P-3 in **Principal Preparation**

Leveraging School Leadership to Improve Early Learning and the Early Grades

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We are indebted to the experts in the field who gathered for a peer-to-peer convening hosted by the National P-3 Center to grapple with and inform the ideas presented herein (see Appendix A). They brought their expertise, experience, humanity, joy, and critical questions to the work. We are hopeful about the future of P-3 leadership, given the depth and breadth of good people engaged in the endeavor.

We are also grateful for the skilled facilitation of our convening by Brittany Mauney and Chelsi Chang of the Aspen Institute. Their ability to design a meeting that was scholarly, innovative, and fun is what work should feel like every day.

Disclaimer:

The contents of this report are based on the authors' own research and experiences and, importantly, discussions held during a convening with experts in the field (see Appendix B). Because no one person could be part of every discussion, the strategies herein were not reached by group consensus. Anyone who participated in the convening should not be assumed to endorse the full contents of this report. All content, all strategies, and any errors are solely the responsibility of the authors. The authors encourage and hope for on-going deliberation of the ideas presented in this call to action.

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This paper puts forward a call to action to infuse P-3 (pre-school through 3rd grade) leadership into principal preparation programs at scale. Our analysis recognizes persistent disparities and inequities in young elementary students' education outcomes in the United States and details ways to span boundaries of research, policy, and practice that separate the fields of early care and education (ECE), elementary education, and school leadership. **Our vision is to ensure that all of the nation's elementary schools are led by principals knowledgeable about the science of young children's learning and development, skilled in creating a school climate that nurtures the unique aspects of high-quality teaching and learning across P-3, and dedicated to meaningful engagement with families and community-based early care and education (ECE) programs.** This call to action offers explicit, research-informed strategies to inspire and invigorate a national dialogue to drive change in policy and practice by states, school districts, and institutions of higher education.

The Problem

Persistent Achievement and Opportunity Gaps for Young Students

Inequitable achievement in the elementary grades remains largely unchanged over the past 20 years. Data from the National Assessment of Educational Progress (NAEP) show that 4th grade reading gaps have improved minimally since the turn of the 21st century (see Figures 1 and 2). Why do these scores matter? Studies show that if children read at grade level by grade 3 they are more likely to read at grade level by grade 8, regardless of economic circumstances, which has profound impact on high school completion and post-secondary success (Goldhaber et al., 2021; Hernandez, 2011; Petscher et al., 2019). NAEP's 4th grade scores serve as a bellwether for children's long-term trajectories in school and in life.

A recent National Academies report (2023) concludes that achievement gaps not only measure learning outcomes, but also reflect the effects of a host of opportunity gaps – the unequal and inequitable distribution of resources and

experiences. In short, persistent achievement gaps also signal a systemic failure to provide high-quality learning opportunities in the years prior to 4th grade to the children who need them most.

This paper focuses on two types of opportunity gaps: the lack of an intentional and systematic provision of high-quality learning opportunities across the pre-school through 3rd grade years (P-3), and the lack of intentional and systematic attention to effective school leadership for early learning and the early grades in elementary schools. Evidence indicates that the troubling disparities in achievement can be disrupted by integrating these two powerful reform strategies. To date, these fields largely operate in separate spheres and neither has been coherently organized to address 3rd grade gaps (Göncü et al., 2014; Kauerz, 2019; Little et al., 2022).

Figure 1. Long-term Trend in NAEP 4th Grade Reading Achievement Gaps, Black-White Gap Highlighted

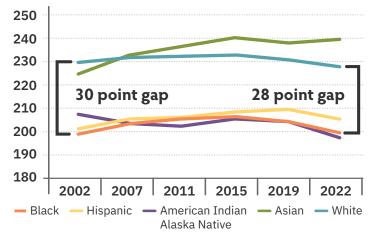
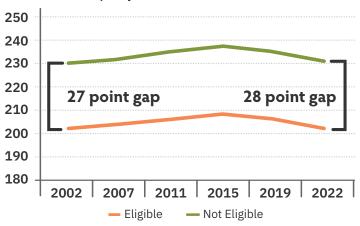


Figure 2. Trend in NAEP 4th Grade Reading Achievement Gaps, by Socio-Economic Status



Source: NAEP Data Explorer. (2024). National Center for Education Statistics, U.S. Department of Education

Call to Action

Our Call to Action begins by describing three sources of the problem of stagnant 4th grade achievement gaps – lack of alignment among research, policy, and practice (1) within P-3; (2) within school leadership for effective P-3; and (3) within principal preparation for leading P-3. We then provide an ambitious vision to better integrate research-informed strategies within and among the three, building the case for systematic integration of P-3 in principal preparation reforms. This Call to Action closes by moving from analysis to recommendations for action, identifying opportunities within state policy, higher education, school district reforms, research, and among national organizations to explicitly focus on building and supporting effective P-3 leadership in elementary schools at scale (see Figure 3).

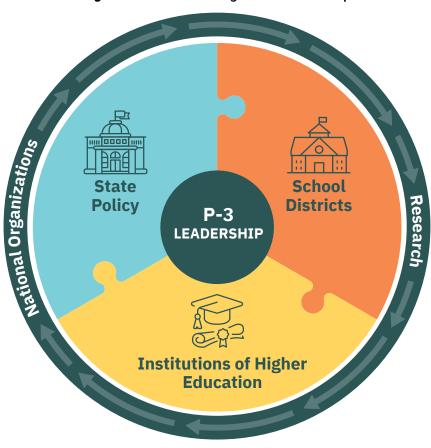


Figure 3. Drivers of Change in P-3 Leadership

P-3 and Leadership Intersections

To explore the intersections of P-3 and school leadership, the National P-3 Center convened K-12 and early childhood thought leaders and practitioners from key sectors – including higher education, school districts, state agencies, professional associations, philanthropy, and other organizations.¹ Together, they grappled with both the possibilities and the potential pitfalls of establishing an ambitious agenda that bridges P-3 education and school leader preparation. One central topic was the need to bring greater clarity to the power of P-3 approaches and school leadership as fundamental strategies that can improve student learning opportunities, and that aligning these two fields to address 3rd grade achievement gaps holds transformational possibility for young children's learning and life outcomes. To drive change at *scale* across the country, participants considered how school-based P-3 leadership might need to move into durable policy and practice at state, school district, and higher education levels. While participants did not reach full consensus on every strategy, this report presents the full array of ideas generated. The strategies deserve additional deliberation and on-going refinement as they are implemented.

¹ See Appendices A and B for more information on this convening.



Much is known, established by both research and practice, about the importance of early learning and the early grades, the impact of school principals on student learning, and the power of effective preparation and development of school leaders. However, when matched against our focusing challenge — improving equity of learning opportunities and outcomes for children by grade 4 — consequential fault lines exist. In the areas of P-3, school leadership, and principal preparation and development, variations in policy and practice fail to reflect compelling research.

Pre-School through 3rd Grade (P-3): A Paradigm Shift

When considering the 4th grade achievement gaps just presented, one of the first questions should be "what happened before 4th grade to cause these gaps?" Nearly all of the students tested attended kindergarten, 1st, 2nd, and 3rd grades in public schools, and nearly half of them attended publicly funded preschool. P-3 approaches emphasize the urgent need to rethink and improve the year-after-year learning opportunities provided to young children from preschool through 3rd grade.

More than simply a sequence of grade levels, the term "P-3" signals a paradigm shift to re-imagine and reform the first level of education provided to young children by breaking down traditional siloes between grade levels and by reorienting structures and practices to reflect the unique developmental needs of young children. Grounded in the science of learning and development, P-3 approaches recognize the foundational growth of a child's brain, executive function, self-regulation, identity formation, and academic and social-emotional skills that occur from birth through about age 8 or 9, when most children attend 3rd grade (Cantor & Osher, 2021; Institute of Medicine and National Research Council, 2015; National Academies of Sciences, 2023). Fundamentally, P-3 is a public education reform focused on elementary schools and early care and education (ECE) programs (Bogard & Takanishi, 2005; Kauerz & Coffman, 2019; Takanishi, 2016).

P-3 approaches transform kindergarten, 1st, 2nd, and 3rd grades, recognizing the inadequacy of status quo teaching and learning for many young children. They also increase the amount of formal early learning provided to young children

by expanding access to universal, high-quality preschool in the two years prior to kindergarten (pre-k). P-3 approaches then align pre-k with K-3 to improve the cumulative year-after-year quality of early education experiences by ensuring culturally responsive teaching and learning, meaningful engagement of families, and school leaders who hold high expectations for every child's learning and embrace children's individual differences (Kauerz & Coffman, 2019; Ritchie & Gutmann, 2014; Takanishi, 2016).

The Promise of P-3

The promise of P-3 derives from its focus on the most foundational time in human development – the span of years during which young children develop the skills and dispositions that lay the groundwork for all subsequent learning and development. While learning occurs across one's lifetime, the P-3 span is a sensitive period when foundational skills are more readily acquired and, therefore, can have lasting influence (Center on the Developing Child, 2007; Cunha & Heckman, 2007). This concept has led to various catchphrases – prevention versus remediation; skill begets skill; abilities beget abilities; and the return on investment in early childhood. As described by the Institute of Medicine and National Research Council, "the course of brain development [during early childhood] also shapes a child's growing capacities (or incapacities) for learning; complex thought; and supportive, empathic involvement with others - capacities that powerfully influence life chances for success, productivity, and satisfaction" (2015, p. 57). Research from multiple disciplines consistently confirms that children's early experiences establish the relationships, behaviors, self-perceptions, stress responses, and emotions that mutually reenforce each other over time and, in turn, affect academic learning (Nasir et al., 2021; Osher et al., 2020).

Children's first participation in early learning settings beyond their family – whether in community-based child care, family child care, school-based pre-K, Head Start, or kindergarten – exposes them to relationships with teachers and peers, classroom environments with communal expectations and academic demands, and opportunities to develop a sense of belonging and engagement as a learner. As children move into the early grades (K-3), they continue to experience rapid growth in their self-regulation, increased independence in new and challenging contexts, development of interpersonal skills, and expanded competence in early academic skills (e.g., reading and math).

The COVID-19 pandemic underscored the vital role of schools for young children. When schools closed or moved to virtual learning, children and their families could not avail themselves of the relationships, environments, and instruction to which they were accustomed. Schools are places that provide foundational supports not only to develop fundamental skills and knowledge, but also to develop self-regulation and social relationships. Schools are also safe and supportive places for children not yet old enough to be left home alone while family members work.

K-12 educators and policymakers alike increasingly embrace reforms anchored in "the science of learning and development" (Cantor & Osher, 2021; Darling-Hammond et al., 2020; Learning Policy Institute & Turnaround for Children, 2021). Missing, however, is specific attention to early learning and the early grades. Because of the extraordinary differences in the continuum of human development during the first eight years of life, education practitioners and policymakers need to explicitly prioritize young students in their work.

The National Academies of Sciences, Engineering, and Medicine have released multiple recent volumes focused on the critical age span encompassed by P-3, calling for increased quality and better alignment across early learning and the early grades (Institute of Medicine and National Research Council, 2015; National Academies of Sciences, 2016, 2017, 2022, 2023). Extensive research helps to operationalize what is important in P-3 work. Children make faster gains in both literacy and math, and achievement gaps between sub-groups narrow, when they:

- » experience strong instructional alignment year after year (Clements & Sarama, 2009; Duke & Cartwright, 2021; McCormick et al., 2024),
- » receive explicit instruction related to executive function and self-regulation (Blair & Raver, 2014),
- » have highly effective teachers year after year (Vernon-Feagans et al., 2019), and
- » are made to feel that they belong and can excel (Adair & Colegrove, 2021; Adair et al., 2024; Hammond, 2015).

Evidence about the efficacy of P-3 approaches that align pre-k with elementary school reforms dates back to the 1970s, with research on Chicago Public Schools' Child-Parent Centers (CPC). CPCs provide comprehensive educational and family support services in specific elementary schools to children experiencing economic disadvantage. Findings show that children who participated in CPCs every year from preschool to 3rd grade, compared to those who only participated in pre-k and kindergarten (then attended other schools), had significantly better academic success in both 3rd and 8th grades, better classroom adjustment in 3rd grade, lower rates of retention and school mobility, and fewer years of placement in special education by the end of high school (Ou et al., 2019). Similarly, Montgomery County Public Schools (Maryland) aligned high-quality pre-k with K-3 reforms as part of a comprehensive pre-k-12th grade strategy. After implementing its P-3 efforts for almost a decade, nearly 88 percent of 3rd graders met proficiency on state tests, and achievement gaps between different racial and ethnic groups across all grades declined by double digits (Marietta, 2010a).

Given the scale of universal K-12 education and everexpanding pre-kindergarten for 4-year-olds, there is no other five-year span of current public investment in education that is more foundational to children's academic and life success than the five years of pre-k, kindergarten, 1st, 2nd, and 3rd grades.



Opportunity to Align Research, Practice, and Policy: P-3

P-3 work is daunting because it demands a reckoning that this country's current first level of education meets the needs of some children, but not all. P-3 challenges the status quo of elementary education, an institution that reflects deeply embedded economic, social, and racial inequities (Hassrick et al., 2017; Tozer et al., 2021). It also challenges the status quo of early care and education (ECE), a fragmented system of policies and programs that perpetuates inequities in children's access to, experiences in, and outcomes during and after pre-k (Meek et al., 2020; Weiland et al., 2024). Because public education has not fundamentally changed in the past 100 years, P-3 faces the headwinds of popular opinion about what "real school" means – a focus on reading, writing, and arithmetic; serious learning occurring with children tucked behind desks, heads down; and the teacher at the front of the room dispatching knowledge and enforcing rules of discipline. Traditional approaches not only neglect the science of learning and development, but also marginalize Black, Indigenous, and Latine children, as well as dual language learners, children with disabilities, and children affected by low-income circumstances. In light of this context, there are three prevailing fault lines in the implementation of P-3 at both state and local levels.

FAULT LINE #1: P-3 reforms are implemented as pre-k-only reforms.

Research consistently shows that pre-k closes achievement gaps by the end of the pre-k year for those children who attend (Magnuson & Duncan, 2016; Yoshikawa et al., 2013). As a result, pre-k has become a popular topic related to school success, with increasing numbers of states, school districts, and municipalities investing in publicly funded programs. In 2023, 35% of the country's 4-year-olds were enrolled in a public pre-k program, compared to only 14% in 2002 (Friedman-Krauss et al., 2024). Both researchers and advocates emphasize the need for school and district leaders to get smarter and be more intentional about ensuring access to high-quality pre-k for all children (see, for example, Jackson, 2023; Little et al., 2022).

However, when returning to the 4th grade achievement gap trends between 2002 and 2022 depicted in Figures 1 and 2, the growth of pre-k over the same time period has not closed those gaps. Notably, nationally representative data, and many evaluations of publicly funded pre-k, show that elementary schools fail to significantly close achievement gaps any further after pre-k (Abenavoli, 2019; Bailey et al., 2017; Durkin et al., 2022; Horm et al., 2022; Morgan et al., 2019). The evidence strongly suggests that the expansion of high-quality pre-k is an essential, albeit insufficient, strategy to fulfill the promise of P-3 reforms. While short-term narrowing of achievement gaps during the pre-k years is certainly desirable, ensuring long-term success in school and life must be an important outcome of interest.



There is no other five-year span of current public investment in education that is more foundational to children's academic and life success than the five years of pre-k, kindergarten, 1st, 2nd, and 3rd grades.

It has long been noted that it is "magical thinking" to expect one year of a good pre-k program to inoculate children from the threats of poorly resourced public schools (Brooks-Gunn, 2003). The K-3 grades also need to be reformed. There is evidence, though, that effective K-3 reforms are not happening at scale. One large-scale study of more than 11,000 school districts highlights wide variability in the extent to which they appear to have a strategic focus on what happens 3rd grade and below (reardon, 2019). With federal and state accountability systems requiring districts to measure their performance starting with 3rd grade test scores, many districts and schools focus on 3rd grade and up, placing high-performing teachers in the grade levels with higher stakes (grades 3-5), and lowperforming teachers in the non-tested K-2 grades (Grissom et al., 2017). Kindergarten is becoming more academic and less developmentally informed (Bassok et al., 2016; Brown et al., 2020; Engel et al., 2021). And children's experiences in elementary classrooms often fail to reflect the science of learning and development (Pianta et al., 2007). Policy and practice that require attention only to the pre-k years, without also simultaneously attending to explicit and specific reforms to K-3, fall short of meeting the promise and vision of P-3 approaches by simply attaching an additional year of learning to a broken system.

FAULT LINE #2: P-3 is not viewed as an essential component of K-12's equity-based reform.

P-3 approaches are often implemented as mechanistic or structural reforms that address what children learn, calling for strategies such as aligning standards and assessments, adopting common curricula, or instituting shared professional learning across grade levels. While essential, these efforts overlook the more fundamental need for P-3 approaches to reflect how young children learn and to acknowledge and dismantle a system of elementary education that serves some, but far from all, young children. In this regard, the science of learning and development of young children becomes the magic sauce of P-3. P-3 approaches reflect developmental science by being grounded in an understanding of how foundational abilities grow

and change across the early and middle childhood years. P-3 approaches also reflect the learning sciences by being grounded in an understanding of each child's individual differences and how culturally responsive teaching and learning enable each child to thrive and succeed. The extent to which children see themselves as belonging and being valued at school affects how they learn (Hammond, 2015; Learning Policy Institute & Turnaround for Children, 2021).

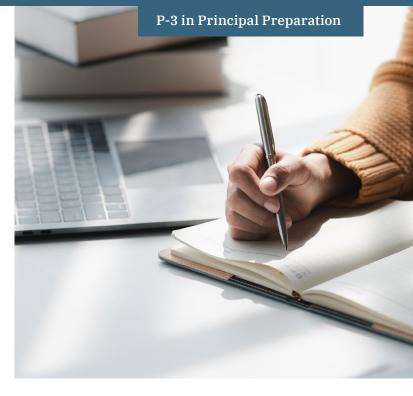
Rooted in histories of racism and exclusion, marginalized children are more likely to attend under-resourced schools with less experienced teachers, and have less access to resources, supports, and opportunities for enrichment (National Academies of Sciences, 2023). Inside schools, many marginalized children are subject to harsher discipline, and more often excluded from high quality classroom experiences through suspension, expulsion, and segregation based on language, disability, race, and income (Adair & Colegrove, 2021; Wright & Counsell, 2018).

As a result, recent years have seen school districts pay substantial attention to culturally responsive pedagogy, antiracist education, and equity-centered leadership (Gooden et al., 2023; Honig & Rainey, 2023; Hyler et al., 2021; Lewis & Diamond, 2015; Radd et al., 2021). Explicit and focused attention to early learning and the early grades is rare in those discussions. Although a few notable publications highlight the ways that elementary schools and school districts can dramatically reduce inequality (Bardige et al., 2018; Hassrick et al., 2017; Kirp, 2013; Powell et al., 2024; Ritchie & Gutmann, 2014), they are seldom, if ever, cited or represented in K-12 reform deliberations. P-3 efforts are often discussed among early childhood advocates and policymakers, but need to gain credibility and traction in K-12 strategies to build and sustain equitable systems.

FAULT LINE #3: Schools alone take up P-3 work, leaving out essential collaborations with community ECE programs.

Many policymakers, practitioners, and researchers prioritize school-based pre-k classrooms, those that are co-located at an elementary school or housed in a standalone early learning center run by the school district with students feeding into multiple elementary schools (Anderson & Romm, 2020; Bingham et al., 2023; Conger et al., 2019; Little et al., 2022). Arguments for school-based pre-k include stronger transitions to kindergarten, less mobility of students across grade levels, earlier exit for dual language learners, and better 3rd grade outcomes for pre-k participants (Ansari et al., 2017; Conger et al., 2019; Johnson et al., 2024; Little, 2020).

School-only strategies assume co-location provides a significant solution to implementing P-3 strategies such as cross-grade teacher teamwork, adoption and alignment of curricula and assessments in each grade level that reflect the science of learning and development, or the "push-up"



of developmentally informed practices from pre-k into the K-3 grades. To the contrary, research shows that even when pre-k classrooms are co-located with elementary schools, the hoped-for alignment across pre-k and K-3 typically does not occur (Gordon et al., 2023; Wilinski et al., 2021). Practically, in most states and school districts, pre-k is not embedded in the core infrastructure of K-12's teaching and learning; many principals do not supervise their on-site pre-k teachers; and many pre-K teachers adhere to different beliefs and standards than K-3 teachers (Koppich & Stipek, 2020; McCabe & Sipple, 2011).

Further, school-based-only pre-k strategies overlook the fact that only 50% of 4-year-olds attend public schools (National Center for Education Statistics, 2023) and compulsory attendance in school-based pre-k is highly unlikely. Due to preferences or values for children to not yet be in a school setting, or because of the geographic proximity to home or work, many families choose to send their children to community-based Head Start or child care programs, family child care homes, or ensure they are cared for by family or friends.

P-3 is about more than physical proximity between pre-k and the K-3 grades. P-3 requires conceptual and philosophical shifts by school and district leaders about what high-quality pre-k looks like, the variety of programs and settings that can provide it, and principals' and district leaders' responsibility to establish cultures of collaboration that include both school- and community-based pre-k educators in the broad vision of the first level of public education (Kauerz, 2019; Wilinski et al., 2021). Doing so recognizes the reality of the full mixed-delivery system of ECE and helps to dismantle a two-tier system that can disadvantage community-based organizations in overall resources (Greenberg et al., 2024; Kagan & Kauerz, 2012; Weiland et al., 2024).

School Leadership

We turn now to the field of school leadership. Over the past two decades, the roles, responsibilities, and impacts of principals have gained unprecedented attention from researchers, foundations, and policy organizations (Darling-Hammond et al., 2024; Pinkard, 2022; Goldring et al., 2023; Grissom et al., 2021). Principal leadership can have a powerful positive influence on a range of important school outcomes, from school climate and student achievement to teacher practices and retention. This research identifies the skills and expertise that school leaders need to be successful – namely, attention to people, instruction, and organizational climate (Darling-Hammond et al., 2024; Grissom et al., 2021).

The Promise of School Leadership

A recent meta-analysis of research on principal effectiveness calculates that the impact of replacing a below-average elementary school principal with an above-average principal would result in an additional 2.9 months of math learning and 2.7 months of reading learning *each year* for students in that school (emphasis added; Grissom et al., 2021). Adding these effects across the five years of pre-k-3rd grade means that some children would more than make up a full school year's worth of learning when attending an elementary school led by an effective principal. Chicago Public Schools demonstrated this when average student test scores improved by roughly six grade-level equivalents in the five years between 2009 and 2014 and, in each of those years, 3rd grade test scores were higher in more recent cohorts than in older cohorts, pointing to improvements in the quality of early elementary grade schooling and increases in school readiness (Reardon & Hinze-Pifer, 2017). Essential to Chicago's reform efforts were meaningful investments in school leadership (Bryk et al., 2023). In short, "it is difficult to envision an investment with a higher ceiling on its potential return than a successful effort to improve principal leadership" (Grissom et al., 2021, p. 43).

Since 1996 there have been widely accepted standards for what effective school leaders know and do in practice, providing a framework for state agency approval processes as well as principal preparation programs. Today's standards, revised under the guidance of the Council of Chief State School Officers (CCSSO) and the National Policy Board for Educational Administration (NPBEA), are known as the Professional Standards in Educational Leadership (PSEL). These standards have been adopted or adapted by many states to guide policies related to licensure, evaluation, and professional learning of individual school leaders.

Recent years have seen some progress in P-3 leader development. For example, the National Association of Elementary School Principals (NAESP) updated its guide, first published in 2004, that identifies competencies that

reflect P-3 school leadership (Kauerz et al., 2021). In 2015, a National Academies panel included knowledge and competencies for leadership in settings with children birth through age 8 (Institute of Medicine and National Research Council, 2015). Both documents address the essential and unique aspects of P-3 leadership: understanding child development and recognizing that the first years of children's learning opportunities lay the foundation for the rest of their lives; knowledge of assessment principles and methods appropriate for young children; skill to develop and foster partnerships among public schools, community ECE providers, and families; and, knowledge and understanding that effective teachers and teaching across early learning and the early grades are uniquely different from other grades. The NAESP guide also incorporates school leadership skills related to establishing a culture of continuous improvement, building professional capacity and teamwork among teachers, and sharing leadership.

Principals who develop these capacities, specifically in service to young children, are equipped to align instruction and provide instructional supervision grounded in the science of early learning and development. They are also able to attract, develop, and retain talent – the skilled educators who provide rich, rigorous, and responsive teaching. Effective P-3 school leaders nurture meaningful collaboration with community-based early care and education (ECE) programs where, in most states, the majority of children are enrolled in the years prior to kindergarten.

---- "It is difficult to envision an investment with a higher ceiling on its potential return than a successful effort to improve principal leadership."

Grissom et al., 2021, p. 43

Opportunity to Align Research, Practice, and Policy: Elementary Principals and P-3

Research concludes that "principals matter in every context, and context matters" (Pinkard, 2022, p. 4). While this remark originally referred to geographic and demographic contexts, we contend that, based on the foundational science of learning and development specific to young children, the contextual differences between elementary, middle, and high school principals also matter. Because the field of school leadership rarely focuses on the unique responsibilities of elementary principals who lead across the P-3 years, the alignment of research, practice, and policy falls short in three consequential ways.

FAULT LINE #1: National PSEL school leadership standards lack specificity around early learning and the early grades.

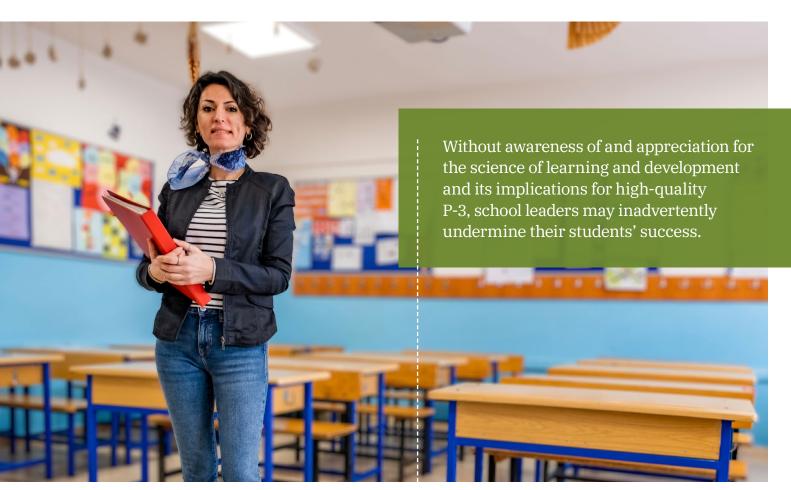
They say nothing explicit about pre-k leadership, and they say nothing about leading P-3 teaching and learning. While it can be argued that early learners are implied in PSEL's repetition of the phrase "each student" (italics original) throughout the standards, there is no practical reason that school leaders or their preparation programs would worry about state agencies or accrediting bodies holding them to account for anything like a P-3 component to their work.

FAULT LINE #2: Absent meaningful P-3 standards, elementary principals' practices can undermine student success.

Without awareness of and appreciation for the science of learning and development and its implications for high-quality P-3, school leaders may inadvertently undermine their students' success. For instance, research has found that elementary school principals frequently place their highest-performing teachers in 3rd, 4th, and 5th grades, when students are tested, rather than in pre-k-2nd grade when children are gaining the foundational literacy, mathematical, and social and emotional skills they will need for school success (LoCasale-Crouch et al., 2007; Vernon-Feagans et al., 2019).

As another example, for a variety of reasons related to pre-k - including categorical funding from federal and state governments, lack of universal availability, voluntary attendance, and state licensing requirements for ECE programs — principals often do not have supervisory authority over pre-k and so do not instinctively or systematically include pre-K and its teachers as part of the school's core instruction and teaching practices (see, for example, Koppich & Stipek, 2020; Wilinski, 2017). When school leaders do not have deep understanding of the importance of alignment across the P-3 grades, or when they lack the resources and skills to build meaningful relationships with community-based pre-school programs, or when their school districts do not emphasize the importance of P-3, principals are often left to fend for themselves to develop ways to integrate pre-k into the core functions of teaching and learning.2 And, of course, these contextual factors related to pre-k sit in tension with principals' already over-filled plates to attend to the highstakes culture and climate of district and state K-12 policy. including grade-level standards, grade-specific testing, and content-specific curricula (e.g., reading, math) that often do not include pre-k (Pinkard, 2022).

² It is important to note that pre-k is not the only categorical program that suffers from being siloed from K-12's core instruction and teaching practices. Dual language learners and special education are other categorical programs often disconnected and treated as something "other than" essential and integrated priorities.



FAULT LINE #3: Existing P-3 professional learning for school leaders is small-scale and non-mandatory.

A national scan in 2019 identified 17 formal P-3 leadership development programs designed primarily for school administrators (Kauerz et al., unpublished). Some were offered by state agencies, others by school districts, institutions of higher education, non-profits, or advocacy organizations.

The National P-3 Center leads one of the most robust examples of a P-3 leadership program (Kauerz et al., 2018). Designed to support elementary school principals, teams of principals and ECE administrators, and school district administrators, the program offers a curriculum that aligns to national and state professional standards for both ECE and K-12 leaders. The P-3 Leadership Certificate Program has graduated more than 500 administrators from Hawaii to Massachusetts since 2014. A smaller program that has demonstrated staying power over several years is the University of Connecticut Neag School of Education's PK-3 Leadership Program.

Though innovative, none of the existing programs enroll or graduate enough school leaders at a scale that would make a difference in any state's, much less national, 3rd grade opportunity gaps or achievement trends. In addition, none of the programs are required, or even recommended, as part of any state's licensure and certification, nor as part of any school district's hiring or retention policies. Policy and practice to prepare, develop, and support principals to lead P-3 learning communities lag well behind the research that underscores the important influence elementary principals can have on young learners' opportunities and outcomes.



Principal Preparation and Development

The popular Leithwood (2004) observation that "leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school" is partly true, but misleading—as Leithwood himself (2019) and Grissom (2021) later noted in separate studies. Improved learning at scale requires effective school leadership at scale. And to provide effective school leadership at scale requires engaging the systems that prepare and develop principals. Comprehensive principal preparation and professional development efforts move from considering the individual school leader to intentionally building systems that support all school leaders' professional learning, both pre- and in-service.

The Promise of Principal Preparation and Development

The leaders of schools, including those that offer all or most of the P-3 continuum, are educated with few exceptions in graduate programs in institutions of higher education (IHEs) nationwide and certified by state agencies only upon successful completion of those programs. When done well, comprehensive principal preparation and development efforts positively influence a range of key factors significant for student learning outcomes — principal beliefs, practices, and sense of efficacy; teacher satisfaction and retention; school climate; and student attendance, achievement gains, graduation, and dropout rates (Darling-Hammond et al., 2024; Young & Mawhinney, 2012).

Research over the past decades, since publication of the first national standards in school leadership in 1996, has coalesced around the qualities of "exemplary" or "effective" principal preparation and development programs (Young et al., 2022). In support of the professional standards movement's ability to inform school leader preparation, the University Council for Educational Administration (UCEA) published a compendium of empirical research underlying the standards for buildingand district-level educational leadership preparation (Young & Mawhinney, 2012). The most recent standards were issued in 2018 by the NPBEA as the National Educational Leadership Preparation (NELP) program standards.

On the face of it, this decades-long focus on research-based professional standards for principal preparation programs offers unprecedented alignment and coherence in the field. It reflects broad consensus among researchers, practitioners' professional organizations such as the National Associations of Elementary and Secondary School Principals (NAESP, NASSP), state educational leaders as represented by CCSSO, and accrediting agencies. These standards have been widely adopted by states throughout the nation, which means that the IHE programs subject to state approval processes are designing programs in accord with those standards.

Research-practice partnerships, such as the University Principal Preparation Initiative funded by Wallace Foundation (Herman et al., 2022) or the Carnegie Foundation for Advancement of Teaching's iLead initiative (Gomez et al., 2023), have made great strides in understanding how universities and districts can work together to develop effective principals. Comprehensive and effective principal preparation programs offer, for example, strong clinical experiences, problem-based learning, and mentoring/coaching. Furthermore, they provide principal candidates with robust opportunities to learn about instructional leadership, developing people, and serving diverse students well (Barakat et al., 2018; Darling-Hammond et al., 2024; Herman et al., 2022; Young et al., 2022).

Opportunity to Align Research, Practice, and Policy: Principal Preparation and P-3

Although school leaders may recognize the importance of early learning, many lack the knowledge and skills to support high-quality teaching and learning during these years (Abel et al., 2016; Little et al., 2022), and this implicates their preparation and development (Brown et al., 2014; Drake et al., 2023; Göncü et al., 2014). In addition, research highlights that many principal preparation programs lack rigorous attention to family and community engagement (Mayger, 2024), or equity and social justice (Gooden et al., 2023), both essential aspects of strong P-3 school leadership.

There are glimmers of change, such as Illinois becoming the first state to require a P-12 endorsement for all principals, and requiring all principal preparation programs to include pre-k curriculum and clinical experiences (Hunt et al., 2019). Although not an explicit commitment to ensure principals understand and embrace the full P-3 continuum as a fundamental equity issue for school success, this represents change at scale in one state. Because national principal preparation standards and policy in the vast majority of states fail to formally acknowledge the increased importance of early learning and the early grades, the alignment of research, practice, and policy falls short in three consequential ways.

FAULT LINE #1: National standards for principal preparation programs lack specificity on leading for early learning and the early grades.

National Educational Leadership Program (NELP) standards are virtually silent on leadership of early learning. Although the NELP document makes a passing reference to early childhood, the standards themselves fail to address P-3 leadership. The NELP language opens the door a crack to those who would squeeze P-3 through the opening, with language indicating that programs should prepare principals to "engage families, community, and school personnel... to strengthen student learning, support school improvement, and advocate for the needs of their school and community." The research suggests that if

P-3 is not well executed, then this standard will be difficult to implement with high quality—but how many principal preparation programs would conclude as much?

FAULT LINE #2: Institutions of higher education vary widely, across states and within states, in their approaches to principal preparation.

Despite bright spots of innovative reform related to principal preparation in a small number of states and by individual IHEs (Darling-Hammond et al., 2024; Hunt et al., 2019; Wechsler & Wojcikiewicz, 2023), deep variability across states and IHEs persists. Significant and complex organizational and financial considerations hamper widescale change in principal preparation programs. Despite increased knowledge of the impact of the principalship, federal and state policymakers have historically overlooked the role (Manna, 2015) and, as a result, incentives to change remain weak. The 2016 passage of the Every Student Succeeds Act (ESSA), which provides funds to state and local education agencies, marked the first time that the Elementary and Secondary Education Act explicitly named principals. Title II of ESSA allows, but does not require, states and districts to use funds to support principal development. In contrast, the Higher Education Act, which provides funds to institutions of higher education, does not include any provisions explicitly related to principal and school leader quality improvement.

FAULT LINE #3: Specializations and departmentalization in higher education create siloes separating pre-k, K-3, and school leadership faculty.

Within IHEs, institutional status quo can undermine reform. For example, faculty with expertise in child development and high-quality teaching and learning in elementary classrooms often sit in different departments from faculty preparing school administrators. Their professional communities, journals, and associations are separate. Program faculty in school leadership have overwhelmingly graduated from doctoral programs in policy and administration and rarely have early childhood backgrounds themselves. The history of research in improving school leadership programs is heavily K-12 centered, and these are the resources that are used in these programs. In addition, because many early childhood educators work in community-based organizations rather than in school systems, school leader programs' pool of applicants with early learning expertise is thin. There is no direct pipeline from pre-k to the school principalship, as there is from public school K-12 classrooms to the principalship (Lieberman, 2017). If program redesign in school leadership programs proceeds slowly, as appears to be the case, then incorporation of P-3 perspectives proceeds more slowly still (Tozer et al., 2015).



Spanning the Boundaries of P-3 and Principal Preparation

Throughout these pages, one theme permeates – that of siloes, separation, and fragmentation. Siloes exist between pre-k and K-3; between schools and community-based ECE partners; between IHEs and school districts; between research, policy, and practice. The fragmentation is exacerbated because the fields each have their own professional journals, associations, and conferences; governing statutes and standards that guide personnel and program decisions; and often different departments or colleges within institutions of higher education that prepare their teachers, leaders, policymakers, and researchers. The fields often lack shared vocabulary, metrics, and even values (Kauerz, 2020; Stein & Coburn, 2023).

At one important level, complex systems need siloes to focus attention and resources on specialized areas. It is good to have researchers in ECE, in school leadership, in principal preparation, in diverse learners, in literacy, and so on. The problem is not that siloes exist, but that weak systems for communication and collaboration among them create barriers to addressing challenges that do not fall

neatly within any one of them. P-3 is one potent example, particularly consequential because of the significance of those years in providing equitable footing for young children in the rest of school and in life.

Despite the power and promise of P-3, school leadership, and principal preparation as levers for meaningful change in young learners' experiences and outcomes, the intersection of the three does not exist at scale. As described above, immense opportunities exist to improve education opportunities that will help to close opportunity and achievement gaps by 3rd grade if states, districts, and IHEs summon the will to focus school leadership and principal preparation and development programs on the power of comprehensive P-3 work. *Our vision* is to ensure that all of the nation's elementary schools are led by principals knowledgeable about the science of young children's learning and development, skilled in creating a school climate that nurtures the unique aspects of high-quality teaching and learning across P-3; and dedicated to meaningful engagement with families and community-based early care and education (ECE) programs.

Achieving this vision will require boundary-spanning work. Boundary-spanning theories appear in the literature for both educational improvement writ large (Akkerman & Bakker, 2011; Eddy-Spicer & James, 2019; Gomez et al., 2020) and P-3 in particular (Dockett & Perry, 2021; Garner et al., 2021; Kauerz, 2020). One part of the theory is the need for "boundary objects" that enable people on both sides of a boundary to dialogue effectively with one another (Edwards, 2012; Gomez et al., 2020). While the following quote is lengthy, it elegantly captures the essence of this call to action:

Akkerman and Bakker (2011) define boundaries as "sociocultural differences leading to discontinuities in action and interaction" (p. 152). According to this framing, the people, the objects they use, and their patterns of communication exist at the nexus of two systems with distinct activity structures and routines. From the perspective of mutualism, the aim of learning at the boundary is to bring cohesion and continuity across the boundary. The ability to define clear goals is a boundary condition because, among other things, aspiring partners do not, at the start, have a common language to express what they want to happen in the partnership. In the case of leaders-as-learners, a boundary condition can be created by something as, ostensibly, straightforward as defining what successful learning looks like. In the university context, success may be largely tied to what happens in circumscribed classroom activities while in the school district success might be tied to the ability to exhibit skills that move district priorities forward.

We are in the habit of thinking about boundaries as barriers. From a mutualism perspective, LEA and IHE actors at the boundary have to reframe their perception of boundaries, and see them instead as opportunities to connect. In short, they have to learn how to create tools that serve as boundary objects and they have to develop mutualistic participation structures and routines that we call boundary practices that enable organizations to work together. (Gomez et al., 2020, pp. 370-371)

This passage underscores the need to "define clear goals" where we lack a common language, and to create tools or boundary objects that enable organizations, or fields or subfields, to work together. We intend this call to action to serve as a boundary object to support spanning the boundaries of P-3, school leadership, and principal preparation.

Our Call to Action for P-3 in Principal Preparation

<u>Because</u> research in the science of learning and development tells us that:

- » the birth through age 8 years are a critical period of physical, cognitive, and social-emotional development;
- » there is no other 5-year window of brain development in public education that equals the five years of pre-k, kindergarten, 1st, 2nd, and 3rd grades;
- » our youngest learners (pre-k–3rd grade) benefit most from rigorous content and developmentally based pedagogy; and

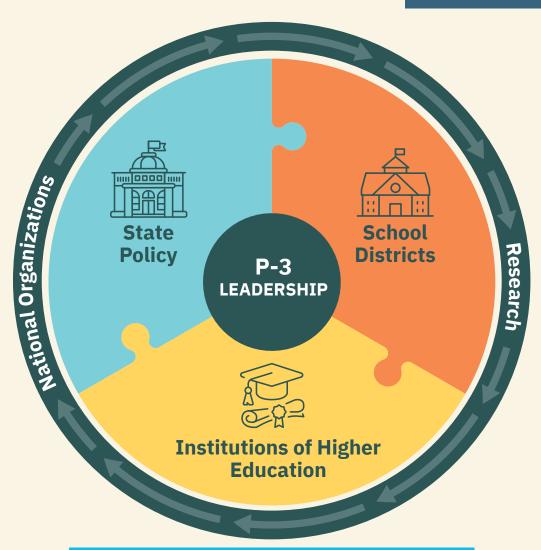
Because research about elementary schools tells us that:

- » public school districts increasingly include pre-k as part of the district's responsibility, including collaboration with categorically funded and community-based pre-k programs;
- » kindergarten is a bridge between pre-k and elementary schools and an inflection point for early school success;
- » K-3 is increasingly recognized as a grade span deserving focused investment in science-based curricula;
- » children who read at grade level by grade 3 are more likely to read at grade level by grade 8, regardless of economic circumstances, which has profound impact on high school completion and post-secondary success; and

Because research in school leadership tells us that:

- » the quality and impact of P-3 learning experiences depend heavily on the quality of school leadership that shapes children's learning opportunities and the quality of the relationships among students, teachers, and families; and
- » the quality of school leadership is influenced by the quality of leader preparation programs, situated almost entirely in graduate leadership programs in institutions of higher education and certified by state agencies only upon successful completion of those programs; and
- » the scale of school principal preparation is disproportionately small in comparison to its impact, with fewer than 100,000 principals leading schools for nearly 50 million students; and
- » principal preparation reforms can be cost-effective and impactful on student learning outcomes.

Therefore, we conclude that principal preparation programs in higher education can provide leverage at scale to improve the quality and outcomes of learning opportunities across the P-3 continuum, especially for students from marginalized backgrounds who benefit most from high-quality learning in that span.



Drivers of Change

Realizing this vision requires multifaceted efforts to span the boundaries of state policy, school districts, and principal preparation programs. During our convening, we asked participants to consider drivers that can affect the change we seek to inspire (see Figure 4). The Driver Diagram served as a boundary object to stimulate discussion across diverse roles in the education landscape. The ideas articulated below reflect the discussions (and sometimes debates) among thought leaders representing policy, practice, and research.

First, we consider **state policy** that governs school administrators' licensure, higher education accreditation, and funding. Second, we explore **IHE policies and practices**, including the structures and investments that impact principal pipelines to develop and support elementary school leaders. Third, we address **school district policies and practices**, including professional learning, accountability systems, and partnerships that districts rely on to steer and support leadership development. Fourth, we attend to **research** and the ongoing need for deeper understanding of the impact and implementation of P-3 leadership development at scale. Finally, fifth, we discuss the roles and influence of **national organizations**. For each driver, we offer evidence, actionable strategies, and examples of promising

work underway in communities across the country to move closer toward P-3 leadership at scale.

While we present the drivers individually, none alone can bring P-3 school leadership to scale. Consistent with other recent work (Chang & Pinkard, 2023), we argue for a systems approach to change that will alter the ecosystem of elementary school leadership. We believe that the most transformational reforms will occur *at scale* when state policy invests in authentic partnerships between IHEs and school districts to improve elementary principals' competence to lead instructional organizations that prioritize young children's learning and development.

Figure 4. Driver Diagram

AIM

Research, policy and practice are aligned at the state, higher education, and school district levels to develop school leaders who lead effective P-3 learning at scale.

PRIMARY DRIVERS	KEY STRATEGIES
State policy supports research-based practices in developing effective P-3 leaders at scale.	 Use state authority to include P-3 leadership proficiency in standards for principal licensure and credentialing. Use state authority to change approval standards and processes for principal preparation programs, ensuring orientation to P-3 leadership. Require or support the use of frameworks with P-3 leadership criteria for elementary principal evaluations and formative assessments. Create P-20 collaboration mechanisms where they do not already exist. Foster P-3 leadership approaches within and among school districts and IHEs.
Institutions of higher education and other approved principal preparation programs integrate P-3 goals and content throughout their policies and practices.	 Create internal partnerships among faculty who specialize in principal preparation, early childhood development, and early grades teaching and pedagogy. Partner with school districts to incorporate P-3 exemplars of practice, curricular modules, and field-based experiences into principal preparation programs. Partner with the state to create and deliver micro-credentials specific to P-3. Collaborate to build or augment existing networks of IHEs engaged in P-3 leadership development.
Policies and practices within school districts support the preparation and development of effective P-3 leaders.	 Build system-wide commitment to P-3 by explicitly integrating it into district strategic plans. Partner with IHEs to develop and maintain a continuum of growth for P-3 leadership development before and after program completion. Engage with other districts to share learning about systemic support of P-3 leaders.
Research provides a strong foundation for the continuous improvement of effective P-3 leadership policy and practice at scale.	 Track current P-3 leadership preparation and development practices and identify opportunities to expand P-3 principal leadership at scale. Establish research-practice partnerships between IHEs and school districts to conduct continuous improvement research on P-3 leadership development. Expand and deepen research on the impact of P-3 leadership on improved outcomes for P-12 students.
National organizations that influence education leaders' development endorse P-3 leadership as essential to equity- focused school improvement.	 Engage national education organizations and alliances to formally recognize P-3 in their standards and policy guidance. Engage national organizations that prioritize K-12 leadership to address P-3. Invest in national networks to focus on P-3 leadership policy levers. Activate federal policy levers to explicitly address P-3 leadership.



Driver #1

State policy supports research-based practices in developing effective P-3 leaders at scale.

States are essential in our country's decentralized system of educational governance; they interpret federal policy and shape the operational environments of school districts. In this context, states have the authority to set their own agenda for what they see to be essential skills and functions for school leaders. States also play a central role in expanding children's access to pre-k, full-day kindergarten, and other supports for families with young children. State policy is an essential driver to influence the intersection of P-3 and principal preparation at scale.

Several state policy levers influence school leadership including standards, recruitment, preparation, licensure, supporting professional learning, and evaluation (Fitz et al., 2024; Manna, 2015). These levers can interact to shape the principal workforce and can also guide the design of principal preparation and development programs. Ideally, each state commits to a P-3 policy framework that includes statewide systems that support elementary school leaders' ability to implement developmentally informed practices that strengthen and sustain learning for all children from pre-k through grade three.

Recent research on the Wallace Foundation's University Principal Pipeline Initiative (UPPI) shows that a coordinated effort of state policy strategies has proven potential to move the needle on principal preparation (Gates et al., 2022). The right combination of strategies depends on a state's policy and social context. We highlight five state policy moves that can initiate and sustain the integration of P-3 and principal preparation and development.

University Council for Educational **Administration (UCEA)** "High Leverage" State **Policies**

UCEA has published a study identifying five "high leverage" policies that states could use to strengthen principal preparation programs (Anderson & Reynolds, 2015). They are research-based and consistent with those outlined in Driver #1 in this call to action, but more granular in describing how states can exercise their authority. States can exercise high leverage if they require principal preparation programs to:

- 1. Have an explicit candidate selection process that uses performance-based assessments
- 2. Provide a clinically rich internship that engages candidates in core leadership responsibilities
- 3. Incorporate district-university partnerships that align program design with district needs
- 4. Participate in program oversight that includes feedback mechanisms to improve practice

The fifth high-leverage policy is not a program requirement but a candidate requirement to:

5. Meet experience requirements, such as 3+ years of teaching experience, a master's degree, and completion of an approved program

The UCEA study found wide variation in state implementation of these criteria, with 11 states meeting none of them, and only two states, Illinois and Tennessee, meeting all five of them.

STRATEGY 1.1: Use state authority to include P-3 leadership proficiency in standards for principal licensure and credentialing.

Changing state principal licensure requirements to include specific P-3 content and field experience is a powerful lever for steering principal preparation and development systems. We believe a fundamental re-design of the elementary principalship is an equity-based necessity to improve learning opportunities and close long-standing achievement gaps. Where elementary school principal credentials exist, they can be revised to attend explicitly to the unique nature of learning and development that occurs across early learning and the early grades. By making P-3 leadership an inherent part of the proficiency standards to attain elementary principal licensure, rather than an optional add-on, change will occur at scale. The ability of states to set their own standards for principal licensure, emphasizing what they see to be essential skills and functions for school leaders, is exemplified in work done by the Massachusetts Department of Elementary and Secondary Education to prioritize family and community engagement, as well as anti-racist, culturally and linguistically relevant expectations, into their principal licensure performance assessment (Chang & Pinkard, 2023).

Absent a full revision of standards, states can develop incentives such as explicit micro-credentials or badges for principals who demonstrate P-3 expertise, or invest in ongoing leadership academies or institutes focused explicitly on P-3 leadership.

STRATEGY 1.2: Use state authority to change approval standards and processes for principal preparation programs, ensuring orientation to P-3 leadership.

For state program approval and professional accreditation, as well as for continuous improvement feedback to programs, states should adopt standards for principal preparation programs that explicitly incorporate coursework and field experiences related to P-3. Programs should demonstrate that their curriculum prepares principals for P-3 leadership, with specific attention to professional guidelines such as those provided by NAESP and the National P-3 Center (Kauerz et al., 2021). Importantly, the standards should explicitly address P-3 as a lever for increasing the quality of learning opportunities and decreasing early achievement gaps by reflecting the science of learning and development for young children.

STRATEGY 1.3: Require or support the use of frameworks with P-3 leadership criteria for elementary principal evaluations and formative assessments.

States signal their priorities – in this case the unique leadership competencies for early learning and the early grades – in how they work with school districts. Accountability, support, and continuous improvement systems for principal effectiveness can include criteria specific to P-3 leadership. These systems can not only identify exemplary principals from whom others can learn, but also support those who are struggling, and create demand for leaders with P-3 experience and expertise (Swisher & Saenz-Armstrong, 2022). For example, researchers at Illinois State University worked with Charlotte Danielson's team to develop resources to support the use of the Danielson Framework across pre-k-3rd grade (Hood et al., 2015). While the resources were created to support principals conducting teacher evaluations, a similar approach could be used to add P-3-specific criteria in principal evaluation. Data can be collected at the preparation program, district, and state levels for accountability and improvement purposes, as Delaware is now demonstrating (Lu et al., 2023).

Illinois's **Multifaceted State Policy Strategy to Reform Principal Preparation**

Illinois is a prominent example of a state conceptualizing and implementing a comprehensive policy strategy to reform principal development at scale (Hunt et al., 2019). It became a Preschool for All (universal access) state in 2006, then in 2010 passed legislation to revamp principal licensure to explicitly address, among other things, early learning and P-12 leadership. The new law used several high-leverage strategies to improve principal preparation: it mandated partnerships between school districts and principal preparation programs; it changed approval standards for principal preparation programs; and it changed standards for principal licensure and credentialling.

After the NELP standards were published in 2018, Illinois adopted them to guide principal preparation. Because NELP standards are silent on leadership of early learning, however, Illinois amended the standards with statutory language to ensure that preparation programs include course content and clinical experiences specific to leading early learning. Early childhood content is also now part of the state's licensure exam. While this falls short of explicit P-3 language that recognizes the need to improve the K-3 grade levels and align across pre-k-3rd grade, it demonstrates how a state can establish and promote priorities for school leaders and their preparation.

STRATEGY 1.4: Create P-20 collaboration mechanisms where they do not already exist.

One of the most prominent structural barriers to the change we envision is the way that states' education systems are governed – the governance and accountability mechanisms of categorical pre-k programs, P-12 school districts, and IHEs are usually separate. The authority for many of the changes in this call to action reside within one or more state agencies, but in other cases within the state legislature.

To prioritize and coordinate P-3 leadership development, states can establish collaborative cross-agency structures such as a P-20 Council to navigate the boundaries and complex policy and institutional arrangements surrounding P-3 and principal preparation. Fragmented state systems, policy, and funding may influence P-3 leadership development, but boundary-spanning theory tells us that identifying those disconnects is an important step in working across the divisions. The recommendations throughout this call to action are best undertaken with a broad base of consensus across state agencies, and consensus-building is facilitated by cross-sector mechanisms such as P-20 councils (Jacovo & Norton, 2023).

STRATEGY 1.5: Foster P-3 leadership approaches within and among school districts and IHEs.

Rather than establishing additional compliance requirements, states can enable school districts to turn a P-3 lens on their ongoing work to close achievement gaps. Short of mandating partnerships between districts and IHEs' principal preparation programs, as Illinois did in 2010 (see textbox), states can provide incentives and supports that build principal pipeline capacity and systems.

As Wallace Foundation research demonstrates (Manna, 2021, 2022) states can encourage school districts to develop human capital plans specific to school leaders. These plans can create incentives for districts to share responsibility with IHEs for P-3 leadership development through job-embedded coursework and field experience.

Incentives could be issued through a state-established competitive grant program for District-IHE partnerships that prioritize P-3 principal preparation, development, and supervision. States could provide explicit prioritization that school

districts use existing Title II-A dollars from ESSA for the same purposes. And states can promote and publicize local districts' innovations in P-3 leadership development through both local and national venues (e.g., conference presentations, webinars).





Ideally, each state commits to a P-3 policy framework that includes statewide systems that support elementary school leaders' ability to implement developmentally informed practices that strengthen and sustain learning for all children from pre-k through grade three.





Institutions of higher education and other approved principal preparation programs integrate P-3 goals and content throughout their policies and practices.

The scale of school principal preparation is disproportionately small compared to its impact, with fewer than 100,000 principals leading schools for millions of children and youth pre-k–12. Ideally, institutions of higher education and other approved principal preparation programs integrate P-3 content and field experiences aligned with the science of learning and development into their goals and curriculum. We recognize that some principal preparation programs are not located within IHEs. New Leaders and the Leadership Academy are long-standing examples, as are charter organizations such as KIPP, that grow their own leadership (Cheney et al., 2010). Throughout this call to action, our intention is to include and implicate both IHEs and other principal preparation programs.

To achieve such transformation in one principal preparation program is not easy. Doing it at scale across the country is a daunting aspiration while IHEs continually grapple with preparing principal candidates for everchanging and expanding expectations and roles (Pinkard, 2022). To elevate P-3 in principal preparation, programs will need to ensure the science of learning and development

Ideally, institutions of higher education and other approved principal preparation programs integrate P-3 content and field experiences aligned with the science of learning and development into their goals and curriculum.

becomes the foundational knowledge for leaders, not an add-on or supplement to the core curriculum. The P-3 leadership lens can enhance existing principal preparation program content and practices by emphasizing the power of early learning and the early grades in addressing gaps in elementary school which, in turn, positively influence the middle and high school grades. In addition to course content, aspiring elementary school principals can be afforded field experience in schools that prioritize P-3. This aim is not intended to add to or supplant other areas essential to effective school leadership.

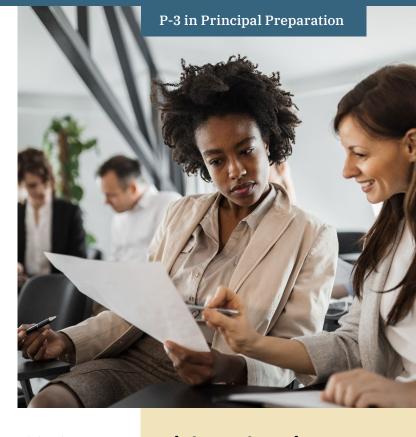
We highlight four strategies that IHEs can implement to integrate P-3 in principal preparation and development.

STRATEGY 2.1: Create internal partnerships among faculty who specialize in principal preparation, early childhood development, and early grades teaching and pedagogy.

Schools and colleges of education commonly have faculty with expertise in early childhood education and in leadership preparation, although they likely do not work in the same department, much less work together on principal preparation. It can be transformative for faculty to work across those boundaries, taking advantage of their mutual expertise, to ask the question: how can principal preparation course content and field experiences be modified to include preparation for leading P-3? Ensuring explicit and specific P-3 focus across syllabi may not require state approval; faculty already modify syllabi routinely. More structural program modifications — entirely new courses or clinical experience requirements — may require state approval.

STRATEGY 2.2: Partner with school districts to incorporate P-3 exemplars of practice, curricular modules, and field-based experiences into principal preparation programs.

Principal preparation programs typically require multiple courses each in domains such as instructional leadership, organizational leadership and change, and using data for continuous improvement. These domains, and the courses within them, can easily include P-3 content. For example, courses in leading literacy learning can incorporate not only the cognitive processes of early literacy development, but also the robust science about the conditions and relationships that best nurture young children's literacy development, especially those who are multilingual learners, have developmental delays, or other special needs. Similarly, courses in organizational leadership can examine how a commitment to P-3 instructional coherence requires strategies and resources that unite the often-separate pre-k and K-3 grades by, for example, building cross-grade teacher teamwork that spans pre-k and the early grades or by establishing explicit partnerships with community-based ECE programs that serve children prior to kindergarten.



Partnering with school districts around principal preparation and development provides direct access to real-world contexts, exemplars of practice, and opportunities for fieldwork in P-3. While it is not reasonable to expect that every candidate will do their entire internship in schools that emphasize early learning and the early grades, it is reasonable to expect that some clinical experiences take place in these settings. Panels of exemplary P-3 leaders can be brought into courses in instructional leadership, in organizational leadership, and practicum seminars, to articulate the unique aspects of leadership that support our youngest learners.

STRATEGY 2.3: Partner with the state to create and deliver microcredentials specific to P-3.

Absent the kinds of state policy effort described in Driver #1, IHEs can take the lead in providing professional learning that supports elementary principals' efforts to become highly competent in leading instructional organizations for young children. Micro-credentials are a way to deliver, certify, and expand competency-based professional learning for practitioners. Typically offered to practicing professionals, they can also be embedded in pre-service programs. For example, the University of California, Berkeley receives federal ESSA Title II funds, awarded through the state legislature, to develop and provide high-quality professional learning for administrators and school leaders. Their offerings include leadership programs focused on implementing Universal Transitional Kindergarten³ and instructional leadership in preschool through 3rd grade (P-3). Other individual IHEs across the country partner with their state to provide targeted P-3 professional learning to district and school leaders. For example, University of Connecticut's Neag School of Education collaborates with the state's Department of Education and the Office of Early Childhood to annually provide a PK-3 Leadership Program to practicing administrators. IHEs that offer P-3 professional learning offer valuable proof of concept that paves the way for more systemic reforms.

Higher Education Faculty Collaborations

In 2008, the University of Illinois Chicago (UIC) licensure program in Urban Education Leadership sought external funding to support faculty collaboration between the early childhood education and leadership program faculties. The funding paid for faculty from both fields to be released from some coursework, and/or to be paid during summer session, to collaboratively identify new program goals in early childhood leadership, create curriculum modules within courses for achieving those goals, and create professional development sessions for leadership faculty who did not have early childhood backgrounds. This led to a publication that addressed state policy based on faculty collaborative experiences (Göncü et al., 2014), as well as a revision of the program submitted for state approval in 2012, when the state required all programs to prepare principals for early learning leadership.

³ Universal Transitional Kindergarten in California is a state-funded pre-k program for 4-year olds that school districts are required to implement, effectively adding a new, non-compulsory grade level to K-12 systems.

STRATEGY 2.4: Collaborate to build or augment existing networks of IHEs engaged in P-3 leadership development.

Central to continuous improvement theory is the idea of Networked Improvement Communities (Bryk et al., 2015) to accelerate learning within and among organizations. EdPrepLab, a growing collaborative that began with 15 teacher and leader preparation programs in IHEs located across 10 states, led by Learning Policy Institute (LPI) and Bank Street College of Education, represents a notable example. The network strengthens educator preparation across the United States by developing and sharing expertise with the wider field (see, for example, Darling-Hammond et al., 2024; Wechsler & Wojcikiewicz, 2023). While EdPrepLab has not had a specific focus on P-3, it attends to early childhood, the science of learning and development, and PK-12 staff development, among other topics.

The Improvement Leadership Education and Development (iLEAD) network, established by the Carnegie Foundation for the Advancement of Teaching in 2017, provides another example (Gomez et al., 2023). Bringing together 11 university-district partnerships, iLEAD combined network-wide activities with site-based efforts. The National Center for School-University Partnerships now leads the network, supporting the systematic use of improvement science to address common, high leverage problems of practice. To date, the network has not focused on early childhood or P-3, but serves as a model of inter-IHE collaboration and learning.



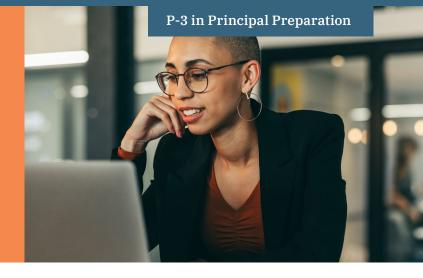
North Carolina State University's Educational Leadership Academy: Principal Preparation Reform

North Carolina State University (NC State) proves it is possible for an IHE to dramatically reform its principal preparation and build a robust and effective principal pipeline. Grounded in partnership, reform of the NC State Educational Leadership Academy (NELA) began by asking local school leaders and practitioners about the skills principals need to succeed in rural districts that struggle with high teacher turnover and chronically low-performing schools. The program's first semester focuses on K-2 grades, then each subsequent semester moves up the grade continuum, elevating the science of learning and development across the P-12 continuum.

NELA serves 25 of the 115 school districts in North Carolina. By convening town hall meetings with local community members and school boards and working closely with leaders at the school and district levels, the NELA faculty laid the groundwork for engagement that continues today. Over the first five years of the degree program, 72% of NELA graduates continue to work in local school districts and 90% of schools with a NELA graduate serving as principal met or exceeded growth for the 2018-2019 school year (Siddiqi et al., 2018). NC State plans to begin incorporating P-3 modules and experiences in current programming.

Driver #3

School districts' policies and practices support the preparation and development of effective P-3 leaders.



Principal preparation programs are a necessary, albeit insufficient, way to improve school leadership because a substantial proportion of leadership learning occurs in districts, after principals earn a credential. To get to scale, and to include both future and veteran principals, school districts must contribute to preparing, developing, and supporting elementary principals. Research shows that a combination of effective preparation, ongoing and diverse field-based application, and district support and partnership facilitate strong leadership (emphasis added; Darling-Hammond, et al., 2024). Ideally, districts embrace and enact a systemic understanding of P-3 and its value for children's long-term success, which includes explicit investments in and supports for elementary school principals and other P-3 leaders.

Wallace Foundation-funded research with six large school districts from 2011-2016 found that districts with intentional systems to prepare and support principals positively affected student learning and reduced principal turnover (Anderson & Turnbull, 2019). Districts set priorities for principal leadership in how and who they recruit, hire, promote, and develop. The National P-3 Center is currently piloting a *District P-3 Audit* tool that engages school districts to analyze their current policies and practices to identify specific, structural ways to ensure P-3 strategies permeate all major functions of the district.

Although many districts provide early childhood programs and services (e.g., pre-k classrooms, kindergarten transition activities), few have explicitly reformed their organizational infrastructure to align and integrate pre-k with K-3, much less to bridge with the district's principal support and development functions. As both research and practice around P-3 become more sophisticated, the need persists for districts to reconsider every aspect of their structure and functions - including, but not limited to, hiring practices, onboarding new principals, support and evaluation of principals, data collection and use, and external partnerships. Where P-3 exemplars exist, school district central offices advance the field of P-3 leadership (Coburn et al., 2024; Koppich & Stipek, 2020; Marietta, 2010a, 2010b; Nyhan, 2013, 2015). School districts that actively support principals' essential roles in supporting young learners also activate a feedback loop with principal preparation: increased demand for P-3 leaders encourages

preparation programs to deepen principals' knowledge and skills in leading a culture of early learning.

Although there is no identifiable data source that documents the scale and scope of partnerships between IHEs and school districts related to any topic, much less P-3, our practical experience suggests they are few and far between. Beyond influencing principals' day-to-day work, districts that support P-3 leaders serve as innovative placements for field experiences for aspiring principals, as well as exemplars or bright spots to inspire other school districts. We highlight three school district moves that can jumpstart the integration of P-3 in principal preparation.

STRATEGY 3.1: Build system-wide commitment to P-3 by explicitly integrating it into district strategic plans.

Strategic planning is commonplace for school districts, promoting shared understanding and beliefs - both internally among school board members and staff, and externally with community partners – about priorities and strategies to improve learning (Leithwood et al., 2019). District strategic plans that explicitly call out P-3 build the demand for school leaders skilled in supporting early learning and the early grades. In this respect, K-12 systems become P-12 systems that emphasize the importance of systemic focus on the content, practices, and accountabilities important for P-3.

Explicitly identifying responsibility for P-3 implementation on the organizational chart signals the district's commitment and locates responsibility in specific roles and teams. In larger districts, P-3 expertise may need to be included on multiple teams – including school leadership development, school improvement planning, and teaching and learning. For smaller districts, ensuring that P-3 falls explicitly to at least one individual represents an important commitment to equity. Even if pre-k is not part of a district's structure, an explicit P-3 commitment means that the district recognizes the need to prioritize the primary grades, to collaborate with community-based ECE programs, and to establish authentic partnerships with families.

STRATEGY 3.2: Partner with IHEs to develop and maintain a continuum of growth for P-3 leadership development before and after program completion.

District efforts to implement a pipeline of principal development that begins with pre-service preparation take different forms, but all of them involve partnership with principal preparation providers to one degree or another. The role of districts in influencing, or at least participating in, principal preparation varies with the nature and degree of partnership (Cheney et al., 2010; Goldring et al., 2023; Gomez et al., 2023; Hunt et al., 2019). In some intensive partnerships, districts invest substantial funds in the clinical experiences of pre-service candidates and contribute extensively to the development of program purposes and content—and even candidate recruitment and admissions (Gates et al., 2019). In other cases, the district's influence may be less direct, with districts communicating to principal preparation providers the types of candidates they hope to hire — for example, more candidates of color, high school leaders, or leaders with early learning expertise — and providers are motivated to incorporate such priorities into their admissions and curriculum decisions. Districts can also influence providers by becoming clear and emphatic to state agencies about their leadership needs, an important strategy for rural districts, for example, that may have little leverage with preparation programs.

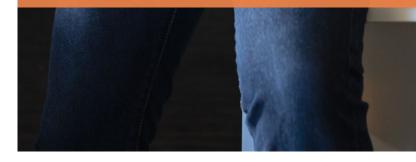
Whether the district has a robust or relatively weak relationship with principal preparation programs, it holds great influence in implementing the elements of a principal pipeline. For example, districts can be explicit about their interest in P-3 qualifications in their recruitment and selection processes; they can on-board new elementary principals with intentional development experiences to help them understand the power of a P-3 vision for improving student outcomes in every grade level; and they can ensure principals' supervisors, supports, and evaluation rubrics attend to P-3-specific responsibilities such as enabling teacher teamwork across pre-k-3rd grade levels and among community- and school-based pre-k teachers.

STRATEGY 3.3: Engage with other districts to share learning about systemic support of P-3 leaders.

While each school district has its own unique context, all school districts share similar problems of practice, including how to integrate P-3 as an equity strategy that targets early achievement gaps. Similar to the discussion above in relation to IHEs, establishing networks of districts that collaboratively examine their practices, systems, and organizational infrastructure provides fertile ground to learn from one another and increase capacity.



Ideally, districts embrace and enact a systemic understanding of P-3 and its value for children's long-term success, which includes explicit investments in and supports for elementary school principals and other P-3 leaders.



Although field-based exemplars of district networks specific to P-3 are few and far between, two are worth noting. First, in 2011, funded by the Bill and Melinda Gates Foundation, three large school districts in Washington formed a coalition – The PreK-3 Cross-District Leadership Coalition – that brought together not only superintendents and cabinet-level leadership, but also school administrators and teachers, to champion P-3 both inside and outside of their districts (Nyhan, 2013). Second, in response to Nebraska state legislation directing metro Omaha area superintendents to develop and enact a plan to reduce achievement gaps for young children living in high concentrations of poverty, the Buffett Early Childhood Institute at University of Nebraska established the Superintendents' Early Childhood Plan (Buffett Early Childhood Institute, 2023). Bringing together 11 school districts, the collaborative takes a shared approach to building comprehensive, school-based, birth-through-3rdgrade initiatives in each local community.

Ideally, these kinds of P-3-focused district networks can intersect with other networks focused on principal preparation. For example, EdPrepLab, convened by LPI and Bank Street Graduate School of Education, provides nationwide networking opportunities for districts that partner with principal preparation programs to share their practices and learn from one another. And, as mentioned earlier, but relevant in this context: in 2023, as a result of six years of incubation in the iLead program of the Carnegie Foundation for the Advancement of Teaching, the networkfocused National Center for School-University Partnerships supports improvement partnerships to address high leverage problems of practice (Gomez,et al., 2023). Leveraging the collaborative efforts of school districts dedicated to P-3 leadership and principal pipelines recognizes the power of partnerships central to this call to action.

School Districts Focus on P-3 with **Attention to Principal Learning** and Development

Among the many school districts engaged in P-3 work for decades, two stand out for their system-wide commitment to P-3 and professional learning for elementary school leaders:

- » Fresno Unified School District (FUSD) in California established its own academy for elementary school principals guided by Leading Pre-k-3 Learning Communities: Competencies for Effective Principal Practice (National Association of Elementary School Principals, 2014). The academy involved discussion and coursework, site visits, coaching, and practicums to help administrators support their teachers across early learning and the early grades.
- » Highline Public Schools in Washington, over a fouryear period, put all of its elementary principals, many assistant principals; central office leaders from teaching and learning, human resources, dual language learners, and family engagement; and even a school board member through the P-3 Executive Leadership Certificate Program at University of Washington (Kauerz et al., 2018).





Research provides a strong foundation for the continuous improvement of effective P-3 leadership policy and practice at scale.

Although sufficient research evidence exists to activate meaningful change in state, IHE, and school district policy and practice related to leadership development, additional research specific to the intersection of P-3 and principal preparation will better inform how to take this work to scale. To return to our boundary-spanning theme, a central problem of practice is not lack of research, but the failure to align research across different disciplines and, then, failure to align policy and practice with research. As evidenced throughout this call to action, the growing body of empirical research about principal pipelines has yet to explicitly attend to P-3 or the unique roles and responsibilities of elementary principals. Similarly, empirical research about elementary principals has yet to explicitly attend to a robust understanding of P-3 that fundamentally changes kindergarten, 1st, 2nd, and 3rd grades in addition to expanding and aligning with pre-k.

Spanning boundaries requires inter-disciplinary teams of researchers to collaborate, aligning research from the ECE field that identifies how site administrators support young learners (see, for example, Douglass et al., 2022; Malone et al., 2021) with research on school-based P-3 leadership (see, for example, Drake et al., 2023; Little et al., 2022), with research on principal preparation (see, for example, Gooden et al., 2023; Mayger, 2024).

Ideally, a comprehensive interdisciplinary research base provides compelling evidence and robust guidance for the preparation and ongoing development of P-3 leaders. We also envision the development of a consortium of P-3 experts equipped to inform P-3 leadership policy and practice.

Ideally, a comprehensive interdisciplinary research base provides compelling evidence and robust guidance for the preparation and ongoing development of P-3 leaders. We also envision the development of a consortium of P-3 experts equipped to inform P-3 leadership policy and practice. The following strategies shape a P-3 leadership research agenda that breaks down silos within the research community. Additional investments in boundary-spanning research can fuel P-3 leadership knowledge dissemination and action.

STRATEGY 4.1: Track current P-3 leadership preparation and development practices and identify opportunities to expand P-3 principal leadership at scale.

Landscape data on principal preparation programs, and data that track the evolution of P-3 leadership development over time, inspire and sustain policy change at scale. While there have been limited efforts to catalogue state efforts around elementary principal licensure and certification (Brown et al., 2014; Lieberman, 2017), there has been no systematic effort to understand how principal preparation programs or school districts incorporate content, field experiences, problem-based learning, or coaching and mentoring *specific to elementary school*, much less P-3.

Several national organizations are poised to contribute insight. For example, adding a P-3 variable to the Education Commission of the States' 50-State Comparison: School Principals (Pechota et al., 2023), a database that catalogs principal certification and preparation policies, can elevate P-3. Similarly, national surveys of elementary principals, such as the one conducted by NAESP and Learning Policy Institute in 2020 (Levin et al.) can explicitly query about pre-k, P-3, and related professional preparation and development. Workforce studies of elementary school principals' qualifications and ongoing professional learning

can also fuel change. Within the ECE realm, organizations like the McCormick Center's L.E.A.D. Early Childhood Clearinghouse document early childhood leadership programs (Abel et al., 2018). In K-12, UCEA's INSPIRE Institute for the Evaluation of Educational Leadership Preparation has done similar work (Winn et al., 2016). Bringing together these kinds of efforts to catalog and describe innovations in the field can guide both independent and collaborative research agendas. Further, analyses of innovative principal preparation offerings can elevate promising efforts to inspire change at scale.

STRATEGY 4.2: Establish Research-Practice Partnerships between IHEs and school districts to conduct continuous improvement research on P-3 leadership development.

Efforts to evaluate and learn from both school districts and principal preparation programs that implement systematic and comprehensive P-3-aligned changes can inform change. The Wallace Foundation's University Principal Preparation Initiative (UPPI; Gates et al., 2019) serves as an example of partnered research that has deepened principal development, moving from "proof of concept" to ongoing refinement. On the P-3 side, the partnered research between Boston Public Schools, Dr. Christina Weiland, and a variety of research entities has been essential to the district's work to change its internal culture and to build its alignment efforts from pre-k through 2nd grade (Weiland & Sachs, 2018). Tapping again into the boundary-spanning concept, linking efforts that focus on principal development and P-3 will expand the field's understanding of elementary leaders, their learning, and the opportunities provided to young children.

Pursuing such research highlights a need for more participatory and partnered research that centers the voices of those most directly impacted by any effort to advance P-3 leadership (Bryk et al., 2015). Partnership research needs to actively engage principals, district and state policymakers, IHE leaders, and researchers to come together to answer questions that will shift the status quo.

STRATEGY 4.3: Expand and deepen research on the impact of P-3 leadership on improved outcomes for P-12 students.

We opened this call to action by identifying the pervasive and long-standing disparities in students' academic outcomes and implicating early learning and the early grades to do more to ensure high-quality learning opportunities are provided to young children who will most benefit from them. For a field to coalesce around the importance of P-3 leadership, research should be undertaken that demonstrates the ways in which principals with P-3 competencies influence school culture, teacher development, partnerships with families and communities, and, ultimately, equitable student outcomes. Though compelling, the current knowledge base on P-3 is still in its infancy and, in most cases, does not explore correlations between the efforts of school leaders and outcomes for children. Moving from reasoned inference to rigorous evidence will contribute to making the case for consequential changes to state, district, higher education, and school district policy and practice.





National organizations that influence education leaders' development endorse P-3 leadership as essential to equity-focused school improvement.

Meaningful change in states, school districts, and principal preparation programs depends on knowledge disseminators and intermediary entities that influence research, policy, and practice. National intermediaries – including membership organizations and alliances, think tanks, foundations, research and technical assistance centers, and the federal government – can play an outsized role in driving field-building work.

Organizations within the ECE field recognize the specialized knowledge and skills that make site administrators effective in leading organizations that serve young children and their families. Entities such as the Institute for Early Education Leadership and Innovation at University of Massachusetts Boston and the McCormick Center for Early Childhood Leadership at National Louis University produce influential resources related to the essential management and pedagogical leadership skills required across the P-3 continuum. Within ECE organizations, the focus on leadership is targeted to administrators in community-based child care organizations and provide little, if any, specificity to elementary principals. What they often lack, though, is influence on K-12 systems to adapt their ECE expertise for school principals and the elementary grades.

Given the compelling research on the impact of early achievement gaps on long-term success and well-being, national organizations devoted to strengthening school leadership can no longer remain silent on P-3. Ideally, national organizations that guide education policy and practice make P-3 leadership an explicit priority throughout their work. The following four strategies point to specific actions that national organizations can take to elevate and advance a focus on developing P-3 leaders at scale.

STRATEGY 5.1: Engage national education organizations and alliances to formally recognize P-3 in their standards and policy guidance.

A variety of national organizations design and publish influential tools, standards, and guidance that are used by states, school districts, and principal preparation programs to shape and inform their own work. Examples include the National Policy Board for Educational Administration's (NPBEA) PSEL and NELP standards, mentioned multiple times throughout this document. Other examples include frameworks that guide school districts' policies and practices related to the supervision and evaluation of principals, such as the New Leaders Principal Evaluation Toolkit or the school leader tools from Center for Educational Leadership and Marzano Resources. And yet other examples, such as Education Development Center's (EDC) Quality Measures instrument, influence the assessment of quality of principal preparation programs. All of these examples, however, are silent on P-3.

For more than 20 years, NAESP has led the field in clearly articulating principal competencies related to early learning and the early grades. Other organizations could follow suit by collaborating with ECE and P-3 leaders to develop explicit competencies and exemplary practices related to P-3 leadership. Given the ripple effect of national standards and guidance, these efforts could be a "power strategy" that influences each of the drivers in this call to action.

STRATEGY 5.2: Encourage national organizations that address K-12 leadership to address P-3.

Several of the most visible and visionary national organizations that address K-12 leadership development are silent or tepid when it comes to early learning and the early grades. All too often, when national organizations do embrace both school leadership and early learning, they reflect the same silos we see in state policy, IHEs, school districts, and research. While some K-12 organizations have an early learning focus, P-3 is typically seen as an early childhood domain and is disconnected from other initiatives more directly associated with K-12 school leadership. For example, when inviting guests to our convening, we intentionally invited an array of participants with expertise in early childhood and school leadership. In some cases, this required clarification that we hoped organizations would not default to sending an early childhood specialist but, rather, someone who primarily works with principal pipelines and school districts. Neither sector needs to relinquish their expertise, but boundary-spanning work requires re-framing both internal organizational development and external collaboration with others.

Powerful national education organizations such as The School Superintendents Association (AASA) or the Council of Chief State School Officers (CCSSO), among others, could influence the field by spanning the boundaries of ECE and K-12 leadership in their research, reports, and convenings.

STRATEGY 5.3: Invest in national networks to focus on P-3 leadership policy levers.

Philanthropy has a track record of successfully facilitating national networks to move national, state, and local education policy and practice. For example, numerous funders collaboratively support EdPrepLab, a valuable source of insight on educator and leadership preparation. The Wallace Foundation has substantially increased the exchange of research, policy, and practice in its networks of school districts, including its University Principal Pipeline Initiative and more recent Equity-Centered Pipeline Initiative. Foundations such as Heising-Simons Foundation and the W. Clement and Jessie V. Stone Foundation have portfolios in both early learning and K-124 and they are influencing a national dialogue about P-3 leadership by investing in convenings such as that which informed this call to action. Foundations can drive a P-3 leadership agenda by investing in networks of states, school districts, principal preparation programs, and/or researchers to come together over time to deepen an understanding of how P-3 and school leadership can close early achievement gaps in this country.

STRATEGY 5.4: Activate federal policy levers to explicitly address P-3 leadership.

The federal government, especially the U.S. Department of Education (ED), provides specific opportunities to elevate P-3 leadership and inspire field-wide reform. Through major federal education laws – the Every Student Succeeds Act (ESSA), the Higher Education Act (HEA), and the Individuals with Disabilities Education Act (IDEA) – and their components, the federal government can incentivize state education agencies, institutions of higher education, and school districts to prioritize P-3 leadership.

Notable progress has been made just in the last year when ED expanded the Teacher Quality Partnership (TQP) grants, part of HEA, to recognize school leaders and their important role in student success. Two absolute priorities related to principal preparation and development were added to the competitive grant program, as well as an invitational priority to focus on elementary educators and leaders. Institutions of higher education compete for these grants, and this represents the first time that principal preparation and the early grades have been included. In addition, ED included a Center for Early School Success in its 2024 Comprehensive Centers Program Competition. This technical assistance center is designed to build the capacity of practitioners, education system leaders, public schools serving preschool through 12th grades (P-12) (which may include Head Start and community-based preschool), LEAs, and SEAs to use evidence in supporting early learning and the early grades.



Ideally, national organizations that guide education policy and practice make P-3 leadership an explicit priority throughout their work.

⁴ There are other foundations that also have both ECE and K-12 portfolios. We highlight these because they participated in our August 2023 convening.



This call to action advocates for systemic change that will alter the very ecosystem of the first level of education for young children by focusing intensely on school leadership. While we contend that each strategy within the five drivers in this call to action can contribute to developing a field of P-3 leadership, multifaceted efforts to span the boundaries of state policy, IHEs, and school districts are needed to achieve the vision at scale.

Both research on and implementation of P-3 leadership approaches are nascent yet expanding rapidly. As we go to press with this call to action, at least five new reports have been published investigating such issues as state and district roles in preparing and developing principals (Diliberti et al., 2024; Fitz et al., 2024), higher education practices in preparing leaders for early learning (Little et al., 2024), elevating equity in elementary schools (Powell et al., 2024), and the preparation of equity-centered leaders (Richard & Cosner, 2024). We are encouraged and energized by the growing attention to these issues and expect this call to action to provide an effective framework for continuing to integrate research, policy, and practice.

Better-prepared principals demonstrate better retention in position as well as better teacher and student retention, all essential factors in addressing student achievement. And the best-prepared elementary school principals will be effective leaders of P-3 by shaping the school culture, teacher teamwork, partnerships with families

and collaborations with community-based ECE programs. Together, these factors make young children feel like they belong at school and are capable of great success. To ensure best-prepared principals in every elementary school in the United States requires systemic attention to principal preparation and development.

A clear understanding of elementary school achievement gaps that exist across this country, sources of those gaps, and possibilities to drive change are just the first pieces of the puzzle. Closing those gaps requires renewed attention to the gaps in learning opportunities provided to young children, especially those who have been systematically and historically marginalized. To catalyze change at scale and infuse P-3 into principal preparation programs, it is important to build and leverage influential relationships among leaders and organizations in early childhood, P-3, school leadership, and principal preparation. In organizations at all levels—local, state, and national—leadership matters.

Appendix A

Peer-to-Peer Participants

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Appendix B

Peer-to-Peer Convening

In August 2023, the National P-3 Center at the University of Colorado Denver, in collaboration with Dr. Steve Tozer from the Center for Urban Education Leadership at the University of Illinois Chicago, convened leaders from the fields of school leadership and school leader preparation, early care and education (ECE) and ECE leadership, and P-12 policy reform to come together to inform our understanding of the barriers and opportunities to advance P-3 in principal preparation. Attendees represented research, policy, and practice, hailing from state government, higher education, school districts, national associations, and philanthropy. The time together was filled with rich dialogue among participants with a diversity of expertise and experience. We are grateful for their engagement.

Our intention was to bring together individuals who engage in complementary work but do not have the opportunity to cross paths, much less engage in meaningful dialogue. Since nobody in the room could boast expertise in the full scope of the meeting, each participant left with ideas that can be applied to their everyday work in implementation and practice. The gathering also served as a field-building research endeavor, creating new kinds of collective knowledge that can be generalized and shared with the public.

This document represents just one outcome of the convening, providing a call to action for on-going deliberation, and enactment, of the ideas herein. Other outcomes may be less tangible, but no less important, as the participants consider ways to modify their own work in both big and small ways, and to plant seeds of change within their own organizations and networks.

Appendix C

Glossary of Acronyms

CCSSO: Council of Chief State School Officers

CPC: Chicago Child-Parent Centers

ECE: Early Care and Education

ELCC: Education Leadership Constituent Council

ESSA: Every Student Succeeds Act

IHE: Institution of Higher Education

ISLLC: Interstate Leaders Licensure Consortium

LEA: Local Education Agency

LPI: Learning Policy Institute

NAEP: National Assessment of Educational Progress

NAESP: National Association of Elementary School

Principals

NASSP: National Association of Secondary School

Principals

NELP: National Educational Leadership Preparation

NPBEA: National Policy Board for Education Administration

PSEL: Professional Standards in Educational Leadership

UCEA: University Council for Educational Administration

UPPI: University Principal Pipeline Initiative

- Abel, M. B., Talan, T. N., & Magid, M. (2018). Closing the leadership gap: 2018 status report on early childhood program leadership in the United States. McCormick Center for Early Childhood Leadership at National Louis University.
- Abel, M. B., Talan, T. N., Pollitt, K. D., & Bornfreund, L. (2016). National principals' survey on early childhood instructional leadership. McCormick Center for Early Childhood Leadership.
- Abenavoli, R. J. (2019). The mechanisms and moderators of "fadeout": Towards understanding why the skills of early childhood program participants converge over time with the skills of other children. *Psychological Bulletin*, 145(12), 1103-1127.
- Adair, J. K., & Colegrove, K. S.-S. (2021). Segration by experience: Agency, racism, and learning in the early grades. The University of Chicago Press.
- Adair, J. K., Park, S., Alonzo, M., McManus, M. E., Odim, N., Lee, S., Jones, N. N., Payne, K. A., & Colegrove, K. S.-S. (2024). Equitable access to agency-supportive early schooling contexts for young children of color. *Early Childhood Research Quarterly, 69*, 49-64.
- Akkerman, S. F., & Bakker, A. (2011). Boundary crossing and boundary objects. *Review of Educational Research*, 81(2), 132-169.
- Anderson, E., & Reynolds, A. (2015). The state of state policies for principal preparation program approval and candidate licensure. *Journal of Research on Leadership Education*, 10(3), 193-221.
- Anderson, L. M., & Turnbull, B. J. (2019). Sustaining a principal pipeline. Policy Studies Associates.
- Anderson, S., & Romm, K. (2020). Absenteeism across the early elementary grades: The role of time, gender, and socioeconomic status. *The Elementary School Journal*, 121(2), 179-196.
- Ansari, A., Manfra, L., Hartman, S. C., López, M., Bleiker, C., Dinehart, L. H. B., & Winsler, A. (2017). Differential third-grade outcomes associated with attending publicly funded preschool programs for low-income Latino children. *Child Development*, 88(5), 1743-1756.
- Bailey, D., Duncan, G. J., Odgers, C. L., & Yu, W. (2017). Persistence and fadeout in the impacts of child and adolescent interventions. *Journal of Research on Educational Effectiveness*, 10(1), 7-39.
- Barakat, M., Reames, E., & Kensler, L. A. W. (2018). Leadership preparation programs: Preparing culturally competent educational leaders. *Journal of Research on Leadership Education*, 14(3), 212-235.
- Bardige, B., Baker, M., & Mardell, B. (2018). *Children at the center:* Transforming early childhood education in the Boston Public Schools. Harvard Education Press.

- Bassok, D., Latham, S., & Rorem, A. (2016). Is Kindergarten the new first grade? AERA Open, 1(4), 1-31.
- Bingham, G. E., Phelps, C., & Dean, M. P. (2023). Examining the preschool to first-grade literacy and language outcomes of Black children experiencing a high-quality early childhood program. *The Elementary School Journal*, 123(3), 367-395.
- Blair, C., & Raver, C. C. (2014). Closing the achievement gap through modification of neurocognitive and neuroendocrine function: results from a cluster randomized controlled trial of an innovative approach to the education of children in kindergarten. *PLOS ONE*, *9*(11), e112393.
- Bogard, K., & Takanishi, R. (2005). PK-3: An aligned and coordinated approach to education for children 3 to 8 years old. Social Policy Report: A publication of the Society for Research in Child Development, 19(3), 1-24.
- Brooks-Gunn, J. (2003). *Do you believe in magic? What we can expect from early childhood intervention programs.* Society for Research in Child Development.
- Brown, C. P., Ku, D. H., & Barry, D. P. (2020). "Kindergarten isn't fun anymore. Isn't that so sad?": Examining how kindergarten teachers in the US made sense of the changed kindergarten. *Teaching and Teacher Education, 90,* 103029.
- Brown, K. C., Squires, J., Connors-Tadros, L., & Horowitz, M. (2014). What do we know about principal preparation, licensure requirements, and professional development for school leaders? Center for Enhancing Early Learning Outcomes (CEELO).
- Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2015). Learning to improve: How America's schools can get better at getting better. Harvard Education Press.
- Bryk, A. S., Greenberg, S., Bertani, A., Sebring, P., Tozer, S. E., & Knowles, T. (2023). *How a city learned to improve its schools*. Harvard Education Press.
- Buffett Early Childhood Institute. (2023). Superintendents' early childhood plan annual report: 2022-23 academic year. Author.
- Cantor, P., & Osher, D. (Eds.). (2021). The science of learning and development: Enhancing the lives of all young people. Routledge.
- Center on the Developing Child. (2007). A science-based framework for early childhood policy: Using evidence to improve outcomes in learning, behavior, and health for vulnerable children. Harvard University.
- Chang, C., & Pinkard, E. (2023). Redefining the role of the principal: Innovative approaches to empower school leaders. Aspen Institute.
- Cheney, G. R., Davis, J., Garrett, K., & Holleran, J. (2010). A new approach to principal preparation: Innovative programs share their practices and lessons learned. Rainwater Leadership Alliance.

- Clements, D. H., & Sarama, J. (2009). Learning and teaching math: The learning trajectories approach. Routledge.
- Coburn, C. E., Stein, A., Bohannon, A. X., Bárcenas, L., & Muskin, M. (2024). Toward an instructional infrastructure to support instructional improvement in PreK-3 mathematics: Four districts' experiences with the California Eduation Partners. Northwestern University.
- Conger, D., Gibbs, C. R., Uchikoshi, Y., & Winsler, A. (2019). New benefits of public school pre-kindergarten programs: Early school stability, grade promotion, and exit from ELL services. *Early Childhood Research Quarterly, 48*, 26-35.
- Cunha, F., & Heckman, J. (2007). The Technology of Skill Formation. *The American Economic Review, 97*(2), 31-47.
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97-140.
- Darling-Hammond, L., Wechsler, M. E., Levin, S., Leung-Gagné, M., Tozer, S., & Campoli, A. K. (2024). *Developing expert principals: Professional learning that matters.* Routledge.
- Diliberti, M. K., Schwartz, H. L., & DiNicola, S. E. (2024). How school districts prepare and develop school principals: Selected findings from the Spring 2024 American School District Survey Panel. RAND.
- Dockett, S., & Perry, B. (2021). Professional linkages at the transition to school: Boundaries and linked ecologies. *Policy Futures in Education*, *19*(4), 459-477.
- Douglass, A., Halle, T., Kirby, G., & Nagle, K. (2022). Recognizing and supporting early childhood educators and program administrators as agents of change: An exploration of distributed leadership in early care and education. (OPRE Report #2022-74). Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Drake, T. A., Little, M., Cohen-Vogel, L., Gragson, A., & Cadilla, V. (2023). What shapes principals' early education leadership practices? A mixed-methods study of North Carolina school leaders. *Leadership and Policy in Schools*, 1-22.
- Duke, N. K., & Cartwright, K. B. (2021). The science of reading progresses: Communicating advances beyond the simple view of reading. *Reading Research Quarterly*, 56(S1), S25-S44.
- Durkin, K., Lipsey, M. W., Farran, D. C., & Wiesen, S. E. (2022). Effects of a statewide pre-kindergarten program on children's achievement and behavior through sixth grade. *Developmental Psychology*, 58(3), 470-484.
- Eddy-Spicer, D. H., & James, C. (2019). Boundary perspectives on schools as organizations. In M. Connolly, D. H. Eddy-Spicer, C. James, & S. D. Kruse (Eds.), *The SAGE Handbook of School Organization (pp. 228-248)*. SAGE Reference.

- Edwards, A. (2012). The role of common knowledge in achieving collaboration across practices. *Learning, culture, and social interaction, 1,* 22-32.
- Engel, M., Jacob, R., Claessens, A., & Erickson, A. (2021). Kindergarten in a large urban district. *Educational Researcher*, 50(6), 401-415.
- Fitz, J., Wechsler, M. E., & Levin, S. (2024). State approaches to developing educational leaders. Learning Policy Institute.
- Friedman-Krauss, A. H., Barnett, W. S., Hodges, K. A., Garver, K. A., Jost, T. M., Weisenfeld, G. G., & Duer, J. K. (2024). *The state of preschool 2023: State preschool yearbook.* National Institute for Early Education Research (NIEER).
- Garner, R., Nicholas, M., & Rouse, E. (2021). Cross-sector early years teacher collaboration: Using professional learning workshops as boundary objects for professional boundary crossing. *European Early Childhood Education Research Journal*, 29(5), 764-779.
- Gates, S. M., Baird, M. D., Master, B. K., & Chavez-Herrerias, E. R. (2019). *Principal pipelines: A feasible, affordable, and effective way for districts to improve schools.* RAND Corporation.
- Goldhaber, D., Wolff, M., & Daly, T. (2021). Assessing the accuracy of elementary school test scores as predictors of students' high school outcomes. National Center for the Analysis of Longitudinal Data in Education Research (CALDER).
- Goldring, E., Rubin, M., Rogers, L., Neumerski, C. M., Moyer, A., & Cox, A. (2023). *Planning and developing principal pipelines:*Approaches, opportunities, and challenges. Wallace Foundation.
- Gomez, L. M., Biag, M., & Imig, D. G. (2020). Learning at the boundaries: Reconsidering the university-district partnerships for educational change. In N. S. Nasir, C. D. Lee, R. Pea, & M. M. De Royston (Eds.), *Handbook of the cultural foundations of learning (pp. 365-384)*. Routledge.
- Gomez, L. M., Biag, M., Imig, D. G., Hitz, R., & Tozer, S. (Eds.). (2023). Improving America's schools together: How district-university partnerships and continuous improvement can transform education. Rowman & Littlefield.
- Göncü, A., Main, C., Perone, A., & Tozer, S. (2014). Crossing the boundaries: The need to integrate school leadership and early childhood education. *Mid-Western Educational Researcher*, 26(1), 66-75.
- Gooden, M. A., Khalifa, M., Arnold, N. W., Brown, K. D., Meyers, C. V., & Welsh, R. O. (2023). A culturally responsive school leadership approach to developing equity-centered principals: Considerations for principal pipelines. Wallace Foundation.
- Gordon, M. F., Hafford, C., Barrows, M. R., Ehrlich Loewe, S., Cook, K. D., Gutwein, M., Carrazza, C., Feldman, R. C., Halle, T. G., & Kauerz, K. (2023). *Understanding cross-system transitions from Head Start to kindergarten: A comparative cross case study of Head Start and K-12 partnerships.* (OPRE Report #2023-247). Office of Planning

- Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Greenberg, E., Lamb, R., Restrepo, L., & Weiland, C. (2024). Different settings, different experiences: Equity and quality in DC's mixed-delivery public prekindergarten system. Urban Institute.
- Grissom, J. A., Egalite, A. J., & Lindsay, C. A. (2021). How principals affect students and schools: A systematic synthesis of two decades of research. Wallace Foundation.
- Grissom, J. A., Kalogrides, D., & Loeb, S. (2017). Strategic staffing? How performance pressures affect the distribution of teachers within schools and resulting student achievement. *American Educational Research Journal*, 54(6), 1079-1116.
- Hammond, Z. (2015). Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students. Corwin.
- Hassrick, E. M., Raudenbush, S. W., & Rosen, L. (2017). The ambitious elementary school: Its conception, design, and implications for educational equity. University of Chicago Press.
- Herman, R., Wang, E. L., Woo, A., Gates, S. M., Berglund, T., Schweig, J., Andrew, M., & Todd, I. (2022). Redesigning university principal preparation programs: A systemic approach for change and sustainability. RAND Corporation.
- Hernandez, D. J. (2011). *Double jeopardy: How third-grade reading skills and poverty influence high school graduation*. Annie E. Casey Foundation.
- Honig, M. I., & Rainey, L. R. (2023). From tinkering to transformation: How school district central offices drive equitable teaching and learning. Harvard Education Press.
- Hood, L., Kasperski, D., Hunt, E., DeStefano, L., Rodriguez, S. C., Kirchoff, A., & Rosa, P. (2015). Studying the Danielson Framework for teaching in prek–3rd grade classrooms: A white paper of the research and preliminary findings. Leadership to Integrate the Learning Continuum (LINC) at Illinois State University.
- Horm, D. M., Jeon, S., Clavijo, M. V., & Acton, M. (2022). Kindergarten through grade 3 outcomes associated with participation in high-quality early care and education: A RCT follow-up study. *Education Sciences*, 12(12), 908.
- Hunt, E., Haller, A., Hood, L., & Kincaid, M. (Eds.). (2019). Reforming principal preparation at the state level: Perspectives on policy reform from Illinois. Routledge.
- Hyler, M. E., Carver-Thomas, D., Wechsler, M., & Willis, L. (2021). Districts advancing racial equity (DARE) tool. Learning Policy Institute and Racial Equity Leadership Network.
- Institute of Medicine and National Research Council. (2015).

 Transforming the workforce for children birth through age 8: A unifying foundation. The National Academies Press.

- Jackson, S. (2023). The impact of strong district leadership in early childhood. New America.
- Jacovo, D., & Norton, L. (2023). *The renewed promise of P-20 councils*. Education Strategy Group.
- Johnson, A. D., Partika, A., Martin, A., Lyons, I., Castle, S., & Phillips, D. A. (2024). Public preschool predicts stronger third-grade academic skills. AERA Open, 10, 23328584231223477.
- Kagan, S. L., & Kauerz, K. (Eds.). (2012). Early childhood systems: Transforming early learning. Teachers College Press.
- Kauerz, K. (2019). Pre-school through 3rd grade (P-3): Conceptual, organizational, and practical perspectives. In C. Brown, M. B. McMullen, & N. File (Eds.), Handbook of early childhood education (pp. 591-613). Wiley Blackwell Publishing.
- Kauerz, K. (2020). Early childhood systems for birth through age 8 (0-8): Conceptual challenges and research needs. In M. E. Graue, S. Ryan, V. L. Gadsden, & F. J. Levine (Eds.), Advancing knowledge and building capacity for early childhood research: Creating synergies among segregated scholarly communities (pp. 185-200). American Educational Research Association.
- Kauerz, K., Ballard, R., Soli, M., & Hagerman, S. (2021). Leading learning communities: A principal's guide to early learning and the early grades (Pre-K-3rd Grade). National Association of Elementary School Principals.
- Kauerz, K., & Coffman, J. (2019). Framework for planning, implementing, and evaluating P-3 approaches (2nd ed.). National P-3 Center, University of Colorado Denver.
- Kauerz, K., Soli, M., & Ballard, R. (unpublished). *Designing and evaluating P-3 leadership programs: Progress and possibilities*. National P-3 Center, University of Colorado Denver.
- Kauerz, K. A., Taylor, M., & Kuhl, K. (2018). Building cross-sector P-3 leaders: The Washington P-3 Executive Leadership Certificate Program. National P-3 Center, University of Colorado Denver.
- Kirp, D. L. (2013). Improbable scholars: The rebirth of a great American school system and a strategy for America's schools. Oxford University Press.
- Koppich, J. E., & Stipek, D. (2020). *PreK-3 alignment: Challenges and opportunities in California*. PACE (Policy Analysis for California Education).
- Learning Policy Institute & Turnaround for Children. (2021). *Design principles for schools: Putting the science of learning and development into action.* Authors.
- Leithwood, K., Sun, J., & McCullough, C. (2019). How school districts influence student achievement. *Journal of Educational Administration*, *57*(5), 519-539.

- Levin, S., Leung, M., Edgerton, A. K., & Scott, C. (2020). Elementary school principals' professional learning: Current status and future needs. Learning Policy Institute.
- Lewis, A. E., & Diamond, J. B. (2015). Despite the best intentions: How racial inequality thrives in good schools. Oxford University Press.
- Lieberman, A. (2017). A tale of two PreK leaders: How state policies for center directors and principals leading PreK programs differ, and why they shouldn't. New America.
- Little, M. (2020). Educators' views on the location of Pre-K programs and its relation to features of P-3 alignment: An exploratory study. *Children and Youth Services Review, 118*, 105455.
- Little, M., Drake, T. A., Cohen-Vogel, L., & Eagle, J. (2022). When school doesn't start at age 5: Elementary principal leadership of pre-K programs in schools. *The Elementary School Journal*, 123(1), 176-202.
- Little, M. H., Drake, T., Chapman, K., & Gragson, A. (2024). Preparing early education leaders: An analysis of UCEA principal preparation programs. *Educational Administration Quarterly*, 0013161X241281514.
- LoCasale-Crouch, J., Konold, T., Pianta, R., Howes, C., Burchinal, M., Bryant, D., Clifford, R., Early, D., & Barbarin, O. (2007). Observed classroom quality profiles in state-funded pre-kindergarten programs and associations with teacher, program, and classroom characteristics. *Early Childhood Research Quarterly*, 22(1), 3-17.
- Lu, Z., Ahmad, S., Thompson, A., Saylor, M., Tozer, S., Wilson, J. O., & VanGronigan, B. A. (2023, November 18). Developing a leadership preparation framework to build and support a strong leadership pipeline: Evidence from Delaware. UCEA Annual Conference, Minneapolis.
- Magnuson, K., & Duncan, G. J. (2016). Can early childhood interventions decrease inequality of economic opportunity? RSF: The Russell Sage Foundation Journal of the Social Sciences, 2(2), 123.
- Malone, L., Albanese, S., Jones, C., Xue, Y., Kirby, G., & Douglass, A. (2021). Compendium of existing measures for understanding leadership in early care and education. (OPRE Report 2021-220). Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Manna, P. (2015). Develoing excellent school principals to advance teaching and learning: Considerations for state policy. Wallace Foundation.
- Manna, P. (2021). How can state policy support local school districts as they develop comprehensive and aligned principal pipelines? Wallace Foundation.
- Manna, P. (2022). States as leaders, followers, and partners: Lessons from the ESSA Leadership Learning Community and the University Principal Preparation Initiative. Wallace Foundation.

- Marietta, G. (2010a). Lessons for PreK-3rd from Montgomery County Public Schools. Foundation for Child Development.
- Marietta, G. (2010b). *PreK-3rd: How superintendents lead change.* Foundation for Child Development.
- Mayger, L. K. (2024). How are principal preparation programs preparing leaders for family and community engagement? Journal of Research on Leadership Education, 19(2), 196-220.
- McCabe, L. A., & Sipple, J. W. (2011). Colliding worlds: Practical and political tensions of prekindergarten implementation in public schools. *Educational Policy*, 25(1), 1-26.
- McCormick, M. P., MacDowell, C., Weiland, C., Hsueh, J., Maier, M., Pralica, M., Maves, S., Snow, C., & Sachs, J. (2024). Instructional alignment is associated with PreK persistence: Evidence from the Boston Public Schools. *Early Childhood Research Quarterly, 67*, 89-100.
- Meek, S., Iruka, I. U., Allen, R., Yazzie, D. A., Fernandez, V., Catherine, E., McIntosh, K., Gordon, L., Gilliam, W., Hemmeter, M. L., Blevins, D., & Powell, T. (2020). Start with equity: Fourteen priorities to dismantle systemic racism in early care and education. Children's Equity Project, Arizona State University.
- Morgan, P. L., Farkas, G., Wang, Y., Hillemeier, M. M., Oh, Y., & Maczuga, S. (2019). Executive function deficits in kindergarten predict repeated academic difficulties across elementary school. *Early Childhood Research Quarterly*, 46, 20-32.
- Nasir, N. i. S., Lee, C. D., Pea, R., & McKinney de Royston, M. (2021). Rethinking learning: What the interdisciplinary science tells us. *Educational Researcher*, 50(8), 557-565.
- National Academies of Sciences, Education, and Medicine. (2017). Promoting the educational success of children and youth learning English: Promising futures. The National Academies Press.
- National Academies of Sciences, Education, and Medicine. (2016). Parenting matters: Supporting parents of children ages 0-8. The National Academies Press.
- National Academies of Sciences, Education, and Medicine. (2022). Science and engineering in preschool through elementary grades: The brilliance of children and the strengths of educators. The National Academies Press.
- National Academies of Sciences, Education, and Medicine. (2023). Closing the opportunity gap for young children. The National Academies Press.
- National Association of Elementary School Principals. (2014). Leading pre-k-3 learning communities: Competencies for effective principal practice. Author.
- National Center for Education Statistics. (2023). Enrollment rates of young children https://nces.ed.gov/programs/coe/indicator/cfa

- Nyhan, P. (2013). A PreK-3rd Coalition: How three school districts accomplished more together than alone. Bill & Melinda Gates Foundation.
- Nyhan, P. (2015). The power of a good idea: How the San Francisco School District is building a PreK-3rd grade bridge. New America.
- Osher, D., Cantor, P., Berg, J., Steyer, L., & Rose, T. (2020). Drivers of human development: How relationships and context shape learning and development. *Applied Developmental Science*, 24(1), 6-36.
- Ou, S.-R., Arteaga, I., & Reynolds, A. J. (2019). Dosage effects in the Child-Parent Center PreK-to-3rd grade program: A Re-analysis in the Chicago longitudinal study. *Children and Youth Services Review, 101*, 285-298.
- Pechota, D., Silva-Padron, G., Peisach, L., & Perez Jr., Z. (2023). 50-state comparison: School principals. Education Commission of the States.
- Petscher, Y., Solari, E. J., & Catts, H. W. (2019). Conditional longitudinal relations of elementary literacy skills to high school reading comprehension. *Journal of Learning Disabilities*, 52(4), 324-336.
- Pianta, R. C., Belsky, J., Houts, R., Morrison, F., & National Institute of Child Health and Human Development Early Child Care Research Network. (2007). Opportunities to learn in America's elementary classrooms. *Science*, 315, 1795-1796.
- Pinkard, E. (2022). Rethinking the role of the principal. Aspen Institute.
- Powell, T., Meek, S., Bornfreund, L., Soto-Boykin, X., Allen, R., Iruka, I. U., Bucher, E., Ameley-Quaye, A., Alexander, B., Cardona, M., Aponte, G. Y., Gordon, L., Blevins, D., & Loewenberg, A. (2024). *Learning, joy, and equity: A new framework for elementary education*. Children's Equity Project and New America.
- Radd, S. I., Generett, G. G., Gooden, M. A., & Theoharis, G. (2021). Five practices for equity-focused school leadership. ASCD.
- reardon, s. f. (2019). Educational opportunity in early and middle childhood: Using full population administrative data to study variation by place and age. RSF: The Russell Sage Foundation Journal of the Social Sciences, 5(2), 40-68.
- Reardon, S. F., & Hinze-Pifer, R. (2017). *Test score growth among Chicago Public School students, 2009-2014*. Stanford Center for Education Policy Analysis.
- Richard, M. S., & Cosner, S. (2024). Centering equity within principal preparation and development: An integrative review of the literature. *Education Sciences*, 14(9), 944.
- Ritchie, S., & Gutmann, L. (Eds.). (2014). FirstSchool: Transforming preK-3rd grade for African-American, Latino, and low-income children. Teachers College Press.

- Siddiqi, J., Sims, P. C., & Goff, A. L. (2018). Meaningful partnerships: Lessons from two innovative principal preparation programs. The Hunt Institute.
- Stein, A., & Coburn, C. E. (2023). Instructional policy from Pre-K to third grade: The challenges of fostering alignment and continuity in two school districts. *Educational Policy*, *37*(3), 840-872.
- Swisher, A., & Saenz-Armstrong, P. (2022). State of the states 2022: Teacher and principal evaluation policies. National Council on Teacher Quality.
- Takanishi, R. (2016). First things first! Creating the new American primary school. Teachers College Press.
- Tozer, S., Senese, G., & Violas, P. C. (2021). School and society: Historical and contemporary perspectives (8th ed.). McGraw Hill.
- Tozer, S., Zavitkovsky, P., Whalen, S., & Martinez, P. (2015). Change agency in our own backyards: Meeting the challenges of next-generation programs in school leader preparation. In M. Khalifa, N. W. Arnold, A. F. Osanloo, & C. M. Grant (Eds.), *Handbook of Urban Educational Leadership* (pp. 480-495). Rowman & Littlefield.
- Vernon-Feagans, L., Mokrova, I. L., Carr, R. C., Garrett-Peters, P. T., Burchinal, M. R., & Family Life Project Key Investigators. (2019). Cumulative years of classroom quality from kindergarten to third grade: Prediction to children's third grade literacy skills. *Early Childhood Research Quarterly, 47*, 531-540.
- Wechsler, M. E., & Wojcikiewicz, S. K. (2023). Preparing leaders for deeper learning. Harvard Education Press.
- Weiland, C., McCormick, M., Duer, J., Friedman-Krauss, A., Pralica, M., Xia, S., Nores, M., & Mattera, S. (2024). The mixed-delivery pre-k opportunity gap? Differences in demographics, quality, and children's gains in community-based versus public school programs across five large-scale systems. *Early Childhood Research Quarterly*, 68, 247-259.
- Weiland, C., & Sachs, J. (2018). The role of data, research, and evaluation in the process of change. In B. Bardige, M. Baker, & B. Mardell (Eds.), *Children at the center: Transforming early childhood education in the Boston Public Schools* (pp. 195-210). Harvard Education Press.
- Wilinski, B. (2017). Plays well with others: The discourse and enactment of partnerships in public Pre-K. In J. N. Lester, C. R. Lochmiller, & R. E. Gabriel (Eds.), *Discursive perspectives on education policy and implementation* (pp. 133-156). Palgrave Macmillan.
- Wilinski, B., Morley, A., & Landgraf, J. (2021). How policies and policy actors shape the pre-k borderland: Implications for early childhood educators' work experiences. Teachers College Record, 123(10), 117-141.
- Winn, K. M., Anderson, E., Groth, C., Korach, S., Pounder, D., Rorrer, A., & Young, M. D. (2016). *A deeper look: INSPIRE data demonstrates quality in educational leadership preparation.* University Council for Educational Administration.

- Wright, B. L., & Counsell, S. L. (2018). The brilliance of black boys: Cultivating school success in the early grades. Teachers College Press.
- Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M., Espinosa, L. M., Gormley, W. T., Ludwig, J., Magnuson, K. A., Phillips, D., & Zaslow, M. (2013). Investing in our future: The evidence base on preschool education. Society for Research in Child Development and Foundation for Child Development.
- Young, M. D., & Mawhinney, H. (Eds.). (2012). The research base supporting the ELCC standards: Grounding leadership preparation & the Educational Leadership Constituent Council standards in empirical research. University Council for Educational Administration.
- Young, M. D., O'Doherty, A., & Cunningham, K. M. W. (2022). Redesigning educational leadership preparation for equity: Strategies for innovation and improvement. Routledge.