survey (FACES), Baby FACES, and the National Survey of Early Care and Education (NSECE) respectively, but have not been reported. Although estimates have not been published, available data indicate that the vast majority of center directors in Head Start and Early Head Start are women (OPRE 2018; Xue et al. forthcoming).

The ECE literature describes ECE professionals as underpaid and unappreciated, which makes it difficult to attract well-qualified people and develop and retain them in leadership roles (Whitebook et al. 2010; Sims and Waniganayake 2015; Douglass 2017; Dunlop 2008; Nicholson et al. 2018). The international experience presents contrasts in how the ECE profession is valued by society. Historically, ECE teachers in China have been viewed as babysitters rather than teachers or educators, which creates a weak professional identity (Wang and Ho 2018). In contrast, in Finland, quality ECE is emphasized as a child's right; ECE staff are municipal employees, the government supports development of ECE leadership, and there is reportedly strong community support for and involvement with ECE (Heikka and Hujala 2013).

Economic conditions. Two studies in the management field (one meta-analysis and one literature review) point to overarching economic conditions as factors influencing what leaders can do and how much leadership is shared within the firm. Both studies noted that a country's economic health influences how firms operate and, in turn, the types of leadership approaches and messages that are most useful to meeting the firms' operating goals (Dunst et al. 2018; Oc 2018). Different economic conditions might promote different leadership approaches because of the need to emphasize different operating goals, such as streamlining staff and resources during an economic downturn or promoting innovation during periods of growth. Another study highlighted the importance of considering economic conditions and demographics when assessing the success of educational leadership strategies. This study examined a leadership development program administered in one Florida school district with a high concentration of Title 1 schools, and cautioned that strategies identified as successful in this context might not be generalizable to all education settings (Wang et al. 2015).

Staffing shortages. Staffing shortages that affect the ability to hire qualified staff, as well as to retain them, are important elements in understanding the issues confronting leaders and their ability to lead (Wong et al. 2013). One systematic review of nursing leadership strategies observed that workforce shortages create additional stress for both leaders and staff and can constrain strategies available to leaders to sustain and improve patient care (Wong et al. 2013). This is an important parallel to teacher turnover in ECE, a common occurrence that can affect

leadership development both for the center leader and teachers who want to move into leadership positions. About a quarter of centers experience turnover of at least 20 percent of their staff on an annual basis (National Survey of Early Care and Education Project Team 2015)

Characteristics of the ECE center and the children it serves might influence who contributes to leadership, what they can do, and the structure leadership takes

Center characteristics

Factors such as the characteristics of the children at the center, leadership structure and level of autonomy, center size and auspice, and staff capacity can influence leaders and their actions.

Characteristics of the population served. Many ECE centers serve children who are economically, racially, ethnically, and linguistically diverse, and ECE programs exist in diverse neighborhoods as well (Pacchiano et al. 2016; Pacchiano et al. 2018). Some of the most vulnerable children, both within the United States and abroad, are served through publicly funded ECE programs (Ehrlich et al. 2018; Arbour et al. 2016; Nicholson et al. 2018). Leaders in ECE centers can face issues of inequality and opportunity gaps for the children they serve, and they often must address these issues with limited resources. This might affect the actions leaders take and the priorities they set to address the needs of the families and children they serve. Because centers serve diverse children and families, center leaders may similarly vary in their approach to leadership in response to the characteristics and needs of the children, teachers, and the community.

Leadership structure and autonomy. The relative independence of the center director to make decisions that affect the setting, such as staffing and approaches to learning, can influence the structure of leadership and what leaders can do (Dunlop 2008; Nicholson et al. 2018; Whitebook et al. 2016). Within a larger organization, the leadership structure might involve higher-level executives or a governing board that sets or contributes to policies and practices (Heikka and Hujala 2013; Derrick-Mills et al. 2014; Austin 2014). Oc (2018), a literature review in the management field, found that the proximity of leaders and "followers" (a common term used in management literature) was an important contextual factor that influences a leader's ability to lead; when leaders are physically removed from their followers, providing supportive leadership is challenging. These types of influences are particularly relevant to ECE centers that are part of a larger organization or chain, such as Head Start centers or for-profit chains, and can contribute to variation in what leadership looks like and can do within any one specific center. Head Start, in particular, has authority structures that extend from the center (or building) level, to the program (or grantee) level, up to the federal level where policies and regulations that all Head Start programs must follow.

Center size and auspice. The size of a center might serve as an opportunity for, or an inhibitor to, leadership development and activities. ECE centers also fall under different auspices (for

profit, not for profit, government such as schools) and function as independent small businesses, small community-based entities, or part of larger organizations (such as chains or Head Start grantees). These two influences can set parameters on what leaders can do, for example by limiting their ability to benefit from peer networking and learning (in isolated, independent centers) or by limiting their ability to make decisions, adapt to change, and innovate because of added layers of management and program requirements to which leaders are accountable. One research synthesis described the ECE field as unique in that many early educators are small-business owners with high levels of flexibility and autonomy, which makes the field conducive to entrepreneurial growth and change (Douglass 2017). On the other hand, because many centers are small, leaders may not have peers in their organizations with whom to share ideas and further develop leadership skills and advance quality improvement.

Funding mix. The types of funding a center receives can range from fully private tuition paid by parents to fully funded through public programs (such as Head Start, state prekindergarten or preschool programs, or child care subsidies through the Child Care and Development Fund), or some mix in between. Some public funding, including Head Start and state prekindergarten programs, are also tied with standards that guide operations and instruction. The types and mix of funding can contribute to the number and type of positions involved in formal leadership positions to manage operations, the educational program, and potentially a range of family and child services. For example, findings from one study in England, presented in Dunlop's (2008) literature review, suggested that leadership was more centralized in predominantly privately funded settings and spread across staff in settings that received predominantly public funding. Budget pressures in ECE settings may, alternatively, lead to centralized leadership out of necessity in the inability to hire multiple individuals with specialized skills and experience to manage different aspects of center functions.

Staff capacity. Teachers and center directors often lack the time and capacity to focus on leadership because of the many immediate pressures associated with caring for children. Workplace challenges in the ECE field, including long hours, limited resources, and inadequate staffing, can affect how leaders develop and what they can do (Sims and Waniganayake 2015; Austin 2014; Whitebook et al. 2016). Centers often face staffing shortages that disrupt teachers and classrooms and consume leaders' time and energy. In a typical week, about 20 percent of teachers and caregivers are moved among classrooms or groups to ensure sufficient coverage (National Survey of Early Care and Education Project Team 2015). This inconsistency in teachers' classroom responsibilities limits their potential for leadership development. A survey of ECE directors found that they spend more time ensuring staff coverage than they do on general center operations or directly supporting children (Smith et al. 2019). Unlike the K–12 education system, the ECE field does not have access to a substitute teaching pool to address staff capacity issues on short notice.

The policy and regulatory environment in which an ECE center operates might influence what leaders can do

Policy, regulatory, and fiscal infrastructure

Policy priorities, including standards and regulations, and the demands associated with balancing competing policy and funding requirements may affect what a leader can do.

Policy priorities. Standards and policy regulation drive the direction and priorities of the ECE field, including the form that quality improvement efforts might take. For example, state and federal policies have pushed the ECE field toward the following:

- Adopting more coordinated and aligned early childhood systems (Arbour et al. 2016; Nicholson et al. 2018)

- Increasing the use of data for CQI (Derrick-Mills et al. 2014)

- Requiring minimum education or credential levels for teachers (Sims and Waniganayake 2015)

- Emphasizing professional development (Wang and Ho 2018)

Derrick-Mills et al. (2014) found that the rigidity and enforcement of various regulations might affect whether an organization adopts a culture of compliance or one of learning. The actions a leader takes will differ in response to the state and federal policy priorities and the culture and goals those priorities create.

The literature in other fields reiterates that policies at the state and local levels, as well as industry-specific regulations, can affect practice and leadership. One study of a K–12 elementary teacher leadership program in 40 Florida schools highlighted that local policies set by a school principal sometimes conflicted with the leadership practices promoted by the intervention and affected teachers' ability to fully engage in the intervention because they had to navigate those conflicts (Wang et al. 2015). Another literature review, in the health field (Berghout et al. 2017), highlighted that hospital-related regulations, such as clinical and organizational mandates, influence how leaders can improve quality and efficiency of care, as well as what administrative duties are required of them.

Balancing leadership with competing demands. Making time to pursue leadership activities is described in the literature as a critical challenge for ECE leaders who must find and balance resources from multiple funding streams, as well as monitor and comply with a range of standards and regulations associated with these streams (Pacchiano et al. 2016; Aubrey et al. 2013; Sims and Waniganayake 2015). One study that surveyed ECE directors found that 80 percent reported unexpected demands on their time as the greatest challenge to their ability to pursue instructional leadership in supporting teachers (Smith et al. 2019).

Other authors note that complying with multiple sets of standards and regulations might detract from the time and attention leaders could spend on instructional leadership, or on leadership development for themselves and their staff (Pacchiano et al. 2016; Wang and Ho 2018). Leaders of centers in England that were funded primarily by one government stream spent more time on leadership activities compared to leaders in private, voluntary centers and centers that were considered integrated (having multiple funding streams and providing a range of services). Leaders in the settings with one primary source of funding reported having more time to devote to leadership activities because they were held accountable to fewer regulations and were able to create distributed leadership structures—due, in part, to the straightforward accountability and common understanding that one funding stream afforded (Aubrey 2012).

The availability of professional development and workforce supports might influence how an ECE leader is developed and supported

External professional development and workforce supports

Funding for leadership development opportunities is often limited in the ECE field. When funding is available, programs and supports such as mentoring, coaching, peer networks, and performance evaluation processes can help leaders develop and strengthen their leadership.

Funding for leadership development. Leadership development programs can develop individuals' knowledge, skills, and abilities; build confidence in their role as leaders; and influence their strategies for improving the work environment, classroom quality, and children's outcomes (Douglass 2017; Whalen et al. 2016; Talan et al. 2014; Shivers 2008; Shivers 2012).[2] However, study authors note that the ECE field is generally resource constrained and lacks dedicated, sustained funding for leadership development programs and activities (Pacchiano et al. 2016; Austin 2014).

Mentoring and coaching. The use of mentors, role models, and coaches might be important for supporting leaders and inspiring change. Sims and Waniganayake (2015) hypothesized that having center directors mentor and be role models for teachers was a key ingredient for creating a culture of learning within centers. Three descriptive studies found that having external coaches mentor directors, as a component of leadership development programs, increased knowledge and skills, facilitated use of new tools, and improved quality and administrative practices (Talan et al. 2014; Shivers 2008; Shivers 2012).

Social capital. Peer relationships, networks, and professional and peer learning opportunities all appear to support leadership. A few studies describe professional networks and relationships as avenues for developing and expanding leadership capacity and supporting quality improvement (Douglass 2018; Shivers 2008; Talan et al. 2014). One study of a leadership development program that included the use of professional learning communities found increases in directors'

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[2] Another task from this study will explore leadership quality improvement initiatives in depth.

knowledge and skills; greater self-confidence and self-efficacy among leaders; increases in strong administrative practices (as measured by the Program Administration Scale [Talan and Bloom 2004]); and increased mentorship of others in the field (Talan et al. 2014). Some authors have also found, through descriptive work, that leaders who are involved with community organizations and initiatives strengthen their leadership skills through these interactions (Shivers 2008; Austin 2014).

Studies from other fields also suggest the importance of supportive peer relationships as factors affecting leadership. Organizations in which peers (such as nurses and teachers) build trusting and supportive relationships have environments that support quality improvement and a willingness among staff to express concerns and seek support or additional learning (Wong et al. 2013; Ely et al. 2011; Day et al. 2014; Wang et al. 2015; Hitt and Tucker 2016).

Performance evaluation. Performance evaluation of leaders might influence their leadership abilities. One literature review in the health field noted the importance of evaluating leaders, but cautioned that medical leaders often do not receive performance reviews that can help them identify ways to improve their leadership (Berghout 2017). In the K–12 education field, a research synthesis depicted through evidence-based logic models demonstrated that continued evaluation of principals, coupled with timely professional support, improves principals' competencies and, in turn, enhances principals' ability to improve the school environment and student achievement (Daugherty et al. 2017). A review from the management field cites empirical evidence that receiving feedback (such as through a self-assessment or a 360-degree review) can promote self-awareness, which is relevant for leadership development, but the effectiveness of feedback processes might be constrained by organizational culture (Day et al. 2014). Feedback might be more effective in developing leaders in organizations with open, trusting cultures.

Gender dynamics. A theoretical study discussed the gender dynamics involved in becoming a leader and the unique challenges women face in developing a leader identity (Ely et al. 2011). The article suggests that women tend to have less social support and fewer role models when they are learning to become leaders, and less visibility once they do reach leadership positions. This amplifies the need for leadership development opportunities and access to supportive networks of peer leaders or role models in the ECE field, where women are predominantly center leaders but are often isolated within their own work settings. The article also suggests that certain aspects of leadership programs (such as negotiation skills, 360-degree feedback, and networking) might be important in addressing the challenges women face in becoming leaders.

Implications for the theory of change

The literature identifies a number of contextual influences in the broader policy, regulatory, and economic environment as well as professional development and workforce supports that are external to the center but can affect what happens in a center as well as what leaders bring and do as leaders. In addition, the characteristics of the center itself can have an effect on what leadership looks like within a center, particularly on how it is structured. Taken together, these influences can contribute to or inhibit what leadership looks like within an ECE center.

Community, state, and national context

- Value placed on the importance of ECE for children
- Community involvement in ECE
- Economic conditions and workforce supply

Center characteristics

- Size (number of children served)
- Part of a larger program or organization
- Funding mix and related regulations and standards
- Child, family, and staff demographics

Policy, regulatory, and fiscal infrastructure

- Program policies based on state/local funding context
- Oversight and influence of larger organization/agency
- Funding for additional services/supports

External professional development and workforce supports

- Access to training and professional and leadership development opportunities
- Access to mentors and ongoing supports
- Leadership standards for ECE

VII. IMPLICATIONS FOR DEFINING AND MEASURING ECE LEADERSHIP FOR QUALITY IMPROVEMENT

Effective leadership is a driver of quality improvement in the literature we reviewed from the fields of K–12 education, management, and health. The ECE leadership literature is limited but emerging, and it identifies essential elements of leadership that align with aspects of effective leadership demonstrated in other fields. Little research or rigorous evidence exists in the ECE field about how ECE leadership may be effective in promoting quality and providing positive experiences for children that can lead to good outcomes. This highlights the need for a measure to define and test leadership in center-based ECE settings.

In this concluding chapter, we summarize the key messages we learned from the literature review that has implications for defining and measuring ECE leadership. In the discussion of defining ECE leadership, we introduce the full theory of change, drawn from the literature, for ECE leadership for quality improvement; we offered glimpses of this theory throughout the report chapters. We conclude with a brief overview of next steps for the ExCELS project.

Defining ECE leadership and the role of leaders as agents of quality improvement

As we demonstrated in prior chapters, our review of the literature provides a foundation for understanding how ECE leadership might function, and what leaders—center leaders and teacher leaders—might do within center-based settings to drive quality improvement. The literature suggests a shift toward thinking about leadership more broadly, beyond the formal leader, and more collaboratively to support an environment of continuous learning for teachers and children.

There are no comprehensive data currently available (or published) that describe the number, type and roles of staff who hold formal and informal leadership roles, or the education and training they bring to their work, to provide an initial understanding of who contributes to leadership in center-based settings. Further, available research has not yet brought together a full picture of leadership in terms of the following: (1) who leaders are, (2) what education, training, values, beliefs, knowledge, and skills people bring or need in order to lead, and (3) the practices they pursue as leaders.

Research, particularly in the United States, has not previously explored how leadership may vary based on the characteristics of, and contexts in which, center-based settings operate. The research suggests that the center size, funding mix, and associated standards and regulations by which a center must abide might influence the structure and approach to leadership. There might be wide variation between traditional, hierarchical structures that focus on compliance and accountability to distributed leadership structures, and teacher collaboration that focuses on continuous learning and quality improvement. Many iterations might exist between these two ends of the spectrum, and more research is needed to assess what works best, and under what circumstances.

Leadership research in ECE also has not yet identified the specific qualities of leaders or practices they pursue that facilitate good outcomes for staff, center quality, or children and families across center-based settings. There is a good deal of research, largely theoretical or qualitative, about the practices ECE leaders pursue or should pursue, but no clear evidence of which leadership practices are effective in promoting quality improvement and improving children's outcomes. Quantitative empirical work suggests that a combination of practices that support instruction and create a supportive, collaborative work environment are associated with higher quality. One rigorous evaluation provides evidence that teachers and formal leaders working together on quality improvement produces better outcomes for children. Research suggests that the structure and approach of ECE leadership might influence the work environment, classroom quality, and child outcomes, but the pathways of influence are not fully understood.

A draft theory of change of ECE leadership for quality improvement. Using the research base available, we developed a draft theory of change of ECE leadership for quality improvement, detailed in Exhibit VII.1. The ECE leadership literature lacks causal evidence to confirm the relationships or pathways we depict in the theory of change. However, each element in the theory of change—and the relationships between them—are constructed from the base of theoretical and descriptive empirical findings described throughout this review.

Starting at the left of the theory of change, we list the external factors that might influence how ECE leadership is structured and what leaders are able to do and achieve in center-based settings, including the broad national, state, and local contexts. From there, we move on to center characteristics: the policy, regulatory, and fiscal infrastructure. Finally, we list the professional development and workforce supports that exist as part of systems external to the center. On the far right are the potential outcomes that ECE leadership might influence, including staff, center quality, and family and child outcomes. Each box of influences and outcomes lists elements that the research suggests might be important to better understand because of their influence on, contribution to, or outcome of leadership.

In the middle of Exhibit VII.1 is our proposed construct of ECE leadership that is influenced by external factors and is hypothesized to contribute to the outcomes of interest. The ECE leadership construct comprises who leaders are, what leaders bring, and what leaders do.

- "Who leaders are" captures the leadership structure that exists within a center, including staff involved in formal and informal leadership roles (notably teacher roles in leadership) based on who participates in decision making.

- "What leaders bring" includes the range of backgrounds, experiences, and characteristics staff bring to the task of leadership and can develop as leaders. Leaders bring (and can develop or advance) education, training, and experience; values, beliefs, and attributes; and knowledge, skills, and abilities. A range of knowledge and skills might contribute to successful ECE leadership, such as those concerning (1) personal development and critical

thinking, (2) interpersonal and team building, (3) pedagogy and instruction, (4) advocacy and community building, and (5) administrative, business, and management.

- "What leaders do" describes the actions leaders take (or should take) to influence positive outcomes. Based on the practices identified in the ECE literature, we organized leadership practices into five categories: those that (1) promote, facilitate, and enable high-quality teaching and classroom quality; (2) create and sustain a culture of respect, collaboration, and continuous learning; (3) establish and implement a shared strategic vision; (4) promote family and community partnerships; and (5) establish and manage consistent and efficient organizational structures, operations, and performance management.

These interacting features together define leadership in a center-based setting. The leadership construct makes a distinction between center leaders and teacher leaders, given the need to better understand what each brings, develops, and does to contribute to leadership. However, the dotted lines between center leaders, teacher leaders, and who leaders are represent the permeability in who participates in leadership—particularly among teacher leaders—based on how individuals develop skills, knowledge, and abilities (what they bring and develop) and what leaders do to build or contribute to what happens in a center. Within the circles of these two types of leaders, center leaders are depicted as the inner circle because the pathway for center leaders to effect change in quality is through teachers. Center leaders influence how much teachers participate in leadership and, thereby, enable teacher leadership to occur and grow. Additionally, the center leaders may be one person or a group of different people that may include a site leader, along with others serving different roles as organizational leaders (such as an educational manager).

Because leadership is carried out within the center environment, the leadership constructs are situated within the outer circle, representing what happens in a center. The literature in ECE and other fields suggests an interdependent relationship between leadership and what happens in a center, and suggests that the latter might mediate the influence leadership has on intended outcomes. From the literature, we identified essential elements that create the symbiotic relationship between leadership and what happens in a center that can lead to positive staff and child outcomes, depicted by the arrows that loop between the leadership and center environment constructs. Through what they do, leaders can build relational coordination that creates a supportive and collaborative environment between leaders, staff, and families. This type of environment, in turn, allows for broader participation in leadership through decision making and quality improvement, and creates distributed leadership structures that include teachers as leaders. The loop depicts relational coordination (as something leaders build through what they do) and distributed leadership (as an approach that is cultivated by the climate) to illustrate the importance of the following in promoting quality improvement: continual action and responsiveness among center leaders, teacher leaders, and what happens in a center.

Exhibit VII.1. Theory of change of ECE leadership for quality improvement

What influences ECE leadership

What leadership in center-based ECE settings looks like

What ECE leadership can influence

Community, state, and national context

- Value placed on the importance of ECE for children
- Community involvement in ECE
- Economic conditions and workforce supply

Center characteristics

- Size (number of children served)
- Part of a larger program or organization
- Funding mix and related regulations and standards
- Child, family, and staff demographics

Policy, regulatory, and fiscal infrastructure

- Program policies based on state/local funding context
- Oversight and influence of larger organization/agency
- Funding for additional services/supports

External professional development and workforce supports

- Access to training and professional and leadership development opportunities
- Access to mentors and ongoing supports
- Leadership standards for ECE

What happens in the center

Leaders build relational coordination

Center culture, climate, and communication
culture of respect, shared growth, and learning; collaboration among staff; family relationships

Who leaders are
Formal and informal leadership roles

What teacher leaders do

What center leaders do

What center leaders bring

What teacher leaders bring

Center practices
operational procedures and policies; regular assessment of program, classroom, and children; family engagement

Relational coordination cultivates distributed leadership

Participation in decision-making, change, and improvement

Center structures and staff supports
training and professional development; collaborative planning time; conflict resolution; accountability structures

Improved child and family outcomes

- Cognitive development
- Social-emotional development
- Physical health and well-being
- Approaches to learning, executive function
- Family involvement in children's learning

ECE center quality outcomes

- Positive teacher-child interactions
- Positive learning environment
- Strong staff skills and practice for teaching and caregiving

Staff outcomes

- Motivated, engaged staff
- Retention of highly qualified staff
- Positive psychological well-being and mental health

While the ECE literature lacks a depth of evidence, it describes associations among the leadership constructs, what happens in the center, and classroom quality as reflected in the theory of change. For example, we reviewed literature that documents associations between (1) relational coordination, teacher participation in distributed leadership, and positive staff outcomes (in Chapters II and V); (2) certain practices that leaders pursue and classroom quality and student attendance (in Chapter IV) and, (3) the center climate, practices, and structures and classroom quality (in Chapter V). The one ECE study with an experimental design found a positive causal effect on child outcomes, specifically language development, when teacher leaders and center leaders worked together toward quality improvement (in Chapter II). Evidence from other fields, particularly K-12 education, suggests that the pathway of influence from a primary leader to student outcomes is through the involvement of teachers as leaders (in Chapter V).

Measuring ECE leadership

Our review of the literature and the resulting theory of change provides some directions for the measurement of ECE leadership.

- Few studies in ECE have looked at leadership as practiced across a range of teaching staff. Most studies focus on leadership by the lead or head teacher as the teacher most responsible for children's learning. A complete measure of ECE leadership, drawing from the distributed leadership literature, should *examine the role that all teaching staff contribute to leadership*—in formal or informal ways.

- Literature from other fields suggests that a *focus on measuring practices* (rather than knowledge, skills, and abilities) might maximize an understanding of who exhibits leadership and what influence it might have on outcomes.

- The literature makes clear that leaders should create a supportive work environment, but it remains *unclear about whether the environment is a mediator of the influence of leadership on center quality*. It is possible (though, perhaps, unlikely) that a supportive work environment directly influences staff and center quality outcomes independent of specific ECE leadership actions. In testing a measure of leadership, it will be important to measure the work environment as well as classroom quality to understand the pathway of influence that leadership might have on both center quality and child outcomes.

- Much of the empirical work we reviewed was *not conducted in a range of ECE settings that include Head Start and primarily CCDF-funded centers*. Further exploration is needed to ensure the specific contexts and influences of leadership in these settings is addressed.

Next steps for ExCELS

We plan to use the theory of change to guide the work of the ExCELS project, which will result in a new measure that addresses the gaps in understanding ECE leadership. We have developed a compendium of existing measures as a companion piece to this literature review. Together, they

are the foundational products of the project. As part of ExCELS, we will explore the support ECE leaders receive through leadership development and quality improvement initiatives, and we will conduct a descriptive study of leadership in center-based ECE settings that receive Head Start funding and that serve children from low-income families supported through CCDF.

As a measures development project, ExCELS is iterative work that relies on the input of a broad range of research, policy, and practice stakeholders to build a theory of ECE leadership and a framework for assessing it in center-based settings. We plan to partner with experts from the research field, federal program staff from the Office of Child Care and the Office of Head Start, staff of the National T/TA Centers, and center directors and teachers to shape and inform the work in ways that will respond to the ECE field at large. The end goal of the work is to create a measure that can help identify and support the critical elements necessary for effective ECE leadership for the benefit of staff, families, and children.

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Appendix A

Search parameters and review template

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Exhibit A.1. Search parameters: ECE field

Search parameter	Sample terms and resources[a]
ECE field	
Keywords	Leader(s) OR leadership OR leadership skill(s) OR leadership competency(ies) OR leadership behavior(s) OR leadership development OR management skill(s) OR relational coordination OR relational leadership OR entrepreneurial leadership OR leadership measure(s)/measurement
	AND
	Teacher(s) OR teacher leader(s) OR mentor teacher(s) OR coach(es) OR center director(s) OR instructional leader(s) OR educational coordinator(s) OR principal(s) OR educational administrator(s)
	AND
	Child care OR early education OR early care and education OR pre-K OR preK OR pre-kindergarten OR pre kindergarten OR preschool OR early childhood OR elementary
	AND/OR
	quality improvement OR leadership QI initiative(s) OR organizational learning OR organizational change OR organizational capacity
Disciplines and fields targeted	Early care and education
Relevant databases	Academic Search Premier, PsycINFO, Scopus, SocINDEX, ERIC, Education Research Complete
Examples of websites of relevant organizations	• Early Childhood Learning and Knowledge Center: https://eclkc.ohs.acf.hhs.gov/ • Center for Study of Child Care Employment: http://cscce.berkeley.edu/ • LEAD Early Childhood Clearinghouse: https://mccormickcenter.nl.edu/lead/closing-the-leadership-gap/ • McCormick Center for Early Childhood Leadership: https://mccormickcenter.nl.edu/ • New Venture Fund: http://www.newventurefund.org/ • Saul Zaentz Early Education Initiative: https://zaentz.gse.harvard.edu/ • The Ounce: https://www.theounce.org/
Other fields	
Keywords	Leader(s) OR leadership OR leadership skill(s) OR leadership competency(ies) OR leadership behavior(s) OR leadership development OR management skill(s) OR relational coordination OR relational leadership OR entrepreneurial leadership OR leadership measure(s)/measurement
	AND
	K–12 education (elementary education, secondary education) OR management (leadership, human resources, industrial or organizational psychology, organizational development and change, etc.) OR health OR child welfare
	AND
	Literature review OR systematic review OR meta-analysis
	AND/OR
	quality improvement OR leadership QI initiative OR organizational learning OR organizational change OR organizational capacity

Exhibit A.1 *(continued)*

Search parameter	Sample terms and resources[a]
Disciplines and fields targeted	K–12 education (elementary education, secondary education), management (leadership, human resources, industrial or organizational psychology, organizational development and change, etc.), health, and child welfare
Relevant databases	Academic Search Premier, CINAHL, MEDLINE, PsycINFO, Scopus, SocINDEX, ERIC, Education Research Complete, Business Source Corporate Plus, EconLit
Examples of websites of relevant organizations	• Council of Chief State School Officers: https://ccsso.org/ • National Governors Association: https://www.nga.org/ • National Policy Board for Educational Administration: http://npbea.org/ • PolicyLink: http://www.policylink.org/ • UChicago Consortium on School Research: https://consortium.uchicago.edu/ • Wallace Foundation: https://www.wallacefoundation.org • Center for Positive Organizations: https://positiveorgs.bus.umich.edu/ • Sanger Leadership Center: https://sanger.umich.edu/ • Center for Creative Leadership: https://www.ccl.org/ • Relational Coordination Research Collaborative: https://heller.brandeis.edu/relational-coordination/ • Institute for Healthcare Improvement: http://www.ihi.org/

[a]Our search strategy will include truncations of the terms and resources listed here.

Exhibit A.2. Key dimensions summarized for each source

Field	Response categories/information required
Study/source background and context	
Type(s) of setting(s)	ECE center, school, community agency, hospital, etc.
If ECE study, describe agency/center characteristics	Auspice (Head Start, center-based, public pre-K, etc.) Funding (Public, private, nonprofit) Age of children (infant/toddler, preschool, 0-5, etc.)
Geographical setting	Describe country, region, state, city
Discipline	ECE K-12 education Management (leadership, human resources, industrial or organizational psychology, organizational development and change, etc.) Health (Nursing, mental health, etc.) Child welfare
Participant characteristics	Who are the study participants? (Directors, teachers, managers, etc.) Characteristics, including whether the study focuses on people who are already leaders
Participant sample size	Sample size
Source type	Empirical (contains qualitative or quantitative data) Theoretical (no qualitative or quantitative data) Research synthesis, literature review, meta-analysis
Study design(s)	Implementation study (qualitative) Descriptive outcome study (correlational, descriptive, etc.) (quantitative, descriptive) Impact study (RCT, QED) (quantitative, impact)
Research questions, if applicable	List the study's primary research questions, if available
Contextual factors	Community characteristics
Measures	
Data sources	Staff interviews, direct observation, etc.
Construct: What leaders bring	Does the source examine a leader's competencies, skills, characteristics, mindsets (values, beliefs, self-efficacy), human capital, dispositions, etc.? If so, please describe.
Construct: What influences the ability to lead	Does the source examine organizational factors that influence the ability to lead, such as financial resources, infrastructure, and supports? If so, please describe.
Contextual factors	Does the source examine community, state, and national contextual factors that impact leadership? If so, please describe.

Exhibit A.2 *(continued)*

| Field	Response categories/information required
Construct: Leadership structure	Does the source examine who participates in leadership in either formal or informal ways? If so, please describe.
Construct: What leaders do	Does the source examine the actions leaders take? If so, please describe.
Construct/Outcome: Supportive work culture and environment	Does the source examine, as a subset of the actions leaders take, what leaders do to foster a supportive work culture and environment? Does the source examine how a supportive work culture and environment impact leaders? If so, please describe. Note that supportive work culture and environment could be either a construct or an outcome.
Outcomes: Staff outcomes	Does the source examine outcomes like positive workplace climate, level of/culture of respect, staff retention, motivation/engagement of staff, etc. If so, please describe.
Outcomes: ECE program quality	Does the source examine outcomes like positive teacher-child interactions, positive learning environment, level of family engagement, etc.? If so, please describe.
Outcomes: Child outcomes	Does the source examine child outcomes? If so, please describe.
Leadership measures used	List of measures used If the measure is cited, include the citation If the measure is study-specific or author-developed, indicate so
Conceptual frameworks/Theories of change	
Whether source narratively describes or graphically depicts a conceptual framework or theory of change	Yes/No
Construct: What leaders bring	Does the framework include a leader's competencies, skills, characteristics, mindsets (values, beliefs, self-efficacy), human capital, dispositions, etc.? If so, please describe.
Construct: What influences the ability to lead	Does the framework include factors that influence the ability to lead, such as financial resources, infrastructure, and supports? If so, please describe.
Contextual factors	Does the framework include community, state, and national contextual factors that impact leadership? If so, please describe.
Construct: Leadership structure	Does the framework include the structure of leadership, including identifying which staff are leaders and which are followers (relationship leadership, entrepreneurial leadership, etc.)? If so, please describe.
Construct: What leaders do	Does the framework include the actions leaders take? If so, please describe.

Exhibit A.2 *(continued)*

Field	Response categories/information required
Construct/Outcome: Supportive work culture and environment	Does the framework include what leaders do to foster a supportive work culture and environment? Does the source examine how a supportive work culture and environment impact leaders? If so, please describe. Note that supportive work culture and environment could be either a construct or an outcome.
Outcomes: Staff outcomes	Does the framework include outcomes like positive workplace climate, level of/culture of respect, staff retention, motivation/engagement of staff, etc. If so, please describe.
Outcomes: ECE program quality	Does the framework include outcomes like positive teacher-child interactions, positive learning environment, level of family engagement, etc.? If so, please describe.
Outcomes: Child outcomes	Does the framework include child outcomes? If so, please describe.
Other constructs or outcomes	Describe any other constructs or outcomes that are present in the framework, but do not fit into the categories above.
Analysis	
Whether and how leadership is defined or analyzed	Specify items or constructs for defining leadership (such as by behaviors, by activities, etc.)
Connection of constructs to draft theory of change	Label the following with Yes or No to indicate whether or how each item maps to the constructs in the ExCELS theory of change: • What leaders bring: Yes/No • What influences the ability to lead: Yes/No • Leadership structure/Identification of leaders: Yes/No • Supportive work culture and environment: Yes/No • What leaders in ECE settings do: Yes/No • Contextual factors: Yes/No • Outcomes (staff, program, child, etc.): Yes/No
Whether and how the association between leadership and outcomes is assessed quantitatively	Mean differences Correlations Multivariate analysis
Results of the analyses	Summary description of the findings.
Leadership Quality Improvement models/initiatives	
Whether source discusses a leadership QI model or initiative	Yes/No
Name	Name of model, initiative, feature, practice

Exhibit A.2 *(continued)*

Field	Response categories/information required
Type of model	Leader preparation programs (for program leaders, teachers, and/or others)
	Strategic staff management (to improve recruitment and selection of program leaders)
	Professional learning (professional development supports for current directors, such as workshops, coaching, peer learning communities, and mentoring)
	Leader evaluation systems (performance measurement approaches for accountability or developmental purposes)
	Working conditions (to improve working conditions for leaders, such as using incentives to recruit and retain them, promoting autonomy, and providing supports)
	Program improvement (leadership QI embedded within program improvement intervention models, as part of a larger QI intervention)
Leadership component	Description of leadership component
Scale	Sites
	Centers
	States
Targets of initiative	Directors
	Teachers
	Other (Other administrators, site leaders, etc.)
Whether the QI model/initiative developer was an author of the study	Yes/No
Number of studies of the model/initiative that have been completed	Number of studies completed (Each distinct sample counts as one study.)
When the model/initiative was developed	Year
Findings related to model/initiative	Summary of findings
	Whether findings are consistent across studies
	Quality of implementation of the initiative
	Cost of implementing the initiative

Appendix B:

Practices of ECE Leaders and Source Information

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I. LEADERSHIP PRACTICES DISCUSSED OR EXPLORED IN THE ECE LITERATURE, BY SUBTOPIC AND SOURCES

Exhibit B.1 Sources, by type of information

Type of information	Literature sources
Theoretical or expert consensus (from literature reviews or frameworks)	Abel et al. 2017; Sims and Waniganayake 2015; Wang and Ho 2018; Heikka and Hujala 2013; Derrick-Mills et al. 2015; Talan et al. 2014; Leeson et al. 2010; Nicholson et al 2018
Qualitative findings about perceptions of practices deemed important for leaders to pursue	Aubrey et al. 2013; Sims et al. 2015; Douglass 2018; Barblett and Kirk 2018
Qualitative findings about practices pursued by leaders perceived as successful	Pacchiano et al. 2018; Whitebook et al. 2016; Smith et al. 2019; Talan et al. 2014; Pacchiano et al. 2016; Rohacek et al. 2010
Quantitative descriptive associations between practice and outcomes	Ehrlich et al. 2018; Whitebook et al. 2016; Whalen et al. 2016; Arbour et al. 2016; Rohacek et al. 2010; Lower and Cassidy 2007; Talan and Bloom 2011

Source: ExCELS literature review conducted January and February 2019.

Promote, facilitate, and enable high quality teaching and classroom quality

- **Use observation and feedback to help teachers improve**, including: visit classrooms regularly; visit classrooms more frequently for teachers who are newer or need more support; conduct in-depth observations of activities and teacher-child interactions; structure schedule to have enough time for these tasks (Sims and Waniganayake 2015: Smith et al. 2019; Pacchiano et al. 2018;Whitebook et al 2016: Ehrlich et al. 2018; Whalen et al. 2016)

- **Promote ambitious instruction and learning**, including: set high expectations for teaching and learning; use national, state, or other standards for what children should be learning; select and implement curriculum; ensure fidelity to curricular philosophy; optimize learning environment to support children's learning; promote positive teacher-child interactions; emphasize individualized learning; focus on children's outcomes; promote children's social-emotional learning and needs; promote children's literacy, language, and math outcomes; prepare children for kindergarten (Abel et al. 2017; Wang and Ho 2018; Heikka and Hujala 2013; Barblett and Kirk 2018; Smith et al. 2019; Sims et al. 2015; Pacchiano et al. 2018; Ehrlich et al. 2018; Whalen et al. 2016; Arbour et al. 2016)

- **Use data for improvement**, including: assess children's development and learning; collect, analyze, and use data for continuous quality improvement and formative assessment (Derrick-Mills et al. 2015; Talan et al. 2014; Pacchiano et al. 2018; Arbour et al. 2016)

- **Structure teachers' time and activities to support instruction**, including: protect time and facilitate routines for teacher collaboration on data use and instructional strategies; cultivate and participate in professional learning communities; ensure teachers observe each others'

practices; promote lesson planning and other instructional supports (Leeson et al. 2010; Derrick-Mills et al. 2015: Whitebook et al. 2016; Pacchiano et al 2018)

- **Support professional development**, including: develop organizational policies and practices to support access to and participation in PD; offer ongoing PD; align PD with staff's career pathways; help staff with career planning by facilitating career planning sessions; allocate resources to build staff capacity; link observation/coaching with other PD and planning; provide other coaching and mentoring (Sims and Waniganayake 2015; Wang and Ho 2018; Derrick-Mills et al. 2015; Talan et al. 2014; Aubrey et al.2013: Sims et al. 2015; Smith et al. 2019; Whitebook et al. 2016)

Create and sustain a culture of respect, cultural competence, and continuous learning

- **Build and sustain relationships with and between staff**, including: devote time to interacting with staff including daily conversations; set up activities such as weekend retreats so staff can build relationships (Leeson et al. 2010; Sims et al. 2015; Pacchiano et al. 2016; Whalen et al. 2016)

- **Foster a positive workplace and organizational climate**, including: create inclusive spaces where individuals can talk with each other about their experiences and perceptions; use active listening to be inclusive; build trust and collective responsibility instead of direction and control; interact with others on social, emotional, and intellectual levels; deal with conflicts; serve as role model for others; motivate and galvanize staff (Nicholson et al. 2018; Leeson et al. 2010; Talan et al. 2014; Aubrey et al. 2013; Sims et al. 2015; Barblett and Kirk 2018; Pacchiano et al. 2018; Pacchiano et al. 2016; Whitebook et al. 2016; Ehrlich et al. 2018; Rohacek et al. 2010)

- **Ensure effective communication**, including: communicate regularly with staff; listen to and solicit feedback from others and allow staff to influence decisions; listen to and respond to staff concerns; create opportunities for staff to share ideas informally; encourage sharing and discussion; enable reflective dialogue between teachers; ensure staff have shared understandings and meanings (Sims et al. 2015; Pacchiano et al. 2018; Whitebook et al. 2016; Ehrlich et al. 2018; Whalen et al. 2016)

- **Emphasize staff participation and collaboration**, including: set up participative decision-making processes; work with staff to define focus and resolve issues; distribute responsibilities to staff; form leadership teams (including or consisting of teachers) to implement initiatives; empower others; enable others to do parts of a task; have shared ownership over goals and actions (Derrick-Mills et al. 2014; Leeson et al. 2010; Heikka and Hujala 2013; Barblett and Kirk 2018; Sims et al. 2015; Talan et al. 2014; Pacchiano et al. 2016; Pacchiano et al. 2018; Whitebook et al. 2016; Ehrlich et al. 2018; Whalen et al. 2016; Arbour et al. 2016)

Establish and implement a shared strategic vision

- **Establish and follow a vision**, including: imbue the vision in all activities and use it to set direction around shared purpose; communicate expectations; guide staff through vision; set standards and expectations for others to follow; focus on justice/equity for all children; pursue entrepreneurship (Nicholson et al. 2018: Derrick-Mills et al. 2014; Douglass 2018; Barblett and Kirk 2018; Aubrey et al. 2013; Pacchiano et al. 2018)

- **Conduct strategic planning**, including: set actionable goals tied to program standards; guide future program direction; focus on a few strategic priorities; build in time for visionary thinking during staff meetings and other activities; balance daily tasks with stepping back to take strategic view of organization and work; plan for the future; conduct succession planning; use PD to encourage staff to take on leadership roles (Abel et al. 2017; Sims et al. 2015; Pacchiano et al. 2018; Pacchiano et al. 2016)

- **Implement strategic plans**, including: align actions with shared values; ensure programs within the center are coordinated and consistent with goals for children's learning; implement program improvement plans; achieve organizational quality goals; lead organizational change processes; incorporate important initiatives into daily routines over time (Nicholson et al. 2018; Wang and Ho 2018; Barblett and Kirk 2018; Douglass 2018; Aubrey et al. 2013; Sims et al. 2015; Talan et al. 2014)

- **Evaluate strategic plans**, including: assess and reflect on program; use data to inform and monitor change; critically evaluate and try new ways to accomplish goals (Sims et al. 2015; Abel et al. 2017)

- **Engage in self-reflection and learning**, including: document learning and practice; develop action plan; analyze self (Nicholson et al. 2018; Leeson et al. 2010; Sims et al. 2015; Douglass 2018; Talan et al. 2014; Whalen et al. 2016)

Promote family and community partnerships

- **Set polices to promote family partnerships**; model and promote positive and supportive teacher-family interactions; listen to and take into account parents' inputs and concerns; include parents in program decisions and improvement efforts; include parents from all backgrounds; pay attention to parent as individual beyond their child; build in time for family engagement activities (Pacchiano et al. 2018; Abel et al. 2017)

- **Conduct activities to engage with families**, including: actively reach out to families and get their feedback; provide specific feedback about children's learning and development to parents; give parents information on how to support child's learning at home; connect families to other adults and resources; use culturally responsive practices, ask families about their beliefs and child-rearing practices; encourage teachers to invite parents to visit classroom (Wang and Ho 2018; Smith et al. 2019; Pacchiano et al. 2016; Pacchiano et al. 2018; Ehrlich et al. 2018)

- **Engage with the community and field**, including: collaborate and network with community organizations; serve in professional groups and advisory boards; mentor other leaders outside of one's program; pay attention to issues and concerns of the local neighborhood (Abel et al. 2017; Wang and Ho 2018; Heikka and Hujala 2013; Aubrey et al. 2013; Sims et al. 2015; Douglass 2018; Smith et al. 2019, Talan et al. 2014)

- **Advocate for ECE and children**, including: learn about and advocate for ECE policies and politics; advocate for policies that promote social justice and equity and benefit all children and families; understand and influence the larger political, social, economic, legal, and cultural context (Abel et al. 2017; Nicholson et al. 2018; Sims et al. 2015)

Manage consistent, efficient organizational operations and performance management

- **Carry out necessary operational activities**, including: develop and manage budgets, manage and align resources, hire staff, supervise staff, oversee daily operations and systems (Lower and Cassidy 2007; Talan and Bloom 2011; Wang and Ho 2018; Heikka and Hujala 2013; Sims et al. 2015; Pacchiano et al. 2016; Whitebook et al. 2016; Abel et al.2017)

- **Comply with regulations and requirements**, including: ensure adequate equipment and space; comply with regulations (Pacchiano et al. 2018; Rohacek et al. 2010)

- **Ensure smooth operations**, including: hold productive staff meetings, build systems for regular communication; build time for collaboration into structure of center operations; use time-management strategies to address routine and unexpected events to save time for instructional tasks (Lower and Cassidy 2007; Talan and Bloom 2011; Talan et al. 2014; Smith et al. 2019; Pacchiano et al. 2016; Abel et al. 2017)

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