GETTING DOWN
— TO FACTS II —

Learning to Lead: Understanding California's Learning System for School and District Leaders

Leib Sutcher
Anne Podolsky
Tara Kini
Patrick M. Shields

Learning Policy Institute

September 2018

Stanford University

PACE
Policy Analysis for California Education

Learning to Lead: Understanding California's Learning System for School and District Leaders

Leib Sutcher
Anne Podolsky
Tara Kini
Patrick M. Shields

Learning Policy Institute

Acknowledgments

External Reviewers

Table of Contents

List of Figures and Tables

Introduction

California has instituted far-reaching reforms of its TK–12 schooling system designed to advance equity and strengthen teaching and learning. New standards—the Common Core State Standards and Next Generation Science Standards—and aligned assessments focus on critical thinking and problem solving. The redesigned system of financing schools provides increased resources for students with greater needs and significant autonomy for local communities over the allocation of state dollars. This has been accompanied by a new accountability system focused on broader definitions of student and school success, including student achievement, student engagement, parent and family involvement, and school climate.

These advances create both new opportunities and new challenges for teachers and school and district leaders. Teachers need time, support, and resources to hone their practice to align with the new standards and broader definition of student success. School and district leaders must leverage the additional resources and autonomy to ensure that teachers have the supports they need to adapt their practice and improve student outcomes.

And like teachers, in order to be effective in this environment of higher expectations for student learning, principals and superintendents need quality preparation and professional learning. Despite the importance of learning for education leaders, little is known about the preparation and development experiences of California's superintendents and principals—that is, the learning opportunities they receive before taking a job as an administrator, and the on-the-job learning and professional learning opportunities they experience after they begin their job.[1] For example:

- What proportion of California principals and superintendents receive high-quality preparation and professional development?
- Do California principals and superintendents ensure that professional learning opportunities focus on the needs of the whole child and on engaging students in deep learning?
- What do California principals and superintendents identify as their greatest learning needs going forward?
- How can local, state, and federal policies strengthen the quality and effectiveness of California's principals and superintendents?

To answer these questions, the Learning Policy Institute conducted a study of leadership in the state with the assistance of the Association of California School Administrators (ACSA) and the American Institutes of Research. We administered a representative survey to more than 450 California principals; analyzed the most recent federal data about school leaders in California and across the nation; reviewed available California data; and conducted focus groups and interviews with principals, former principals, and superintendents from across the state. (See Appendix A for details about the methodology used for this study.)

In this report, we
- provide an overview of California's leadership context;
- describe the kinds of principal preparation and professional development available in the state;
- report on how principals assess their leadership preparation in light of the new educational demands of deeper learning and social- emotional learning;
- summarize the learning opportunities principals report they want;
- describe superintendents' experiences with professional learning; and
- conclude with policy implications informed by our findings.

Overall, we find that California's education leaders experience elements of high-quality preparation and professional development, especially principals who have more recently completed preparation programs. However, those learning opportunities are piecemeal and often do not include the most valuable elements of quality learning experiences. Limited access to these key professional development activities is particularly an issue for principals serving in rural areas. California principals do not consistently participate in professional learning opportunities that support them in leading schools that develop students' deeper learning and social and emotional competencies. California's principals and superintendents want more of this kind of professional development—especially those principals in schools serving higher proportions of students from low-income families and students of color.

Why Invest in Education Leaders?

High-Quality Principals and Superintendents Support Student Achievement

Study after study has found that the quality of school leaders is associated with gains in student achievement, including standardized test scores[2] and graduation rates,[3] even when controlling for student and school characteristics.[4] To measure the effect of principals, researchers generally look at schoolwide student standardized test score gains and control for the multiple inputs into student achievement, such as school, student, teacher, and time factors.[5] Other studies define *quality* by using surveys of teachers, parents, staff, and principals to identify the leadership characteristics associated with principals in schools that have larger gains in student achievement.[6]

In addition, principals who remain in their schools for longer periods of time are associated with improved schoolwide student achievement. Conversely, principal turnover is associated with lower gains in student achievement,[7] which has a more significant negative effect in high-poverty, low-achieving schools—the schools in which students most rely on education for their future success.[8] The negative effect of principal turnover suggests that high levels of churn are disruptive and that principals need time to make meaningful improvements in their school.[9]

Superintendents can also have a meaningful effect on raising student outcomes. To measure the effect of superintendents, researchers generally use the same approach that is

used to identify quality principals, as described above. The limited research on this topic generally finds that quality superintendents positively influence student achievement.[10] Superintendents can also positively influence the school climate within their districts. For example, one study found that "having a higher-quality superintendent improves the safety climate in school by lowering the incidence of fights, increasing the safety of students, and lowering their anxiety about attending school."[11] Similar to principals, superintendents who remain in their districts are generally associated with improved student achievement.[12]

How leaders support student learning. Research finds that, across differing school and community contexts, principals associated with improved student and school outcomes positively influence schools by setting an overall direction with clear goals, leading instruction, redesigning the organization to support improved teaching and learning, and investing heavily in staff development.[13] Effective superintendents share a similar set of attributes. In discussing the characteristics of effective principals, one California superintendent said:

> I want you to dig into data and know what to do with data. That's so important. I want you to be able to be an employee manager. But I want you to be a learning leader, and that means you're learning alongside [teachers], not telling them what to learn.

Set direction. Effective principals who are associated with gains in student and school achievement set direction by establishing a vision for a strong learning environment that encourages teacher growth and retention[14] and drives a culture of continuous improvement.[15] Such a vision is informed by data, empowers staff to share in school decision making, and inspires educators and students to focus on the core work of teaching and learning.[16]

Effective superintendents similarly set direction for their districts. These superintendents engage all education stakeholders—from principals to parents to the school board—to establish universal goals for their districts that all staff members commit to furthering. Effective superintendents also collaborate with education stakeholders to develop these goals around student achievement and classroom instruction, and work with their school boards to ensure that the boards are aligned with and supportive of the district goals. Additionally, superintendents monitor their district's progress in meeting the goals.[17]

Lead instruction. Effective principals and superintendents improve schools by focusing on improving instruction.[18] Effective superintendents align district resources (e.g., time, money, and personnel) to accomplish the district's instructional goals.[19] Effective principals create structures and opportunities for teachers to critique, learn from, and collaborate with each other; analyze multiple forms of student data with the aim of improving instruction; and set high expectations for teachers and students.[20] They also establish clear learning objectives, high expectations, and a focused learning environment.

In the current California context, school and district leaders are key to supporting teachers in making the necessary instructional shifts for 21st century learning. Leaders need to rethink scheduling, resource allocation, staff and student assignments, and the time and support teachers and students need to learn. Given the broader definition of student and

school success within California's new school accountability system, school and district leaders must also learn how to go beyond just students' academic needs and support the "whole child," including social and emotional development. Leaders do this by ensuring that instruction is engaging, that students can be healthy and safe in their classrooms, and that students feel connected to and rewarded by their learning. As one California principal described it:

> I'm responsible for not just educating the child, but for teaching them how to cope and be resilient and overcome traumatic experiences, so that then they can access the instructional academic needs or meet these accomplished academic goals so that they can escape poverty.

Redesign organizations and develop people. Strong principals and superintendents redesign organizations by shaping the teaching and learning conditions that help all students learn and succeed, and by developing school staff. Redesigning organizations involves principals establishing class sizes, staff assignments, school climate and culture, and governance.[21] Principals who leverage such redesign to improve student achievement and reduce teacher turnover further these efforts by ensuring that teachers have the necessary resources, communication channels, and funds to address the learning needs of all their students.[22]

Principals and superintendents also develop people, in part through their influence on the quality of teachers that a school or district attracts and retains.[23] Strong principals and superintendents strategically hire teachers and staff, provide regular and fair evaluations and feedback, and help their personnel to continually improve.[24] Quality leaders also focus on providing opportunities and resources for teachers and administrators to grow and become more effective.[25]

The ability of leaders to create organizations with positive working conditions and to develop a strong teaching staff is crucial because administrative support is one of the most important factors teachers cite in their decisions about whether to stay in a school or in the profession.[26] Thus, principals and superintendents play a critical role in addressing California's widespread shortages of teachers.[27] Leadership quality impacts teacher attrition even more in high-need schools.[28]

Why Is Leadership Critical to California's Schools?

Doing More With Less

Quality preparation and development for principals and superintendents is especially important in California, where educational leaders face myriad challenges. California's student population comes to school with great needs. California public schools educate 1.3 million English learners, which is more than 1 in 5 students in the state.[29] This is roughly equal to the combined number of English learners in the next three most populous states—Texas, Florida, and New York—even though these three states together have nearly twice as many students as California.[30] California also has an increasing percentage of students from low-income families, with more than half (58.7%) qualifying for free and reduced-price meals—compared to an average of approximately 51.8% in the country as a whole.[31]

As one California principal said:

Students are coming to us now with many more challenges than they did before. …
There used to be the old adage of … "You bus them in the morning, you feed them
breakfast, you educate them, [you] feed them lunch." We're now also feeding them
dinner. Now, we also have school programs … an extended school year, this, that, and
the other. … It just keeps adding more as things go by … because there are deficiencies
in our society that the schools are expected to somehow pick up then miraculously
change. And over the past 20 years, I just keep seeing that it just keeps adding more and
more to that.

Despite these high student needs, California's educational leaders are working with less
per-pupil funding than most other states. In 2015–16, California ranked 41st among all states in
spending per k–12 student (after adjusting for differences in the cost of living in each state).[32]
California schools also have fewer teachers, librarians, and guidance counselors per student
than any other state. During the Great Recession, budget cuts forced schools to reduce the
number of administrators, including assistant principals.[33] Between 2007–08 and 2011–12,
there was a 19% reduction in administrators.[34] In 2011–12, California ranked 47th out of all
states in the number of pupils per administrator.[35] As the economy has recovered, districts are
returning to pre-recession administrative staffing levels (see Figure 1). But even in 2016,
California still ranked 47th in the nation in students per administrator.[36]

The relative lack of adequate resources and the high ratio of students to administrators
is especially challenging in light of the new funding formula, which places greater responsibility
for the use of funds on local leaders. The reform requires that each district create a Local
Control and Accountability Plan (LCAP) in which the district outlines how it will allocate funding
to support all students, from transitional kindergarten through high school. School and district
leaders are expected to engage with educators, students, parents, and the broader community
to develop their LCAP—a new responsibility on top of their normal duties.

Figure 1. Pupil-to-Administrator Ratios Are Decreasing Post-Recession but Still Rank Near Last Compared to Other States

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
State Rank: (1–50)	(50)	(50)	(48)	(47)	(46)	(47)	(48)	(47)	(48)	(48)	(48)	(47)
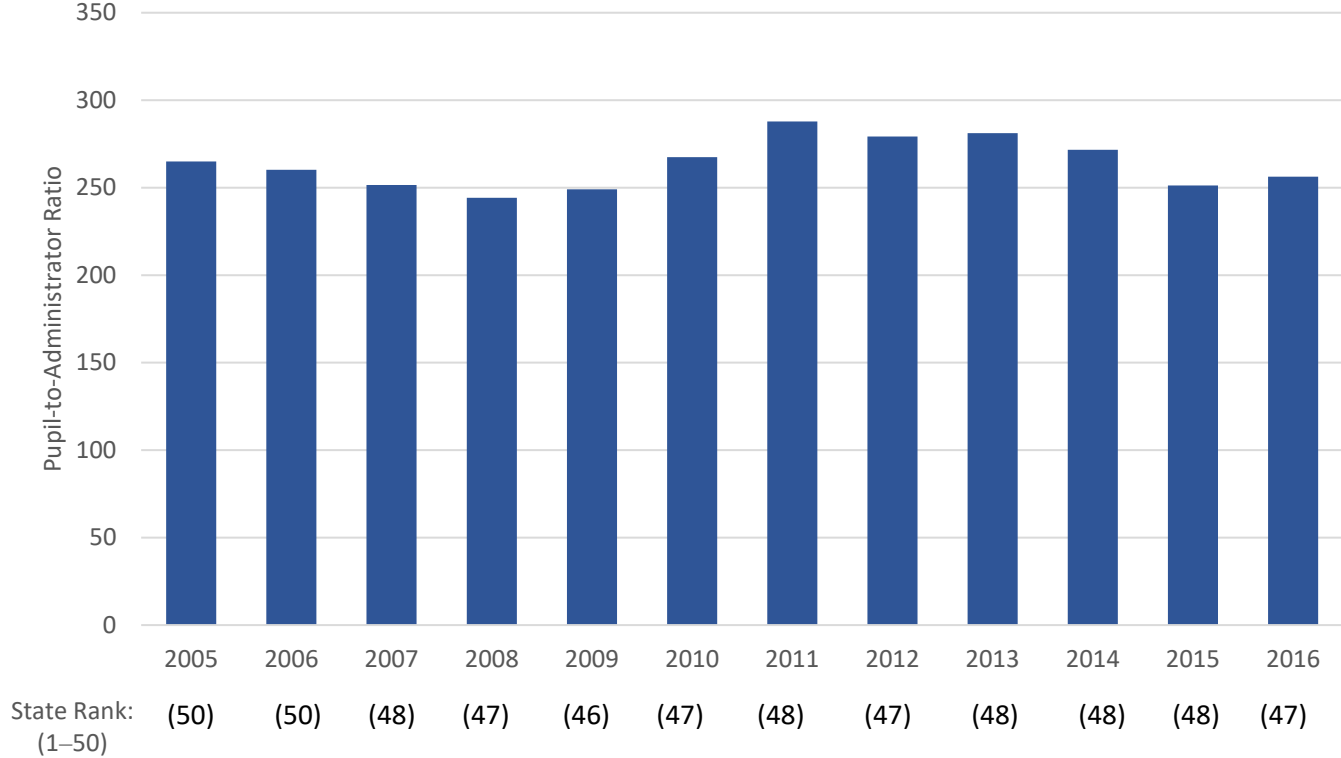
Source: California Department of Education, annual CBEDs reporting available through Dataquest.

California Has a Need for High-Quality Principals

California does not have a shortage of individuals with the proper credentials to become principals, but many of them do not intend to do so, and many districts report not being able to find high-quality applicants who can meet the demands of the job in the current state context. In 2016–17, California issued more than 3,100 new administrative services credentials (see Figure 2).[37] Of these, the vast majority (72%) are "certificates of eligibility," meaning the individual is not employed as an administrator. Preliminary administrative credentials (28%) are issued to individuals who have offers of employment as administrators at the time they earn their credential. The California Commission on Teacher Credentialing (CTC) estimates that half of the individuals who earned certificates of eligibility in 2010–11 did not convert them to preliminary credentials within 5 years, meaning they never obtained employment as administrators.[38] An administrative credential is required for most jobs in district and county educational offices, and a survey of individuals completing their Administrative Services Credential Program[39] in 2016–17 reported that only 68% of individuals receiving a credential did so in order to get a position as a school administrator. Other reasons included wanting a district or county office position (33%), wanting a master's degree (30%), and wanting to earn units for the salary schedule (18%).[40]

Figure 2. Total Number of Certificates of Eligibility and Preliminary Administrative Services Credentials Issued—All Pathways, 2010–11 to 2016–17
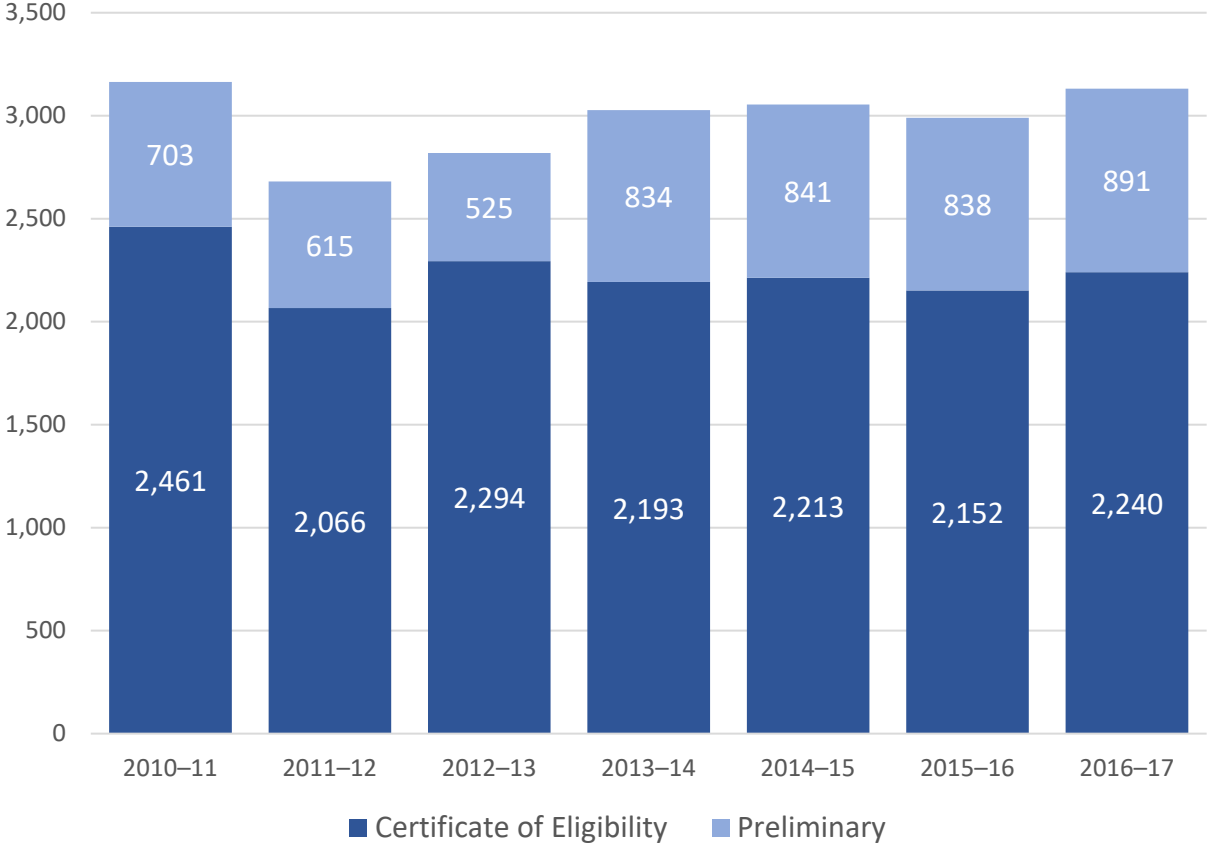
Note: Data include new credentials only; they do not include renewals. Data include new administrative credentials issued to individuals who came through the Commission-approved program pathway, exam pathway, and out-of-state prepared pathway.
Source: Chart from Commission on Teacher Credentialing. (2016). Report of Services Credentials Issued in California, 2010–2011 to 2014–15. http://www.ctc.ca.gov/reports/services-cred-10-11-to-14-15.pdf. Additional data for 2015–16 and 2016–17 were provided to LPI by the CTC through a special request.

Beyond the issue of quantity is that of quality. In a fall 2017 survey of 25 California school districts, nearly half of districts surveyed (45%) reported difficulty hiring principals due to an insufficient number of quality applicants.[41] (See Appendix A for more details on the superintendent focus groups.) These districts represent a combination of urban, suburban, and rural districts that together serve a quarter of the students in the state. In addition, every one of the 15 superintendents interviewed in our focus groups reported experiencing a shortage of quality school leaders in their districts. When referring to quality principals, the California superintendents we surveyed most frequently reported the following three qualities as the top qualities they look for when hiring principals:

1. A focus on instructional leadership (93% of respondents)
2. Emotional intelligence (66% of respondents)
3. A clear vision for improving a school (60% of respondents)

One California superintendent said, "I've hired a principal every year for the past 4 years, and I probably have 30 to 50 applicants, but very few (are) really highly qualified."

Another superintendent said,

The number of applicants that we're seeing for principals, it has diminished significantly. … There are fewer applications to begin with, and then the number of qualified applicants within that pool are significantly lower.

While the 2017 district survey and focus groups draw from nonrandom samples, the consistent results suggest that many districts are experiencing a shortage of quality school leaders.

Principal Turnover and Inexperience Are Challenges for California

Based on our analysis of California staffing data that includes the vast majority of principals in the state,[42] we found that between 15% and 17% of principals left the profession or California after both the 2014–15 and 2015–16 school years (see Table 1). Moreover, another 7% of principals switched schools each year, meaning that nearly a quarter of California principals left their schools either because they left the profession or the state, or because they moved to become a principal in a different school. Compared to available evidence from other states, principal turnover in California is relatively high. For example, in other states with recent turnover data, such as Washington and Tennessee, only 20%[43] and 15%[44] of principals turn over each year, respectively.[45]

Table 1. California Principal Turnover

	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16
Leavers – Principals who left the profession or state	16.1%	14.0%	16.0%	16.4%	16.5%	15.3%
Movers – Principals who moved schools	10.1%	8.4%	9.3%	8.8%	7.3%	7.4%
• Within-district movers	8.2%	6.4%	6.2%	6.1%	5.0%	5.4%
• Between-district movers	1.9%	2.0%	3.0%	2.7%	2.3%	2.0%
Total Turnover	26.1%	22.4%	25.3%	25.3%	23.8%	22.8%
N	7,942	7,871	7,938	8,556	8,637	8,734

Note: Calculations may vary due to rounding.
Source: California Staffing Data File provided to LPI by the California Department of Education through a special request.

California's principals also tend to have less experience than those in many other states, with the modal (most common) principal in their first year at their current school accounting for

over 1 in 5 principals (see Figure 3).[46]In California, the lowest achieving schools and schools serving a high proportion of students from low-income families and students of color are more likely to have an inexperienced principal than high achieving schools and schools with a low concentration of students from low-income families and students of color. For more information on the inequitable distribution of principals in California, see Grissom & Bartanen's (2018) Getting Down to Facts II paper.[47]

Principals have become more mobile in the last decade. In 2004–05, the typical California principal had been the principal at their current school for almost 10 years, compared to only 4 years in 2016–17.[48] The high rates of principal turnover and inexperience are concerning because it can take time for principals to make a meaningful improvement in their schools. For example, one study found that, on average, student achievement falls after a principal leaves a school and takes 5 years after a new principal is hired to fully rebound back to that level.[49]

Figure 3. California Principal Experience, 2016–17
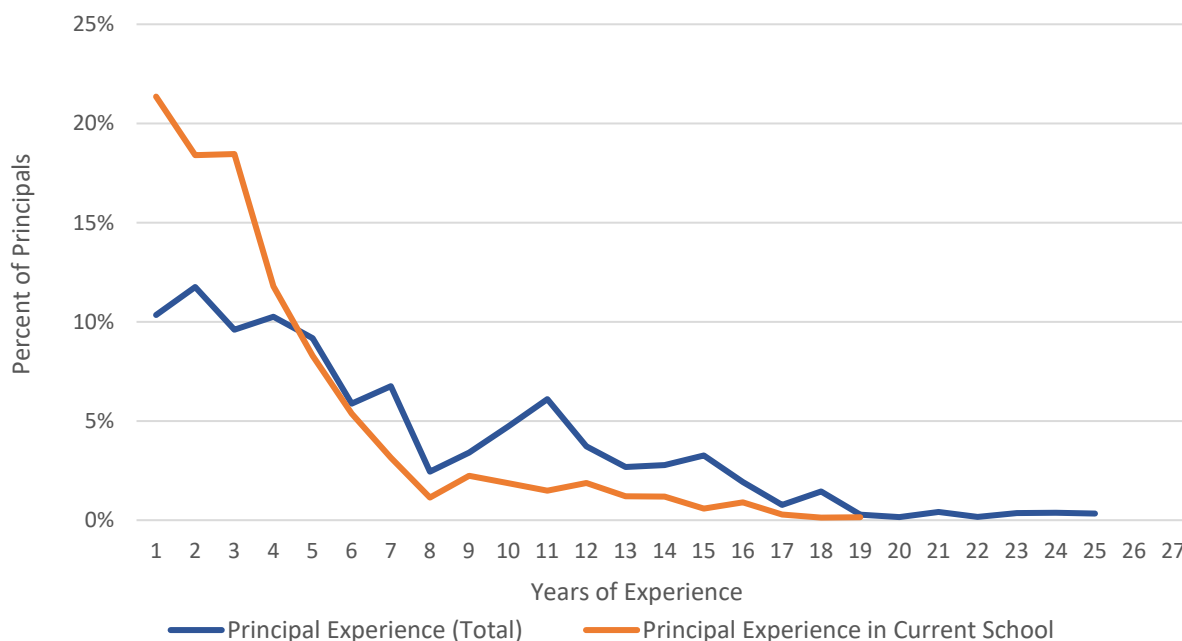
Source: Learning Policy Institute. (2017). Survey of California Principals.

Superintendency is often referred to as "largely a short-term job."[50] A survey of more than 1,000 superintendents across the United States found that most had been in their current position for between 1 and 5 years.[51] One study of 215 California superintendents found that 45% left their position after 3 years.[52] In our analysis of California staffing data that includes the majority of superintendents in the state,[53] we found similarly high superintendent turnover rates (see Table 2). Approximately 21% of superintendents left the profession or the state after the 2014–15 school year, and 13% left after the 2015–16 school year. Moreover, another 3% to

5% of superintendents switched districts each year, meaning that nearly 1 in 5 to 1 in 4 California superintendents left their districts because they left the profession or the state, or they moved to a different district. Given the research showing that it can take several years for superintendents to make significant improvements in their districts—a minimum of at least 2 years—high levels of superintendent turnover can negatively impact student achievement.[54]

Table 2. California Superintendent Turnover

	2013–14	2014–15	2015–16
Movers: Superintendents who moved to a different school district	2.1%	2.5%	5.0%
Leavers: Superintendents who left the profession or state	20.8%	21.1%	13.2%
Total superintendent turnover	22.9%	23.6%	18.2%
N	754	734	737

Source: California Staffing Data File provided to LPI by the California Department of Education through a special request.

Stability among school and district leaders is particularly important in California, where continuous improvement is central to the state's educational strategy. A recent study on California's continuous improvement efforts published by Policy Analysis for California Education (PACE) found that staff turnover is undermining the ability of districts to build system capacity, which is a fundamental component of continuous improvement. Specifically, high leadership turnover "makes it extremely difficult for support providers to build relationships and, in turn, to build capacity with district staff. Moreover, if individual capacity is the key to organizational transformation, turnover presents a substantial challenge to sustaining progress." Furthermore, as previously discussed, strong school leadership plays an important role in mitigating teacher turnover. District leaders interviewed for the PACE study identified the inability to attract and retain teachers as a substantial barrier to continuous improvement efforts in California.[55]

Educational leaders are important for student success, teacher quality, and leading instructional shifts. Leaders are particularly important in California, where school and district leaders with fewer resources than those in most states serve students with greater needs. Despite the importance of educational leaders and their critical role in supporting students, California districts are struggling to find high-quality principals and failing to keep and grow quality leaders.

What Kinds of Preparation and Professional Learning Are Available to California Principals?

High-quality preparation and professional learning are critical to cultivating and developing strong school leaders. In this section, we discuss the attributes of high-quality principal preparation and professional development, and we analyze California principals' experiences to determine the quality and comprehensiveness of learning available to school

leaders. Although many principals—especially principals who have prepared in the last 5 years––received various elements of strong preparation and professional development, few principals received a cohesive set of features associated with high-quality learning experiences. The piecemeal nature of California's learning system leaves principals without some of the most valuable elements of quality learning experiences, including a robust internship. California can build on areas in which principals feel the most prepared and work on the areas in which they report feeling the least prepared.

The Building Blocks of High-Quality Principal Preparation and Professional Development

There is a great deal for school leaders to learn in order to manage their range of responsibilities, from setting direction to developing people to redesigning their schools to leading instruction. Fortunately, in recent years, researchers have learned more about how to construct principal preparation and professional development programs that are effective at enabling principals to improve both student learning and teacher effectiveness and retention. Research points to several key building blocks of such high-quality programs[56] (see Figure 4).

Figure 4. Building Blocks of High-Quality Preparation and Professional Development
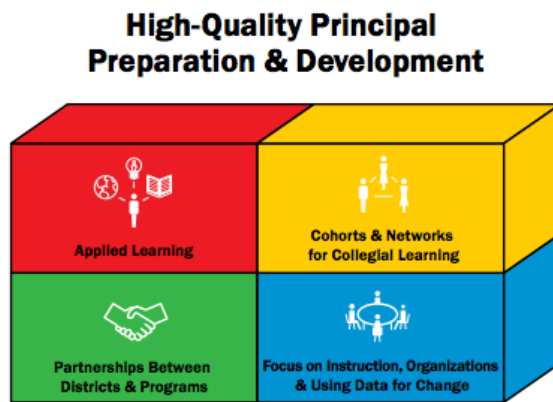
High-Quality Principal Preparation & Development

| Applied Learning | Cohorts & Networks for Collegial Learning |
| Partnerships Between Districts & Programs | Focus on Instruction, Organizations & Using Data for Change |

Source: Sutcher, L., Podolsky, A., & Espinoza, D. (2017). *Supporting principals' learning: Key features of effective programs.* Palo Alto, CA: Learning Policy Institute.

High-quality programs require **strong partnerships between the district and the principal preparation and/or development program**. These partnerships involve close collaboration between the district and program and targeted, joint recruitment of program participants. They provide the foundation for effective programs.

High-quality programs recognize that learning is a social activity and include **collaborative structures to train and support principals, such as cohorts and networks** of program participants. Having principals learn together reflects the collegial and collaborative school environments that they will work within and foster. It also helps to curb the feelings of isolation that principals frequently report.

High-quality programs incorporate **applied, problem-based learning methods; field-based internships; and on-the-job coaching** by an expert principal. Research demonstrates that people of all ages learn and transfer their knowledge and skills best in contexts that are similar to real-world situations, thereby grounding learning in authentic experiences while broadening problem-framing skills for future situations.

High-quality programs focus on **supporting principals in learning how to improve schoolwide instruction, establish collegial teaching and learning environments, and analyze and act on data**. Principals need to know how to lead instruction and continuous school improvement to meet the increasingly rigorous academic standards and dynamic demands of students. Consequently, high-quality programs include content that focuses on preparing leaders to implement an instructional vision through collective leadership and by improving instruction through the use of data.

Next, we describe California principals' preparation and professional development, and compare those experiences to these building blocks of high-quality learning.

California Principals Experience Some Elements of High-Quality Preparation and Professional Development but Lack Comprehensive Learning Supports

The results from our 2017 survey of more than 450 principals provide insight into California principals' preparation and professional development experiences. Significantly, more than half of California's principals report preparation and professional development that focuses on the kind of content that research suggests is central to effective leadership. Table 3 shows the proportion of principals who reported that their preparation and professional development has emphasized specific content areas to *a moderate or great extent*. Because examining the experiences of recent preparation-program completers is most relevant for understanding current access to high-quality preparation in California, Table 3 shows preparation experiences for all principals as well as for principals who completed their preparation program in 2013 or later. These same comparisons to investigate recent trends are not made for professional learning because the survey asks principals to only consider professional learning that occurred in the last 2 years.[57] (See Appendix B for a full list of the programmatic features we inquired about and the survey results.)

To summarize, these are some of our key findings:

- California principals who have completed a preparation program recently (2013 or later) are significantly more likely to have received the most high-quality features highlighted in the literature.[58] Recently prepared principals were more likely to have engaged in learning on certain leadership topics and to have experienced high-quality preparation, as defined in the research literature, including problem-based learning (78%) and field-based projects (85%). This may be due in part to the major changes in licensure and accreditation requirements at the CTC.

- In the last 6 years, the CTC has overhauled standards for administrator programs, requiring them to align with the Common Core State Standards and focusing more attention on instructional leadership, support for teacher development, social-emotional and academic learning, restorative justice practices, and student and family supports; boosted standards for clinical preparation, including a 2-year induction program after initial licensure; and developed a new administrator performance assessment that examines ability to evaluate teaching practice, offer productive feedback and developmental support, and use data to plan school improvement.

- Over three quarters of California principals reported that their professional development emphasized learning how to lead instruction that supports the implementation of the new California state standards, including the Common Core State Standards and Next Generation Science Standards.[59] Moreover, recent program completers are significantly more likely to have experienced preparation related to California's new state standards compared to principals more generally (64% vs. 47%).

- In addition, over two thirds (69%) of California principals reported that their professional development has emphasized instructional leadership focused on how to develop students' higher order thinking skills, and just over half (54%) of California principals and nearly three quarters (73%) of recent program completers reported that their preparation programs emphasized this type of instructional leadership.

- About half of California principals reported that their preparation and professional development experiences emphasized learning how to design professional learning opportunities for teachers, as well as learning how to help teachers improve through a cycle of observation and feedback. This percentage is even higher for principals who recently completed their preparation—more than three quarters (78%) of these principals experienced learning focused on providing this type of feedback for teachers.

- Around half of California principals reported that they participated in professional development in the last 2 years that emphasized working with education stakeholders, and nearly three quarters (73%) of principals reported that their preparation emphasized this work. Recent completers were even more likely to have experienced this type of learning (86%).

- Seventy-five percent of California principals reported participating in professional development in the last 2 years that emphasized using student and school data to inform continuous school improvement. About 80% of recent completers experienced preparation on this topic to a moderate or great extent.

- Less than half of all principals reported that their preparation focused to a moderate or great extent on discipline for restorative purposes (48%) or supporting students' physical and mental health (47%). However, recent completers again signal positive

shifts in California principals' preparation experiences, with 70% and 61%, respectively, receiving learning on these topics to a moderate or great extent. Slightly fewer principals received these elements of learning in their professional development (57% and 51%, respectively). Principals serving higher concentrations of students from low-income families and students of color reported receiving these professional development topics more often. This pattern also holds true for principals serving in urban areas.[60]

- Fewer than one third (30%) of California principals reported that their preparation emphasized learning how to recruit and retain teachers and other staff. This remains a weakness for recent completers, who are no more likely to receive learning on the topic. Similarly, just over one third (38%) reported their professional development addressed this topic. Considering the widespread teacher shortages, this is a key area to improve.

Table 3. California Principals' Reports of Preparation and Professional Development Experiences

Preparation: The proportion of California principals whose leadership preparation program emphasized the following to *a moderate or great extent.*

Preparation (Recent Completers): The proportion of California principals (who completed their program in 2013 or later) whose leadership preparation program emphasized the following to *a moderate or great extent.*

Professional Development: The proportion of California principals whose professional development in the last 2 years emphasized the following to *a moderate or great extent.*

Characteristic	Preparation	Preparation (Recent Completers)	Professional Development
Program Characteristics			
Problem-based learning approaches, such as action research or inquiry projects	69%	78%*	—
Field-based projects in which you applied ideas from your coursework to your experience in the field	76%	85%**	—
A student cohort—a defined group of individuals who began the program together and stayed together throughout their courses	73%	80%	—
Instructional Leadership			
Instructional leadership focused on how to develop students' higher order thinking skills	54%	73%***	69%
Instructional leadership focused on raising schoolwide achievement on standardized tests	56%	74%***	71%
Select effective curriculum strategies and materials	49%	58%	59%
Lead instruction that supports implementation of new California state standards	47%	64%***	76%

Characteristic	Preparation	Preparation (Recent Completers)	Professional Development
Leading and Managing School Improvement			
Use student and school data to inform continuous school improvement	64%	80%***	75%
Lead a schoolwide change process to improve student achievement	69%	85%***	72%
Engage in self-improvement and your own continuous learning	71%	87%***	70%
Shaping Teaching and Learning Conditions			
Create collegial and collaborative work environments	71%	83%**	57%
Work with the school community, parents, educators, and other stakeholders	73%	86%**	51%
Lead schools that support students from diverse ethnic, racial, linguistic, and cultural backgrounds	70%	82%**	62%
Lead schools that support students' social and emotional development	53%	69%***	61%
Develop systems that meet children's needs and support their development in terms of physical and mental health	47%	61%**	51%
Create a school environment that develops personally and socially responsible young people and uses discipline for restorative purposes	48%	70%***	57%
Redesign a school's organization and structure to support deeper learning for teachers and students	63%	72%	54%
Developing People			
Design professional learning opportunities for teachers and other staff	57%	65%	50%
Help teachers improve through a cycle of observation and feedback	64%	78%***	56%
Recruit and retain teachers and other staff	38%	40%	30%
Manage school operations efficiently	63%	60%	42%
Invest resources to support improvements in school performance	51%	60%	37%
Meeting the Needs of All Learners			
Meet the needs of English learners	54%	68%**	67%
Meet the needs of students with disabilities	53%	75%***	56%
Equitably serve all children	62%	79%***	68%

Note: Statistical differences denoted by: *** p<0.01, ** p<0.05, and * p<0.1; Comparisons are made between principals who reported completing their preparation since at least 2013 and principals who completed their program before 2013.
Source: Learning Policy Institute. (2017). Survey of California Principals.

As outlined in Table 3, many principals have experienced individual elements of high-quality preparation and professional development. Principals who completed their preparation program in 2013 or later have been exposed to these elements to an even greater extent, suggesting positive trends in California's administrator preparation system. However, as we discuss below, few California principals have experienced the full complement of programmatic elements associated with developing strong principals.

Initial preparation. While individual programmatic elements are important, a minority of California principals have experienced the combination of several learning structures and topics that are associated with positive school outcomes.[61] In Table 4, we identify the percentage of California principals who received the comprehensive elements of high-quality initial preparation reviewed at the beginning of this section. Specifically, we created three different "bundles" of preparation, with Bundle 1 representing *piecemeal* preparation because participants did not experience this collection of elements at least *to a minimal extent* and also were not encouraged to apply to the program and did not participate in an internship longer than 20 hours. In contrast, Bundle 3 represents *comprehensive* preparation because it includes elements from each of the four building blocks of high-quality preparation, with participants agreeing that the program included the characteristics at least *to a moderate extent*.

Only 1 in 20 California principals received comprehensive preparation that incorporated several of the elements associated with the development of effective principals. These elements of principals' preparation included

- being formally or informally encouraged to apply, which often reflects a close collaboration between preparation programs and school districts that support principals' learning;
- learning among a cohort of peers;
- participating in authentic learning opportunities, such as an internship of longer than 20 weeks with a mentor; and
- engaging, at least to a moderate extent, in problem-based learning approaches; field-based projects; and learning focused on instructional leadership, creating collaborative work environments, and using data for continuous school improvement.

So while the vast majority of California principals have experienced some features of high-quality preparation, as noted in Table 3, few received a comprehensive package including all of the core learning opportunities and structures.

When looking at recent preparation program completers (2013 or later), only slightly more principals received the most comprehensive bundle of preparation (and the difference is not statistically significant). However, more than twice as many recent completers (37% vs. 16%) experienced the basic preparation bundle. Again, this is evidence that California's principals who recently completed their preparation program are receiving more elements of high-quality preparation in the last 5 or so years—a promising trend. However, the majority of recent completers (56%) still received piecemeal preparation.

Table 4. Percentage of Surveyed California Principals Receiving High-Quality Preparation

Building Blocks	Bundle 1–Piecemeal Preparation	Bundle 2–Basic Preparation	Bundle 3–Comprehensive Preparation
Partnerships between districts and programs			
Formally or informally encouraged to apply			✓
Cohorts and networks for collegial learning			
In a cohort	*Some or none*	*At least to a minimal extent*	*At least to a moderate extent*
Applied learning			
Internship longer than 20 weeks with mentor		✓	✓
Problem-based learning approaches, such as action research or inquiry projects	*Some or none*	*At least to a minimal extent*	*At least to a moderate extent*
Field-based projects in which you applied ideas from your coursework to your experience in the field	*Some or none*	*At least to a minimal extent*	*At least to a moderate extent*
Focus on instruction, organizations, and using data for change			
Instructional leadership focused on how to develop students' higher order thinking skills	*Some or none*	*At least to a minimal extent*	*At least to a moderate extent*
Emphasized how to create collegial and collaborative work environments	*Some or none*	*At least to a minimal extent*	*At least to a moderate extent*
Emphasized how to use student and school data to inform continuous school improvement	*Some or none*	*At least to a minimal extent*	*At least to a moderate extent*
Percentage of all principals	**79%**	**16%**	**5%**
Percentage of principals (recent completers only)	**56%**	**37%***	**7%**

Source: Learning Policy Institute. (2017). Survey of California Principals.
Notes: "Bundle" definitions are mutually exclusive and add up to 100%; Statistical differences denoted by: *** $p<0.01$, ** $p<0.05$, and * $p<0.1$; Comparisons are made between principals who reported completing their preparation since at least 2013 and principals who completed their program before 2013.

Part of this difference could be due to the fact that all recent program completers completed a leadership preparation program. The same is not true of all principals. California is the only state with an "exam-only" route to a credential in which candidates can earn an administrative credential without completing an administrator preparation program.[62] In recent years, fewer California principals are entering the profession having earned their preliminary administrative services credential via the exam-only route. Prior to 2011, this exam had a high pass rate, and about one third of entering principals took the exam-only route; thus, many certified principals were not trained, and this was especially true in high-minority schools. However, this exam-only route into principalship has been strengthened. In 2011, California adopted the California Preliminary Administrative Credential Examination (CPACE), an exam aligned specifically to California standards, replacing the prior standardized national

examination, the School Leaders Licensure Assessment (SLLA). In 2015, the CPACE was revised to incorporate a performance assessment component. Both changes have resulted in lower pass rates on the examination.[63] In 2013, the CTC increased from 3 to 5 the minimum number of years of teaching experience necessary to be eligible for the administrative credential.[64] These policy changes have likely affected the numbers of new principals earning an administrative credential through the examination-only route. Our 2016–17 survey estimates that roughly 9% of all principals in California entered the principalship without attending a preparation program. Therefore, when comparing recent program completers to all principals, higher rates of basic preparation can be explained in part by the fact that recent completers at the very least finished a program.

High-quality preparation programs provide participants with the opportunity to engage in an internship and field experience—defined as working directly with a mentor principal and engaging in administrative tasks under the mentor's supervision—in which they can practice the leadership activities they will engage in as principals. Only 61% of California principals reported receiving a supervised internship or field experience before becoming a principal, and a much smaller proportion of California principals (24%) reported that they participated in an internship of a sufficient duration and frequency (i.e., more than 20 weeks with mentoring from an expert at least once a month). Although a similar proportion of recent completers report receiving a supervised internship, almost twice as many (47% vs. 24%) experienced a high-quality internship experience as described above. Of the California principals who participated in an internship, three quarters (74%) said it was an excellent learning experience for becoming a principal. Principals serving in schools with a high proportion of students of color particularly found these learning opportunities helpful.[65] Providing quality internship experiences to aspiring principals appears to be an area for continued improvement in the state.

Professional development. As with preparation, the majority of California principals have experienced some of the components of high-quality professional development. However, it is the combination of learning structures and topics within professional development that produce principals associated with improved school outcomes—and few principals have experienced this type of high-quality professional development within the last 2 years. In Table 5, we created three different bundles of professional development, with Bundle 1 representing *piecemeal* development because participants did not experience certain learning opportunities at least *to a minimal extent,* did not participate in a professional development network, or did not have a formal on-the-job mentor or coach. In contrast, Bundle 3 represents the most robust, high-quality professional development because it includes the comprehensive set of each of the key elements of quality professional learning as described in the building blocks, with participants agreeing that they engaged in these learning structures and topics at least *to a moderate extent*.

Table 5. Percentage of Surveyed California Principals Receiving Quality Professional Development

Building Blocks	Bundle 1– Piecemeal Preparation	Bundle 2– Basic Preparation	Bundle 3– Comprehensive Preparation
Programs structured to support learning			
In a professional development network			✓
Meaningful and authentic learning opportunities			
Formal on-the-job mentor or coach		✓	✓
Mentoring occurred once or twice a month or more			✓
Learning opportunities focused on what matters			
Instructional leadership focused on how to develop students' higher order thinking skills	*Some or none*	*At least to a minimal extent*	*At least to a moderate extent*
Emphasized how to create collegial and collaborative work environments	*Some or none*	*At least to a minimal extent*	*At least to a moderate extent*
Emphasized how to use student and school data to inform continuous school improvement	*Some or none*	*At least to a minimal extent*	*At least to a moderate extent*
Percentage of principals	**65%**	**22%**	**13%**

Source: Learning Policy Institute. (2017). Survey of California Principals.
Note: "Bundle" definitions are mutually exclusive and add up to 100%.

Only 13% of principals received what we define as comprehensive professional development that includes

- learning within a principal network;
- formal on-the-job coaching; and
- engaging in professional learning that covered, at least *to a moderate* or *great extent*, instructional leadership, creating collaborate work environments, and using data to drive school improvement.

Principals serving in urban districts were nearly 4 times more likely to receive the most comprehensive bundle of professional development than those serving in rural districts (15% vs. 4%).[66] Superintendents confirmed the challenges in delivering professional development in geographically isolated rural school districts. One superintendent explained:

And then [there are] rural [schools] up north, for example, that are so spread out. And they're serving a community that's 30, 40 square miles. And … [principal] training becomes an issue.

In addition, first-year principals were more likely to experience the comprehensive bundle of professional development than seasoned principals who had more than 10 years of experience (23% vs. 7%, respectively)[67] and were also more likely to experience the basic bundle of professional development compared to both principals with between 5 and 10 years

of experience and those with more than 10 years of experience (39% vs. 17%, and 39% vs. 9%, respectively).[68] While the increased support for novice principals is both promising and unsurprising, the proportion receiving quality on-the-job support is still low. About three quarters of first-year principals could benefit from expanded professional learning. Moreover, given the significant instructional shifts in the last few years in the state, even experienced principals need ongoing learning to understand how best to support these changes. However, the vast majority of experienced principals are not receiving this type of support. California can do a better job of supporting the professional learning of principals from all experience levels, with pressing attention needed for the principals in rural areas, who currently have the least access to this type of support.

California Has Room to Grow in Key Areas of Principal Professional Learning

We turn now to the extent to which California principals perceive their preparation and professional development as having adequately prepared them for the challenges of leading their schools effectively.[69] We describe California principals' reports of the areas in which they feel *most* and *least prepared* by their preparation and professional development experiences. Although some California principals report that their experiences left them feeling well prepared, our results indicate that a significant proportion of California principals have not received the support that would help them address the numerous shifts in education policy and practice. (See Appendix B for a full list of the content features we inquired about and the survey results.)

Strengths. The three areas in which principals received the strongest preparation—that is, principals considered themselves to be well prepared—include:

1. Engaging in self-improvement (65% felt *well* or *very well* prepared)
2. Creating collegial working environments (60% felt *well* or *very well* prepared)
3. Working with parents and communities (60% felt *well* or *very well* prepared)

Recent program completers, who reveal more about the current trends in the preparation of California's principals, report the same three areas of strength, albeit to a higher extent. Of principals who completed their preparation program in 2013 or later, 82% report feeling *well* or *very well* prepared by the program to engage in self-improvement, 77% report the same level of preparedness to work with parents and communities, and 75% report feeling well prepared to create collegial working environments.

These strengths reflect critical elements of effective leadership. Research, as well as our interviews with principals and superintendents, stressed the importance of principals learning how to reflect on themselves and develop processes for becoming more effective. For example, one principal described how his preparation helped him develop these self-improvement skills:

> I can tell you that the type of [leader] I was prior to the [principal preparation] program to what I am now is completely different. And I think it's because it's a very unique program where you learn about yourself at first, what kind of person you are, and what kind of leader you are. And then you learn about others and how they work … so when

you work within organizations, then you can deal with those adult behaviors differently. … I know where that person's coming from because that's who they are, where in the past, I was just like, "Either do it my way or get the hell out of the way."

Creating collegial environments and working with parents and communities are two key responsibilities for principals, especially under California's LCAP in which principals must engage with many educational stakeholders to develop goals that support student achievement. In addition, research shows that key factors in teachers' decisions about whether to remain in a school or in the profession include having time to collaborate and build collegial relationships—areas in which principals play a central role.

In terms of professional development, the five areas in which principals report feeling the most prepared include (see Table 6):

1. Using data to inform continuous improvement
2. Creating collegial and collaborative work environments
3. Supporting Common Core instruction
4. Engaging in self-improvement and their own continuous learning
5. Leading a schoolwide change process

Over half of principals feel *well* or *very well* prepared in these areas. These five areas of strength reflect several state educational priorities. Specifically, shifting to Common Core standards has required schools and districts to understand the instructional changes needed for students to succeed under the more rigorous standards. In addition, the implementation of the LCAP has encouraged districts to use data to inform how to best serve the needs of all students.

Table 6: Reported Strengths and Weaknesses of Leadership Professional Development Experiences of California Principals

	Felt very poorly or poorly prepared	Felt adequately prepared	Felt well or very well prepared
Areas in which principals felt most prepared:			
Using student and school data to inform continuous school improvement	10%	35%	55%
Creating collegial and collaborative work environments	9%	37%	55%
Leading instruction that supports implementation of new California state standards	13%	33%	54%
Engaging in self-improvement and their own continuous learning	11%	35%	54%
Leading a schoolwide change process	12%	35%	53%
Areas in which principals felt least prepared:			
Recruiting and retaining teachers and other staff	31%	39%	30%
Knowing how to invest resources to support improvements in school performance	25%	39%	36%
Managing school operations efficiently	19%	42%	39%

Source: Learning Policy Institute. (2017). Survey of California Principals.

California principals' reports of preparedness vary by experience, location, and school characteristics. More-experienced principals feel their professional development has better prepared them to lead instruction that supports implementation of new California state standards.[70] More-experienced principals also feel more prepared to implement a schoolwide change process.[71] In addition, principals in rural schools and schools serving higher concentrations of students from low-income families report feeling less well prepared to create collegial work environments and engage in self-improvement, respectively.[72] With only about half of principals reporting feeling prepared to implement the new state standards, and an even smaller proportion of new principals prepared to do so, more professional development is needed to make progress on Common Core achievement.

Weaknesses. A significant majority of California principals also report feeling unprepared in several areas. The three areas in which principals received the least professional development and in which they report feeling the least prepared include:

1. Recruiting and retaining teachers
2. Managing school operations
3. Investing resources

From a fifth to nearly a third of principals report that their professional learning *poorly* or *very poorly* prepared them to lead in these three areas. As mentioned earlier, principals' unpreparedness to recruit and retain teachers is alarming given the importance of teachers for student learning, as well as the shortages of teachers across the state. The school and district leaders in our focus groups similarly reported that principals are less prepared to manage school operations and invest resources. A former California principal described how his feelings of unpreparedness in these areas contributed to his decision to leave the profession after just 2 years:

> I felt well prepared instructionally, with a deep understanding of standards-based instruction and shifts at that time. I felt unprepared in human relations, site management, and the day-to-day management of a large facility, with 80 employees and 500 kids. … I felt least prepared in facilities management. Not knowing how to go about managing a site and facility—really the nuts and bolts.

Novice principals report feeling less prepared by their professional development experiences in these topic areas. About 42% of principals with 10 or more years of experience feel their professional development in managing school operations prepared them *well* or *very well*, compared to only 20% of principals in their first year.[73] In addition, principals with more than 10 years of experience more frequently report feeling *well* or *very well* prepared by their professional development in investing resources to improve school performance than principals in their first year (39% vs. 23%).[74]

While almost every principal in California has experienced some professional learning, a lot more support and learning opportunities are needed to ensure that the vast majority of principals experience a high-quality system of learning. One bright spot is the positive trend and relative strength in the preparation experiences of recent program completers. Overall, our results suggest that the state's preparation and professional development programs generally need to incorporate more of the evidence-based elements of high-quality learning that will help California's principals support the more rigorous state standards and meet the needs of the state's increasingly diverse learners. In addition, more California principals could benefit from internships and mentoring that allow aspiring principals to experience the daily demands of school leadership with the support of an expert school leader who can provide coaching and model leadership strategies.

How Well Prepared Are California Principals to Lead for 21st Century Learning?

California is making educational shifts to prepare the next generation for a dynamic, knowledge-driven economy. Successfully making these educational changes, which we refer to as "deeper learning" and "whole child learning," requires substantial expertise on the part of principals. Deeper learning involves the application of knowledge to novel, interdisciplinary problems and rigorous, self-directed inquiry. In our survey, we created a deeper learning construct using the following survey items:

- developing students' higher order thinking skills;
- creating collegial and collaborative work environments; and
- organizing schools to support deeper learning for teachers and students.

Whole child learning includes supporting students' physical needs as well as their social-emotional learning. Social-emotional learning emphasizes skills, such as the ability to collaborate or make responsible decisions; mindsets, such as thinking constructively about how to handle challenges; and effective habits, such as coming to class prepared.[75] In our survey, we created a whole child construct using the following items:

- supporting students from diverse ethnic, racial, linguistic, and cultural backgrounds;
- supporting students' social and emotional development;
- meeting children's needs and supporting their physical development and mental health; and
- developing personally and socially responsible young people and using restorative practices for discipline.

Few California Principals Report Being Well Prepared to Lead for Deeper Learning

Less than half of California principals have experienced preparation and development opportunities that address deeper learning. Not surprisingly, the majority of principals (71%) did not experience preparation that prepared them *well* or *very well* to lead for deeper learning (see Figure 5).

Principals' learning experiences related to deeper learning competencies varied across contexts. Compared to principals serving in schools with low proportions of students of color, principals serving in schools with high proportions of students of color were more likely to participate in professional development that covered deeper learning (42% vs. 28%)[76] and feel their professional development prepared them *well* or *very well* to lead for deeper learning (36% vs. 22%).[77]

Although relatively few California principals have received support in this area, the state could be trending in the right direction with its newer principals. Principals who completed their program in 2013 or later were significantly more likely to experience deeper learning competencies in their preparation to a moderate or great extent (62% vs. 37%) and more likely to feel well or very well prepared to lead for deeper learning by their preparation (53% vs. 29%)

than California principals as a whole. Nonetheless, with 75% of principals in our survey reporting they want more professional development related to these three deeper learning competencies, this is clearly an area for improvement for California's principals.

Figure 5. Proportion of California Principals Prepared to Lead for Deeper Learning
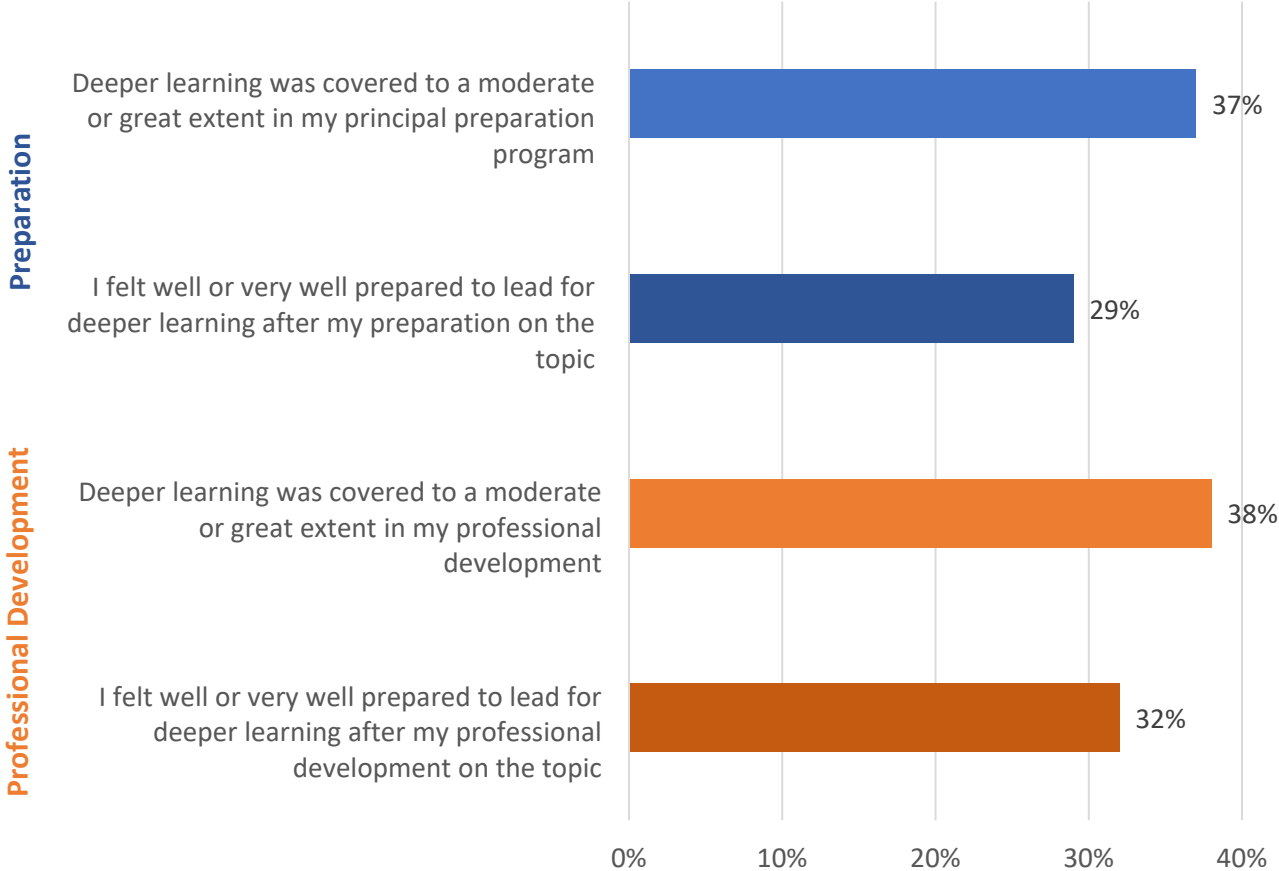
Source: Learning Policy Institute. (2017). Survey of California Principals.

Few California Principals Report Being Well Prepared to Lead Schools That Support the Whole Child

A small proportion of California principals have learned about whole child practices in their preparation and professional development opportunities. Fewer than one third of principals feel *well* or *very well* prepared to lead schools that address the needs of the whole child (see Figure 6). The same figure also shows the proportion of California principals who received preparation and professional development to a *moderate* or *great extent* on all four of the topic areas related to whole child practices, as well as the proportion who feel that the learning experiences on these topics prepared them *well* or *very well*. It is more common for California principals to report receiving training on supporting the whole child in professional development than in their preparation.

Figure 6. Proportion of California Principals Prepared to Lead Schools That Support the Whole Child
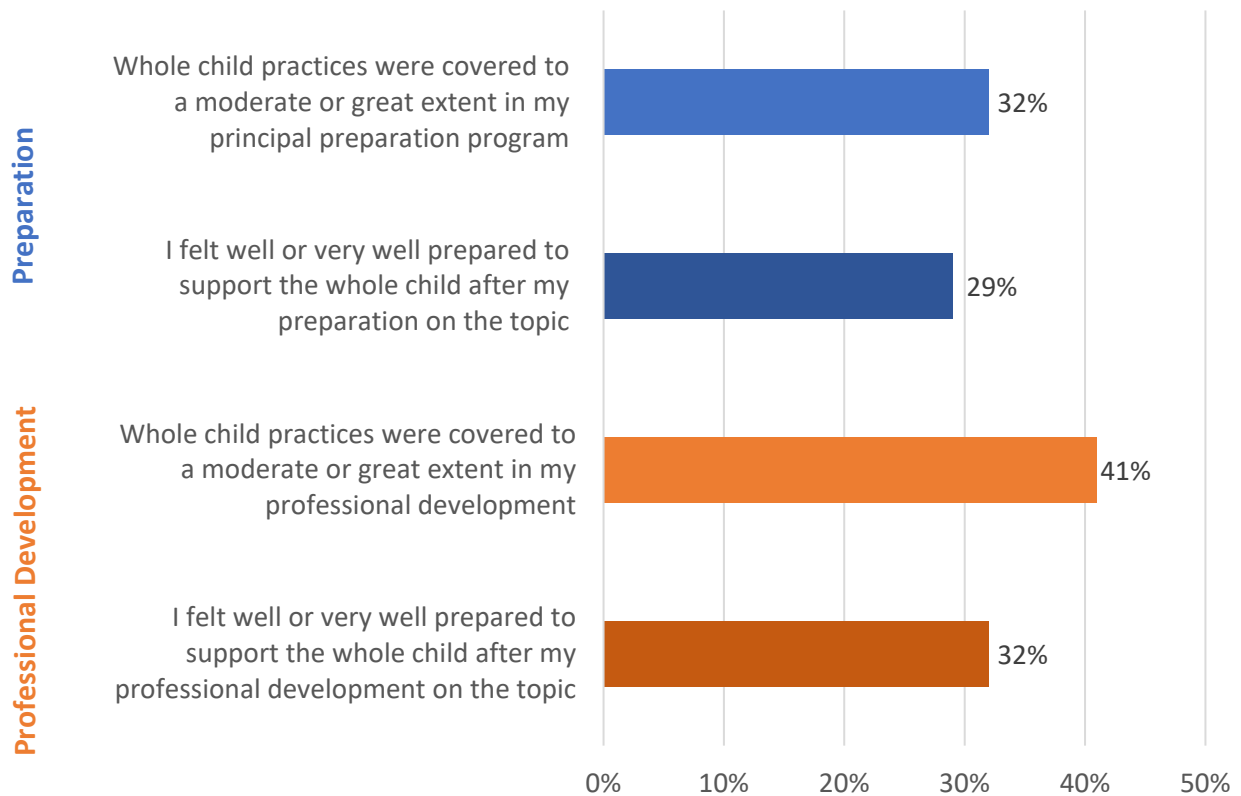
Source: Learning Policy Institute. (2017). Survey of California Principals.

Principals' learning experiences related to whole child competencies also varied. A larger proportion of principals serving in schools with high concentrations of students of color were exposed to whole child practices in their preparation program than principals serving in schools with a smaller proportion of students of color (39% vs. 25%, respectively).[78] The same pattern holds true for principal professional development, with principals serving in schools with high concentrations of students of color being exposed to whole child practices more often than their peers in schools with a smaller proportion of such students.[79] Furthermore, principals serving in urban schools feel better prepared by their recent professional development related to supporting the whole child than principals serving rural schools (34% vs. 18%).[80] These results suggest that principals in rural schools need additional support in accessing quality professional learning opportunities. Principals who completed their preparation program in 2013 or later were significantly more likely to experience learning related to whole child practices to a *moderate* or *great extent* (56% vs. 32%) and more likely to feel *well* or *very well* prepared by their preparation (60% vs. 29%) than California principals as a whole. Moreover, California principals from all types of schools report wanting more professional development in addressing the needs of the whole child, with almost 75% of principals desiring additional learning in this area.

Which Learning Opportunities Do California Principals Want More Of?

The vast majority of California principals want additional professional development in several leadership topics. Using data from our survey, focus groups, and interviews with current and former California principals, we summarize the most pressing learning needs. In summary, we found that principals' preferred methods for engaging in professional development are often the least available, such as coaching and networking. The major obstacles to obtaining professional development are lack of time and money. These firsthand reports from the state's school leaders can guide investments into designing and supporting quality learning opportunities that hold the most promise for raising student achievement.

California Principals Want More Professional Learning

Nearly all (98%) of the state's principals would like to receive more professional development on at least one topic. Figure 7 shows the top areas in which principals report wanting professional development, based on the results from our survey (see Appendix B for a full list).

Figure 7. Proportion of California Principals Who Report Wanting More Professional Development by Topic
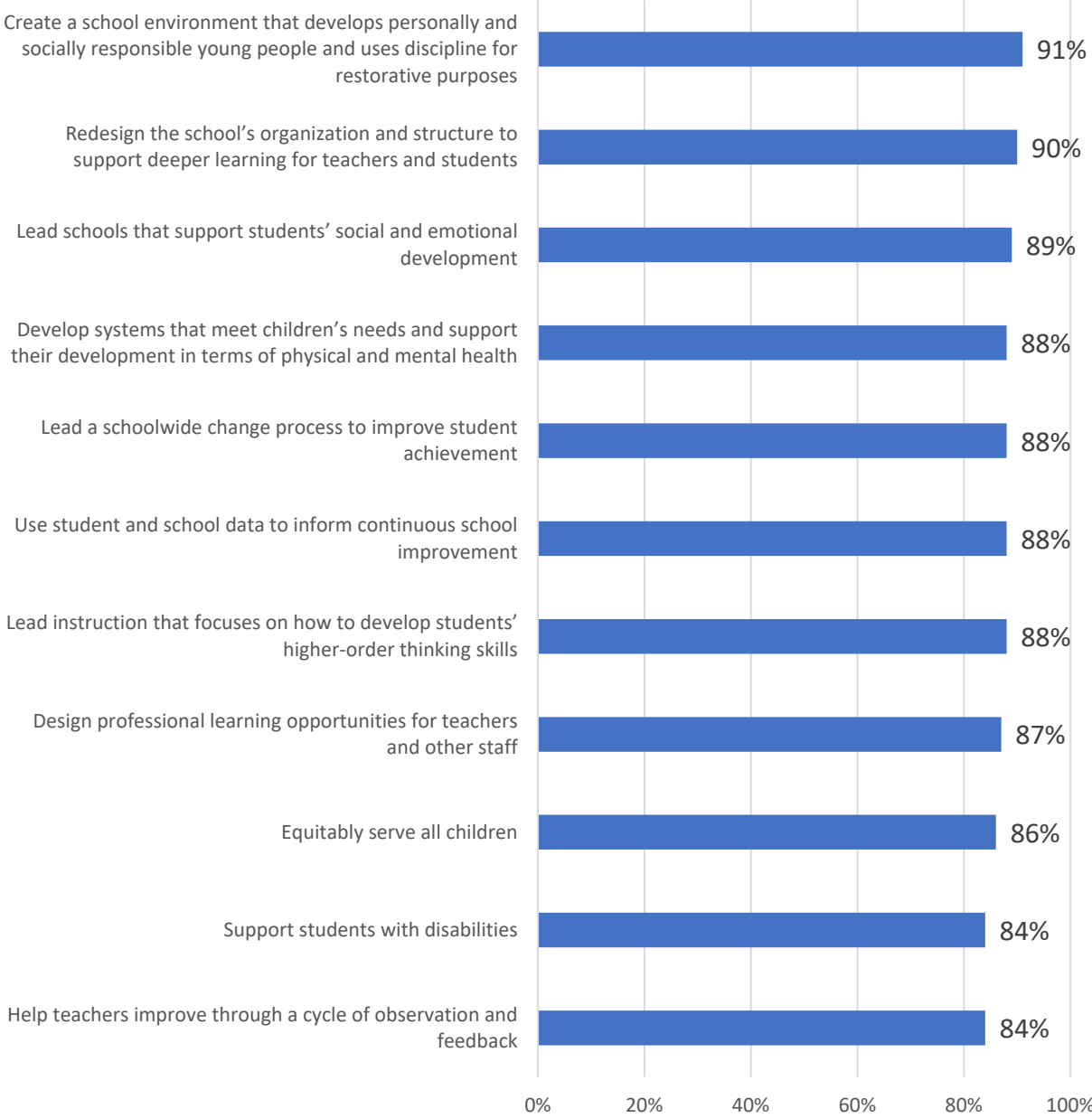
Source: Learning Policy Institute. (2017). Survey of California Principals.

The top three topics of professional development that California principals want more of are related to their role in shaping the teaching and learning conditions to better support deeper learning and whole child practices, including students' social and emotional development. Specifically, principals want more professional learning focused on understanding how to create school environments that develop personally and socially responsible young people and use discipline for restorative purposes (91%), how to redesign schools to support deeper learning (90%), and how to lead schools that support students' social and emotional

development (89%). In addition, principals report wanting to learn how to develop systems that address students' physical and mental health needs (88%). These top results are consistent across respondents, based on both school characteristics and principal characteristics. In other words, principals across schools serving high and low concentrations of students of color and students experiencing poverty, principals serving urban and rural schools, principals new to the principalship, and principals who have been in the job for a long time share a relatively equal desire for additional professional learning opportunities in these areas.

Eighty-eight percent of principals want more professional learning about how to lead schoolwide processes to improve student achievement, as well as about how to use student and school data to inform continuous school improvement. Furthermore, principals in schools serving higher proportions of students from low-income families[81] and students of color[82] are more likely to report wanting professional development about leading a schoolwide change and using data for continuous improvement.[83]

In addition, California principals report wanting more professional learning on instructional leadership (88%) as well as in developing people. Principals in schools serving higher proportions of students of color[84] are more likely to report wanting professional development in leading instruction focused on students' higher order thinking skills.[85] With regard to developing people, 87% of principals report wanting more professional learning about designing professional development for teachers and staff. And 84% of principals report wanting more opportunities to learn how to help teachers improve through observation and feedback.

Another notable area in which California principals want more support is in their ability to meet the needs of all students. Eighty-four percent of principals report that they would like more professional development on how to support students with disabilities, as well as about how to equitably serve all children. Moreover, principals in schools serving higher proportions of students from low-income families[86] and students of color[87] are more likely to report wanting professional development in serving the needs of students with disabilities.[88]

These results suggest that principals in nearly all California schools, especially those in the state's underserved communities, are in need of professional learning resources in several areas. While this finding is unsurprising, it underscores the importance of ensuring that we provide our school leaders with the necessary preparation and on-the-job training to help them lead schools that better address the persistent achievement gaps in the state.

The Most Helpful Types of Professional Development Are Not Always the Most Available

California principals generally find their professional development worthwhile. Between 70% and 80% of principals find most types of professional development they participated in *very* or *extremely helpful* (see Table 7). Consistent with the literature on effective professional development, the three highest rated types of professional development are:

1. Peer observation and/or coaching

2. Participating in a principal network
3. Mentoring and coaching

Table 7. Percentage of Principals Participating in Professional Development and Its Helpfulness for Those Who Experience Each Type of Professional Development

Type of Professional Development	Participation			Helpfulness		
	Not at all	Once or twice	Three or more times	Not at all or slightly helpful	Somewhat helpful	Very or extremely helpful
Peer observation/coaching in which you have an opportunity to visit with other principals for sharing practice	29%	28%	43%	3%	17%	80%
Participating in a principal network	14%	23%	64%	4%	17%	79%
Mentoring or coaching by an experienced principal as part of a formal arrangement	43%	20%	37%	5%	17%	78%
Workshop provided by a professional association, such as ACSA	24%	44%	32%	3%	20%	77%
Individual or collaborative research on a topic of interest	21%	39%	40%	3%	21%	77%
Workshops, conferences, or trainings	1%	18%	80%	3%	23%	75%
University course(s) related to your role as principal	68%	13%	20%	6%	21%	73%
Reading professional books or articles	2%	18%	80%	4%	24%	72%
Workshops, conferences, or training in which a principal presented	43%	34%	22%	5%	31%	63%

Note: Due to rounding, percentages do not always add up to 100%.
Source: Learning Policy Institute. (2017). Survey of California Principals.

Even though principals report that these learning opportunities are most helpful, not all principals receive this type of professional development. In fact, the learning opportunities that principals most frequently report as being *very or extremely helpful* are some of the least available. For example, 43% of principals report not receiving formal mentoring or coaching, and nearly 1 in 3 principals report not participating in peer observation. In addition, only 37% of

California principals have had a formal on-the-job mentor or coach in the past 2 years (other than the mentor or coach in their leadership preparation program). However, nearly all first-year principals (95%) who received mentoring or coaching by an experienced principal report it was *very or extremely helpful*. Even 58% of principals with more than 10 years of experience found mentoring or coaching *very or extremely helpful*.

Three quarters of first- and second-year California principals (77%) received mentoring and coaching. The quality of these arrangements varied, and only 43% of first- and second-year principals reported having a formal on-the-job mentor or coach with whom they met at least once a month.

One reason for the infrequency of certain types of professional development may be that principals in geographically remote districts may not have access to nearby principals whom they can observe and with whom they can collaborate within a network. Not surprisingly, principals in urban districts are much more likely to participate in principal networks than principals currently serving in rural districts (74% vs. 50%, respectively).[89] In addition, principals currently serving in urban schools are more likely to receive coaching than principals serving in rural schools (41% vs. 26%, respectively).[90] Principals in urban areas are twice as likely to have the opportunity to visit with other principals for sharing practice as their peers working in rural schools (49% vs. 24%).[91] However, principals in rural areas were more likely to rely on professional development offered by professional associations: Only 17% of principals in rural districts report not participating in workshops provided by professional associations, such as the Association of California School Administrators (ACSA), compared to 30% of those in urban districts.[92]

Considering that principals have limited time and resources to engage in professional learning, it is crucial to increase the availability of the most helpful types of professional development and invest in a set of strategic high-quality supports.

Preparation and Professional Development for Principals in Rural Areas

Many of the strategies used to support principals in urban and suburban areas are not feasible for principals in rural areas because of the profound ways in which rural schools and districts differ. For example, because rural schools and districts are geographically remote, establishing principal networks requires rethinking the time and space—and in some cases, technology—needed to facilitate this learning.

In California, almost one third of school districts are located in rural areas.[93] As noted throughout the report, we found significant differences in the learning experiences of principals in rural California compared to their peers across the state. Specifically, principals in rural areas consistently report participating in preparation development less frequently than principals in non-rural schools. We found that:

- Principals in rural districts are less likely to participate in principal networks and to receive coaching than urban principals. Relatedly, principals in rural areas are half as likely to have the opportunity to visit with other principals to share their leadership practices than their peers working in urban districts.
- Principals in rural districts are 4 times less likely to receive the most comprehensive bundle of professional development, compared to principals in urban districts.

Moreover, principals in rural areas consistently report feeling less prepared than principals in non-rural schools. We found that:

- Principals in rural districts feel less prepared by their recent professional development related to supporting the whole child than principals serving in urban schools (18% vs. 34%).
- Principals in rural schools also report feeling less well prepared to create collegial work environments than their urban counterparts (40% vs. 55%).

Our findings suggest that the state should target resources to identify how to best support the learning of principals in rural areas, including ways to break down isolation or perhaps create virtual ways to participate in a learning community.

Lack of Time and Money Are Obstacles to Professional Learning

The challenges principals report related to their inability to access professional development in areas in which they would like to grow are predictable: time and money. Figure 8 shows the obstacles California principals most frequently cite that prevent them from participating in desired professional development activities. One reason why principals identify time as an obstacle is because they feel they are penalized for the time when they are not present in their schools. One California principal explained:

> If we're off-site, we're not supposed to be off-site. We're supposed to be on-site. And a lot of the [professional development] is off-site. … It's not valued … that we are learning. We are professionals, and we don't have to be on-site to be able to impact what's going on at our school sites. … We have to justify [going to professional development] not only to our supervisors, but also to our staff and our parents.

Figure 8: California Principals' Reported Obstacles to Participating in Desired Professional Development Activities
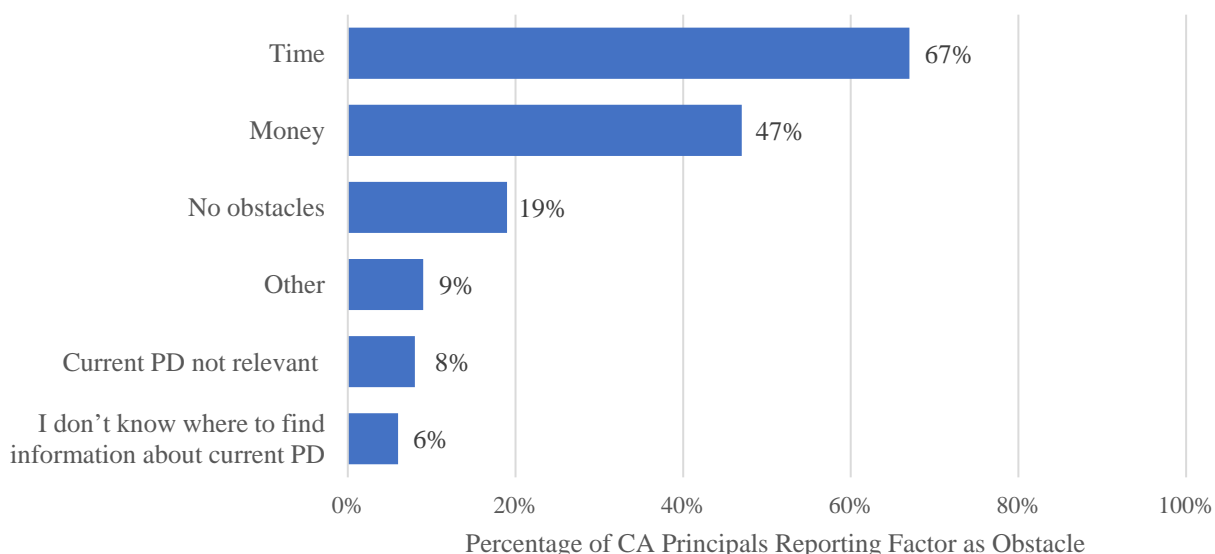
Source: Learning Policy Institute. (2017). Survey of California Principals.

Cost is also frequently reported by principals as an obstacle to participating in beneficial professional development. Almost half of California principals pay at least part of their professional learning costs. In fact, one third of California principals report paying for all of the costs associated with their professional learning, and 15% of principals paid part of their costs. About half (53%) of principals paid no cost for their professional development.

What Are California Superintendents' Experiences With Professional Learning?

High-quality professional learning opportunities are critical to cultivating and developing strong district leaders. Our review of the available research and our focus groups provide insight into the relatively unexplored area of superintendents' professional learning experiences. In this section, we summarize our findings about California superintendents' professional development experiences, including the types of professional learning they find most helpful and the obstacles they face to accessing quality learning opportunities.

Superintendents Receive Piecemeal Professional Development

In terms of on-the-job learning, our interviews with California superintendents and review of national studies provide insight into the most valuable professional learning experiences. The vast majority (83%) of superintendents across the nation have reported that their professional learning experiences have been *useful* or *very useful*.[94] Despite the value of professional learning, all the California superintendents in our focus groups report that it is largely up to them to seek professional development experiences. As one superintendent put it:

> The most highly successful people in this job are people who are not waiting for help to come to them. … They are reading, thinking, calling, pushing, asking, going, and are just a machine. And they are so internally driven that then they become the leaders of the pack of other people.

Another California superintendent elaborated:

> I feel well prepared, but the preparation is of my own doing. … You have to seek out the learning. … What is unique is that at a district level, the superintendent and team provide the learning for principals and provide learning for directors and provide learning for teachers and classified staff and so forth. But there isn't anybody above the superintendent in terms of providing that learning for us. … There are opportunities for us to seek that learning and lots of professional reading and networks among each other. But if you do not seek it out yourself, it does not come to you.

Another California superintendent described how the autonomy superintendents have allows them to identify the learning that best suits their district context:

> [It's] up to the superintendent to take an active role in seeking professional development opportunities. Then I think that we just take a really active role in seeking the kinds of professional development that we need and want depending on what the focus is for the district. In creating opportunities for my staff, I participate with them. It's more of a learning journey together than having some external agency that we go to or bring to us.

Superintendents' Reports of the Most Valuable Types of Learning Opportunities

California superintendents in our focus groups most frequently reported the following four types of professional development as most important to their continued growth.

1. Formal and informal networks with peer superintendents
2. Coaching and mentoring from seasoned superintendents
3. Partnerships and coursework from institutions of higher education
4. Professional literature and research

Networks. California superintendents described the important role of formal and informal networks of superintendents in their learning. This is consistent with studies across the United States in which superintendents have reported that "the most important source for informing elements of their practice is peer superintendents."[95] Every California superintendent in our focus groups emphasized the importance of collaborating with fellow superintendents in formal and informal networks. One California superintendent described how interactions with other superintendents help her grow:

> I think the more we interact with one another, [the more] you learn … because you're making meaning of it in your own brain as you're interacting with somebody. Then they're adding new perspectives to it. Anytime we've had opportunities to collaborate, that's been the most valuable.

Many superintendents echoed this sentiment and emphasized how peer superintendents help them strategize and problem-solve. One superintendent described how this can occur in more formal settings:

> Usually there's about four or five of us and a facilitator. We meet four times a year. And we have reading materials, and we bring a problem of practice. Then we do sort of a fishbowl activity or critical friends or whatever we're doing and go through that problem of practice. … [We] go around the room and say, "What's something you're struggling with?" I can't tell you how valuable that's been.

Several California superintendents described the importance of engaging in formal networks of superintendents at professional association meetings, such as the National Superintendents Roundtable and the ACSA meetings. Some superintendents also said that their county offices were effective at convening formal networks of superintendents. Superintendents in one county described how they value their monthly meetings with other superintendents in the county, which the superintendents get to plan themselves. As one superintendent shared:

> We purposefully schedule time for us to interact around different topics. …We invite other superintendents to take a chunk [of the planning], and we really co-constructed this meeting. We want them to be really powerful and meaningful. We really drive the agenda and ... we have a … team that's leading the content development for those meetings.

In addition, some superintendents said that informal networks best support their development. All superintendents agreed that developing trusting relationships within their networks is critical in order for the networks to be most productive. As multiple superintendents explained, without trust, they can be "burned" by peers who do not hold conversations in confidence. One superintendent explained that informal networks help to support more candid conversations between superintendents:

> We had one superintendent who was going through some baloney through no fault of his own … so we started asking him, "How are you doing with that?" And then he really started sharing honestly, and then someone else said, "Oh, yeah, I went through that, too."

Networks of superintendents can also materialize through online channels. Superintendents in our focus groups referred to their online networks as personal learning networks (PLNs). One superintendent said:

> My personal learning network has changed my life. It's all about my PLN, social media, Twitter, and it's mostly Twitter. That's where I see that the educators that I want to grab ideas from are there. … I can feel connected and find solutions in 140 characters or less and maybe an embedded attachment, but that absolutely is working for me.

Some superintendents explained how professional associations support their development of a professional network. For example, one superintendent described how informal networking at a conference helped her better understand how she could support her own professional growth:

> The value at a lot of the conferences is the informal networking. … The session rooms are relatively empty. And the lobby and the bars ... [and] restaurants are relatively full because it's just informal networking. We had the best conversation around a high-top bar table last year, just about contracts. And all just sharing little things that we have in our contracts. … And so taking little ideas that different people have in their contracts to allow them [opportunities for] professional growth. … Because it's just not something that's often discussed.

The superintendents in our focus groups said that they find the resources to participate in networks through a variety of channels. One superintendent said:

> One of the requests when I negotiated my contract was the ability to engage in these professional networks and for the district to pay for it.

Other superintendents said that they worked with professional networks to have those networks pay for their participation. For example, one superintendent said that the National Superintendents Roundtable covered the approximately $2,500 fee to participate because the network wanted the superintendent to partner in the work. A survey of more than 1,000 superintendents across the United States revealed that approximately 94% of superintendents'

contracts cover their membership dues to regional professional organizations, and 73% cover their membership to national professional organizations.[96] In addition, 86% of superintendents' employment contracts require that the costs of their attendance at professional conferences be paid for by the district.[97] Accordingly, covering the costs of superintendents to participate in networks is an important first step to supporting this helpful form of professional learning.

Mentoring and coaching. All the California superintendents in our focus group who had a mentor or coach underscored their value. A seasoned California superintendent described the usefulness of her coach:

> This is my eighth year. I mean, every year, okay, I feel good, but still there's so much more to learn. Having a coach, and for me … it was just somebody that I knew and who encouraged me. I think it's really critical. A lot of times we in education have been shy about asking for a coach, where you look at everybody in any executive position, the CEO of GM and Ford and Coca-Cola, and they all have coaches.

Another superintendent echoed that sentiment:

> For me personally, having an executive coach, somebody who I can have absolute trust in, who's going to tell me the truth even when I don't want to hear it, has been very powerful.

Superintendents report finding coaches and mentors through informal and formal channels. One superintendent explained that she "begged" an acquaintance to be her coach. Sometimes a coach is someone a superintendent already knows or someone the district already has a relationship with. Others explained that there are firms that provide superintendents with a list of potential coaches.

Despite the value of coaches and mentors, in a national survey of superintendents, less than 8% reported that their employment contract provided financial support for a coach or mentor.[98] Some California superintendents in our focus groups described how their school board has provided financial support for coaching. For example, one superintendent shared:

> I have a coach. … I have a person on retainer that I can call. And so the board knows that there are times that I'm going to need to reach out to somebody and is very supportive in that piece. And so I just have an open contract with someone who actually was a mentor to me. And so not knowing, there are times that it might just be a quick call. But there are other times you might get yourself in a really deep issue. We've had a couple of those over the years. … and so I do have a contract with someone that I can call anytime for that coaching piece.

Some county offices paid for or provided coaching to superintendents. However, some in our focus groups described situations in which superintendents in districts with limited funding often paid for coaches out of their own pockets. Other superintendents in similar circumstances try to find informal mentoring and coaching relationships but found that not

paying for this guidance sometimes limits their use of this valuable relationship. As one superintendent explained:

> When you are paying for somebody's time, you don't feel guilty at all about picking up the phone and saying, "I need you." … When you know this person's doing it out of the goodness of their heart, then maybe you hesitate.

One superintendent suggested that the benefits from her coach far outweighed the costs:

> The whole [coaching] contract is a couple thousand dollars. … The mistake I might make would be far more costly than the contract is.

Partnerships. Several superintendents described how partnerships with and coursework at institutions of higher education have supported their professional development. Superintendents located near esteemed public and private research universities described collaborations that support the professional learning of the district and school leaders and its teachers. One superintendent described a 2-year program at UC Davis, the Superintendent Executive Leadership Forum:

> That was really, really helpful. … That was amazing. For 2 years, we would go for like a whole day and a half. … We had all these different people come in and actually spend quite a bit of time. Then we were a cohort, so we stayed together as superintendents for 2 years. This program required that someone had to recommend you to participate in the program. And then the program participants recommend others.

A superintendent in the Bay Area described an informal group supported at Stanford University:

> One of our superintendents has a connection with Stanford's Graduate School of Education. And we created this little, like, book study. And it's just the superintendents in our county, and we do research on somebody who works at Stanford … who is doing some interesting work. And then you read all of their materials and you prep for it. Then we spend a day with that individual at Stanford. We all pitch in like $35 bucks or something. We get lunch at the faculty club, but you spend the whole day really delving in deeply to a topic like diversity intolerance that is so important right now.

Superintendents in the most well-resourced districts described the value in attending leadership development courses during the summer at more remote universities, such as Harvard and Columbia Teachers College.

Superintendents also described how nearby institutions of higher education facilitated their district's relationships with community leaders. For example, a superintendent in Southern California explained the value of partnerships with private sector leaders:

I think what really helps is going beyond the whole educational sphere. And we've had great relationships [with institutions of higher education, in] which they tried to pair business and education. Many of us have had just amazing positive encounters with a company like Qualcomm. Or many of us have taken our leadership teams to their facilities and learned how they look at strengths from their leaders' perspectives.

The superintendent went on to elaborate on how interactions with private sector leaders provide insight into how to better address education challenges:

We've been able to actually utilize some of their techniques with our leaders, and [that] has helped me tremendously because I think we can be very isolated in education. And you know, if we're meant to prepare our students for the business world, and we're not connected to the business world, you know there's a disconnect there.

Readings. Nearly all California superintendents we interviewed said that they regularly engaged in reading research and other professional literature. One California superintendent said:

The superintendents that I know are always looking for good stuff to read. … Then they tell each other. I feel guilty if a week has gone by and I haven't been reading a really good article about something or looked at some research.

Superintendents across the United States similarly express being frequent readers of professional literature.[99] A survey of almost 2,000 superintendents across the United States found that the following topics were of the greatest value to them: law and legal issues, finance, personnel management, school reform and improvement, superintendent–board relations, and school–community relations.[100]

Few Superintendents Report Being Well Supported to Lead for 21st-Century Learning

Despite superintendents' important role in creating the conditions that help address the needs of the whole child and in fostering students' social and emotional development, as well as providing opportunities for students to engage in deep learning, California superintendents in our focus groups reported that they have received little to no support in these areas. However, all the superintendents stressed the importance of supporting students in these ways. For example, one superintendent said:

I also think [fostering social-emotional learning] is the most difficult thing we do. How do you teach a student that needs fast gratification to persevere for 13 years in the public school? You have to teach self-efficacy, and I think it comes through things like sports and some of our programs that really are probably a lot more important than even the academics.

A few superintendents said that they seek out nearby resources to educate themselves and their staff about these educational shifts. To learn how to support students socially and emotionally, one Bay Area superintendent said, "You kind of fill in your holes with SEL." This

superintendent sought out locally available experts and resources from nearby institutions of higher education.

However, because many superintendents rely on their local resources, superintendents in areas with less access to education scholars, experts, and other organizations reported that this contributes to significant regional variation in educators' understanding of how to support students in developing deeper learning and in social, emotional, and whole child competencies. A superintendent located in a rural school district described the variation in educators' understanding of deeper learning and social and emotional learning:

> So we went to [a professional learning program for teachers and leaders]. It was all deep learning and social-emotional learning. And the fascinating thing around our table was [there were] people at the table who had never heard the term. And I'm new to the district, kind of, at that point that we went to the training. And so ... well, all right, so they haven't been staff developed in this, the teachers really don't understand, and I have an administrator who says, "In our district, we've never used those exact words." So that just shows you the differences in levels in communities, and we're a little bit more isolated.

A superintendent who moved from a Bay Area district to a school district located in the desert said:

> I came from a place where we did have mindfulness throughout our district, and we had it in PE in middle schools, where every PE class was doing mindful practices every day. I mean, so you have those level of districts … where they have real mindfulness curriculum and real social and emotional curriculum, to a community in the desert that, we're not even using those terms.

District leaders across California understand the importance of preparing students academically, socially, and emotionally; however, they reported often lacking the resources to educate themselves and their staff about teaching and learning in this way. These findings suggest that better equipping superintendents with resources and training in these areas might allow both principals and superintendents to better support California students' achievement.

Superintendents' Obstacles to Professional Development

Like principals, superintendents most frequently reported that the biggest obstacle to pursuing professional development is lack of time. Superintendents reported that their district's expectations and culture generally discourage them from taking the time to leave their district to invest in their own growth and effectiveness. One superintendent sarcastically explained:

> My board, they don't want me out, because if I'm out, I'm not attending to the dog that's running loose. I'm not making sure the two-ply toilet paper arrived, that sort of thing.

Superintendents also described the haphazard nature of the most beneficial professional development opportunities. Some superintendents said that their county offices do not convene superintendents in the district. Consequently, superintendents with inactive county offices shared that they need to participate in other professional organizations and meetings to actively identify valuable professional learning opportunities. Several superintendents said there are few formalized structures to establish mentors and coaches.

Superintendents also said that the increasing number of services offered in their districts means that they need more types of professional learning. For example, one California superintendent said she has a medical clinic, dental clinic, and food pantry in her district; however, she does not know anything about running a comprehensive health clinic. And she does not know where to go to learn about leading these services.

In the next section we review California's past and current policies that support school and district leaders' preparation and professional learning. Understanding the current and historical context in the state will be key for identifying next steps to strengthen the system of learning for California's educational leaders.

Review of Past and Current Policies Supporting California Leaders' Preparation and Professional Learning

In the past, California made significant investments in professional learning for the state's education leaders; however, these investments have been largely eroded over time, and for many years there was no state investment in leaders' professional learning. Recently, the state has taken significant action to improve the quality of principal preparation. Some modest investment in principals' professional learning has also occurred, but it represents a fraction of what it once was. In this section, we review prior and current state policies influencing California school and district leaders' preparation and professional learning.

Policies Related to Preparation

California's system of school leader preparation is a two-tiered pathway. Individuals earn their preliminary administrative services credential through one of three pathways: traditional, intern, or exam—or they enter California from out of state. Novice administrators must then complete a 2-year induction program in order to earn the clear administrative services credential, which provides intensive coaching and job-embedded professional development. Over the past several years, the CTC has made significant changes to the standards, assessment, and accreditation policies that govern the preparation and credentialing of California's school administrators.

Beginning in 2013, the CTC updated and substantially revised the standards that guide the preparation, induction, and professional learning of California's education leaders. These include the California Administrator Performance Expectations (CAPE), which apply to candidates for the preliminary administrative services credential, and the California Professional Standards for Education Leaders (CPSEL), which apply to practicing administrators,

including those earning their clear administrative services credential. The standards define what California has said school leaders should know and be able to do. The revised standards are more aligned to the evolving role of school leaders, including a focus on whole child/whole school. For example, the CPSEL include six standards for California's school leaders:

1. Development and Implementation of a Shared Vision
2. Instructional Leadership
3. Management and Learning Environment
4. Family and Community Engagement
5. Ethics and Integrity
6. External Context and Policy

Beginning in fall 2018, California will fully implement a new administrator performance assessment, the CalAPA.[101] All preliminary administrative services credential candidates completing a preparation program will be required to pass the CalAPA to earn their preliminary administrative services credential. Only two other states—Connecticut and Massachusetts—have anything similar. This assessment requires administrative credential candidates to demonstrate their leadership knowledge and skills through an authentic task-based structure completed at three different times during the candidate's school site placement during their administrator preparation program. Candidates must complete and pass three separate leadership cycles:

- **Cycle 1:** Developing a Culture of Professional Learning for Improved Student Learning—in which candidates must facilitate collaborative learning among a small team of teachers
- **Cycle 2:** Using Data Collaboratively to Inform School Improvement—in which candidates must collect and analyze multiple sources of data, engage staff and other stakeholders in a strengths and needs analysis, and develop a plan for student learning informed by the data
- **Cycle 3:** Supporting Individual Teachers Through Observation and Coaching—in which candidates must coach at least one teacher through at least two observations, with pre- and post-conferences

The CalAPA was piloted in the 2016–17 school year (with more than 40 programs participating) and field-tested in 2017–18 (with approximately 25 programs). It will be administered across all California programs in 2018–19 during a phase-in year of nonconsequential administration, and it is set to be fully implemented in 2019–20. The CalAPA will be centrally scored, and results will be reported on the CTC's data dashboards and used as an outcome measure for preparation program accreditation processes.[102]

The CTC has also revised its program accreditation system to streamline and strengthen the state's processes for holding both teacher and administrator preparation programs accountable for meeting the state's standards.[103] This includes increasing the use of reliable candidate and program outcomes data from a variety of sources, including performance

assessment scores and surveys of candidates, employers, and a variety of other stakeholders. The new system also increases the amount and scope of publicly available information about the quality and outcomes of preparation programs in order to provide increased transparency, including through the use of data dashboards.

The newest cohort of individuals who completed a California administrator preparation program report high levels of preparedness across many indicators. In fact, more than 95% of program completers who were recommended for a credential between September 1, 2016, and August 31, 2017, reported their preparation program was effective or very effective in helping them develop the skills and tools needed to become a school leader.[104] Although unlike the respondents in our survey, these program completers have not yet entered principal positions, but the overwhelmingly strong responses indicate that some of the state's advances in its preparation policies may be taking hold.

Policies Related to Professional Learning

In the past, California has made significant investments in statewide programs to support the professional learning of school leaders. For nearly 20 years, the state sponsored and funded the California School Leadership Academy (CSLA), which was launched in 1983 under Senator Gary Hart's SB 813. CSLA's mission was to "develop leadership focused on teaching and learning so that each student meets or exceeds standards." Twelve county offices of education received grants to host the CSLA School Leadership Centers regionally, and these centers served the entire state. In 1992, CSLA, in collaboration with the ACSA, began to offer professional development for superintendents through an Executive Leadership Center. More than 25,000 school leaders, including at least 600 school superintendents, participated in these programs, which offered intensive, long-term training (for example, 10 to 15 multiday sessions annually for 1 to 3 years) for both individual leaders and leadership teams.[105]

The CSLA was recognized nationally as a source of high-quality professional development. For example, a study of the practices of 44 graduates of its 3-year training academy identified it as a highly effective model of instructional leadership development.[106] Other accounts of the training and its outcomes reinforce these findings.[107] One researcher with extensive experience in studying educational leadership development programs observed:

> Overall, CSLA offers some of the most carefully designed, conceptually integrated, locally sequenced, and reform-focused programs in the country. Its set of training modules, regional structure, attention to developing leaders for a standards-based setting, and efforts to produce a coherent and powerful collegial culture make it a well-developed professional development package. The program's ability to build a strong network and cohesive professional culture across the state is unique among programs.[108]

Aspects of CSLA's work were adopted in Alabama, Arizona, Louisiana, Mississippi, New Mexico, New York, and Texas; the Department of Defense Schools; and Australia, Kuwait, the Netherlands, and Sweden. Before it was discontinued in 2003 as a result of statewide budget

cuts, the California Legislature appropriated $1.5 million annually for the ongoing program development and administration of the overall program and $4.1 million for grants to the regional centers. Some of the CSLA work continues as a "leadership initiative" project within WestEd, supported on a fee-for-service basis. However, the full mission of the Academy has been difficult to sustain without state funding.

In 2001, the state authorized a Principal Training Program under Assembly Bill 75 (Chapter 697, AB 75, 2001), later reauthorized as Assembly Bill 430 (AB 430, 2006) and renamed the Administrator Training Program. Now defunct, the program provided incentive funding for local educational agencies (LEAs) to train school-site administrators—mostly principals and vice principals—primarily to administer the state-approved curriculum. The total appropriation for the program was $27.5 million when it was authorized, or about $5 million per year. In 2005–06, $1.5 million in federal funds augmented the program. Until February 2006, the Bill and Melinda Gates Foundation supported some of the costs of program implementation through an $18 million grant.

For each participating administrator, the state allocated $3,000 to the LEA to underwrite the cost of training. For each $3,000 received, LEAs were required to provide $1,000 in matching funds for training-related costs. Training was offered by providers approved by the State Board of Education. Each principal had to complete a minimum of 160 hours of training (an 80-hour institute and 80 hours of individualized support), and LEAs could negotiate with the training providers to offer up to 10 more hours of training to their administrators. In 2009, the program became subject to categorical flexibility and is now no longer funded. Until 2013, completion of the Administrator Training Program satisfied the program requirement for the clear administrative services credential.[109]

In 2013, the state superintendent of public instruction endorsed the Quality Professional Learning Standards (QPLS), which establish a set of research-based standards about professional learning for educators—both teachers and administrators. The QPLS "identify essential elements of quality professional learning that cut across specific content knowledge, pedagogical skills, and dispositions."[110] Specifically, the QPLS focus on the following: data, content and pedagogy, equity, design and structure, collaboration and shared accountability, resources, and alignment and coherence. The goal of the standards is to create a shared understanding of the elements of high-quality professional learning so that education stakeholders can be better united to support it.

In 2015, the California Legislature provided $490 million in one-time funds to LEAs that could be used in a variety of ways to enhance educators' effectiveness, one of which was administrator induction and/or professional learning. LEAs had until July 1, 2018, to report on how they spent these funds. Consequently, at the time of this report's publication, it is unclear how much of the educator effectiveness funding has been used to support administrators versus how much has been used to support teachers.

In 2017, the Legislature created a new competitive grant program to support teacher and leader recruitment and retention: the California Educator Development Program (CalEd). Funded at approximately $9.2 million—with $6.5 million of that targeted to support professional learning for principals and other school leaders—the program repurposed federal Title II funds pursuant to the Elementary and Secondary Education Act of 1965. In 2018, 26 LEAs received grants ranging from approximately $100,000 to $1 million, with grant recipients required to provide matching resources. The program is administered by the California Center on Teaching Careers, under Tulare County Office of Education.

While the state has made significant improvements in principals' preparation, it has not made similar advances in principals' and superintendents' access to high-quality professional learning. Although California's recent investment in professional learning for school and district leaders is a step in the right direction, there remains significant need statewide for increased attention to and state investment in the ongoing learning of its educational leaders. In the next section we discuss policy considerations.

Policy Considerations

Because of the importance of California's principals and superintendents to student achievement and teacher quality, policymakers have good reason to invest in the preparation, training, and professional learning of education leaders. Although high-quality preparation and development for school and district leaders requires financial investments, the benefits can be substantial when considering principals' and superintendents' influence on school culture, teacher quality[111] and retention,[112] and, consequently, student outcomes. Moreover, there is an emerging body of research suggesting that participants in high-quality programs are associated with leading schools with increased gains in student achievement as well as teacher satisfaction and quality.[113] For example, one effective professional learning program estimated that the $4,000-per-candidate cost of the program equated to approximately $117 per additional student achieving proficiency.[114] In contrast, other policies that have had a similar influence on student learning are more expensive, such as whole school reform and class-size reduction.[115] For example, the median cost of comprehensive school reform efforts is approximately $85,000 per school.[116]

Our research suggests several ways in which state and local policies can support the preparation and development of education leaders so that they are better equipped to support strong student outcomes as well as teacher quality and retention.

Professional Learning

1. Ensure that California's emerging statewide system of support targets the professional learning of school and district leaders. California is in the midst of a fundamental overhaul of its school accountability and continuous improvement system, with the architecture of a system of support for districts and schools just beginning to emerge. During the 2017–18 school year, LEAs were, for the first time, identified for differentiated assistance

and support under the Local Control Funding Formula (LCFF) based on their performance across multiple state and local indicators on California's School Dashboard. Responsibilities for supporting districts in need of assistance are shared among California's 58 county offices of education, the California Collaborative for Educational Excellence (CCEE), and the California Department of Education.

Given the important role of school and district leaders in leading change processes, recruiting and retaining teachers, and improving student outcomes, California's emerging statewide system of support could focus on developing and supporting effective educational leaders. California needs to rebuild a statewide infrastructure for professional learning for school leaders—a notable gap in its current policy context. The 2018–19 state budget proposes to make significant new investments in the statewide system of support, including by investing in eight "lead" county offices of education, which will provide training, resources, and support for other county offices of education.[117] The state could ensure that these lead county offices of education provide coordinated, intensive, and sustained professional learning and support to California's school leaders. This is a role that county offices of education have successfully played in the past, when 12 county offices of education served as regional hubs for the CSLA. Moreover, the state should ensure that the county offices address the unique learning challenges of administrators in rural areas.

Importantly, **the Every Student Succeeds Act (ESSA) provides federal funds that can be leveraged to support the development of school leaders.** California's ESSA plan indicates the state's intention to take advantage of the optional 3% set aside under Title II, Part A of ESSA to invest in school leadership development—estimated to be approximately $6.5 million. Twenty-four states, including Georgia, Michigan, New York, Texas, and Wyoming, are using the 3% set-aside to invest in systems of support for school leaders, including school leadership academies.[118]

Additionally, ESSA requires that states set aside 7% of their Title I, Part A, funds to improve low-performing schools by using evidence-based strategies that improve student learning. Some of these funds, estimated to be approximately $120 million for California, could be used to implement research-based interventions to strengthen school leadership in low-performing schools and districts.[119] These funds could also be used to experiment with approaches to addressing the unique learning challenges of administrators in rural areas. A recent study by the RAND Corporation identified multiple school leader interventions that meet ESSA's evidence-based requirements.[120] One example is the National Institute for School Leadership, which currently serves approximately 250 California school leaders from 27 school districts.

As part of this statewide system of support, the state could support research about the effectiveness of California's preparation and professional development opportunities for educational leaders. By using funds mentioned above, this research could help identify promising approaches to leaders' learning, including how best to support leaders from different geographic regions, experience levels, and racial and ethnic groups.

2. Align the content and structure of professional learning opportunities to the identified needs of California's school leaders, with an emphasis on peer-to-peer interactions, networks, and mentoring. Professional learning opportunities should be responsive to the needs identified by California's educational leaders. As described in Figure 7, California principals report wanting more professional development in areas such as

- redesigning school structures to support deeper learning;
- leading instruction that focuses on higher order thinking skills;
- using discipline for restorative justice purposes;
- supporting student social and emotional development and physical and mental health;
- leading schoolwide change processes to improve student achievement;
- using data to inform continuous school improvement;
- equitably serving all students;
- supporting students with disabilities; and
- leading professional learning for teachers and other school staff.

These needs expressed by California's school leaders through survey results are consistent with the overall goals of California's new school accountability and continuous improvement system. The system emphasizes a broader set of student outcomes and other measures of school success and, through the mechanism of local control, places far greater demands on California's school and district leaders to identify what and how to improve.

The structure of professional learning opportunities is also critically important. California's school leaders identify the three following types of professional development as being most helpful (see Table 7):

1. Receiving peer observation and/or coaching in which principals have an opportunity to visit with other principals for sharing practice
2. Participating in a principal network
3. Being mentored and/or coached by an experienced principal as part of a formal arrangement

Research also points to these as key elements of effective professional development programs for school leaders.[121]

At the state level, the emerging statewide system of support should emphasize these types of professional learning opportunities for school and district leaders. The professional learning networks administered by the CCEE may provide one opportunity for building out professional learning networks focused on school leadership.

Most principals in our survey and all superintendents in our focus groups who had a mentor or coach emphasized their value. ACSA provides a mentoring program for principals and superintendents. Participants are education leaders who are in the first or second year of their

position, and they are paired with an experienced mentor who provides confidential support. California could build on and expand ACSA's model so it is available to all school and district leaders throughout the state.

Districts might also increase their funding for principal and superintendent networking and coaching opportunities. Again, most principals and all the superintendents in our focus groups described the important role of formal and informal networks in their learning. Districts could help cover the cost of travel and related expenses for education leaders to participate in networks. In addition, districts could provide support to leaders' schools and districts in their absence so that principals and superintendents have the time and space to participate in on-the-job learning opportunities.

3. Ensure that all novice school leaders have access to a high-quality and affordable induction program through strategic programmatic support. Like many states, California requires all new administrators to complete a 2-year, job-embedded administrator induction program in order to earn a clear administrative credential. A key component of the induction program is on-the-job coaching from a trained and experienced coach. Multiple studies find that programs that include mentoring and coaching for principals are associated with increases in principal effectiveness and retention.[122] In the past, dedicated state funding through AB 75 (2001) and AB 430 (2006) supported the costs of induction. With flexibility in funding under LCFF, some districts continue to provide induction for new administrators using LCFF funds, but others do not. As a result, many administrators are now paying for induction out of pocket and experience inconsistency in access to this type of support. For example, in our survey, only three quarters of California principals (77%) in their first and second year received mentoring and coaching. It's worth noting that the quality of these arrangements varied, and only 43% of first- and second-year principals reported having a formal on-the-job mentor or coach with whom they met at least once a month. Our findings that California principals tend to have less experience than principals in many other states, as well as high rates of turnover, point to a need for increased investments in mentoring and support for new administrators.

California took an important first step in supporting greater access to induction programs in 2015, when the Legislature allocated $490 million to support professional learning for educators, with mentoring and induction for both teachers and leaders among the allowable uses of these funds. This could be viewed as a down payment on the state's investment in professional learning for California's educators, though it remains to be seen how much, if any, of these funds were allocated to school leaders. The 2017 state budget included a modest investment of approximately $6.5 million in the development of school leaders through the CalEd competitive grant program (with an additional $2.7 million for the recruitment and retention of teachers).[123] Demand for this funding far exceeded supply, with 79 applications submitted requesting over $72 million in total funding, and just 32 proposals funded.

In short, districts across the state have evidenced a strong need for increased investments in induction and other professional learning opportunities for their school leaders. Moreover, the state and districts should ensure that mentoring and induction programs include

the research-based elements of high-quality programs, such as ensuring that coaches and mentors are former exemplary administrators and that they are trained to be successful in their role.[124] The state should also consider how to best address the challenges of providing high-quality mentoring and induction programs to educational leaders located in remote rural communities.

Preparation

4. Stay the course to strengthen and streamline California's licensure and accreditation system for school administrators, including implementation of California's new administrator performance assessment. Over the past several years, the California CTC has made significant reforms to California's system for preparing school leaders, including the standards aspiring school leaders must meet to earn their preliminary administrative credential and the standards that administrator preparation programs must meet to operate in the state. Although we cannot identify causality, strong results from recent program completers suggest California could be starting to strengthen the preparation system for aspiring principals. We recommend that these reforms be given sufficient time to take hold, noting that the vast majority of findings in our survey reflect the experiences of many California school leaders who were prepared under prior requirements.

As discussed above, California's new standards—known as the California Professional Standards for Education Leaders[125] (CPSEL), which apply to practicing administrators, and the California Administrator Performance Expectations[126] (CAPE), which apply to administrator candidates—define what California school leaders should know and be able to do. They include a stronger focus on instructional leadership as well as on creating school environments that support the whole child, including a child's social, emotional, physical, and academic development. These changes are consistent with the areas in which survey respondents said they lacked sufficient preparation. In 2013, California also implemented a new requirement that all candidates for the administrative credential must have at least 5 years of teaching or other related experience (e.g., school counseling)—up from the prior requirement of 3 years. This change may also increase new administrators' confidence in providing instructional leadership.

Perhaps most importantly, as described above, California is in the midst of implementing a new administrator performance assessment, which all administrator candidates must pass in order to earn their preliminary administrative services credential. When fully implemented during the 2019–20 school year,[127] this assessment will require administrative credential candidates to demonstrate their leadership knowledge and skills through three authentic tasks completed during the candidate's school site placement during their administrator preparation program. In short, California is a leader among states in ensuring that aspiring administrators actually demonstrate competency with core school leader responsibilities before earning their license.

5. Build a robust pipeline of qualified and committed school principals through service scholarships and residency programs for school leaders. California can provide financial

support to develop pipelines of qualified school and district leaders through service scholarships and residency programs. The California superintendents in our focus groups most frequently reported that the most significant barrier to finding quality school leaders was limited resources for developing pipeline programs that find teachers with leadership potential and help them along the pathway to becoming a principal.

To create a robust pipeline of qualified principals, the state and districts could provide funding for internships or residencies for principal candidates, in which candidates work under the guidance of expert principals so they can experience the daily demands of school leaders with the support of an experienced school leader who can model strategies and coach them. Some states and districts provide financial support for internship and residency programs so that principals can enter the profession feeling more competent and confident about their responsibilities. For example, Tennessee recently provided funding in high-need districts for leadership residency programs that give a full year of training for candidates working directly with an expert leader and tightly connected to their preparation coursework.[128] In Illinois, Chicago Public Schools provides financial support for preparation programs to offer funded, yearlong residencies to aspiring principals in the district.[129] Such residencies can be funded in part by placing candidates in schools as assistant principals.

New Leaders' Aspiring Principals Preparation Program is another model in California of an effective residency program. Participants in the program complete a yearlong residency in which they work alongside mentor principals. The residency is designed to expose candidates to the day-to-day realities of a principalship as well as problem-based learning opportunities such as role-playing and simulations, while providing feedback, support, and coaching. Local districts and philanthropic organizations help to fund the residencies. During the residency, candidates pay no fees for the program and receive a full salary from the partner district they are working in. New Leaders attracts highly qualified and diverse individuals, many of whom are recommended by their districts to participate in the program. Principals who complete the New Leaders residency program tend to lead schools in which students experience larger gains in their achievement than schools led by non-New Leaders principals, controlling for student characteristics.[130] In addition, New Leaders–trained principals are more likely to remain in their schools for 3 or more years, compared to other newly placed principals.[131]

California could offer grant funding and technical assistance for competitive service scholarship programs for principal preparation programs to attract exemplary candidates to the field and allow them to participate in internships with expert principals—a key feature of effective programs. For example, the North Carolina Principal Fellows Program offers $20,000 annually in scholarship loans to attract outstanding aspiring principals. The program includes 2 years of preparation that encompass both coursework and a yearlong, full-time internship under the mentorship of an expert principal. In exchange, principal candidates agree to 4 years of service as a principal or assistant principal in one of the state's public schools. Since its inception in 1993, the program has trained more than 1,200 principal fellows. As of 2007, more than 12% of the state's principals and assistant principals were graduates of the program. One study found that North Carolina Principal Fellows score higher on licensure exams; are more

likely to be hired for a school leader position; and, once placed, are at least as effective as other graduates of the University of North Carolina Master of School Administration program, with more positive impacts on student absences, teacher turnover, and school working conditions.[132]

Even without state investments in robust pipeline programs, California districts can invest locally in such a program, as Long Beach Unified School District (LBUSD) has done. The district has a "Grow Your Own" leadership development pipeline consisting of eight programs aiming to recruit, train, support, and retain high-quality leaders. These programs include a series of workshops preparing teacher leaders to become assistant principals; shadowing and professional development programs for aspiring principals; on-the-job coaching and support meetings for principals in their first 2 years; and continued coaching for principals with 3 or more years of experience.[133] The costs of the program vary based on stage and are typically shared by the district and candidate. For example, new LBUSD principals participating in the Clear Administrative Credential Program pay half of the 2-year total $7,000 cost of the program, and LBUSD pays the other half. The pipeline in Long Beach is a promising model. For example, 92% of Long Beach principals used to be teachers in the district, and 92% of new principal hires are still in the district after 5 years.[134]

Conclusion

Improving student achievement in California requires strong school and district leadership. However, investing in the growth of educational leaders is one of the most overlooked courses of action for raising student outcomes. Providing quality preparation and professional development opportunities is critical for strengthening California's educational leadership. High-quality preparation and professional learning opportunities help school and district leaders implement the more recent education initiatives in the state that help advance more meaningful 21st-century learning.

The results from this study can guide policymakers' investments in California's educational leaders. Although many principals received various elements of strong preparation and professional development, few received comprehensive preparation or professional development opportunities, and nearly all report they want more support for their learning. The piecemeal nature of California's learning system for principals and superintendents leaves many leaders without some of the most valuable elements of quality learning experiences and with a limited understanding of how to lead schools and districts that support deep learning and address the needs of the whole child.

Other states have proven that investments in education leaders' learning can be a cost-effective way to improve student outcomes. California should continue to build on its efforts to improve administrator preparation and consider developing a statewide system of ongoing learning supports for principals and superintendents. These investments are critical to the future success of the next generation of Californians.

Appendix A: Methodology

To conduct this study, the Learning Policy Institute analyzed secondary data sets, surveyed a representative sample of principals, and conducted focus groups and interviews with educational leaders.

Secondary Analyses of Data Sets

To analyze national trends, we primarily leveraged the federal Schools and Staffing Survey (SASS). The SASS database—which samples school principals and teachers to allow state-level estimates—includes questions on principal preparation, principals' past experiences, and principal professional development. Moreover, because the data set includes a longitudinal component, it allowed us to assess the proportion of principals who remain at their school from one year to the next. Although the survey is national (7,512 school leaders), the California subsample (433 school leaders) was sufficiently large to allow us to conduct a robust analysis. We received the restricted-use SASS data files, Principal Survey, Principal Follow-Up Survey, and District Survey from the National Center for Education Statistics. We mainly relied on the 2011–12 data, but we also used the SASS 2003–04 and SASS 2007–08 to provide context over time.

Focus Group and Interviews

We conducted three focus groups of current California superintendents, one focus group of current principals, and interviews with former principals to better understand the factors influencing the supply and demand of school leaders, and their workforce entry and exit decisions, as well as to learn about the current preparation and support leaders receive. To supplement the focus groups, we administered an approximately 10-minute survey about the factors that influence leaders' career decisions. The ACSA identified individuals from across the state representing a range of schools and districts in terms of size and socioeconomic conditions. The focus groups included 15 superintendents, six principals, and three former principals who left for nonretirement reasons. The focus groups and interviews were conducted between November 2017 and January 2018.

The focus groups and interviews were recorded and transcribed. We used Dedoose coding software to identify emphasized topics and emergent themes. We also analyzed the survey results from the focus group and interview participants by producing basic frequency distributions and means for responses to each of the questions asked. After that, we continued to refine our analysis through an iterative process of comparing the focus group and interview results, the survey, and national data.

Representative Survey of California Principals

In April 2017, the Learning Policy Institute and ACSA contracted with American Institutes for Research (AIR) to administer the Survey of California Principals. In May 2017, AIR launched the survey using an online administration platform.

Study population and sampling frame. The sampling frame was constructed using the U.S. Department of Education's 2014–15 Common Core of Data (CCD).[135] The frame was augmented with additional information from the current California Public School Directory (PSD) provided by the California Department of Education.[136] In an effort to lower costs, each principal from the PSD was matched with records from the ACSA membership database to identify high-probability respondents (ACSA members, defined as principals from schools in which the name in the PSD matches the record in the ACSA membership database).

Eligibility. Schools eligible for this study were regular public primary, middle, and high schools with active student enrollment in the 2014–2015 school year, as reported in the CCD. Schools without any enrolled students; homebound and hospital schools;[137] detention, corrections, and treatment centers;[138] and nonregular schools[139] were not eligible for the study.

There were 10,508 California public schools on the CCD for school year 2014–15. After removing the noneligible school types specified above, the number of schools available for sampling totaled 8,649, with 3,612 (41.8%) of them matched using the ACSA database.

Sampling design and sampling results. The final sampling frame was first stratified by ACSA membership and school level—two variables that are key to the study design. The schools matched by the ACSA were oversampled by a factor of 2, which means schools whose principals are ACSA members had a chance of being selected that was twice that of schools whose principals are not ACSA members. Sampling weights were created to compensate for the differential selection probabilities so that the weighted results are representative of the target school population. In total, 900 schools were sampled for the study. As a result of oversampling the schools whose principals are ACSA members, 59.0% of sampled schools are schools whose principals are ACSA members, although this group of schools only makes up of 41.8% of the target school population.

Table A1 shows the distribution of schools in each category of sorting variables for the frame and the sample. As expected, the distributions of the population and the sample across different levels of sorting variables resemble each other, with small differences due to sampling variation.

Table A1. Percentage of Sampled Schools in Each Category of Sorting Variables for the Frame and the Sample

School characteristics	Frame (*N*=8,649)	Sample (*n*=900)
Percentage of student enrollment eligible for free and reduced-price lunch		
Low	49.9	50.0
High	49.9	49.8
Missing	0.1	0.2
Percentage of White, non-Hispanic student enrollment		
Low	50.0	50.1
High	50.0	49.9
School enrollment		
Low	50.1	48.9
High	49.9	51.1
Urbanicity		
Urban	40.6	40.1
Suburban	41.2	42.3
Town	7.2	7.3
Rural	11.0	10.2
Missing	#	0.0

Notes: Detail may not sum to totals because of rounding.
   # Rounds to zero.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, Public Elementary/Secondary School Universe Survey, 2014–15.

Nonresponse bias analysis. The study contacted principals of the 900 sampled schools to participate in the survey. Among the 900 schools, one was closed and thus ineligible; principals at 462 schools provided sufficient data to be classified as responding schools; and 437 principals did not respond and were classified as nonresponding schools. The unweighted survey response rate is 51.4% (number of responding schools divided by all eligible schools, which include all responding schools and nonresponding schools).

Because about half of the sampled schools did not respond to the survey, there might be nonresponse bias in the resulting data if the variables of interest correlate with the response propensity (i.e., those who responded might have answered the questions differently than those who did not respond).

Because information on the variables of interest was not available for nonrespondents, the sample design variables available on the sampling frame were used to assess the nonresponse bias. As shown in Table A2, the distributions on school level; percentage of student enrollment eligible for free and reduced-price lunch; percentage of White, non-

Hispanic student enrollment; and school enrollment look similar between the selected sample and the responding sample, meaning that the response behavior did not correlate with these school characteristics. However, the schools whose principals were ACSA members were more likely to respond than those whose principals were not ($p < 0.05$), and urban schools were less likely to respond than nonurban schools ($p < 0.10$).

Table A2. Percentage of Schools by Stratifying and Sorting Variables for the Selected and Responding School Samples

School characteristics	Selected (*n*=899)	Responding (*n*=462)
*ACSA membership**		
Yes	59.1	62.6
No	40.9	37.4
School level		
Primary	67.1	65.6
Middle	16.0	15.6
High	14.5	16.7
Combined	2.4	2.2
Percentage of student enrollment eligible for free and reduced-price lunch		
Low	50.1	51.5
High	49.9	48.5
Percentage of White, non-Hispanic student enrollment		
Low	50.2	48.5
High	49.8	51.5
School enrollment		
Low	48.9	50.6
High	51.1	49.4
Urbanicity[†]		
Urban	40.0	36.1
Suburban	42.4	43.9
Town	7.3	8.7
Rural	10.2	11.3

Notes: Detail may not sum to totals because of rounding.
   * Statistically significant at the .05 level in the chi-square test.
   † Statistically significant at the .10 level in the chi-square test.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey, 2014–15.

Weighting. After applying the nonresponse adjusting factor to the sampling weight of the respondent, the nonresponse-adjusted weights were raked so that the sum of final weights matched the marginal totals of each variable used in the raking process for the sampling frame. All design variables as shown in Table 4 were used in the raking process. Table A3 shows the distribution of schools in each category of design variables for the frame and the unweighted and weighted responding sample. As expected, the distributions of the population and the responding sample across different levels of design variables resemble each other after weighting the data by nonresponse-adjusted weights and match exactly after weighting the data by the final weights.

Table A3. Percentage of Schools by Stratifying and Sorting Variables for the Frame and the Responding Sample

School characteristics	Frame (8,648)	Responding sample (*n*=462)		
		Unweighted	Weighted by nonresponse-adjusted weights	Weighted by final weights
ACSA membership				
Yes	41.8	62.6	41.8	41.8
No	58.2	37.4	58.2	58.2
School level				
Primary	66.2	65.6	65.0	64.7
Middle	15.9	15.6	15.9	16.0
High	14.7	16.7	16.4	16.7
Combined	3.2	2.2	2.7	2.7
Percentage of student enrollment eligible for free and reduced-price lunch				
Low	50.0	51.5	52.0	50.0
High	50.0	48.5	48.0	50.0
Percentage of White, non-Hispanic student enrollment				
Low	50.0	48.5	48.4	50.0
High	50.0	51.5	51.6	50.0
School enrollment				
Low	50.1	50.6	51.0	50.1
High	49.9	49.4	49.0	49.9
Urbanicity				
Urban	40.6	36.1	40.3	40.6
Suburban	41.1	43.9	41.7	41.1
Town	7.3	8.7	6.8	7.3
Rural	11.0	11.3	11.1	11.0

Note: Detail may not sum to totals because of rounding.
Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey, 2014–15.

Survey mode and content. The Survey of California Principals was sent to 900 principals in the state. The English-only survey planned to use one data collection mode (web); AIR also prepared a PDF version of the survey instrument to accommodate sample members who preferred to complete the survey on paper and was prepared to conduct the survey by telephone if a sample member agreed to do so during any telephone contact. There were no requests to complete the survey by telephone or for a paper survey. AIR stopped survey outreach in July when most schools began summer break. A nonresponse follow-up effort occurred in August 2017. During the nonresponse follow-up process, AIR mailed a paper version of the survey to sample members who had not submitted a completed survey. AIR revised some of the survey items (i.e., updated some questions to reference the 2016–2017 school year). Nine respondents completed and returned the paper survey. The project achieved a targeted response rate of 51% by September 8, 2017. Once the survey ended, AIR created appropriate weights, performed a nonresponse bias analysis, and prepared the data file for LPI.

Data collection strategy. The key components of data collection included the following: (1) a prenotification letter including an unconditional prepaid incentive in the form of a $5 Amazon.com gift code; (2) an email invitation to participate in the survey, including a direct link to the survey; (3) a conditional postpaid incentive in the form of a $15 Amazon.com gift code; (4) biweekly email reminders; (5) an early-completion bonus incentive offer in the form of a $10 Amazon.com gift code; and (6) one telephone reminder call.

To achieve our targeted response rate of 50% (450 completed surveys), these four survey activates were added to our data collection strategy: (1) telephone reminders; (2) personalized email reminders from a known sender; (3) postcard reminders; and (4) a bonus incentive experiment. Additionally, survey extension activities were performed in the 2017–18 school year, including (1) additional personalized email reminders from a known sender; (2) hard-copy surveys mailed to nonrespondents; and (3) telephone reminders.

Questionnaire development and testing. The survey was designed to help understand California principals' learning experiences and needs for supporting classrooms focused on deeper learning (e.g., implementing new standards, conceptual understanding of content, problem solving and research skills, and social and emotional development); developing adults as members of an instructional team; redesigning school organizations to better support student and adult learning and community connections; and managing change. The survey covers both principal preparation and professional development experiences as well as career satisfaction and plans to leave or stay in the profession.

The questionnaire is based on a survey initially administered by Darling-Hammond et. al. (2010), which was funded by the Wallace Foundation and used in the book *Preparing Principals for a Changing World: Lessons From Effective School Leadership Programs.* After adding additional items that specifically focused on deeper learning and social and emotional learning, as well as questions specific to California's education landscape, LPI conducted cognitive interviews to help determine how well respondents are able to understand the items, retrieve and use information required for developing an answer, and finally select and report an answer. LPI and AIR revised the questionnaire based on feedback from the cognitive survey and formatted the survey for online and hard-copy applications.

Appendix B: Survey Results

Table B1. California Principals' Leadership Preparation Program Experiences

Characteristic	To what extent did your leadership preparation program emphasize the following?					How well did your leadership preparation program prepare you to do the following?				
	Not at all	To a minimal extent	Somewhat	To a moderate extent	To a great extent	Very poorly	Poorly	Adequately	Well	Very well
Problem-based learning approaches, such as action research or inquiry projects	4%	11%	17%	35%	34%					
Field-based projects in which you applied ideas from your coursework to your experience in the field	3%	8%	13%	34%	41%					
A student cohort—a defined group of individuals who began the program together and stayed together throughout their courses	11%	6%	9%	14%	60%					
Instructional leadership focused on how to develop students' higher order thinking skills	7%	14%	24%	33%	21%	3%	16%	39%	32%	10%
Instructional leadership focused on raising schoolwide achievement on standardized tests	7%	13%	24%	34%	22%	2%	17%	37%	31%	13%
Select effective curriculum strategies and materials	9%	14%	27%	32%	17%	3%	17%	38%	29%	13%
Lead instruction that supports implementation of new California state standards	19%	13%	22%	27%	19%	9%	17%	32%	30%	12%
Use student and school data to inform continuous school improvement	5%	10%	22%	36%	28%	3%	10%	33%	36%	18%
Lead a schoolwide change process to improve student achievement	3%	10%	18%	36%	33%	3%	12%	27%	41%	18%
Engage in self-improvement and your own continuous learning	2%	7%	20%	38%	33%	2%	5%	28%	39%	26%
Create collegial and collaborative work environments	1%	6%	23%	40%	31%	0%	5%	35%	37%	23%
Work with the school community, parents, educators, and other stakeholders	1%	5%	22%	42%	31%	0%	8%	32%	41%	19%
Lead schools that support students from diverse ethnic, racial, linguistic, and cultural backgrounds	1%	5%	24%	36%	34%	2%	9%	31%	39%	19%
Lead schools that support students' social and emotional development	5%	12%	31%	33%	19%	2%	19%	35%	32%	12%

Characteristic	To what extent did your leadership preparation program emphasize the following?					How well did your leadership preparation program prepare you to do the following?				
	Not at all	To a minimal extent	Somewhat	To a moderate extent	To a great extent	Very poorly	Poorly	Adequately	Well	Very well
Develop systems that meet children's needs and support their development in terms of physical and mental health	5%	15%	32%	34%	13%	2%	20%	40%	30%	9%
Create a school environment that develops personally and socially responsible young people and uses discipline for restorative purposes	8%	17%	27%	33%	15%	5%	19%	33%	30%	14%
Redesign a school's organization and structure to support deeper learning for teachers and students	4%	10%	23%	41%	21%	2%	13%	34%	37%	14%
Design professional learning opportunities for teachers and other staff	4%	9%	30%	41%	16%	2%	14%	37%	34%	12%
Help teachers improve through a cycle of observation and feedback	4%	8%	23%	39%	25%	1%	13%	33%	37%	16%
Recruit and retain teachers and other staff	10%	19%	34%	27%	10%	3%	24%	40%	23%	9%
Manage school operations efficiently	2%	11%	24%	40%	23%	1%	11%	33%	38%	17%
Invest resources to support improvements in school performance	5%	15%	29%	37%	14%	1%	18%	37%	32%	11%
Meet the needs of English learners	3%	15%	29%	39%	15%	2%	17%	40%	31%	10%
Meet the needs of students with disabilities	2%	15%	29%	40%	14%	3%	18%	39%	30%	10%
Equitably serve all children	2%	13%	23%	37%	25%	2%	12%	35%	36%	16%

Source: Learning Policy Institute. (2017). Survey of California Principals.

Table B2. California Principals' Leadership Development Experiences Since August 2015 and Percentage Desiring More Professional Development

Characteristic	To what extent have your leadership development experiences since August 2015 emphasized the following characteristics?					Would you like to receive more PD related to the following areas?	How well have your leadership development experiences since August 2015 prepared you to do the following?				
	Not at all	To a minimal extent	Somewhat	To a moderate extent	To a great extent	Yes	Very poorly	Poorly	Adequately	Well	Very well
Instructional leadership focused on how to develop students' higher order thinking skills	4%	7%	21%	44%	25%	88%	2%	11%	43%	32%	13%
Instructional leadership focused on raising schoolwide achievement on standardized tests	2%	10%	18%	44%	26%	75%	2%	12%	41%	34%	11%
Select effective curriculum strategies and materials	4%	13%	24%	37%	22%	75%	4%	14%	39%	31%	12%
Lead instruction that supports implementation of new California state standards	1%	8%	14%	42%	35%	79%	1%	12%	33%	40%	14%
Use student and school data to inform continuous school improvement	1%	5%	19%	44%	31%	88%	1%	9%	35%	38%	17%
Lead a schoolwide change process to improve student achievement	2%	4%	22%	43%	28%	88%	1%	11%	35%	37%	16%
Engage in self-improvement and your own continuous learning	3%	9%	19%	42%	28%	81%	2%	9%	35%	36%	18%
Create collegial and collaborative work environments	4%	10%	28%	34%	23%	81%	1%	7%	37%	39%	16%
Work with the school community, parents, educators, and other stakeholders	3%	14%	31%	32%	20%	77%	1%	9%	40%	38%	13%
Lead schools that support students from diverse ethnic, racial, linguistic, and cultural backgrounds	3%	11%	25%	38%	24%	80%	1%	9%	39%	38%	14%
Lead schools that support students' social and emotional development	2%	10%	27%	36%	25%	89%	1%	11%	43%	30%	14%
Develop systems that meet children's needs and support their development in terms of physical and mental health	4%	14%	32%	32%	19%	88%	1%	17%	42%	29%	11%

Characteristic	To what extent have your leadership development experiences since August 2015 emphasized the following characteristics?					Would you like to receive more PD related to the following areas?	How well have your leadership development experiences since August 2015 prepared you to do the following?				
	Not at all	To a minimal extent	Somewhat	To a moderate extent	To a great extent	Yes	Very poorly	Poorly	Adequately	Well	Very well
Create a school environment that develops personally and socially responsible young people and uses discipline for restorative purposes	2%	11%	30%	36%	21%	91%	2%	13%	40%	32%	13%
Redesign a school's organization and structure to support deeper learning for teachers and students	5%	12%	29%	37%	17%	90%	1%	15%	40%	31%	12%
Design professional learning opportunities for teachers and other staff	7%	14%	29%	30%	19%	87%	2%	14%	42%	30%	12%
Help teachers improve through a cycle of observation and feedback	6%	12%	27%	34%	22%	84%	2%	14%	38%	31%	15%
Recruit and retain teachers and other staff	18%	25%	26%	23%	8%	65%	6%	25%	39%	22%	8%
Manage school operations efficiently	13%	18%	27%	29%	12%	75%	4%	15%	42%	29%	10%
Invest resources to support improvements in school performance	13%	21%	29%	27%	10%	81%	4%	21%	39%	27%	9%
Meet the needs of English learners	2%	9%	22%	35%	32%	82%	1%	11%	40%	31%	16%
Meet the needs of students with disabilities	3%	12%	29%	37%	19%	84%	2%	15%	41%	30%	11%
Equitably serve all children	2%	8%	21%	43%	25%	86%	1%	9%	40%	34%	16%

Source: Learning Policy Institute. (2017). Survey of California Principals.

About the Authors

Leib Sutcher is a Research Associate at the Learning Policy Institute. He has a strong background in advanced statistical techniques and data analysis in education, and his current work focuses on educator quality as it relates to teacher supply and demand, teacher attrition, and teacher shortages in the labor market. Sutcher is the lead author of a number of LPI reports, including *Supporting principals' learning: Key features of effective programs* and *Understaffed and underprepared: California districts report ongoing teacher shortages*.

Anne Podolsky is a Researcher and Policy Analyst and member of the Learning Policy Institute's Educator Quality Team. An education lawyer and teacher by training, she has served in legal, research, and policy roles within a variety of organizations, and she is an Illinois State Board of Education–certified teacher and a member of the State Bar of California. Podolsky's work at LPI includes serving as co-author of *Supporting principals' learning: Key features of effective programs* and as lead author of *Solving the teacher shortage: How to attract and retain excellent educators*.

Tara Kini is the Director of State Policy for the Learning Policy Institute. She has nearly two decades of experience working in public education as a civil rights attorney, classroom teacher, and teacher educator, and she is a member of the State Bar of California. Kini has co-authored several LPI reports and is the lead author of *Does teaching experience increase teacher effectiveness? A review of the research*.

Patrick M. Shields is the Executive Director of the Learning Policy Institute. Previously, he served as Education Director for Stanford Research International, where he also directed Teaching and California's Future, a 15-year initiative that tracked the quality of the teacher workforce and contributed to legislation supporting high-quality teaching for the poorest of California's students. Shields serves on the National Academy of Sciences' Committee on Strengthening Science Education through a Teacher Learning Continuum, and he is co-author of the LPI report *Addressing California's emerging teacher shortage*.

Endnotes

[1] Note that throughout the report, preparation refers to learning opportunities before administrators enter their role and professional development refers to learning experiences administrators experience after they have entered their role, and can be referred to as on-the-job learning and professional learning.

[2] Béteille, T., Kalogrides, D., & Loeb, S. (2012). Stepping stones: Principal career paths and school outcomes. *Social Science Research*, *41*, 904–919; Branch, G. F., Hanushek, E. A., & Rivkin, S. G. (2012). *Estimating the effect of leaders on public sector productivity: The case of school principals.* (Working paper). Cambridge, MA: National Bureau of Economic Research; Coelli, M., & Green, D. A. (2012). Leadership effects: School principals and student outcomes. *Economics of Education Review*, *31*(1), 92–109; Dhuey, E., & Smith, J. (2014). How important are school principals in the production of student achievement? *Canadian Journal of Economics*, *47*(2), 634–663; Grissom, J. A., Kalogrides, D., & Loeb, S. (2015). Using student test scores to measure principal performance. *Educational Evaluation and Policy Analysis*, *37*(1), 3–28; Miller, A. (2013). Principal turnover and student achievement. *Economics of Education Review*, *36*, 60–72.

[3] Coelli, M., & Green, D. A. (2012). Leadership effects: School principals and student outcomes. *Economics of Education Review*, *31*(1), 92–109.

[4] Béteille, T., Kalogrides, D., & Loeb, S. (2012). Stepping stones: Principal career paths and school outcomes. *Social Science Research*, *41*, 904–919; Branch, G. F., Hanushek, E. A., & Rivkin, S. G. (2012). *Estimating the effect of leaders on public sector productivity: The case of school principals.* (Working paper). Cambridge, MA: National Bureau of Economic Research; Coelli, M., & Green, D. A. (2012). Leadership effects: School principals and student outcomes. *Economics of Education Review*, *31*(1), 92–109; Dhuey, E., & Smith, J. (2014). How important are school principals in the production of student achievement? *Canadian Journal of Economics*, *47*(2), 634–663; Grissom, J. A., Kalogrides, D., & Loeb, S. (2015). Using student test scores to measure principal performance. *Educational Evaluation and Policy Analysis*, *37*(1), 3–28; Grissom, J. A., & Loeb, S. (2011). Triangulating principal effectiveness: How perspectives of parents, teachers, and assistant principals identify the central importance of managerial skills. *American Educational Research Journal, 48*, 1091–1123; Grissom, J. A., Loeb, S., & Master, B. (2013). Effective instructional time use for school leaders: Longitudinal evidence from observations of principals. *Educational Researcher*, *42*(8), 433–444; Miller, A. (2013). Principal turnover and student achievement. *Economics of Education Review*, *36*, 60–72.

[5] This helps researchers to isolate the effect of principals and to look at how principals' effects on student achievement vary. By looking at the distribution of principal and superintendent effects on student achievement, researchers often conclude that principals and superintendents have a statistically significant effect on student achievement. This effect varies by principal and superintendent, with some principals/superintendents having a positive effect and others having a negative effect. Principals at the top of the distribution, with a positive effect on student achievement, are generally referred to as "quality principals."

[6] See, e.g., Allensworth, E. M., & Hart, H. (2018). *How do principals influence student achievement?* Chicago, IL: University of Chicago Consortium on School Research; Grissom, J. A., & Loeb, S. (2011). Triangulating principal effectiveness: How perspectives of parents, teachers, and assistant principals identify the central importance of managerial skills. *American Educational Research Journal, 48*, 1091–1123; Grissom, J. A., Loeb, S., & Master, B. (2013). Effective instructional time use for school leaders: Longitudinal evidence from observations of principals. *Educational Researcher*, *42*(8), 433–444.

[7] Miller, A. (2013). Principal turnover and student achievement. *Economics of Education Review*, *36*, 60–72.

[8] Béteille, T., Kalogrides, D., & Loeb, S. (2012). Stepping stones: Principal career paths and school outcomes. *Social Science Research*, *41*(4), 904–919.

[9] Miller, A. (2013). Principal turnover and student achievement. *Economics of Education Review*, *36*, 60–72.

[10] See endnote #5 for an explanation of how studies measure superintendent quality. Lavy, V., & Boiko, A. (2017). *Management quality in public education: Superintendent value-added, student outcomes and mechanisms.* (Working paper). Cambridge, MA: National Bureau of Economic Research; Waters, J. T., & Marzano, R. J. (2007). School district leadership that works: The effect of superintendent leadership on student achievement. *Education Research Service Spectrum, 25*(2), 1–12; Plotts, T., & Gutmore, D. (2014). The superintendent's influence on student achievement. *AASA Journal of Scholarship & Practice*, *11*(1), 26–37.

[11] Lavy, V., & Boiko, A. (2017). *Management quality in public education: Superintendent value-added, student outcomes and mechanisms.* (Working paper). Cambridge, MA: National Bureau of Economic Research.

[12] Myers, S. (2011). Superintendent length of tenure and student achievement. *Administrative Issues Journal: Education, Practice, and Research*, *1*(2), 43–53; Plotts, T., & Gutmore, D. (2014). The superintendent's influence on student achievement. *AASA Journal of Scholarship & Practice*, *11*(1), 26–37; Waters, J. T., & Marzano, R. J. (2007). School district leadership that works: The effect of superintendent leadership on student achievement. *Education Research Service Spectrum, 25*(2), 1–12. But see: Chingos, M. M., Whitehurst, G. J., & Lindquist, K. M. (2014). *School superintendents: Vital or irrelevant?* Washington, DC: Brown Center on Education Policy at Brookings.

[13] Leithwood, K., & Jantzi, D. (2006). Transformational school leadership for large-scale reform: Effects on students, teachers, and their classroom practices. *School Effectiveness and School Improvement 17*(2), 201–227; Leithwood, K., & Riehl, C. (2005). "What we know about successful school leadership" in Firestone, W., & Riehl, C. (Eds.). *A New Agenda: Directions for Research on Educational Leadership* (pp. 22–47). New York, NY: Teachers College Press.

[14] Hughes, A. L., Matt, J. J., & O'Reilly, F. L. (2015). Principal support is imperative to the retention of teachers in hard-to-staff schools. *Journal of Education and Training Studies*, *3*(1), 129–134; Grissom, J. A. (2011). Can good principals keep teachers in disadvantaged schools? Linking principal effectiveness to teacher satisfaction and turnover in hard-to-staff environments. *Teachers College Record*, *113*(11), 2552–2585.

[15] Supovitz, J., Sirinides, P., & May, H. (2010). How principals and peers influence teaching and learning. *Educational Administration Quarterly 46*(1), 31–56; Blase, J., & Blase, J. (1999). Principals' instructional leadership and teacher development: Teachers' perspectives. *Educational Administration Quarterly*, *35*(3), 349–378.

[16] Simon, N. S., & Johnson, S. M. (2015). Teacher turnover in high-poverty schools: What we know and can do. *Teachers College Record*, *117*(3), 1–36; Darling-Hammond, L., Meyerson, D., LaPointe, M., & Orr, M. T. (2009). *Preparing Principals for a Changing World: Lessons from Effective School Leadership Programs*. San Francisco, CA: John Wiley & Sons; Robinson, V. M. J., Lloyd, C. A., & Rowe, K. J. (2008). The impact of leadership on student outcomes: An analysis of the differential effects of leadership types. *Educational Administration Quarterly*, *44*(5), 635–674.

[17] Waters, J. T., & Marzano, R. J. (2007). School district leadership that works: The effect of superintendent leadership on student achievement. *Education Research Service Spectrum, 25*(2), 1–12.

[18] Robinson, V. M., Lloyd, C. A., & Rowe, K. J. (2008). The impact of leadership on student outcomes: An analysis of the differential effects of leadership types. *Educational Administration Quarterly 44*(5), 635–674.

[19] Waters, J. T., & Marzano, R. J. (2007). School district leadership that works: The effect of superintendent leadership on student achievement. *Education Research Service Spectrum, 25*(2), 1–12.

[20] Darling-Hammond, L., Meyerson, D., LaPointe, M., & Orr, M. T. (2009). *Preparing Principals for a Changing World: Lessons from Effective School Leadership Programs*. San Francisco, CA: John Wiley & Sons; Supovitz, J., Sirinides, P., & May, H. (2010). How principals and peers influence teaching and learning. *Educational Administration Quarterly*, *46*(1), 31–56.

[21] Sebastian, J., & Allensworth, E. (2012). The influence of principal leadership on classroom instruction and student learning: A study of mediated pathways to learning. *Educational Administration Quarterly*, *48*(4), 626–663.

[22] Simon, N. S., & Johnson, S. M. (2015). Teacher turnover in high-poverty schools: What we know and can do. *Teachers College Record*, *117*(3), 1–36.

[23] Loeb, S., Kalogrides, D., & Béteille, T. (2012). Effective schools: Teacher hiring, assignment, development, and retention. *Education Finance and Policy*, *7*(3), 269–304; Kraft, M. A., Marinell, W. H., & Shen-Wel Yee, D. (2016). School organizational context, teacher turnover, and student achievement: Evidence from panel data. *American Educational Research Journal*, *53*(5), 1411–1449.

[24] Simon, N. S., & Johnson, S. M. (2015). Teacher turnover in high-poverty schools: What we know and can do. *Teachers College Record*, *117*(3), 1–36.

[25] Grissom, J. A., Loeb, S., & Master, B. (2013). Effective instructional time use for school leaders: Longitudinal evidence from observations of principals. *Educational Researcher, 42*(8), 433–444; May, H., & Supovitz, J. A. (2011). The scope of principal efforts to improve instruction. *Educational Administration Quarterly*, *47*(2), 332–352.

[26] Podolsky, A., Kini, T., Bishop, J., & Darling-Hammond, L. (2016). *Solving the teacher shortage: How to attract and retain excellent educators*. Palo Alto, CA: Learning Policy Institute.

[27] Sutcher, L., Carver-Thomas, D., & Darling-Hammond, L. (2018). *Understaffed and underprepared: California districts report ongoing teacher shortages.* (Research brief). Palo Alto, CA: Learning Policy Institute.

[28] Goodpaster, K. P. S., Adedokun, O. A., & Weaver, G. C. (2012). Teachers' perceptions of rural STEM teaching: Implications for rural teacher retention. *Rural Educator*, *33*, 9–22; Boyd, D., Grossman, P., Ing, M., Lankford, H., Loeb, S., & Wyckoff, J. (2011). The influence of school administrators on teacher retention decisions. *American Educational Research Journal*, *48*(2), 303–333; Marinell, W. H., & Coca, V. M. (2013). *Who stays and who leaves? Findings from a three-part study of teacher turnover in NYC middle schools*. New York, NY: Research Alliance for New York City Schools.

[29] Data is from the 2016–17 school year. California Department of Education, Dataquest. https://data1.cde.ca.gov/dataquest/ (accessed 3/19/18).

[30] Data is from the 2015–16 school year. Digest of Education Statistics. (2017). Number and percentage of public school students participating in English language learner (ELL) programs, by state: Selected years, fall 2004 through fall 2014. Washington, DC: National Center for Education Statistics. https://nces.ed.gov/programs/digest/d16/tables/dt16_204.20.asp (accessed 3/19/18).

[31] Data is from the 2014–15 school year, the most recent data available that is comparable across states. Digest of Education Statistics. (2016). *Number and percentage of public school students eligible for free and reduced-price lunch, by state: Selected years, 2000–01 through 2014–15.* Washington, DC: National Center for Education Statistics. https://nces.ed.gov/programs/digest/d16/tables/dt16_204.10.asp (accessed 3/19/18).

[32] Kaplan, J. (2017). *California's support for K–12 education improving, but still lags the nation.* Sacramento, CA: California Budget and Policy Center. http://calbudgetcenter.org/resources/californias-support-k-12-education-improving-still-lags-nation/ (accessed 2/8/17).

[33] Kaplan, J. (2017). *California's support for K–12 education improving, but still lags the nation.* Sacramento, CA: California Budget and Policy Center. http://calbudgetcenter.org/resources/californias-support-k-12-education-improving-still-lags-nation/ (accessed 2/8/17).

[34] Administrators include superintendents, principals, assistant principals, program directors or coordinators, and other certificated staff not providing direct services to students. California Department of Education, annual CBEDs reporting available through Dataquest.

[35] Kaplan, J. (2017). *California's support for K–12 education improving, but still lags the nation.* Sacramento, CA: California Budget and Policy Center. http://calbudgetcenter.org/resources/californias-support-k-12-education-improving-still-lags-nation/ (accessed 2/8/17); LPI analysis of the U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Public Elementary/Secondary Education Survey," generated using the Elementary/Secondary Information System (ElSi), (accessed 2/9/17).

[36] LPI analysis of the U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Public Elementary/Secondary Education Survey," generated using the Elementary/Secondary Information System (ElSi), (accessed 2/9/17).

[37] In 2014–15, the most recent data available, most new administrative credentials were issued to individuals graduating from university or district-run administrator preparation programs (2,440). Some individuals earned their administrative credential through passing an exam (515), and a small number came from out of state (99).

[38] Commission on Teacher Credentialing. (2016). Report of services credentials issued in California 2010–2011 to 2014–15. http://www.ctc.ca.gov/reports/services-cred-10-11-to-14-15.pdf.

[39] This survey was administered to all administrative program completers. The survey included 2,217 responses and had a 96.1% response rate.

[40] Commission on Teacher Credentialing. (2017). Preliminary administrative services credential program completer survey. https://www.ctc.ca.gov/educator-prep/completer-surveys.

[41] Note: 22 of the 25 districts responded to this section of the survey. Additional LPI analysis of the CA district teacher shortage survey. See: Sutcher, L., Carver-Thomas, D., & Darling-Hammond, L. (2018). *Understaffed and underprepared: California districts report ongoing teacher shortages.* Palo Alto, CA: Learning Policy Institute.

[42] Not all principals are present in the state database that tracks staffing assignments. As a result, although there are more than 10,000 schools in California, there are only roughly 8,000 to 9,000 principals present in the CDE staffing data. This is partially due to constraints in validating administrative assignments and non-certificated unique identifiers and suggests a number of principals are missing from the data set.

[43] One-year turnover rate for the 2014–15 school year. Plecki, M. L., Elfers, A. M., & Wills, K. (2017). *Understanding principal retention and mobility in Washington State.* Seattle, WA: University of Washington, College of Education, Center for the Study of Teaching and Policy. https://education.uw.edu/sites/default/files/profiles/faculty/elfers/UW_Principal_Report_Jan2017.pdf.

[44] One-year turnover rate for the 2014–15 school year. Grissom, J. A., & Bartanen, B. (2018). Principal effectiveness and principal turnover. *Education Finance and Policy*, (Just Accepted), 1–63.

[45] Other older estimates suggest California is around or above average compared to other states: Using the Schools and Staffing Survey, the NCES estimates a national principal turnover rate of 22.6% between the 2011–12 and 2012–13 school year. This turnover rate is comparable to California's turnover rate in 2011–12. New York state estimates a 21% turnover rate following the 2012–13 school year, which is several percentage points below California's principal turnover rate in the same year. Oregon estimates a 25.1% principal turnover rate following the 2013–14 school year, similar to California's rate. See: NCES, Principal attrition and mobility: Results for the 2012–13 Principal Follow-Up Survey. Washington, DC: Department of Education. https://nces.ed.gov/pubs2014/2014064rev.pdf; New York State Equity Plan. http://p12.nysed.gov/accountability/T2/pdfs/FINALNYSEquityPlan.pdf; Oregon State Equity Plan. http://www.oregon.gov/ode/students-and-family/equity/Documents/OregonEquityPlan11-12-15.pdf.

[46] According to the 2011–12 Schools and Staffing Survey, the most recent year of data, California principals have fewer years of experience than principals nationally (6.2 years vs. 7.3 years) and California principals also tend to have less experience serving as the principal within their school as compared to principals nationally (3 years vs. 4.3 years).

[47] Grissom, J., & Bartanen, B. (2018). Assessing Equity in School Leadership in California. Getting Down To Facts.

[48] Darling-Hammond, L., LaPointe, M., Meyerson, D., Orr. M. T., & Cohen, C. (2007). *Preparing school leaders for a changing world: Lessons from exemplary leadership development programs.* Stanford, CA: Stanford University, Stanford Educational Leadership Institute. For the 2016–17 data, see Learning Policy Institute. (2017). Survey of California Principals.

[49] Miller, A. (2013). Principal turnover and student achievement. *Economics of Education Review*, *36*, 60–72.

[50] Chingos, M. M., Whitehurst, G. J., & Lindquist, K. M. (2014). *School superintendents: Vital or irrelevant?* Washington, DC: Brown Center on Education Policy at Brookings.

[51] Finnan, L. A., & McCord, R. S. (2017). *AASA salary & benefits study*. Alexandria, VA: AASA The School Superintendents Association.

[52] Grissom, J. A., & Andersen, S. (2012). Why superintendents turn over. *American Educational Research Journal, 49*(6), 1146–1180.

[53] Not all superintendents are present in the state database that tracks staffing assignments. As a result, although there are more than 1,000 school districts in California, there are just over 700 superintendents present in the CDE staffing data. One possible explanation for this discrepancy is that superintendents who are transferring from out of state may or may not be assigned an "SEID," the unique California staff identifier that tracks assignment.

[54] Myers, S. (2011). Superintendent length of tenure and student achievement. *Administrative Issues Journal: Education, Practice, and Research*, *1*(2), 43–53; Plotts, T., & Gutmore, D. (2014). The superintendent's influence on student achievement. *AASA Journal of Scholarship & Practice*, *11*(1), 26–37; Waters, J. T., & Marzano, R. J. (2007). School district leadership that works: The effect of superintendent leadership on student achievement. *Education Research Service Spectrum, 25*(2), 1–12. But see: Chingos, M. M., Whitehurst, G. J., & Lindquist, K. M. (2014). *School superintendents: Vital or irrelevant?* Washington, DC: Brown Center on Education Policy at Brookings.

[55] Hough, H., Willis, J., Grunow, A., G., Krausen, K., Kwon, S., Mulifinger, L., & Park, S. (2017). *Continuous improvement in practice.* Palo Alto, CA: Policy Analysis for California Education. https://edpolicyinca.org/sites/default/files/CI%20in%20Pratice.pdf.

[56] Sutcher, L., Podolsky, A., & Espinoza, D. (2017). *Supporting principals' learning: Key features of effective programs.* Palo Alto, CA: Learning Policy Institute.

[57] Nonetheless, we did run these same analyses for professional development and there were no statistically significant differences.

[58] It is worth acknowledging the possibility of recall bias, which can threaten the internal validity of studies that rely on self-reported data. Recall bias occurs due to the tendency of subjects to report past events in a manner that is different than they may have if asked the same subject "in the moment." For this reason, results between recently prepared principals and other principals may not be wholly comparable.

[59] It's worth noting that only 47% of principals received preparation that emphasized the Common Core state standards. This number is low in part because most principals in the sample attended preparation programs before the adoption of the new California state standards. In fact, 72% of principals who started a preparation program in 2013 or later reported that their program emphasized the new state standards, compared to 43% of principals who prepared prior to 2013.

[60] Principals serving in schools with a high proportion of students from low-income families were more likely to receive professional development related to restorative justice in the last two years compared to their peers working in schools with low proportions (64% vs. 50%, p=0.067). Principals serving in schools with a high proportion of non-White students were more likely to receive preparation (54%) and professional development (66%) related to restorative justice in the last two years compared to their peers working in low-poverty schools (40% — p=0.067 and 49% — p=0.021). Principals serving in schools with a high proportion of non-White students were also more likely to receive preparation related to social and emotional learning than their peers in schools with a lower concentration (64% vs. 48%, respectively, p=0.046). Comparisons were made between schools in the top and bottom quartiles in California. Principals serving in urban schools were also more likely to receive professional development related to restorative justice compared to principals serving in rural or town schools (61% vs. 47% — p=0.095 and 38% — p=0.017, respectively).

[61] Sutcher, L., Podolsky, A., & Espinoza, D. (2017). *Supporting principals' learning: Key features of effective programs.* Palo Alto, CA: Learning Policy Institute.

[62] California Commission on Teacher Credentialing. (2016). *Report of services credentials issued in California, 2011–2012 to 2014–2015*. http://www.ctc.ca.gov/reports/services-cred-10-11-to-14-15.pdf; Taylor, M. (2015). *Proposed adoption of the passing score standard for the revised and updated California Preliminary Administrative Credential Examination (CPACE)*. http://www.ctc.ca.gov/commission/agendas/2015-08/2015-08-3A.pdf.

[63] California Commission on Teacher Credentialing. (2016). *Annual report on passing rates of commission-approved examinations from 2010–2011 to 2014–2015*. https://www.ctc.ca.gov/docs/default-source/commission/reports/exam-annual-report-april-2016.pdf; California Commission on Teacher Credentialing. (2016). *Annual report on passing rates of commission-approved examinations from 2007–2008 to 2011–2012*. https://www.ctc.ca.gov/docs/default-source/commission/agendas/2013-06/2013-06-4b-pdf.pdf?sfvrsn=2224ae8b_0.

[64] California Commission on Teacher Credentialing. (2013, August 27). Approval of amendments to Title 5 of the California code of regulations pertaining to administrative services credentials for California prepared individuals. (Coded correspondence). https://www.ctc.ca.gov/docs/default-source/commission/coded/2013/1308.pdf.

[65] Principals serving in schools with a high proportion of students of color were more likely to say that their internship was an excellent experience than their peers serving in schools with a low proportion of such students (82% vs. 67%, respectively, $p=0.078$).

[66] $p=0.012$.

[67] $p=0.0456$.

[68] $p=0.0215$ and $p=0.0016$, respectively.

[69] Being exposed to a professional development topic is not perfectly correlated with how well principals feel the professional development prepared them to lead in that topic. On average across all survey items, California principals report being slightly less prepared (-0.14 points in their preparation and -0.18 points in their professional development) than the extent they received learning on a topic. These averages are calculated by comparing the 1–5 scale of coverage ("*not at all*" to "*to a great extent*") to the 1–5 scale of preparedness ("*very poorly*" to "*very well*"). For example, if a principal reported a 4 on coverage and a 3 on preparedness, then the difference for that learning topic is -1. If we take the average of each survey item difference for each principal and average those across all principals, we are left with the average difference.

[70] About 62% of principals with more than 10 years of experience felt *well* or *very well* prepared by their professional development on the new state standards, compared to only 51% of principals with 5 or fewer years of experience as a principal ($p=0.079$).

[71] First-year principals are less likely to feel *well* or *very well* prepared by their professional learning on leading a schoolwide change process to increase student achievement than principals with 2–5 years of experience and principals with more than 10 years of experience (38% vs. 56%, $p=0.051$ and 53%, $p=0.084$, respectively).

[72] For example, principals serving in rural districts are less likely to feel *well* or *very well* prepared by their professional learning to establish collaborative work environments compared to those in urban districts (40% vs. 55%, respectively, p=0.0815). In addition, principals working in schools serving larger proportions of students from low-income families are less likely to report feeling *well* or *very well* prepared by their professional learning about their own self-improvement and continued learning, compared to their peers working in schools serving lower concentrations of students from low-income families (43% vs. 58%, respectively, p=0.0542).

[73] p=0.0090.

[74] p=0.0826.

[75] Melnick, H., Cook-Harvey, C. M., & Darling-Hammond, L. (2017). *Encouraging social and emotional learning in the context of new accountability.* (Brief). Palo Alto, CA: Learning Policy Institute.

[76] p=0.0634. For this calculation, we compared principals in schools in the top quartile in terms of proportion of non-White students to principals in schools in the bottom quartile.

[77] p=0.0563. For this calculation, we compared principals in schools in the top quartile in terms of proportion of non-White students to principals in schools in the bottom quartile.

[78] p= 0.0441. For this calculation, we compared principals in schools in the top quartile in terms of proportion of non-White students to principals in schools in the bottom quartile.

[79] A larger proportion of principals serving in schools with high concentrations of students of color, on average, were exposed to social and emotional practices in their professional development to a moderate or great extent than principals serving in schools with a smaller proportion of students of color (46% vs. 32%, respectively, p=0.0627). For this calculation, we compared principals in schools in the top quartile in terms of proportion of non-White students to principals in schools in the bottom quartile.

[80] p=0.0185.

[81] Principals serving in schools with a high proportion of students from low-income families were more likely to report wanting more professional development on leading a schoolwide change process than their peers in schools with a low proportion of students from low-income families (95% vs. 76%, p=0.0004). For this calculation, we compared principals in schools in the top quartile in terms of proportion of students eligible for free and reduced-priced lunch to principals in schools in the bottom quartile.

[82] Principals serving in schools with a high proportion of students of color were more likely to report wanting more professional development on leading a schoolwide change process than their peers in schools with a low proportion of students of color (95% vs. 78%, p=0.0018). For this calculation, we compared principals in schools in the top quartile in terms of proportion of non-White students to principals in schools in the bottom quartile.

[83] Ninety-four percent of principals in high-poverty schools reported wanting more professional development in this area vs. 80% in low-poverty schools (p= 0.0059), and 95% of principals in high-minority schools vs. 83% in low-minority schools (p= 0.0185).

[84] For this calculation, we compared principals in schools in the top quartile in terms of proportion of non-White students to principals in schools in the bottom quartile.

[85] Ninety-five percent of principals in high-minority schools reported wanting more professional development in this area vs. 87% in low-minority schools (p= 0.0516).

[86] For this calculation, we compared principals in schools in the top quartile in terms of proportion of students eligible for free and reduced-priced lunch to principals in schools in the bottom quartile.

[87] For this calculation, we compared principals in schools in the top quartile in terms of proportion of non-White students to principals in schools in the bottom quartile.

[88] Eighty-seven percent of principals in high-poverty schools reported wanting more professional development in this area vs. 75% in low-poverty schools (p= 0.0368), and 88% of principals in high-minority schools vs. 75% in low-minority schools (p= 0.0335).

[89] p=0.0049.

[90] p=0.0634.

[91] p=0.0014.

[92] p=0.0613.

[93] U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency (School District) Universe Survey," 2013–14 v.1a; "Public Elementary/Secondary School Universe Survey," 2013–14 v.2a.

[94] Kowalski, T. J., McCord, R. S., Peterson, G. J., Young, P. I., & Ellerson, N. M. (2011). *The American School Superintendent: 2010 Decennial Study*. American Association of School Administrators. Lanham, MD: Rowman & Littlefield Education.

[95] Kowalski, T. J., McCord, R. S., Peterson, G. J., Young, P. I., & Ellerson, N. M. (2011). *The American School Superintendent: 2010 Decennial Study*. American Association of School Administrators. Lanham, MD: Rowman & Littlefield Education.

[96] Finnan, L. A., & McCord, R. S. (2017). *AASA salary & benefits study*. Alexandria, VA: AASA The School Superintendents Association.

[97] Finnan, L. A., & McCord, R. S. (2017). *AASA salary & benefits study*. Alexandria, VA: AASA The School Superintendents Association.

[98] Finnan, L. A., & McCord, R. S. (2017). *AASA salary & benefits study*. Alexandria, VA: AASA The School Superintendents Association.

[99] Kowalski, T. J., McCord, R. S., Peterson, G. J., Young, P. I., & Ellerson, N. M. (2011). *The American School Superintendent: 2010 Decennial Study*. American Association of School Administrators. Lanham, MD: Rowman & Littlefield Education.

[100] Kowalski, T. J., McCord, R. S., Peterson, G. J., Young, P. I., & Ellerson, N. M. (2011). *The American School Superintendent: 2010 Decennial Study*. American Association of School Administrators. Lanham, MD: Rowman & Littlefield Education.

[101] CalAPA stands for California Administrator Performance Assessment.

[102] See https://www.ctc.ca.gov/docs/default-source/commission/agendas/2017-06/2017-06-3e.pdf?sfvrsn=5ff95db1_4.

[103] California Commission on Teacher Credentialing. (2016). *Accreditation framework: Educator preparation in California.* http://www.ctc.ca.gov/educator-prep/accred-files/accred-framework-2016-02.pdf.

[104] California Commission on Teacher Credentialing. (2017). *Preliminary administrative services credential program completer survey.* https://www.ctc.ca.gov/docs/default-source/educator-prep/accred-files/pgm-compl-prelimadmin-sw.pdf?sfvrsn=54f5c74e_2.

[105] Darling-Hammond, L., Orphanos, S., LaPointe, M., & Weeks, S. (2007). *Leadership development in California.* Getting Down to Facts.

[106] Marsh, D. D. (1992). Enhancing instructional leadership: Lessons from the California school leadership academy. *Education and Urban Society*, *24*(3), 386–409.

[107] Nelson, L. J. (1989). School Leadership: Reflections on Practice by California's Instructional Leaders, Volume 1. San Francisco, CA: Far West Lab for Educational Research and Development; Peterson, K. (2002). The professional development of principals: Innovations and opportunities. *Educational Administration Quarterly*, *38*(2), 213–232.

[108] Peterson, K. D. (2002). The professional development of principals: Innovations and opportunities. *Educational Administration Quarterly, 38*(2), 213–232; Peterson, K. D., & Kelley, C. J. (2002). "Principal in-service programs: A portrait of diversity and promise" in Tucker, M. S., & Codding, J. B. (Eds.). *The Principal Challenge* (pp. 313–346)*.* San Francisco, CA: Jossey-Bass.

[109] Sandy, M. V. (2012). "Using the Administrator Training Program (ATP) for a Clear Administrative Services Credential." Commission on Teacher Credentialing. http://www.ctc.ca.gov/notices/coded/2012/1209.pdf.

[110] California Department of Education. (2015). *The superintendent's quality professional learning standards.* http://cacompcenter.org/wp-content/uploads/2015/03/CA-Quality-Professional-Learning-Standards_Revised-March-2015.pdf.

[111] Loeb, S., Kalogrides, D., & Béteille, T. (2012). Effective schools: Teacher hiring, assignment, development, and retention. *Education Finance and Policy, 7*(3), 269–304.

[112] Kraft, M. A., Marinell, W. H., & Shen-Wel Yee, D. (2016). School organizational context, teacher turnover, and student achievement: Evidence from panel data. *American Educational Research Journal, 53*(5), 1411–1449.

[113] For a summary of this research, see Sutcher, L., Podolsky, A., & Espinoza, D. (2017). *Supporting principals' learning: Key features of effective programs.* Palo Alto, CA: Learning Policy Institute.

[114] Nunnery, A. J., Yen, C., & Ross, S. M. (2011). Effects of the National Institute for School Leadership's Executive Development Program on school performance in Pennsylvania: 2006–2010 pilot cohort results. Norfolk, VA: Old Dominion University, The Center for Educational Partnerships.

[115] Nunnery, A. J., Ross, S. M., Chappell, S., Pribesh, S., & Hoag-Carhart, E. (2011). *The impact of the NISL Executive Development Program on school performance in Massachusetts: Round 2 results.* Norfolk, VA: Old Dominion University, The Center for Educational Partnerships.

[116] Borman, G. D., Hewes, G. M., Overman, L. T., & Brown, S. (2003). Comprehensive school reform and achievement: A meta-analysis. *Review of Educational Research, 73*(2), 125–230; Nunnery, A. J., Ross, S. M., Chappell, S., Pribesh, S., & Hoag-Carhart, E. (2011). *The impact of the NISL Executive Development Program on school performance in Massachusetts: Round 2 results.* Norfolk, VA: Old Dominion University, The Center for Educational Partnerships.

[117] Governor's Budget Summary 2018–19 (pp. 25–26). http://www.ebudget.ca.gov/2018-19/pdf/BudgetSummary/K-12Education.pdf.

[118] New Leaders (2018). *Prioritizing leadership: An analysis of state ESSA plans*. http://newleaders.org/wp-content/uploads/2018/02/2018.NL_.ESSA-State-Plan-Policy-Brief-FINAL.pdf.

[119] California Department of Education. (2017). SBE agenda for May 2017. https://www.cde.ca.gov/be/ag/ag/yr17/agenda201705.asp.

[120] Herman, R., Gates, S. M., Arifkhanova, A., Barrett, M., Bega, A., Chavez-Herreias, E. R., Han, E., Harris, M., Migacheva, K., Ross, R., Leschitz, J. T., & Wrabel, S. L. (2017). *School Leadership Interventions Under the Every Student Succeeds Act: Evidence Review*. Santa Monica, CA: RAND Corporation.

[121] Sutcher, L., Podolsky, A., & Espinoza, D. (2017). *Supporting principals' learning: Key features of effective programs.* Palo Alto, CA: Learning Policy Institute.

[122] Cosner, S., & Tozer, S. (2015). Cultivating exemplary school leadership preparation at a research-intensive university. *Journal of Research on Leadership Education, 10*(1), 11–38; Gates, S. M., Hamilton, L. S., Martorell, P., Burkhauser, S., Heaton, P., Pierson, A., Baird, M., Vuollo, M., Li, J. J., Diana, C., Harvey, M., & Gu, K. (2014). *Preparing Principals to Raise Student Achievement: Implementation and Effects of the New Leaders Program in Ten Districts*. Santa Monica, CA: RAND Corporation; Player, D., & Katz, V. (2016). Assessing school turnaround: Evidence from Ohio. *The Elementary School Journal, 116*(4), 675–698.

[123] California Center on Teaching Careers and Tulare County Office of Education. (2018). *Notification of CalEd Grant Awards January 2018*. https://center.californiateach.org/assets/CalEdGrantAwardsPosting1.23.18.pdf.

[124] For the research-based attributes of high-quality mentoring and induction programs, see Sutcher, L., Podolsky, A., & Espinoza, D. (2017). *Supporting principals' learning: Key features of effective programs.* Palo Alto, CA: Learning Policy Institute.

[125] Commission on Teacher Credentialing. (2014). *California Professional Standards for Education Leaders (CPSEL).* https://www.ctc.ca.gov/docs/default-source/educator-prep/standards/cpsel-booklet-2014.pdf.

[126] Commission on Teacher Credentialing. (2016). *Educator Preparation Committee*. https://www.ctc.ca.gov/docs/default-source/commission/agendas/2016-06/2016-06-2c-pdf.

[127] The CalAPA is being field-tested with approximately 25 programs during the 2017–18 school year and will be administered across all California programs in 2018–19 during a phase-in year of nonconsequential administration. Full implementation, requiring passage of the APA as a condition of licensure, is planned for the 2019–20 academic year. See https://www.ctc.ca.gov/docs/default-source/commission/agendas/2017-06/2017-06-3e.pdf?sfvrsn=5ff95db1_4.

[128] Tennessee Department of Education. (2017). *Every Student Succeeds Act: Building on success in Tennessee, ESSA state plan*. Final plan submitted 4/3/17. Nashville, TN: Tennessee Department of Education.

[129] Chicago Public Schools. (2017). *Department of Principal Quality, Chicago Leadership Collaborative*. http://cps.edu/PrincipalQuality/Pages/Pipeline.aspx.

[130] Gates, S. M., Hamilton, L. S., Martorell, P., Burkhauser, S., Heaton, P., Pierson, A., Baird, M., Vuollo, M., Li, J. J., Diana, C., Harvey, M., & Gu, K. (2014). *Preparing Principals to Raise Student Achievement: Implementation and Effects of the New Leaders Program in Ten Districts.* Santa Monica, CA: RAND Corporation.

[131] Gates, S. M., Hamilton, L. S., Martorell, P., Burkhauser, S., Heaton, P., Pierson, A., Baird, M., Vuollo, M., Li, J. J., Diana, C., Harvey, M., & Gu, K. (2014). *Preparing Principals to Raise Student Achievement: Implementation and Effects of the New Leaders Program in Ten Districts.* Santa Monica, CA: RAND Corporation.

[132] Bastian, K. C., & Fuller, S. C. (2016). *The North Carolina Principal Fellows Program: A comprehensive evaluation.* Chapel Hill, NC: Education Policy Initiative at Carolina. http://ncpfp.northcarolina.edu/wp-content/uploads/2016/09/Principal-Fellows-Policy-Brief-Final.pdf.

[133] Long Beach Unified School District. (2016). School Leadership Program (SLP) annual performance report form 1855–0019 executive summary. Unpublished manuscript.

[134] Learning Policy Institute. *Positive outliers study, Long Beach*. Palo Alto, CA: Author. (Forthcoming).

[135] U.S. Department of Education, National Center for Education Statistics, Common Core of Data. (n.d.). Public Elementary/Secondary School Universe Survey data." https://nces.ed.gov/ccd/pubschuniv.asp.

[136] California Department of Education. (2017). Public schools and districts data files." http://www.cde.ca.gov/ds /si/ds/pubschls.asp.

[137] School names that suggest they are homebound/hospital schools are excluded.

[138] School names that suggest they are detention centers, correction centers, or treatment centers are excluded. Schools that are run by juvenile justice departments are also excluded.

[139] School type is denoted in the CCD by the variable TYPE. Regular schools are coded with a value of 1 for TYPE, while special education schools, vocational education schools, alternative/other schools, and reportable programs are coded 2, 3, 4, and 5, respectively.