Elementary School Principals' Professional Learning

Current Status and Future Needs

Stephanie Levin, Melanie Leung, Adam K. Edgerton, and Caitlin Scott

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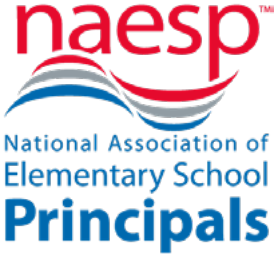

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Executive Summary

School principals are essential for ensuring that students have access to strong educational opportunities. They shape a vision of academic success for all students; create a climate hospitable to education; cultivate leadership in others so that teachers and other adults feel empowered to realize their schools' visions; guide instructional decisions that improve teaching and learning; and manage people, data, and processes to foster school improvement. Since the onset of the COVID-19 pandemic and its revelation of stark inequities in educational opportunity, the role of the principal has become even more critical in meeting students' needs. Principals' many responsibilities are consequential, affecting teacher retention, school culture and climate, students' social and emotional learning, and, ultimately, student achievement.

Research has found that high-quality professional learning opportunities for principals—including preparation programs, induction supports for early-career principals, ongoing training, one-on-one support through coaching and mentoring, and peer networks—can build leadership capacity.

Research has found that high-quality professional learning opportunities for principals—including preparation programs, induction supports for early-career principals, ongoing training, one-on-one support through coaching and mentoring, and peer networks—can build leadership capacity. Such learning opportunities can develop principals' competence in leading across their full range of responsibilities, empowering them to foster school environments in which adults and students thrive. Principals who have access to high-quality professional learning are typically more likely to remain in the profession. Additionally, teachers appear more likely to remain in schools led by principals who participate in these types of professional learning programs.

To learn more about principals' opportunities for professional learning, the National Association of Elementary School Principals (NAESP) and the Learning Policy Institute (LPI) collaborated on a national principal study. LPI surveyed a random sample of 1,000 principals who were members of NAESP and who were selected to represent U.S. elementary school principals proportionately by state. The survey garnered a 41% response rate, with 407 principals responding. We analyzed survey data that addressed professional learning experiences for all principals using descriptive statistics, and we examined differences among groups of principals with different experience levels and those working in schools with distinctive characteristics (percentages of students eligible for free or reduced-price lunch, percentages of students of color, and community type). We report these analyses for key sections of the survey in which we found important differences (i.e., statistically significant differences that were unlikely to have occurred by chance).

Our research findings add to the literature on professional learning for principals. Many elementary school principals reported having had access to professional development content that research identifies as important for developing school leadership capacity. This professional development

could be delivered in a variety of ways, from short presentations to authentic learning opportunities, such as applied learning experiences, working with mentors or coaches, and networking with colleagues. While most elementary school principals reported access to professional development content, far fewer indicated that they were able to participate in authentic learning opportunities, despite the research finding that these learning opportunities are associated with principals' improved leadership capacity.

While most elementary school principals reported access to professional development content, far fewer indicated that they were able to participate in authentic learning opportunities, despite the research finding that these learning opportunities are associated with principals' improved leadership capacity.

Additionally, elementary school principals reported wanting more professional development content, with the need for content related to supporting whole child education—a range of practices that involve engaging in deep learning and tending to the social-emotional and physical health of students—identified most frequently. Principals also reported wanting more professional development content in leading equitable schools by supporting diverse learners and addressing issues of equity in their schools.

Lastly, although most elementary school principals indicated that their districts supported their continuous improvement, they also reported facing obstacles to participating in professional learning. These obstacles were related to time constraints, insufficient coverage for leaving the building, and lack of funds.

Key Findings

Most elementary school principals had access to professional development content identified as important for building leadership capacity, including topics in leading equitable schools. Over 80% of principals had the opportunity to participate in professional development content focused on managing change, creating collegial teaching and learning environments, and improving schoolwide instruction. In fact, the topics that almost all principals said they had access to were using student or school data for continuous school improvement (98%). Additionally, many principals reported access to professional development about helping teachers improve through cycles of observation and feedback (95%). Principals also were likely to have participated in professional development in leading equitable schools, such as meeting the needs of students with disabilities (95%), equitably serving all children (91%), leading schools to support students from diverse backgrounds (88%), and meeting the needs of English learners (86%).

Many elementary school principals appear not to have had the opportunity to participate in authentic, job-embedded professional learning. Along with having access to professional development content that builds leadership capacity, principals benefit from having this content delivered through activities that are authentic and job embedded. These activities include applied learning experiences (such as sharing leadership practices with peers), working with mentors and coaches, and participating in networking opportunities. Despite the research showing the importance of applied learning for effective professional development, our study finds that less than

one third of all principals (32%) were able to spend time sharing leadership practices with their peers three or more times in the past 2 years. Similarly, while the evidence points to the efficacy of mentors and coaches for principals, less than one quarter (23%) of principals responding to the survey reported having a mentor or coach in the past 2 years—and this percentage was lower for principals in high-poverty schools (10%). More principals had participated in professional learning communities (PLCs)—56% reported meeting with a PLC three or more times in the past 2 years—yet nearly half had not had this opportunity.

More than half of all elementary school principals wanted more professional development across all topics, but principals were most likely to want additional professional development that focuses on whole child education. The high percentages of principals expressing a need for this professional development attests to its importance.

- To support whole child education, principals reported their need for content on leading schools in supporting students' social-emotional development (83%), developing systems supporting children's physical and mental health (82%), creating an environment that develops responsible young people (76%), redesigning school organization/structure for deeper learning (75%), creating an environment that uses discipline for restorative purposes (74%), and developing students' higher-order thinking (73%).
- Many principals also indicated a need for professional development in leading equitable schools to ensure that all students have access to whole child education. This included meeting the needs of students with disabilities (71%), leading schools to support diverse learners (69%), equitably serving all students (69%), and meeting the needs of English learners (64%).

More than four in five elementary school principals (84%) indicated that they faced obstacles to pursuing professional development. The top three reasons were: not enough time (67%), insufficient coverage for leaving the building (43%), and not enough money (42%). Half of principals serving schools with high percentages of students of color reported lacking money for professional development (50%), compared with fewer than one third of principals of schools with low percentages of students of color (32%).

Most elementary school principals reported that their districts can play a role in helping to overcome obstacles to professional learning and can support principals' continuous improvement, but this varied by the proportion of students in poverty and students of color in schools. While a large majority of principals (85%) agreed that their districts supported their continuous improvement, there was considerable variation. Principals in high-poverty schools were less likely to report that their districts helped them overcome obstacles to professional learning: 65% in high-poverty schools compared with 87% in low-poverty schools. Similarly, 69% of principals in schools with higher percentages of students of color reported that their districts helped them overcome obstacles, while 86% in schools with lower percentages of students of color indicated that they had this support from their districts.

Implications for Policy and Practice

High-quality professional learning can equip principals with the knowledge, mindset, and skills to support effective teaching and to lead across their full range of responsibilities. With this investment, principals are best positioned to foster school environments in which adults and students thrive. Policymakers should support principals by ensuring that they have access to high-quality professional learning opportunities. This support may be particularly useful during challenging times, such as during the pandemic that started in the spring of 2020 that moved both schooling and professional learning online or into hybrid forms.

At the local level

Policymakers at the local level have several options for supporting principals' professional development:

Local policymakers can ensure that professional learning for principals embodies key features that help produce principals who can improve school outcomes. These features relate to the content of the professional development, as well as the delivery of content in authentic and job-embedded formats:

- **Professional development focused on improving schoolwide instruction for whole child education.** Relevant content, according to the principals surveyed, includes professional development in supporting students' social-emotional development and physical and mental health, as well as creating school environments that develop responsible young people and foster critical thinking. Such content could be particularly valuable to school leaders as they support their communities due to the trauma and other challenges related to the COVID-19 crisis.
- **Professional development focused on fostering equitable school environments.** More than two thirds of principals expressed a need for professional development content in leading schools to support diverse learners and equitably serve all students. This content aims to develop principals' capacities to create a supportive, unbiased school environment that affirms each child as an individual; builds on students' cultural assets through culturally responsive teaching; and fosters strong, trusting relationships among students and between students and adults.
- **Meaningful applied learning experiences that are problem based and context specific.** Only one third of surveyed principals reported having regularly shared leadership practices with peers in the past 2 years, an applied learning experience that reinforces principal learning. Problem-based, context-specific learning opportunities, such as school walk-throughs with peers or analyzing student data to identify problems, can enrich principals' skill development.
- **Mentors and/or coaches who provide principals with individualized support tailored to their needs.** Only one quarter of surveyed principals reported having had a mentor or coach. However, for principals with all levels of experience, mentoring or on-the-job coaching can support them to foster school improvement and adopt new leadership methods.

- **Opportunities to participate in collaborative learning, such as networks of practicing principals.** Approximately half of surveyed principals reported participating in a PLC in the past 2 years. Effective learning utilizes PLCs or other network structures to enable school principals to collaborate in small groups of peers in order to learn on the job together. This allows principals to reflect continuously on their learning, individually and collectively.

Local policymakers can remove barriers to principal professional development. Many principals reported obstacles to participating in professional development, including lack of time, insufficient coverage for leaving the building, and lack of funds. District leaders can consider remedies such as providing district staff support that frees principals' time and offering professional development at more convenient times and locations. As many schools continue to operate in remote and hybrid learning models, districts have a unique opportunity to plan and execute high-quality virtual principal professional development. Districts and schools can use both local and federal funds under the Every Student Succeeds Act (ESSA) Title II, Part A to provide funds for professional development.

At the state and federal levels

To support these local efforts, state and federal policymakers also have several options.

Federal policymakers can support local efforts to develop effective school leaders by increasing federal and state investments in high-quality professional learning. This could include increasing funding under ESSA Title I, Part A for school improvement and Title II, Part A for professional development. The federal government could also provide funding for the School Leader Recruitment and Support Program authorized under ESSA Title II, Part B. This program provides grants to states, districts, and universities for initiatives—including mentoring and coaching—to recruit, train, and support prospective and current principals in high-need schools. This program has not been funded since 2017.

Within each of these programs, the federal government could prioritize funds for engaging principals with curriculum focused on improving schoolwide instruction for whole child education and fostering equitable school environments. The federal government could also provide explicit support for collaborative learning, meaningful applied learning experiences that are problem based and context specific, and individualized support from coaches and mentors that is tailored to the needs of new and existing principals.

Support for principal professional learning could be increased in the future. For example, ESSA is due for reauthorization following the 2020–21 school year, and its funding to support school principals could be expanded. Increasing overall authorized funding levels and the set-aside for principals under this title would allow more principals to receive the high-quality professional development they need to be effective.

States can use federal funds to offset the expense of principals' professional learning, whether in person or online. ESSA offers multiple opportunities to invest in high-quality school leadership, especially in high-need schools and communities. For example,

- States may allocate up to 5% of their state set-asides for statewide activities under ESSA Title II, Part A for teacher and leader development and an additional 3% exclusively for leadership investments. These investments can fund high-quality professional learning

with content on managing change, creating collegial teaching and learning environments, and improving instruction, delivered through authentic, job-embedded professional learning opportunities. For example, these funds could be used to support mentoring, which is an induction requirement in some states, including Arkansas, Maryland, and Texas. States can use funds to provide training and facilitate networking opportunities for coaches and mentors to support each other. This could be especially valuable in states where mentoring is a requirement that has not yet translated into quality supports for principals.

- States can also allocate ESSA Title I, Part A school improvement funds, designated to improve low-performing schools by using evidence-based strategies, to implement research-based interventions that strengthen school leadership. Strengthening school leadership would require developing programs that invest in principals' learning and create supports that attract and keep high-performing principals in high-need schools. A number of states proposed to do this as part of their plans under ESSA.

  North Dakota, for example, proposed creating a leadership academy to provide professional support, professional development, career ladder opportunities, assistance with administrator shortages, and support to address administrator retention, as well as a resource to build leadership capacity in schools designated as in need of improvement pursuant to ESSA. A number of state ESSA plans incorporated equity-oriented initiatives to address leadership needs in schools and districts serving the students furthest from opportunity. For example, Colorado's plan invests in leadership for high-poverty and high-minority schools; Vermont's invests in training for principals to advance equitable access to great teachers in schools identified to be in need of improvement; Connecticut's and Oklahoma's plans prioritize training for turnaround school leaders; and Minnesota's plan provides targeted professional development to principals of and their supervisors in schools identified to be in need of improvement.

States can use their own funds to support principal professional learning. A number of states, including Alabama, Arkansas, Delaware, Georgia, and North Carolina, have made significant investments in leadership academies and other initiatives to support principals throughout their careers. Others focus on the beginning of the career. For example, the Pennsylvania Inspired Leadership (PIL) Program is required of all new principals within their first 5 years of practice. The PIL induction program requires participants to complete formal coursework designed to provide principals with the strategic planning tools to implement high-quality teaching and train principals to use school data to identify school, teacher, and individual student needs.

At the school level

To help ensure that they have access to useful professional learning opportunities, principals can advocate for district, state, and federal policymakers to support and fund:

- professional development content that meets principals' needs, including improving schoolwide instruction for whole child education and fostering equitable school environments; and
- delivery of this content through authentic, job-embedded professional learning opportunities, such as applied learning experiences, mentoring and coaching, and PLCs.

Introduction

School principals are essential for ensuring that students have access to strong educational opportunities. They shape a vision of academic success for all students; create a climate hospitable to education; cultivate leadership in others so that teachers and other adults feel empowered to realize their school's vision; guide instructional decisions that improve teaching and learning; and manage people, data, and processes to foster school improvement.[1] Since the onset of the COVID-19 pandemic and its revelation of stark inequities in educational opportunity, the role of the principal has become even more critical in meeting students' needs. Principals' many responsibilities are consequential, affecting teacher retention,[2] school culture and climate,[3] students' social and emotional learning,[4] and, ultimately, student achievement.[5]

Since the onset of the COVID-19 pandemic and its revelation of stark inequities in educational opportunity, the role of the principal has become even more critical in meeting students' needs.

To strengthen school leadership, principals can engage in high-quality professional learning opportunities—such as high-quality preparation programs, induction periods for early-career principals,[6] ongoing training, individual one-on-one support, and peer networks.[7] Such learning opportunities can develop principals' competence in leading across their full range of responsibilities, enabling them to foster school environments in which adults and students thrive.

Additionally, teachers appear more likely to remain in schools led by principals who participate in these types of professional learning programs. Research on a leadership program for practicing principals suggests that principals' enhanced sense of efficacy reduced teacher turnover.[8] Several studies also demonstrate that a principal's ability to create positive working conditions and collaborative, supportive learning environments plays a critical role in attracting and retaining qualified teachers.[9]

Teachers cite principal support as one of the most important factors, more so than salary, in their decisions to stay in a school or in the profession.[10] When teachers strongly disagree that their administration is supportive, they are more than twice as likely to move schools or leave teaching than when they strongly agree that their administration is supportive.[11] Furthermore, improvements in school leadership are strongly related to reductions in teacher turnover.[12] Importantly, high-need schools benefit most from effective principals who can find and keep talented teachers.[13]

To learn more about principals' opportunities for professional learning, the National Association of Elementary School Principals (NAESP) and the Learning Policy Institute (LPI) collaborated on a national principal study. From November 2019 through March 2020, with administrative support from WestEd, LPI surveyed a random sample of 1,000 principals who were members of NAESP, selected to represent U.S. elementary school principals proportionately by state. The survey garnered a 41% response rate, with 407 principals responding.

We analyzed survey data that addressed professional learning experiences for all elementary school principals using descriptive statistics, and we examined differences among groups of principals with different experience levels and those serving in schools with distinctive characteristics (percentages

of students eligible for free or reduced-price lunch, percentages of students of color, and community type). We report these analyses for key sections of the survey in which we found important differences (i.e., statistically significant differences that were unlikely to have occurred by chance). See the Appendix for the study methodology.

In this report, we:

- Provide an overview of professional learning for principals.
- Examine U.S. elementary school principal reports[14] of their:
  - access to professional development content;
  - participation in authentic, job-embedded professional learning opportunities;
  - perceived needs for additional professional development;
  - obstacles to participating in professional learning; and
  - district support for principal professional learning
- Conclude with implications for policy and practice.

High-Quality Professional Learning for Principals

Strong principals play an important role in creating a positive school culture,[15] retaining good teachers,[16] and ensuring that students' social and psychological needs are met.[17] Studies show that higher principal quality is associated with better graduation rates[18] and student achievement.[19]

Developing and supporting excellent principals requires strong preparation and ongoing high-quality professional development.[20] Yet many states and school districts have neglected the professional development of principals.[21] This neglect is discouraging given that many studies find that effective principals have a positive influence on schools, teachers, and students.[22] High-quality, sustained principal professional learning opportunities offer a means of addressing the reality that schools serving many students from low-income families and students of color are often led by principals with less experience and less education who would most benefit from high-quality professional learning opportunities.[23]

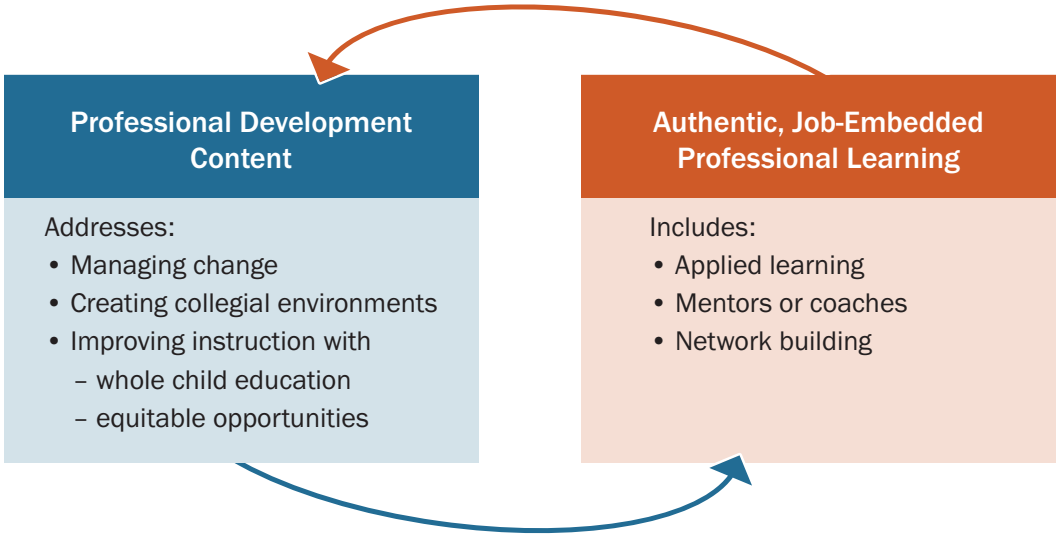
The literature on the impact of professional learning for principals is minimal, especially compared with similar literature on teachers. However, a recent review of the research literature demonstrates that participation in high-quality professional learning is associated with positive outcomes for principals.[24]

In 2017, LPI researchers conducted a review of the literature to identify the elements of high-quality professional learning experiences related to improved school outcomes, such as improved student learning, increased principal and teacher effectiveness and retention, and improved perceptions of school climate.[25] They found that effective, high-quality principal development has the following attributes:

- content covering topics that address managing change, creating collegial teaching and learning environments, and improving instruction; and
- authentic, job-embedded professional learning opportunities, including applied learning experiences, individualized support from mentors or coaches, and networking structures such as PLCs.[26]

Additional research points to the need for learning opportunities in instructional improvement that take a whole child approach to teaching and learning[27] and ensure equitable outcomes for students.[28] School districts and other policymakers can play important roles in ensuring that principals have these types of professional learning opportunities to build their leadership capacities.[29] Below, we briefly summarize what the research literature tells us about the optimal context for professional learning opportunities and the content principals likely need to do their work well. Figure 1 provides a conceptual framework that guides our discussion.

Figure 1
Components of High-Quality Principal Professional Learning



Source: Learning Policy Institute.

Professional Development Content

Principals need specific knowledge and skills to be successful in helping their schools meet the rigorous academic standards and the dynamic demands of students from all backgrounds. High-quality professional learning can meet these needs with content that supports principals in learning how to (1) manage change,[30] (2) create collegial teaching and learning environments,[31] and (3) improve schoolwide instruction.[32] For example, high-quality professional development content on managing change might include examining formative student assessments to determine what types of curricular materials to pilot in teachers' classrooms. Creating a collegial teaching and learning environment could involve working to ensure that teachers have common planning time during the day. Principals might also use professional development specifically to learn about additional strategies for guiding teachers' instructional improvement.

While improving schoolwide instruction is an important goal for principals, it is complex, especially in the face of challenges related to the COVID-19 pandemic, the inequities it has exposed, and the need to reinvent schools in response to these realities.[33] Essential components of improving schoolwide instruction include providing leadership that supports whole child education and creating equitable schools grounded in principles of social justice.

Leading whole child education

Whole child education recognizes that all areas of a child's development are connected. Therefore, whole child education includes challenging, in-depth learning opportunities, meeting students' physical needs, and supporting their social and emotional learning.[34] Social and emotional learning emphasizes skills, such as the ability to collaborate and make responsible decisions; mindsets, such as thinking constructively about how to handle challenges; and effective habits, such as coming to class prepared.[35]

Whole child education also recognizes the need to design school policies and practices to support the whole child. These include policies and practices that help ensure access to food, housing, health care, and authentic learning, as well as structures that facilitate strong relationships among educators, administrators, and students.[36] Supporting all aspects of children's well-being requires a school leader who can successfully coordinate multiple supports across multiple partners.[37]

Leading for equitable schools

Many inequalities are embedded in society and in schools, including discriminatory treatment of students by race, class, language background, immigration status, disability status, sexual orientation, and other categories that have led to marginalization.[38] In particular, systemic racial inequities plague the United States and its current education system and are deeply rooted in our history and policies.[39] As leaders, principals play a key role in counteracting the harm of racism and discrimination in all forms and creating environments that are equitable and racially just. Principals enact equity "indirectly by increasing the technical skills of staff, transforming their beliefs about equity, and strengthening school partnerships with parents and the community."[40] Some state-level surveys have found culturally responsive practices—ones that recognize student diversity as an asset, not a deficit—to be among principals' top priorities for professional development.[41]

Authentic, Job-Embedded Professional Learning Opportunities

Professional learning can be delivered in a variety of ways, from short, 1-day workshops to ongoing experiences that are tailored to principals' needs. Strong professional learning experiences are meaningful, authentic, and job embedded.[42] This meaningful learning can be realized through applied experiences; individualized, one-on-one support through mentors and coaches; and participation in networking with colleagues.[43]

Applied learning experiences

Learning research demonstrates that people of all ages learn and transfer their knowledge and skills best in contexts that are similar to real-world situations.[44] This holds true for school leaders. Research shows that opportunities to engage in context-specific problem-solving reinforce principals' learning such that they are better prepared to change their practice.[45] For example, in several studies of professional development programs that emphasized authentic, applied learning opportunities, principals reported that the activities with colleagues (e.g., learning to conduct classroom observations, support for coaching teachers) helped them build their capacities as instructional leaders.[46]

Research shows that opportunities to engage in context-specific problem-solving reinforce principals' learning such that they are better prepared to change their practice.

Mentoring and coaching

Mentoring and on-the-job coaching have long been recognized as practices that improve leaders' effectiveness and productivity.[47] In general, mentors provide direction, guidance, education, influence, and support to less experienced principals with the aim of supporting their development,

while coaches typically support principals later in their careers. Both mentors and coaches provide critical learning opportunities for principals. Principals often report that having a mentor or coach is the most valuable learning opportunity for them.[48] Coaching and mentoring can help principals with all levels of experience to foster school improvement and adopt new leadership methods.[49] A study relying on national survey data found that principals engaged formally in these types of programs performed better both on teachers' ratings of their effectiveness and on the degree to which their schools met state and district standards.[50]

Networks

High-quality learning programs often utilize networks or professional learning communities (PLCs) for school leaders to learn together on the job.[51] Principals who are part of well-functioning networks or PLCs meet regularly and collaborate on common problems of practice. This provides opportunities for principals to share best practices, develop a shared orientation toward instruction, and collaborate to solve problems.[52] Early research on principal networks and PLCs revealed that participating in networks or PLCs can build principals' capacities to lead in three primary ways: by providing opportunities for principals to learn from their colleagues,[53] by reducing principals' isolation,[54] and by providing a model of community for principals to re-create in their schools.[55] One 5-year study that followed the creation and operation of a PLC for school leaders found that, over time, the participating principals gained confidence and greater efficacy in their roles, developed an increased sense of urgency to improve all students' achievement, and focused more intensely on teaching and learning in their schools.[56]

NAESP-LPI Study Findings

This report presents findings from a national survey of elementary school principals on their professional learning experiences over the past 2 years and the professional development they had been exposed to on the job.[57] We explore five overarching topics:

1. Professional development content to support leadership capacity
2. Authentic, job-embedded professional learning
3. Professional development wanted by principals
4. Obstacles to professional learning opportunities
5. District support of principals' professional learning

We describe survey results for all respondents. We also examine differences in responses for principals in relation to their schools' characteristics (percentages of students eligible for free or reduced-price lunch, percentages of students of color, and community type) and their experience levels. We report these analyses for key sections of the survey in which we found important differences (i.e., statistically significant differences that were unlikely to have occurred by chance). The Appendix provides additional details on the methodology and sample.

Professional Development Content to Support Leadership Capacity

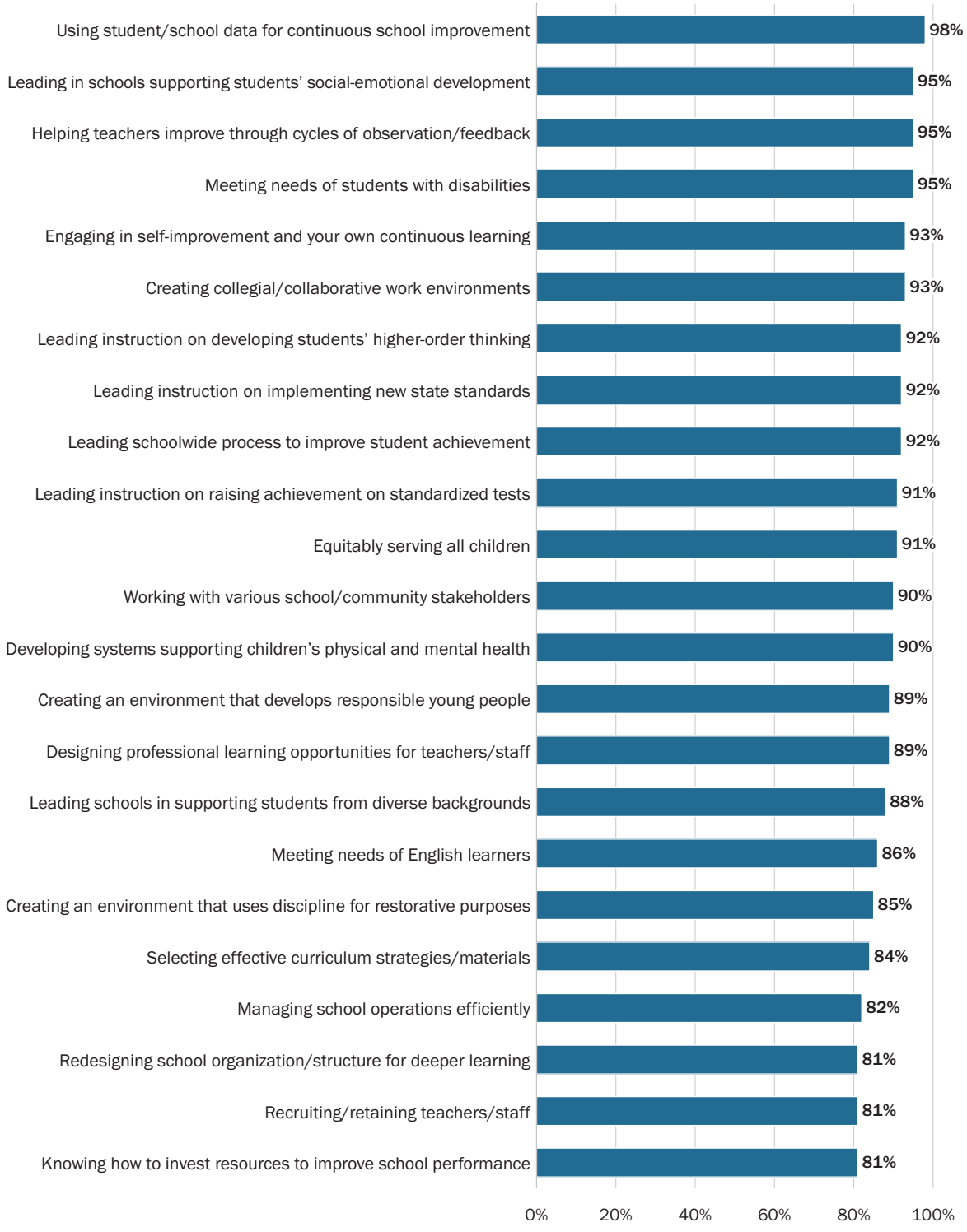
We first investigated elementary school principals' access to professional development content that covers managing change, supporting collegial teaching and learning environments, and improving schoolwide instruction—all areas that the literature has deemed important for supporting principals' leadership capacities. We also highlight principals' access to professional development content focused on whole child education and leading equitable schools, each a component of improving schoolwide instruction. This focus is highly pertinent in the face of challenges related to the COVID-19 pandemic and the inequities it has exposed.[58]

In our survey, we found that most elementary school principals had the opportunity to participate in professional development focused on the content areas identified as important for building leadership capacity: managing change, supporting collegial teaching and learning environments, and improving schoolwide instruction. Becoming a change agent is key for principals looking to maximize impact in order to meet the ever-growing needs of today's schools.[59]

As shown in Figure 2, the three topics most likely to be available to principals were using student or school data for continuous school improvement (98%), leading schools to support students' social-emotional development (95%), and helping teachers improve through cycles of observation and feedback (95%). For the other topics, more than 80% reported having access. There was little variation in principals' responses by school characteristics or principal experience.

Principals also need professional learning on how to support diverse student populations.[60] In examining elementary school principals' access to professional development addressing equity, we found that a large majority of principals had access to content that covered meeting the needs of students with disabilities (95%), equitably serving all children (91%), leading schools that support students from diverse backgrounds (88%), and meeting the needs of English learners (86%).

Figure 2
Proportion of Elementary School Principals Who Reported Having Access to Professional Development Content, by Topic



Source: NAESP-LPI Principal Survey, 2020.

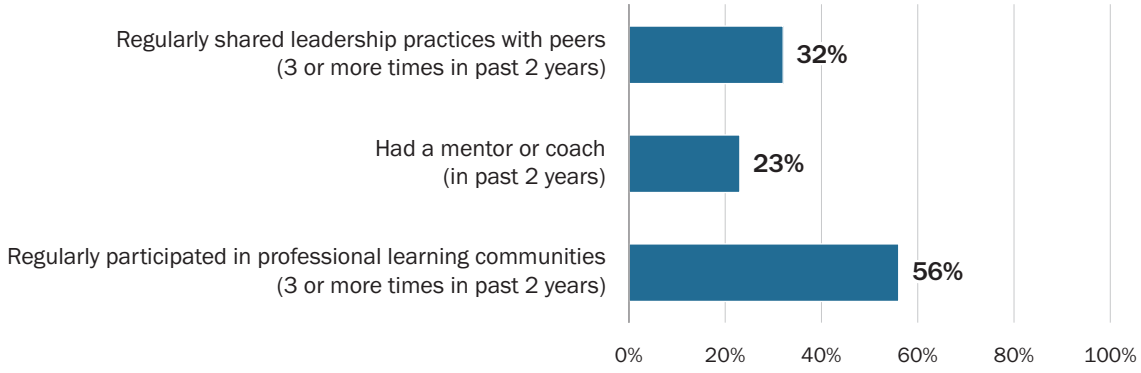
Authentic, Job-Embedded Professional Learning

Professional development content can be delivered in a variety of ways. Most common are workshops and access to conferences. However, principals report that they learn more deeply when they have opportunities to apply their learning.[61] In the following section, we examine elementary school principals' opportunities to participate in authentic, job-embedded professional learning activities. Specifically, we asked principals if they had engaged in the applied learning experience of sharing leadership practices with peers in the past 2 years, if they had a mentor or coach in the past 2 years, and if they had participated in a principal network in the past 2 years.

Many elementary school principals appear not to have had the opportunity to participate in authentic, job-embedded professional learning experiences. Recent studies of professional learning that employ field-based, action-oriented projects find that engaging in learning within the school context can develop principals' skills and practices.[62] Studies also show that principals prefer professional development that emphasizes applied learning with job-embedded tasks.[63] One means of engaging in applied learning is working through problems of practice with colleagues.[64]

Despite the research showing the importance of applied learning for effective professional learning, our study finds that fewer than one third of all principals (32%) were able to spend time sharing leadership practices with their peers three or more times in the past 2 years, a constructive "applied" activity in reinforcing learning. (See Figure 3.)

Figure 3
Proportion of Elementary School Principals Who Reported Participation in Authentic Professional Learning Opportunities



Source: NAESP-LPI Principal Survey, 2020.

As with applied learning experiences, the literature on the use of mentors and coaches to support and build the capacity of school leaders is generally positive.[65] While the evidence points to the efficacy of mentors and coaches for principals, less than one quarter (23%) of principals responding to the survey reported having ever had a mentor or coach. There are also differences in access to mentors and coaches among principals related to their experience levels and their schools' poverty levels.

- Novice principals (those with 3 years or less in the principalship) were more than twice as likely as experienced principals (those with 10 or more years in the principalship) to have an on-the-job mentor or coach (44% versus 20%). This difference between novice and

experienced principals may be the result of state-level policy efforts to boost and require mentorship programs in recent years, increasing novice principals' access to mentors and coaches in the early years of their principalships.[66]

- However, principals from low-poverty schools were more than twice as likely as principals from high-poverty schools (26% versus 10%) to have a mentor or coach, reflecting ongoing inequalities in access to resources for schools serving different kinds of students.

More common was participation in a professional learning community or network. Engagement in PLCs was reported by just over half of all elementary school principals—56% reported meeting with a PLC three or more times within the past 2 years.

Professional Development Wanted by Principals

Even when principals have access to professional development during a typically hectic school year, they may not be able to access all the professional learning opportunities they most want. Many principals are seeking to increase their efforts to improve instruction and meet the many and varied needs of the students they serve. Targeting professional learning to principals' stated needs may be one way to ensure that the time and effort dedicated to building principals' leadership capacities is well spent.

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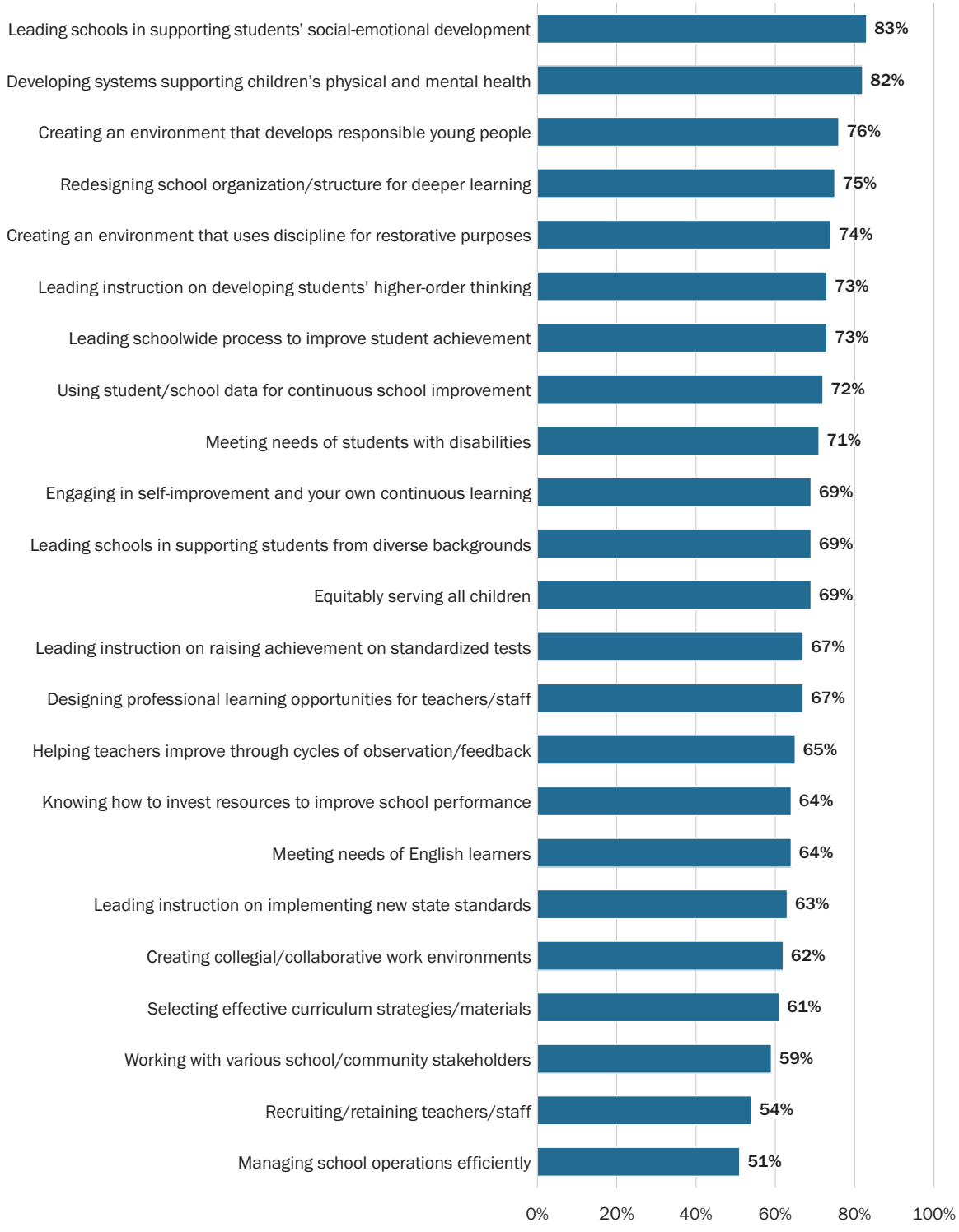
We asked principals to state which professional development content they wanted. All of the 23 options were listed by a majority of principals, including the category least often requested: learning how to manage school operations efficiently (51%).

Elementary school principals were most likely to want professional development content that addresses whole child education that supports students' healthy growth and development as central to the design of classrooms and the school as a whole.[67] Specifically, principals reported their need for content on leading schools in supporting students' social-emotional development (83%), developing systems supporting children's physical and mental health (82%), creating an environment that develops responsible young people (76%), redesigning school organization/structure for deeper learning (75%), creating an environment that uses discipline for restorative purposes (74%), and leading instruction on developing students' higher-order thinking skills (73%). (See Figure 4.)

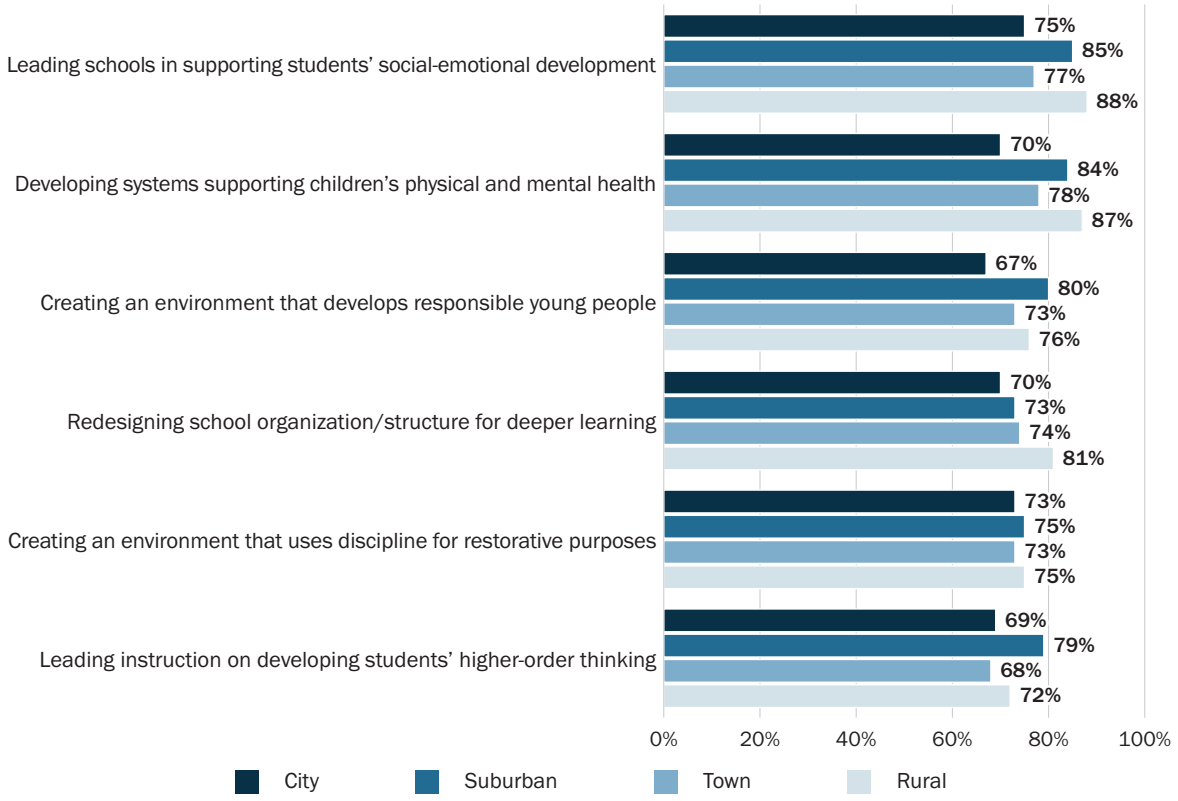
In a further examination of elementary school principals' responses to survey items related to whole child education, we found differences between the responses of principals in cities and those in other types of communities. Significantly more principals in rural communities (87%) wanted professional development on developing systems to support children's physical and mental health compared with principals in cities (70%), likely because they have had less access to this kind of professional learning opportunity. Other differences were not statistically significant; however, suburban and rural principals were most likely to report wanting more professional development in virtually every area, perhaps because their smaller school districts are less able to offer a wide range of professional development options. (See Figure 5.)

Figure 4
Proportion of Elementary School Principals Who Reported Wanting More Professional Development, by Topic



Source: NAESP-LPI Principal Survey, 2020.

Figure 5
Proportion of Elementary School Principals Who Reported Wanting More Professional Development in Whole Child Instruction, by Community Type



Source: NAESP-LPI Principal Survey, 2020.

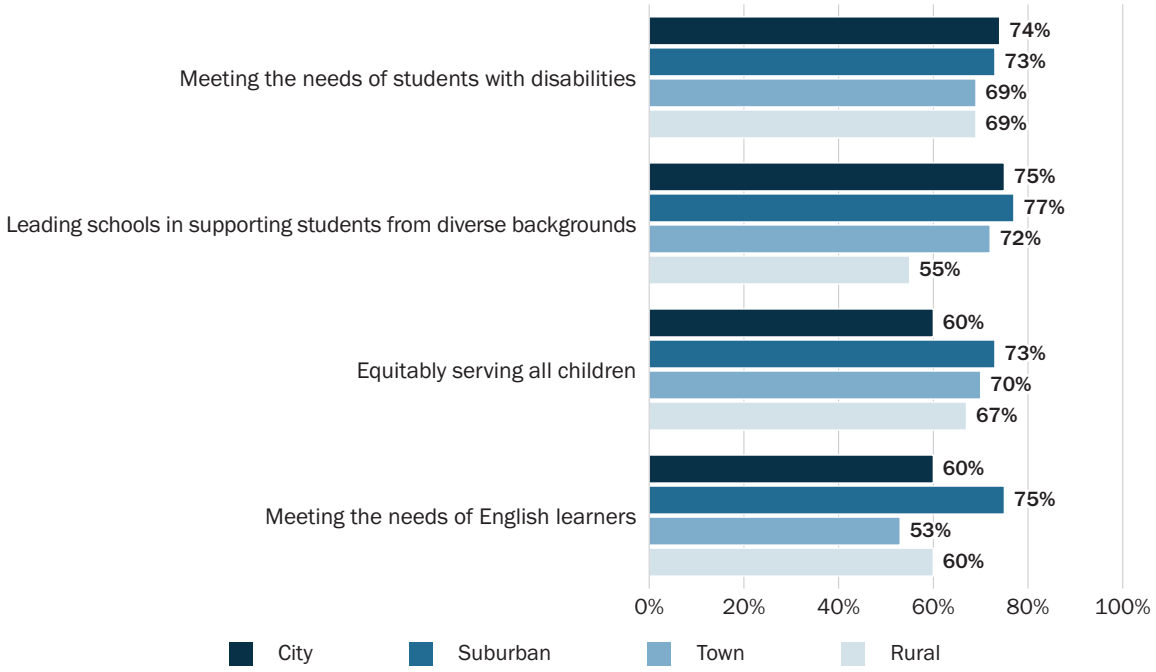
Elementary school principals also wanted more professional development content in leading equitable schools. Equity-oriented school leadership requires ongoing emotional and intellectual work,[68] and this work is connected to academic content.[69] In an additional exploration of survey items about future professional development, we considered four professional development topics that directly address issues of equity in schools: meeting the needs of students with disabilities, supporting students from diverse backgrounds, equitably serving all students, and meeting the needs of English learners.

As shown in Figure 4, more than two thirds of principals wanted professional development in meeting the needs of students with disabilities (71%), leading schools to support diverse learners (69%), and equitably serving all students (69%). And just under two thirds of principals wanted to learn how to meet the needs of English learners (64%).

We found differences between the principals' interests in professional development for equity based on the types of communities they served. For two survey items, this difference was statistically significant. Rural principals (55%) were much less likely to want professional development that helped them to support students from diverse backgrounds than principals in cities (75%), suburbs (77%), or towns (72%), perhaps because many of them experience less diversity in their schools.

Also, suburban principals (75%) were more likely to want professional development to help them to meet the needs of English learners, possibly due to the recent growth of English learners in suburban elementary schools.[70] (See Figure 6.)

Figure 6
Proportion of Elementary School Principals Who Reported Wanting More Professional Development to Address Equity, by Community Type



Source: NAESP-LPI Principal Survey, 2020.

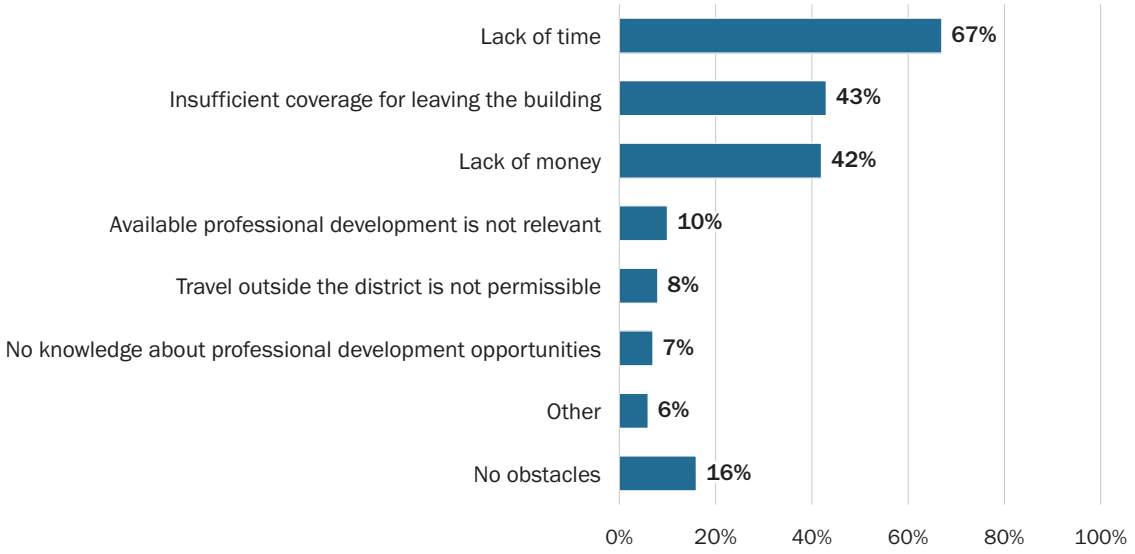
Obstacles to Professional Learning Opportunities for Principals

Given that professional learning can play a role in positively influencing student outcomes,[71] teacher and principal retention,[72] and principal practice,[73] lack of access to professional learning opportunities could have long-term negative consequences. To better understand why principals might not be participating in professional learning opportunities, we asked principals about the types of obstacles they faced in pursuing professional learning.

Of the elementary school principals who responded to our survey, 84% indicated that they faced obstacles to pursuing professional development. As shown in Figure 7, of the seven options given in the survey, the most commonly cited obstacles were a lack of time (67%), insufficient coverage for leaving the building (43%), and a lack of money (42%).

Principals serving in schools with high percentages of students of color[74] were more likely to say they lacked funds for professional development than those in schools with low percentages of students of color (50% vs. 32%). This highlights, once again, the equity issues associated with unequal school funding in most states.[75]

Figure 7
Proportion of Elementary School Principals Who Reported Facing Obstacles to Pursuing Professional Development



Source: NAESP-LPI Principal Survey, 2020.

Students in schools with high enrollments of students of color have less access to certified and experienced teachers than their white peers.[76] Also, students of color are often concentrated in the poorest schools, which receive significantly fewer resources than schools serving mostly white students.[77] These inequities would be compounded if principals serving in schools with high percentages of students of color have greater difficulty securing funding for their professional learning. These fiscal challenges make it harder for these principals to equip themselves to support their students.

> Principals faced different challenges to pursuing professional development depending upon geography.

Elementary school principals also faced different challenges to pursuing professional development depending upon geography. Principals in suburbs (49%) were more likely to report having insufficient coverage for leaving the building than principals serving schools in cities (30%). Principals in cities (53%) were more likely to report not having enough money, compared with principals in rural communities (36%).[78] Principals in cities may face higher costs or lack the financial resources to attend professional development.[79]

In the open-ended section of the survey, elementary school principals also pointed to a lack of support from their school districts as a barrier to obtaining professional development.[80] Some said their districts did not grant permission for them to leave their schools, while others mentioned a lack of financial support from districts to pursue professional development. Clearly, some districts can play a greater role in supporting principals' continuous improvement. In the following section, we examine principals' reports of district support and how it varied by school characteristics.

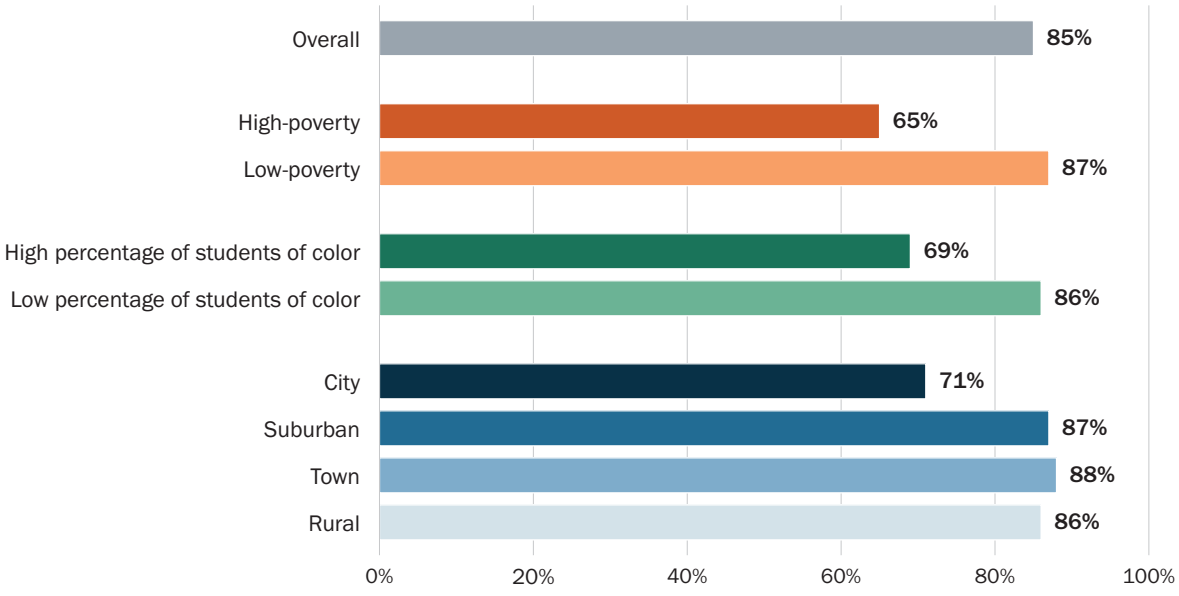
The District Role in Principal Professional Learning

Proactive district involvement is crucial for ensuring that principals have access to individualized, capacity-building professional learning opportunities and resources for continuous improvement.[81] To learn more about districts' assistance with principals' professional learning, the NAESP-LPI survey asked respondents about the extent to which their districts support their continuous improvement.

While a large majority of elementary school principals (85%) agreed that their districts supported their continuous improvement, we observed significant variations by school characteristics. Figure 8 shows these contrasts, all of which were statistically significant. Specifically, principals of high-poverty schools[82] and schools with high percentages of students of color[83] were less likely to report that their districts supported their professional development. Approximately two thirds of principals in high-poverty schools (65%) reported that their districts were supportive of their continuous improvement, compared with almost 9 in 10 of those in low-poverty schools (87%). Similarly, principals from schools with high percentages of students of color (69%) were less likely than those from schools with low percentages of students of color (86%) to report that their districts were supportive of their continuous improvement.

In addition, principals serving schools in cities were also significantly less likely to report that their districts supported their continuous improvement (71%), compared with principals who serve in schools in suburbs (87%), towns (88%), and rural communities (86%). These findings show that districts can do much more to support the professional development of principals of underserved students.

Figure 8
Proportion of Elementary School Principals Who Reported District Support for Their Continuous Improvement, by School Characteristics



Source: NAESP-LPI Principal Survey, 2020.

Key Findings and Implications for Policy and Practice

Our research findings add to the literature on professional learning for principals. Many elementary school principals reported having had access to professional development content that research identifies as important for developing school leadership capacity. This professional development could be delivered in a variety of ways, from short presentations to authentic learning opportunities, such as sharing leadership practices with peers to engage in applied learning, working with mentors or coaches, and networking with colleagues. While most principals reported access to professional development content, far fewer principals indicated that they were able to participate in authentic learning opportunities, despite the literature stating that these learning opportunities are associated with principals' improved leadership capacities.

Additionally, elementary school principals reported wanting more professional development content, with the need for content related to supporting whole child education—a range of practices that involve engaging in deep learning and tending to the social-emotional and physical health of students—identified most frequently. Principals also reported wanting more professional development content in supporting diverse learners and addressing issues of equity in their schools.

Lastly, although most elementary school principals indicated that their districts supported their continuous improvement, they also reported facing obstacles to participating in professional learning. These obstacles were related to time constraints, insufficient coverage for leaving the building, and lack of funds.

Key Findings

Most elementary school principals had access to professional development content identified as important for building leadership capacity, including topics in leading equitable schools. Over 80% of principals had the opportunity to participate in professional development content focused on managing change, creating collegial teaching and learning environments, and improving schoolwide instruction. In fact, the topic that almost all principals said they had access to was using student or school data for continuous school improvement (98%). Additionally, many principals reported access to professional development on helping teachers improve through cycles of observation and feedback (95%). Principals also were likely to have participated in professional development in leading equitable schools, such as meeting the needs of students with disabilities (95%), equitably serving all children (91%), leading schools to support students from diverse backgrounds (88%), and meeting the needs of English learners (86%).

Many elementary school principals appear not to have had the opportunity to participate in authentic, job-embedded professional learning. Along with having access to professional development content that builds leadership capacity, principals benefit from having this content delivered through activities that are authentic and job embedded. These activities include applied learning experiences (such as sharing leadership practices with peers), working with mentors and coaches, and participating in networking opportunities. Despite the research showing the importance of applied learning for effective professional development, our study finds that less than one third of all principals (32%) were able to spend time sharing leadership practices with their peers three or more times in the past 2 years. Similarly, while the evidence points to the efficacy of mentors and coaches for principals, less than one quarter (23%) of principals responding to the

survey reported having a mentor or coach in the past 2 years—and this percentage was lower for principals in high-poverty schools (10%). More principals had participated in professional learning communities (PLCs)—56% reported meeting with a PLC three or more times in the past 2 years—yet nearly half had not had this opportunity.

More than half of all elementary school principals wanted more professional development across all topics, but principals were most likely to want additional professional development that focuses on whole child education. The high percentages of principals expressing a need for this professional development attests to its importance.

- To support whole child education, principals reported their need for content on leading schools in supporting students' social-emotional development (83%), developing systems supporting children's physical and mental health (82%), creating an environment that develops responsible young people (76%), redesigning school organization/structure for deeper learning (75%), creating an environment that uses discipline for restorative purposes (74%), and developing students' higher-order thinking (73%).
- Many principals also indicated a need for professional development in leading equitable schools to ensure that all students have access to whole child education. This included meeting the needs of students with disabilities (71%), leading schools to support diverse learners (69%), equitably serving all students (69%), and meeting the needs of English learners (64%).

More than four in five elementary school principals (84%) indicated that they faced obstacles to pursuing professional development. The top three reasons were: not enough time (67%), insufficient coverage for leaving the building (43%), and not enough money (42%). Half of principals serving schools with high percentages of students of color reported lacking money for professional development (50%), compared with fewer than one third of principals of schools with low percentages of students of color (32%).

Most elementary school principals reported that their districts can play a role in helping to overcome obstacles to professional learning and can support principals' continuous improvement, but this varied by the proportion of students in poverty and students of color in schools. While a large majority of principals (85%) agreed that their districts supported their continuous improvement, there was considerable variation. Principals in high-poverty schools were less likely to report that their districts helped them overcome obstacles to professional learning: 65% in high-poverty schools compared with 87% in low-poverty schools. Similarly, 69% of principals in schools with high percentages of students of color reported that their districts helped them overcome obstacles, while 86% in schools with low percentages of students of color indicated that they had this support from their districts.

Implications for Policy and Practice

High-quality professional learning can equip principals with the knowledge, mindset, and skills to support effective teaching and to lead across their full range of responsibilities. With this investment, principals are best positioned to foster school environments in which adults and students thrive. Policymakers should support principals by ensuring that they have access to

high-quality professional learning opportunities. This support may be particularly useful during challenging times, such as during the pandemic that started in the spring of 2020 that moved both schooling and professional learning online or into hybrid forms.

At the local level

Policymakers at the local level have several options for supporting principals' professional development:

Local policymakers can ensure that professional learning for principals embodies key features that help produce principals who can improve school outcomes. These features relate to the content of the professional development, as well as the delivery of content in authentic and job-embedded formats:

- **Professional development focused on improving schoolwide instruction for whole child education.** Relevant content, according to the principals surveyed, includes professional development in supporting students' social-emotional development and physical and mental health, as well as creating school environments that develop responsible young people and foster critical thinking. Such content could be particularly valuable to school leaders as they support their communities due to the trauma and other challenges related to the COVID-19 crisis.
- **Professional development focused on fostering equitable school environments.** More than two thirds of principals expressed a need for professional development content in leading schools to support diverse learners and equitably serve all students. This content aims to develop principals' capacities to create a supportive, unbiased school environment that affirms each child as an individual; builds on students' cultural assets through culturally responsive teaching; and fosters strong, trusting relationships among students and between students and adults.
- **Meaningful applied learning experiences that are problem based and context specific.** Only one third of surveyed principals reported having regularly shared leadership practices with peers in the past 2 years, an applied learning experience that reinforces principal learning. Problem-based, context-specific learning opportunities, such as school walk-throughs with peers or analyzing student data to identify problems, can enrich principals' skill development.
- **Mentors and/or coaches who provide principals with individualized support tailored to their needs.** Only one quarter of surveyed principals reported having had a mentor or coach. However, for principals with all levels of experience, mentoring or on-the-job coaching can support them to foster school improvement and adopt new leadership methods.
- **Opportunities to participate in collaborative learning, such as networks of practicing principals.** Approximately half of surveyed principals reported participating in a PLC in the past 2 years. Effective learning utilizes PLCs or other network structures to enable school principals to collaborate in small groups of peers in order to learn on the job together. This allows principals to reflect continuously on their learning, individually and collectively.

Local policymakers can remove barriers to principal professional development. Many principals reported obstacles to participating in professional development, including lack of time, insufficient coverage for leaving the building, and lack of funds. District leaders can consider remedies such as providing district staff support that frees principals' time and offering professional development at more convenient times and locations. As many schools continue to operate in remote and hybrid learning models, districts have a unique opportunity to plan and execute high-quality virtual principal professional development. Districts and schools can use both local and federal funds under the Every Student Succeeds Act (ESSA) Title II, Part A to provide funds for professional development.

At the state and federal levels

To support these local efforts, state and federal policymakers also have several options.

Federal policymakers can support local efforts to develop effective school leaders by increasing federal and state investments in high-quality professional learning. This could include increasing funding under ESSA Title I, Part A for school improvement and Title II, Part A for professional development. The federal government could also provide funding for the School Leader Recruitment and Support Program authorized under ESSA Title II, Part B. This program provides grants to states, districts, and universities for initiatives—including mentoring and coaching—to recruit, train, and support prospective and current principals in high-need schools. This program has not been funded since 2017.

Within each of these programs, the federal government could prioritize funds for engaging principals with curriculum focused on improving schoolwide instruction for whole child education and fostering equitable school environments. Within these programs, the federal government could also provide explicit support for collaborative learning, meaningful applied learning experiences that are problem based and context specific, and individualized support from coaches and mentors that is tailored to the needs of new and existing principals.

Support for principal professional learning could be increased in the future. For example, ESSA is due for reauthorization following the 2020–21 school year, and its funding to support school principals could be expanded. Increasing overall authorized funding levels and the set-aside for principals under this title would allow more principals to receive the high-quality professional development they need to be effective.

States can use federal funds to offset the expense of principals' professional learning, whether in person or online. ESSA offers multiple opportunities to invest in high-quality school leadership, especially in high-need schools and communities. For example,

- States may allocate up to 5% of their state set-asides for statewide activities under ESSA Title II, Part A for teacher and leader development and an additional 3% exclusively for leadership investments. These investments can fund high-quality professional learning with content on managing change, creating collegial teaching and learning environments, and improving instruction, delivered through authentic, job-embedded professional learning opportunities. For example, these funds could be used to support mentoring, which is an induction requirement in some states, including Arkansas, Maryland, and Texas.[84] States can use funds to provide training and facilitate networking opportunities for coaches and mentors to support each other. This could be especially valuable in states where mentoring is a requirement that has not yet translated into quality supports for principals.

- States can also allocate ESSA Title I, Part A school improvement funds, designated to improve low-performing schools by using evidence-based strategies, to implement research-based interventions that strengthen school leadership. Strengthening school leadership would require developing programs that invest in principals' learning and create supports that attract and keep high-performing principals in high-need schools. A number of states proposed to do this as part of their plans under ESSA.[85]

  North Dakota, for example, proposed creating a leadership academy to provide professional support, professional development, career ladder opportunities, assistance with administrator shortages, and support to address administrator retention, as well as a resource to build leadership capacity in schools designated as in need of improvement pursuant to ESSA.[86] A number of state ESSA plans incorporated equity-oriented initiatives to address leadership needs in schools and districts serving the students furthest from opportunity. For example, Colorado's plan invests in leadership for high-poverty and high-minority schools; Vermont's invests in training for principals to advance equitable access to great teachers in schools identified to be in need of improvement; Connecticut's and Oklahoma's plans prioritize training for turnaround school leaders; and Minnesota's plan provides targeted professional development to principals of and their supervisors in schools identified to be in need of improvement.[87]

States can use their own funds to support principal professional learning. A number of states, including Alabama, Arkansas, Delaware, Georgia, and North Carolina, have made significant investments in leadership academies and other initiatives to support principals throughout their careers.[88] Others focus on the beginning of the career. For example, the Pennsylvania Inspired Leadership (PIL) Program is required of all new principals within their first 5 years of practice. The PIL induction program requires participants to complete formal coursework designed to provide principals with the strategic planning tools to implement high-quality teaching and train principals to use school data to identify school, teacher, and individual student needs.[89]

At the school level

To help ensure that they have access to useful professional learning opportunities, principals can advocate for district, state, and federal policymakers to support and fund:

- professional development content that meets principals' needs, including improving schoolwide instruction for whole child education and fostering equitable school environments; and
- delivery of this content through authentic, job-embedded professional learning opportunities, such as applied learning experiences, mentoring and coaching, and PLCs.

Conclusion

Professional learning is key for building principals' leadership capacities. Further, the literature shows high-quality professional development focused on principals' learning needs, applied learning experiences, mentorship and coaching, and networking opportunities to be important features of impactful professional development. While our study found that most elementary school principals responding to our survey had access to relevant professional development content, very few appeared to have had access to authentic, job-embedded professional learning. Also, many principals faced obstacles in pursuing professional learning. Further, principals from high-poverty schools were only half as likely as principals from low-poverty schools to have an on-the-job mentor or coach, to have funding for their professional development, or to feel supported in their learning by their school districts.

Our study also found that elementary school principals were most likely to want additional professional development addressing whole child education. Many principals were also interested in professional development in leading equitable schools.

In light of our findings, state and district leaders and policymakers could implement a number of strategies to improve principals' access to high-quality professional development. This includes improving the quality of principal professional development to embody the key features of successful programs, such as problem-based and applied learning opportunities, mentoring and coaching, and a strong network of practicing principals. It also includes organizing professional learning around content addressing how to support whole child education and how to foster equitable learning environments. In addition, state and district leaders could work to remove barriers principals face when pursuing professional development, such as providing sufficient funding and support staff to free principals' time for professional learning. These efforts to make high-quality, targeted professional development readily accessible can support principals in retaining teachers, raising student outcomes, and creating inclusive communities that tend to the social-emotional health of all students.

State and district leaders could work to remove barriers principals face when pursuing professional development, such as providing sufficient funding and support staff to free principals' time for professional learning.

Appendix: Methodology

In partnership with the National Association of Elementary School Principals (NAESP), LPI contracted with WestEd to administer principal surveys. NAESP drew the survey sample from its proprietary membership database. The survey was administered by WestEd using the Qualtrics online survey platform from November 2019 through February 2020. In the following section, we discuss the survey content and sample, the data collection process, and the steps taken to analyze the data.

Survey Content and Sample

The survey was based on a questionnaire that was previously administered in 2017 to a representative sample of California principals[90] as well as in 2019 to a sample of members of the National Association of Secondary School Principals (NASSP).[91] It was designed to assess principals' learning experiences and needs for supporting classrooms, developing adults as members of an instructional team, and managing change. The survey items covered principal preparation, professional development experiences, working conditions, career satisfaction, and plans to leave or stay in the profession. For this study, we analyzed survey items related to principals' access to professional development content; principals' participation in authentic, job-embedded professional learning opportunities; principals' perceived needs for additional professional development; obstacles principals faced when pursuing professional learning; and district support for principal professional learning.

The survey sample (n = 1,500) was drawn from the NAESP membership database. Most NAESP members are elementary school principals; therefore, NAESP drew a random sample of members that was proportional by state to the universe of public elementary schools as found in the National Center for Education Statistics (NCES) Common Core of Data (CCD). However, because the NAESP database did not contain school-level characteristics, NAESP was not able to filter out principals from other grade configurations, and some of these principals responded to the survey.

Data Collection

Key components of data collection included a prenotification email sent jointly from NAESP and LPI encouraging participation; an email invitation from NAESP leadership to participate in the survey, which included a direct link to the survey; an incentive in the form of a $20 Amazon.com gift code, paid upon completion of the survey; biweekly email reminders to nonrespondents from NAESP and/or WestEd; and a reminder letter mailed to nonresponding survey recipients, which included $1 cash as a thank-you in advance of completing the survey. In the last month of data collection, LPI also called nonresponders at their schools to encourage principals to complete the survey.

After removing all bounced emails and instances in which examination of websites and/or calls to schools revealed that the name or email address of the nonresponding school's current principal did not match the information on the NAESP membership list, the number of potential respondents for the survey totaled 1,000. The project ultimately achieved a 41% response rate, with 407 total respondents.

While the sample of 1,000 NAESP members was drawn to represent elementary school principals nationally, respondents were 89% elementary principals, 8% middle school principals, and 3% principals of schools with other grade configurations, such as a school that was entirely prekindergarten, several schools that were primarily high schools, and one school for which the grade configuration was unknown. Therefore, because the sample was originally drawn to represent elementary schools, but many NAESP middle school

Table A1
Comparison of School Characteristics (Percentages)

School characteristics	U.S. Public Elementary Schools (*n* = 53,401)	U.S. Public Elementary & Middle Schools (*n* = 69,950)	Respondents (*n* = 407)	Nonrespondents (*n* = 593)
School level				
Elementary	100	76	89	89
Middle	—	24	8	7
Other	—	—	3	4
Enrollment				
Less than 300	25	24	19	20
300 to 499	37	33	46	41
500 to 999	37	38	33	36
1,000 or more	3	4	3	3
Average percentage of…				
Students of color	51	46	36	39
Students from low-income families	53	53	41	41
Locale				
City	29	28	15	17
Suburban	35	34	36	41
Town	11	12	20	16
Rural	25	26	30	26
Region				
Northeast	16	16	20	21
Midwest	25	25	28	28
South	35	35	33	30
West	25	24	19	21

Notes: For this project, the percentage of low-income families is represented by the percentage of students in the school who were eligible for federal free and reduced-price lunch (FRPL) programs in 2017–18, according to the National Center for Education Statistics Common Core of Data. Eight percent of the respondent sample and 9% of the nonrespondent sample did not have a FRPL value. For these schools, we used the percentage of students eligible for federal lunch through direct certification (i.e., children who are in households that receive Supplemental Nutrition Assistance Program (SNAP) benefits or other assistance) multiplied by 1.6, as recommended by the U.S. Department of Agriculture.

We use U.S. census–defined regions to determine the four regions of the country: Northeast, South, Midwest, and West. Each region contains approximately one fourth of the U.S. population. Northeastern states include Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; Southern states include Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia, as well as the District of Columbia; Midwestern states include Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; and Western states include Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Data sources: NAESP-LPI Principal Survey, 2020; U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, Common Core of Data, file ccd_SCH_033_1718_l_1a_083118 and file ccd_SCH_052_1718_l_1a_083118 (2017–18); and U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, Education Demographic and Geographic Estimates, Public School File (2017–18).

principals responded, Table A1 compares demographic characteristics of respondents' schools with that of all U.S. public elementary schools in the CCD and also with elementary and middle schools combined. On average, the 407 respondents worked in schools with lower proportions of students of color and students from low-income families than the full population of 53,401 U.S. public elementary schools. There was also an underrepresentation of schools in city locales and schools in the West in our responses.

Table A2 compares respondents' characteristics with that of the population of elementary and middle school principals in the National Teacher and Principal Survey (NTPS) 2015–16 data. While the demographic makeup of respondents was roughly similar to the population in the NTPS data in terms of gender, years of experience, and age, there was an underrepresentation of Latino/a principals and an overrepresentation of white principals.

Table A2
Comparison of Principal Characteristics (Percentages)

Principal Characteristics	National Teacher and Principal Survey 2015–16 (Elementary School Principals)[a]	National Teacher and Principal Survey 2015–16 (Elementary and Middle School Principals)[b]	Responding to NAESP-LPI survey (*n* = 407)
Race/Ethnicity			
African American or Black	11	11	12
American Indian/Alaskan Native	< 1	< 1	< 1
Asian	< 1	< 1	< 1
Latino/a	9	8	2
Native Hawaiian/Other Pacific Islander	< 1	< 1	0
White	77	77	86
Gender			
Male	32	38	37
Female	68	62	63
Total Years of Experience as a Principal			
3 years or less	19	19	15
4 to 6 years	28	29	26
7 to 9 years	14	14	15
10 or more years	39	37	44
Age			
Less than 30 years old	<1	< 1	0
30–44 years old	40	40	34
45–54 years old	37	37	45
55–64 years old	20	20	20
>65 years old	3	3	2

[a] The NTPS 2015–16 data set contained responses from 2,564 principals from elementary schools. The proportions presented in this column are weighted population estimates derived from these responses.

[b] The NTPS 2015–16 data set contained responses from 3,553 principals from elementary and middle schools. The proportions presented in this column are weighted population estimates derived from these responses.

Data sources: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey, "Public School Principal Data File," 2015–16; NAESP-LPI Principal Survey, 2020.

Analysis

We calculated the percentage of principals who reported their access to high-quality professional development content, their participation in authentic professional learning, the professional development content they wanted more of, the obstacles they faced when pursuing professional development, and their district supports for continuous principal improvement. Likert survey items pertaining to principals' access to high-quality professional development content were dichotomized to distinguish between those who had the opportunity to access the professional development content and those who did not.

Similarly, three items pertained to principals' participation in authentic learning opportunities. Of these three items, two used a Likert scale: sharing leadership practices with peers and participation in a principal network. These items were dichotomized to distinguish between principals who had participated three or more times in the past 2 years and those who did not. The third dichotomous item asked principals to indicate whether they had worked with a mentor or coach in the past 2 years.

For items pertaining to the professional development content principals wanted more of, respondents could choose from a list of 23 professional development topics. There was no restriction on the number of topics respondents could choose.

Similarly, for items pertaining to obstacles to professional development, respondents could choose from a list of seven responses describing unique obstacles and one response indicating that no obstacles were faced. There was no restriction on the number of obstacles respondents could choose.

Lastly, a Likert item related to district support was also dichotomized. Principals who selected "Strongly agree" or "Somewhat agree" were categorized as having district support, while principals who responded "Strongly disagree" or "Somewhat disagree" were categorized as not having district support.

We also disaggregated the principals' responses by school characteristics (percentage of students eligible for free or reduced-price lunch, percentage of students of color, and community type) and principals' experience levels and conducted Wald tests to check for statistically significant differences.

To examine differences by school characteristics, the comparison included:

- **High-poverty and low-poverty schools.** We sorted the 53,401 public elementary schools in the 2017–18 CCD into quartiles based on the percentages of students eligible for free or reduced-price lunch. For some schools, the CCD did not include the number of students eligible for free or reduced-price lunch. For these schools, we used the number of students identified through direct certification with a multiplier of 1.6, as suggested by the U.S. Department of Agriculture,[92] to determine the school's poverty level. We defined the top quartile as high-poverty schools and the bottom quartile as low-poverty schools. In high-poverty schools, 80% to 100% of students were eligible for free or reduced-price lunch; in low-poverty schools, 0% to 28% of students were eligible for free or reduced-price lunch. To complete the analytic sample, we included the schools represented in the NAESP sample that had grade configurations other than elementary school and were, therefore, not in the CCD's group of 53,401 public elementary schools.

- **Schools serving high percentages of students of color and low percentages of students of color.** We sorted the 53,401 public elementary schools in the 2017–18 CCD into quartiles based on the percentage of students of color. We defined the top quartile as schools serving high percentages of students of color and the bottom quartile as schools serving low percentages of students of color. In schools serving high percentages of students of color, there were 86% to 100% students of color; in schools serving low percentages of students of color, there were 0% to 20% students of color. To complete the analytic sample, we included the schools represented in the NAESP sample that had grade configurations other than elementary school and were, therefore, not in the CCD's group of 53,401 public elementary schools.
- **City, suburban, town, and rural schools.** Using NCES locale data, we sorted schools into one of four categories: city, suburban, town, and rural. The grouping is based on the standard urban and rural definitions developed by the U.S. Census Bureau.[93]

In examining differences by principal experience level, the comparison groups included:

- **Novice principals and experienced principals.** Principals with 3 years of experience or less were classified as novice principals; principals with 10 years of experience or more were classified as experienced principals.

We report differences among these disaggregated groups for key sections of the survey in which we found important statistically significant differences for individual survey items.

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