School Leadership Study

Final Report

Preparing School Leaders for a Changing World: Lessons from Exemplary Leadership Development Programs

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Principals play a vital role in setting the direction for successful schools, but existing knowledge on the best ways to prepare and develop highly qualified candidates is sparse. What are the essential elements of good leadership? What are the features of effective pre-service and in-service leadership development programs? What governance and financial policies are needed to sustain good programs? *The School Leadership Study: Developing Successful Principals* is a major research effort that seeks to address these questions. Commissioned by The Wallace Foundation and undertaken by the Stanford Educational Leadership Institute in conjunction with The Finance Project, the study examines eight exemplary pre- and in-service program models that address key issues in developing strong leaders. Lessons from these exemplary programs may help other educational administration programs as they strive to develop and support school leaders who can shape schools into vibrant learning communities.

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Getting Principal Preparation Right

Our nation's underperforming schools and children are unlikely to succeed until we get serious about leadership. As much as anyone in public education, it is the principal who is in a position to ensure that good teaching and learning spreads beyond single classrooms, and that ineffective practices aren't simply allowed to fester. Clearly, the quality of training principals receive before they assume their positions, and the continuing professional development they get once they are hired and throughout their careers, has a lot to do with whether school leaders can meet the increasingly tough expectations of these jobs.

Yet study after study has shown that the training principals typically receive in university programs and from their own districts doesn't do nearly enough to prepare them for their roles as leaders of learning. A staggering 80 percent of superintendents and 69 percent of principals think that leadership training in schools of education is out of touch with the realities of today's districts, according to a recent Public Agenda survey.

That's why this publication is such a milestone, and why The Wallace Foundation was so enthusiastic about commissioning it. Here, finally, is not just another indictment, but a fact-filled set of case studies about exemplary leader preparation programs from San Diego to the Mississippi Delta to the Bronx that are making a difference in the performance of principals. The report describes how these programs differ from typical programs. It candidly lays out the costs of quality programs. It documents the results and offers practical lessons. And in doing so, it will help policymakers in states and districts across the country make wise choices about how to make the most of their professional development resources based on evidence of effectiveness.

Drawing on the findings and lessons from the case studies, the report powerfully confirms that training programs need to be more selective in identifying promising leadership candidates as opposed to more open enrollment. They should put more emphasis on instructional leadership, do a better job of integrating theory and practice, and provide better preparation in working effectively with the school community. They should also offer internships with hands-on leadership opportunities.

Districts, for their part, need to recognize that the professional development of school leaders is not just a brief moment in time that ends with graduation from a licensing program. This report contains practical examples of how states, districts and universities have effectively collaborated to provide well-connected development opportunities that begin with well-crafted mentoring and extend throughout the careers of school leaders.

Is training the whole answer to the school leadership challenge? Certainly not. The best-trained leaders in the world are unlikely to succeed or last in a system that too often seems to conspire against them. It requires state and district policies aimed at providing the conditions, the authority and the incentives leaders and their teams need to be successful in lifting the educational fortunes of all children. But better leadership training surely is an essential part of that mix. And that's why this report is so welcome.

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Preparing School Leaders for a Changing World: Lessons from Exemplary Leadership Development Programs

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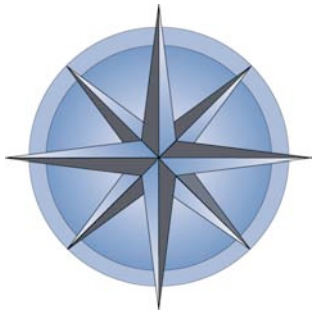

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Chapter 1: Introduction

Researchers, policymakers, and practitioners increasingly recognize the role of school leaders in developing high-performing schools. With a national focus on raising achievement for all students, there has been growing attention to the pivotal role of school leaders in improving the quality of education. Largely overlooked in the various reform movements of the past two decades, principals are now regarded as central to the task of building schools that promote powerful teaching and learning for all students, rather than merely maintaining the status quo (NPBEA, 2001; Peterson, 2002). This recognition, coupled with a growing shortage of high-quality leaders in American schools, has heightened interest in leadership development as a major reform strategy.

Since the "effective schools" research of the 1980s, which identified the importance of principals who function as strong instructional leaders in improving academic achievement (Hallinger & Murphy, 1986), several lines of research have identified the critical role of principals in recruiting, developing, and retaining teachers; creating a learning culture within the school; and supporting improvements in student learning (Leithwood & Duke, 1999; Leithwood et al., 2004; Pounder, Ogawa, & Adams, 1995). In one of several recent studies identifying school leadership as a key factor in schools that outperform others with similar students, researchers found that achievement levels were higher in schools where principals undertake and lead a school reform process; act as managers of school improvement; cultivate the school's vision; and make use of student data to support instructional practices and to provide assistance to struggling students (Kirst, Haertel, & Williams, 2005).

Knowing that this kind of leadership matters is one thing, but developing it on a wide scale is quite another. What do we know about how to develop principals who can successfully transform schools? What is the current status of leadership development? And what might states do to systematically support the development of leaders who can develop and manage a new generation of schools that are increasingly successful in teaching all students well?

This report addresses these questions based on a nationwide study of principal development programs and the policies that influence them. The study was guided by three sets of research questions:

(1) Qualities of Effective Programs. What are the components of programs that provide effective initial preparation and ongoing professional development for principals? What qualities and design principles are displayed in these exemplary programs?

(2) Program Outcomes. What are the outcomes of these programs? What are principals who have experienced this training able to do? Do graduates of exemplary programs demonstrate instructional and organizational leadership practices that are distinctive and that are associated with more effective schools?

(3) Context of High-Quality Programs. What role do state, district, and institutional policies play in developing principal development programs? How do states currently manage and fund leadership development? What are the costs of exemplary preparation and professional development programs, and how are they funded?

In addressing these questions, it is critical to understand the scope of the challenge faced both by practitioners who lead today's schools and by policymakers who need to recruit and support them. Contemporary school administrators play a daunting array of roles, ranging from educational visionaries and change agents to instructional leaders, curriculum and assessment experts, budget analysts, facility managers, special program administrators, and community builders (Davis, Darling-Hammond, LaPointe, & Meyerson, 2005). New standards for learning along with higher expectations of schools—that they successfully teach a broad array of students with different needs, while steadily improving achievement—mean that schools typically must be redesigned rather than merely administered. This suggests yet another set of skill demands, including both the capacity to develop strong instruction and a sophisticated understanding of organizations and organizational change. Finally, as school budget management is decentralized, many reform plans rely on the principal's ability to make sound resource-allocation decisions that are likely to result in improved achievement for students.

Despite the obvious need for highly skilled school leaders, the significant role of the principal in creating the conditions for improved student outcomes was largely ignored by policymakers throughout the 1980s and '90s, and the ability of principals to rise to the ever increasing demands of each additional reform effort was often taken for granted. Although new initiatives to recruit and differently prepare school leaders have recently begun to take root, they provide a spotty landscape of supports across the country. Some states and districts have recently moved aggressively to overhaul their systems of preparation and in-service development for principals, making sustained, systemic investments. Others have introduced individual program initiatives without systemic changes. Some universities, districts, and other program providers have dramatically transformed the programs they offer, while others have made marginal changes. Understanding the promising initiatives that have emerged and the conditions necessary to expand such efforts is critical to developing the leadership cadre required to sustain the intensive school reforms underway across the country.

The Study

This study examines eight exemplary pre- and in-service principal development programs. The programs were chosen both because they provide evidence of strong outcomes in preparing school leaders and because, in combination, they represent a variety of approaches with respect to their designs, policy contexts, and the nature of partnerships between universities and school districts. Pre-service preparation programs were sponsored by four universities: Bank Street College, Delta State University, the University of Connecticut, and the University of San Diego working with the San Diego City Schools. In-service programs were sponsored by the Hartford (CT) School District, Jefferson

County (KY) Public Schools (which included a pre-service component), Region 1 in New York City, and the San Diego City Schools. In several cases, pre- and in-service programs create a continuum of coherent learning opportunities for school leaders.

To understand how the programs operate and how they are funded, we interviewed program faculty and administrators, participants and graduates, district personnel and other stakeholders; reviewed program documents; and observed meetings, courses, and workshops. We surveyed program participants and graduates about their preparation, practices, and attitudes, comparing their responses to those of a national random sample of principals. In addition, for each program, we observed program graduates in their jobs as principals, interviewing and surveying the teachers with whom they work, and examining data on school practices and achievement trends to understand the strategies and outcomes of their work.

We conducted policy case studies in the states represented by the program sample: California, Connecticut, Kentucky, Mississippi, and New York; these were augmented by three additional states that had enacted innovative leadership policies: Delaware, Georgia, and North Carolina. This provided us a broader perspective on how state policy and financing structures influence program financing, design, and orientation. In these eight states, we reviewed policy documents and literature and we interviewed stakeholders, including policymakers and analysts; principals and superintendents; and representatives of professional associations, preparation programs, and professional development programs.

Our national survey oversampled principals from these eight focus states in order to allow state-level analyses of principals' learning experiences, preparedness, practices, and attitudes, analyzed in relation to the state's policy context. (See Chapter 2 and Appendix A for more detailed discussions of the research methodology.)

From this set of analyses, we seek to describe what exemplary leadership development programs do and what they cost; what their outcomes are for principals' knowledge, skills, and practices; and how the policy contexts in which they exist influence them. We also describe a range of state policy approaches to leadership development, examining evidence about how these strategies shape opportunities for principal learning and school improvement.

The Problem: Issues in Leadership Development

Several factors have contributed to recognizing the importance of quality school principals and the absence of such leaders in many underperforming schools. During the 1990s, most states developed new standards for student learning, along with assessment and accountability systems that focused attention on student achievement. There is now widespread agreement among educational reformers and researchers that the primary role of the principal is to align all aspects of schooling to support the goal of improving instruction so that all children are successful (e.g., Elmore & Burney, 1999; Peterson, 2002; Leithwood, Louis, Anderson, & Wahlstrom, 2004). At the same time, few jobs have as diverse an array of responsibilities as the modern principalship, and any of these roles

can distract administrators from their most important role: quality instruction. The demands of the job, particularly in large schools, far exceed the capacity of most people. As a result, the urgent demands of the moment too often supersede the long-term, challenging work of improving instruction.

Ongoing reports of underperforming schools, an awareness of the growing demands placed on principals, and media coverage of an impending national "principal shortage" have brought issues of administrative recruitment, credentialing, training, and support to the attention of policymakers. In addition to the excessive demands of the job that can make it difficult for principals to focus on teaching and learning, there appears to be a growing shortage of people who are both willing to take principalships and are well qualified to lead instructional improvement, particularly in culturally diverse, low-income communities and schools.

The Challenges of Recruiting Strong Principals

While a national estimate of demand in 2002 set the proportion of principal vacancies over the upcoming 5-year period at 60% (Peterson, 2002), districts were already reporting growing shortages. A 2001 Public Agenda survey found about half of superintendents reporting difficulty finding qualified principal candidates, rising to 61% in urban areas. In most parts of the country, the problem is not a shortage of certified administrators, but a shortage of well qualified administrators who are willing to work in the places of highest demand, especially in underserved communities and schools where working conditions are most challenging. Analyses of principal shortages have identified the pressures of new accountability systems, expanding responsibilities, reforms removing principal tenure, and inadequate compensation as some of the factors discouraging individuals who are certified for administration from seeking or remaining in principalships (see Whitaker, 2002, for a review).

The literature identifies three kinds of problems contributing to this shortage. First, traditional administrative preparation programs have not attracted sufficient numbers of high-potential candidates who are committed to leadership roles in the places where they are needed (Knapp, Copland, & Talbert, 2003). Second, even if the pipelines were cultivated to channel more high-potential candidates into the principalship, working conditions, particularly in high-poverty urban schools, and a lack of opportunities for advancement contribute to the insufficient numbers. As a *Los Angeles Times* story, headlined "Principal: A Tougher Job, Fewer Takers" observed: "Fifteen-hour work days. Unending paperwork. And the ever-increasing role of school board politics. . . .Plenty have the credentials for the job. Many don't want it" (Richardson, 1999). Many candidates do not see the principal's job, as it is currently configured in many districts, as doable or adequately supported.

Third, and a motivation for this study, aspiring and practicing principals are frequently ill-prepared and inadequately supported to take on the challenging work of instructional leadership and school improvement. The quality of the preparation experience appears to be related to the willingness of potential candidates to take on this

tough job, as well as their ability to survive and succeed in it. As Winter, Rinehart, & Munoz (2002) found, candidates' self-perceptions of their ability to do the job were the strongest predictor of their willingness to apply for a principalship, pointing to the importance of training that builds prospective principals' skills and sense of self-efficacy. Thus, reformers argue, recruiting the right people, preparing them comprehensively, and supporting them as they lead schools is essential to improve the pool of available school leaders, decrease turnover in the principalship, and foster stability and reform in schools, which in turn is needed to foster the development of students' abilities.

Concerns about Principal Development Programs

Historically, initial preparation programs for principals in the U.S. have been a collection of courses covering general management principles, school laws, administrative requirements, and procedures, with little emphasis on student learning, effective teaching, professional development, curriculum, and organizational change (AACTE, 2001; Copland, 1999; Elmore, 2000; IEL, 2000; Lumsden, 1992). Relatively few programs have had strong clinical training components: experiences that allow prospective leaders to learn the many facets of their complex jobs in close collaboration with highly skilled veteran leaders. In addition, many professional development programs have been criticized as fragmented, incoherent, not sustained, lacking in rigor, and not aligned with state standards for effective administrative practice (Peterson, 2002; AACTE, 2001, NCAELP, 2002).

Thus, principals have frequently lacked assistance in developing the skills they need to carry out the new missions demanded of them. This stands in contrast to career paths in many management jobs or in professions such as medicine, architecture, and engineering, which build in apprenticeships in the early years, along with ongoing professional development. Unevenness in the quality of supports has led to an intensified and often undifferentiated criticism of administrative training and development in general.

Critiques of Pre-Service Programs. Traditional pre-service programs have come under attack for failing to adapt the curriculum to what is currently required to meet the learning needs of increasingly diverse student bodies. The knowledge bases on which programs rest are viewed as frequently outdated, segmented into discrete subject areas, and inadequate to the challenges of managing schools in a diverse society in which expectations for learning are increasingly ambitious. Some critics contend that traditional coursework in principal preparation and development programs often fails to link theory with practice, is overly didactic, is out of touch with the real-world complexities and demands of school leadership, and is not aligned with established theories of leadership (AACTE, 2001; Copland, 1999; Elmore, 2000; IEL, 2000; Lumsden, 1992; McCarthy, 1999; Murphy & Vriesenga, 2004). Often missing from the curriculum are topics related to effective teaching and learning, the design of instruction and professional development, organizational design of schools that promote teacher and student learning, or the requirements of building communities across diverse school stakeholders.

Common features of traditional preparation programs have also come under the microscope. For example, the quality and depth of internships and field-experiences,

widely recognized as pivotal to candidates' professional learning and identity formation (Orr & Barber, 2005), are notably uneven across programs. Efforts to provide field-based practicum experiences do not consistently provide candidates with a sustained hands-on internship in which they grapple with the real demands of school leadership under the supervision of a well qualified mentor. Instead, many programs require little more than a set of ad hoc projects conducted while a candidate is still working as a teacher. Often these are written papers disconnected from the hands-on challenges and daily requirements of the principal's job.

Compounding these problems, field experiences are often loosely linked to academic coursework, which is structured around discrete domains of educational administration, rather than organized as an integrated set of learning opportunities that build upon and support the field-based experiences (Lumsden, 1992; Trapani, 1994). Some analysts suggest that the weakness of many programs' field-based component is partly a result of the insularity of educational administration programs and faculty, along with the failure of these programs to find ways to use their local schools and the expertise within them as learning resources for prospective principals (Neuman, 1999).

Critiques of In-Service Programs. Although there is a smaller research base available to guide in-service professional development programs, there is a growing consensus that ongoing leadership support and development, like leadership preparation, should combine theory and practice, provide scaffolded learning experiences under the guidance of experienced mentors, offer opportunities to actively reflect on leadership experiences, and foster peer networking. (Peterson, 2001; NAELP, 2002). Based on research on what effective principals do, the National Staff Development Council (Sparks & Hirsch, 2000) has developed recommendations for the content of such programs, including that they help principals:

- learn strategies that can be used to foster continuous school improvement;
- understand how to build supportive school cultures that promote and support adult and student learning;
- develop knowledge about individual and organizational change processes;
- develop knowledge of effective staff development strategies;
- understand important sources of data about their schools and students and how to use data to guide instructional improvement efforts; and
- learn public engagement strategies, including interpersonal relationship skills.

Despite an improved understanding of the components of effective support, few in-service programs for school leaders provide what Peterson (2002) terms "career-staged" professional development, providing a cumulative learning pathway from pre-service preparation throughout a principal's career. Although orientation programs for new

principals are becoming more widespread, relatively few districts offer systematic mentoring for beginning principals to help them learn how to make sense of this complex job, prioritizing and juggling its many demands and developing skills in managing and leading other adults. Beyond the initial years, principals need to develop more sophisticated skills that require differentiated approaches to professional development, and, depending on their own backgrounds and prior experiences, as well as the school contexts in which they work, different principals need different kinds of supports.

Criticisms of existing programs include: 1) misalignment between program content and candidate needs; 2) failure to link professional learning with school or district mission and needs; 3) failure to leverage job-embedded learning opportunities; and 4) uneven use of powerful learning technologies (Coffin, 1997). Too many districts fail to link professional development to instructional reforms, and they continue to waste resources on one-shot workshops, rather than designing ongoing support that would help align school activities with best practices and support principal problem solving.

That said, district-level policies differ dramatically. Although some districts do little to support professional development for principals, and others offer discrete, unconnected programs, there are districts that view ongoing, multi-pronged professional development for principals as a major component of an integrated, district-based reform strategy. The work of these districts needs to be better understood.

Variability in Principals' Opportunities to Learn. Perhaps the safest generalization that can be made about principals' opportunities to learn is that they are highly variable and depend on where the principal works. The present study points to a number of exemplary preparation and development programs for principals, as well as policy initiatives in some states that have had a very substantial influence on leadership development in those states. The study also provides evidence of tremendous variation across the country in programs' capacities to prepare and develop effective school leaders, based on reports of experienced principals nationwide. The critical question is what we can learn about policies and practices that could make the provision of high-quality learning opportunities for principals a regular occurrence rather than an exceptional event.

One source of historical inconsistency in the quality of preparation and development programs has been a lack of common standards. The structure, content, and method of evaluation has depended on the particular standards adopted by a state, the standards of practice embedded within various program accreditation agencies, and the particular goals and mission of institutions themselves (NCAELP, 2002). Much of this inconsistency was rooted in a lack of consensus about the definitions of competence and standards for certification for school leaders, compounded by a lack of agreement about how programs can most effectively cultivate these competencies.

In response to concerns about these disparities, there is now a growing interest in the professional standards for school leaders that were established in 1996 by the Interstate School Leaders Licensure Consortium (ISLLC). The ISLLC standards provide a set of common expectations for the knowledge, skills, and dispositions of school leaders that are

grounded in principles of effective teaching and learning (Jackson & Kelley, 2002; NPBEA, 2001). As of 2005, 41 states had either adopted the ISLLC standards or aligned their own standards with ISLLC's for use in reforming educational administration certification programs in their states. In addition, most states now rely on various assessments as part of their certification processes, including the School Leadership Licensure Assessment (Sanders & Simpson, 2005).

Despite the growing alignment of programs with the ISLLC standards for professional practice, requirements for administrative certification and the extent to which policies support professional preparation continue to vary dramatically across states. Among preparation programs, there is wide variability in entry and exit standards, program structure and academic content, pedagogy, and program duration. Some programs require field-based internships with close supervision, some rely on coursework only, and others require a mixture of these plus an exit test or performance assessment (NCEI, 2003).

Financing sources and models also influence the availability, content, design, and impact of professional development and preparation. State funding is uneven and often subject to budgetary ebbs and flows. Teachers and principals often compete for federal and state funding allocated to professional development. Perhaps more problematic, although substantial resources are devoted to professional development, there has been limited consideration given to the coherence of those investments and minimal attention paid to evaluating the relative benefits of different approaches. Increasingly, private sources of funding have supplemented or even replaced public expenditures, opening the way not only for new revenue streams, but also for private providers and collaborations between public and private institutions, further adding to the complexity of the landscape.

Unfortunately, little is known about either the financing or the costs of pre- and in-service professional development for principals or the impact that financing strategies have on the nature of principal preparation and performance. Research in this area has been hampered by a variety of difficulties, including a lack of consistency in defining and tracking relevant expenditures, an incomplete understanding of costs and the absence of tools to measure them, and the complexity created by the multitude of decision makers who play a role. Better information about the sources of financing and the costs of effective preparation and professional development for principals is essential to assessing alternative models and planning for successful reforms.

Contribution of This Study. This study was designed to fill in gaps in knowledge about the content, design, costs, and financing of diverse approaches to principal preparation and development. We build on a growing body of evidence about what principals need to know and be able to do in order to be effective leaders of instructional improvement; that is, to be able to manage all relevant resources and align them toward the sustained improvement of teaching and learning for all children. We examine how a carefully selected sample of "exemplary" principal preparation and development programs cultivate these skills and abilities, and we examine the costs, financing, and policies associated with these programs.

Conceptual Framework:
What School Leaders Need to Know and How they Can Learn It

While there are significant gaps in knowledge about how best to develop school leaders and how to develop policies that support such programs, there is considerably more research on the elements of effective school leadership. This work has spawned a conceptual consensus on what contemporary principals need to know and be able to do. This study is also informed by an emerging body of research on leadership learning.

Elements of Effective School Leadership

The importance of leadership to school and instructional improvement has been well documented (Hallinger & Heck, 1998; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Waters, Marzano, & McNulty, 2003). The effects of leadership on classroom outcomes operate through at least two mediating pathways: First, through the selection, support, and development of teachers and teaching processes, and second, through processes that affect the organizational conditions of the school. Processes that affect organizational conditions operate at the school level, including building school community and developing school procedures and plans, as well as at the classroom level, through developing curriculum, instruction, and assessment. Each of these categories of intermediate outcomes has in turn been linked to important student outcomes (e.g., Leithwood, Louis, Anderson, & Wahlstrom, 2004; Silins et al., 2002). The leadership practices that build these aspects of the school are in turn influenced by state and district practices and supports (Osterman & Sullivan, 1999), as well as the leaders' own personal biography and training. A model of these relationships can be seen in Figure 1, below (from Leithwood et al., 2004, p. 18).

What do principals do when they engage in effective leadership practices? Leithwood and Jantzi's (2005) review suggests that the most critical areas of focus include: 1) setting direction, by developing a consensus around vision, goals, and direction; 2) helping individual teachers, through support, modeling, and supervision; 3) redesigning the organization to foster collaboration and engage families and community; and 4) managing the organization by strategically allocating resources and support. A review by Waters, Marzano, and McNulty (2003) adds to this list the development of collective teacher capacity and engagement.

Finally, in considering the kind of "transformational leadership" that fundamentally changes school organizations, Silins et al. (2003) add to factors such as setting a vision, providing support to staff, and establishing a supportive culture. the importance of establishing a participatory decision-making structure that encourages intellectual stimulation and holds high performance expectations for staff and students. They found that these factors are strong predictors of organizational learning and that they also directly affect teacher outcomes, such as teacher motivation and sense of empowerment.

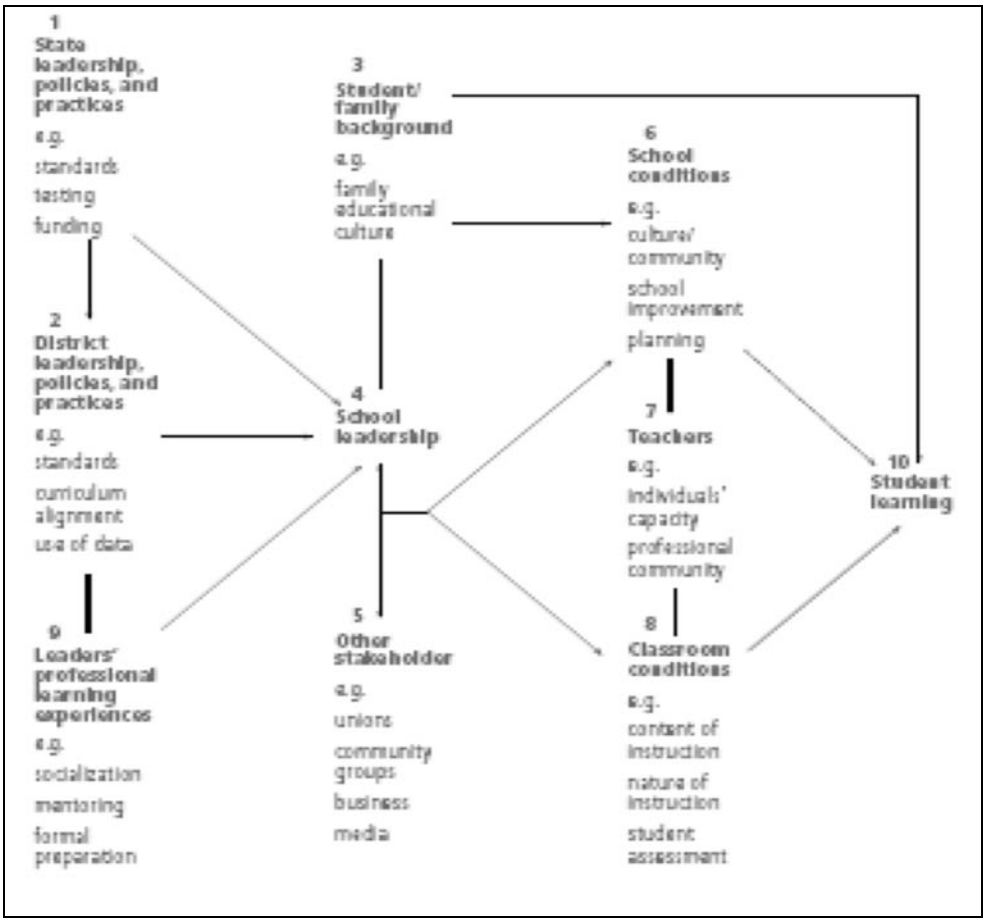


Figure 1.1: How Leadership Influences Student Learning

Specific leadership practices have been associated with active and effective support of instructional improvement. According to research by Leithwood & Jantzi (2000), the most critical practices involve:

- working directly with teachers to improve effectiveness in the classroom,
- providing resources and professional development to improve instruction,
- regularly monitoring teaching and student progress,
- participating in discussions on educational issues, and
- promoting parental and community involvement in the school.

The leadership capacities and practices identified by this research are consistent with professional standards established by the ISLLC. While no list of practices can fully predict whether a leader will be effective in a given context, the capacity to lead in ways that both support teaching and develop productive school organizations appears to be a baseline requirement, a necessary if not sufficient condition, for school leadership. Thus,

we looked in particular for evidence of these abilities and practices among graduates of the programs we studied.

Leadership Preparation and Development

Although the literature and professional standards generally agree on critical features of professional practice, and, increasingly, on key elements of preparation programs for principals, there is minimal empirical support for the apparent consensus in the field. Most of the research on particular program features consists of self-report data from programs, with little evidence of how program graduates actually perform as instructional leaders or how their behaviors, knowledge, and attitudes have been shaped by their program experiences.

The relative quality of leadership programs should be judged ultimately by the knowledge and skills of their graduates: by their capacity to engage effectively in the leadership practices we have described, as well as other practices that promote school improvement and student learning. Some argue that programs should also be assessed by what graduates learn, how well they learn it, what they come to believe about being a principal, and how deeply they identify with the role as a result of their participation in a program. According to Orr (2003), shifts in professional practice follow from these important cognitive developments.

Research on adult learning (e.g., Kaagan, 1998) suggests that learning and attitude shifts by adults are likely to be promoted by programs that:

1) Have a well defined and **well integrated theory** of leadership for school improvement that frames and integrates the program. The theory should provide coherence and be consistent with other program elements.

2) Use preparation **strategies that maximize learning, learning transfer, and leadership identity formation.** These include the use of cohorts, student-centered instructional pedagogies, faculty and mentor support, and opportunities to apply theory to practice.

3) Provide **strong content and field experiences** during leadership preparation that provide intellectual challenge; offer comprehensive, coherent, and relevant experiences; and include high quality internships (Orr, 2006).

Limited evaluation research exists on the effectiveness of graduate-level educational leadership preparation programs (Glasman et al., 2002; Murphy & Vriesenga, 2004; Orr, 2003), and even less exists on the effectiveness of district-level leadership development programs and strategies (Peterson, 2002). However, the available research suggests that the following precepts of adult learning are reflected in many of the specific program features found in effective leadership development programs:

- Clear focus and values about leadership and learning around which the program is coherently organized;

- Standards-based curriculum emphasizing instructional leadership, organizational development, and change management;

- Field-based internships with skilled supervision;

- Cohort groups that create opportunities for collaboration and teamwork in practice-oriented situations;

- Active instructional strategies that link theory and practice, such as problem-based learning;

- Rigorous recruitment and selection of both candidates and faculty; and

- Strong partnerships with schools and districts to support quality, field-based learning (Davis, Darling-Hammond, Meyerson, & LaPointe, 2005).

Preliminary research suggests that when innovative preparation program features are in place, programs yield better graduate perceptions of their training and stronger school leadership outcomes. In a study of 11 innovatively redesigned principal preparation programs, Leithwood and colleagues (1996) surveyed teachers working in the graduates' schools and found that teacher perceptions of principals' leadership effectiveness were strongly influenced by innovative program features such as the programs' instructional strategies, cohort membership, and program content. Similarly, in comparing graduates of two university-district partnership programs (with many innovative features) and a conventional program (with few), Orr and Barber (2006) found that supportive program structures, a comprehensive, a standards-based curriculum, and broader, more intensive internships were significantly, but differentially, related to three types of outcomes—leadership knowledge and skills, career intentions, and career advancement.

Finally, Orr, Silverberg and LeTendre (2006) compared initial learning and career outcomes of graduates from five leadership preparation programs that varied in their innovative features and how they had been redesigned to meet national and state standards. They found that the five programs differed most on program challenge and coherence, use of active student-centered instructional practices, and internship length and quality. These same qualities were positively associated with how much graduates learned about instructional leadership practices and how to foster organizational learning. Furthermore, internship length and quality were positively associated with career intentions and advancement. These results suggest that programs using somewhat different models, but with well implemented, innovative program features, yield positive and significantly better outcomes than more traditional preparation programs.

Much of this literature has stressed the importance of partnerships with school districts for developing targeted recruitment, an efficient hiring pipeline, affordable

internships, and strong clinical preparation. Most literature on such university-district partnerships focuses on the challenges and approaches, while few studies have assessed the impacts of specific program models (e.g., Browne-Ferrigno, 2005; Goldring & Sims, 2005). One exception is Orr and Barber's research (2006), which found that partnership-based preparation programs had more quality attributes than conventional programs in the same institutions, and they yielded higher levels of graduate-reported learning, aspirations to take on leadership roles, and leadership advancement.

There is more limited documentation and research on principal in-service programs. In their analysis of program models, Peterson and Kelley (2002) emphasized features that are similar to exemplary features of leadership preparation programs: having a clear vision, coherence, and a thoughtful sequencing of career development knowledge, skills, and abilities. They also concluded that stronger programs offer a long-term set of experiences; combine institutes with on-site training, practice and coaching; are closely linked to participants' work; and foster a sense of membership.

Even with consensus about core program features, the field lacks knowledge about the efficacy of these features under different conditions, the specific dimensions of the features that are required to produce powerful learning, the conditions that affect their implementation, and the combination of factors that must be in place for learning to be robust and for candidates to develop a deep commitment to the work. For example, although there is agreement about the importance of internships, the quality of field experiences varies dramatically. The relative impact of other features is likely to be similarly contingent.

Moreover, few studies have evaluated how recruitment and selection shape program content, the quality of candidates' experiences, or what graduates are able to do upon completion of their programs. The historical lack of attention to recruitment and selection has resulted in screening processes that are often ill-defined and lacking in rigor. Recent interest in recruiting high-potential candidates has resulted in experimentation with alternative pipelines into the principalship, including recruitment of candidates who have no prior educational experience (Thomas, 2003). Others voice concerns that expanding recruitment to non-educators makes the prospect of developing strong instructional leaders even more remote. These debates are symptoms of the lack of consensus about the relative importance of various qualifications for leadership, how to select for potential leaders, and how best to develop different pools of candidates.

Guided by the findings and frameworks of prior research, our study seeks to fill in some of the empirical gaps to provide a more fine-grained portrait of when, how, under what conditions, and in what combination various program designs and features are likely to produce effective leadership. We did not aim to develop a one-size-fits-all portrait of effective programs. Rather, we selected distinctive program designs serving different clients in diverse contexts to illuminate, on the one hand, the essential elements shared across disparate programs and, on the other, the dimensions along which high-quality programs can vary.

Policy and Financing Influences on Principal Development

State policies play a critical role in supporting a district's ability to create a strong instructional environment and in enabling principals to support teaching and learning. This effect occurs in part through a state's general approach to funding, regulating, and supporting education, for example, by creating thoughtful and coherent standards, curriculum, assessment, and support systems focused on important kinds of learning. State policies also affect the ways in which the state supports, organizes, and manages professional learning (pre-service and in-service) for school leaders and for teachers.

Different states perform each of these functions more and less well. States structure their preparation and professional development enterprises very differently in terms of funding streams, the standards and regulations guiding content, and the types of institutions authorized and funded to provide training. The infrastructure for professional development in a state may influence the extent to which offerings are short-term, ad hoc, and disjointed or coherent and sustained; the extent to which learning is more de-contextualized or there are field-based opportunities for training; the extent to which principals in a state are likely to learn entirely different content or to share a common knowledge base; and the extent to which programs that are promising have long-term support and can become institutionalized. In short, states vary widely in how coherent and supportive their professional development policies for administrators are.

Similarly, district policies and priorities can greatly affect the nature and content of professional preparation and development, and this may or may not be related to state policies. Some districts work closely with the state and are largely dependent on state funding allocations. Other districts position their leadership preparation and development programs as central components of comprehensive district reform initiatives and seek funding sources outside of district and state allocations.

Many states, districts, and other funders are developing policy and investing resources to improve strategic leadership development for both new and experienced school leaders (Sanders & Simpson, 2005; Fry et al., 2005). In recent years, state requirements, national accreditation recognition, and other policy factors have influenced program improvement and redesign work. (See Sanders & Simpson, 2005, for state policy actions on leadership preparation requirements). Some leadership preparation programs have exceeded the national and state standards for program reform, although such developments have been largely documented through case study (e.g., Carr, 2005).

Some local districts, primarily in urban areas, are addressing the perceived leadership shortage by creating new preparation programs through collaboration with local universities (Grogan & Robertson, 2002; Hale & Moorman, 2003; Sandlin & Feigen, 1995). Federal, foundation, and state grant funds encourage collaborations as a means of program innovation and responsiveness to local needs (McCarthy, 1999). The recent federal School Leadership Program, for example, encourages university and district collaboration through funding, and considers such relationships essential for program relevance, improved leadership development, and response to local leadership shortages

(U.S. Department of Education, 2005). In some cases, such collaborations support both pre-service and in-service leadership development (Norton, 2002; Fry et al., 2005).

Understanding the costs of effective preparation and professional development for principals is particularly important to assessing alternative models and planning for successful reforms. Despite the critical importance of these material considerations in determining all aspects of program design, there is a lack of good information on what effective preparation and professional development initiatives cost—that is, the full amount of resources beyond budgeted expenditures, monetary or in-kind services, they require. Most studies of the costs of professional development since the 1980s have limited their focus to 1) estimating the range of spending by states, districts, or initiatives on professional development; 2) identifying and estimating the costs of categories of activities or budgetary line items for professional development; or 3) examining the distribution of the cost burden for professional development across government and stakeholder groups (e.g., Little, Gerritz, Stern, Guthrie, Kirst, & Marsh, 1987; Miles, 2003; Monk, Plecki, & Killeen, 2003). A close reading of these studies indicates that there is little consensus on what to include or how to allocate costs across program components in cost estimates of preparation and professional development programs.

In sum, there has been little empirical research that examines carefully the relationship between the qualities of programs and the policy and financing infrastructures in which the programs are embedded. Yet the evolution and specific features of programs are inexorably shaped by their political and economic contexts. Our study seeks to understand these links, and the general landscape of current policies, in order to inform decision makers seeking to improve the learning contexts for school leaders.

Overview of the Report

In what follows, **Chapter Two** describes our research methods, including the selection of the sample, the rationale for the research design, and a summary of the exemplary programs studied**. Chapter Three** summarizes data on the outcomes of these programs, illustrating how they differ from most other programs in their ability to develop principals who feel well-prepared and who exhibit practices associated with effective leadership. **Chapter Four** describes how the programs accomplish these outcomes, drawing out the unique features of each, as well as noting those that are common across programs. **Chapter Five** examines the range of policy levers that influence leadership development, comparing state policy contexts in our eight focal states and analyzing the policy contexts underlying the exemplary programs. **Chapter Six** summarizes our analysis of the costs of different programs and describes the different funding strategies used to finance programs. **Chapter Seven** provides a summary of the study's findings and its implications. We conclude with a set of recommendations for program leaders and district, state, and foundation policymakers.

Chapter 2: Research Design and Methods

To provide an in-depth and comprehensive portrait of effective approaches to the preparation and development of principals, as well as the policies and financing systems underlying effective programs, this study involved three distinct components. First, we examined, through in-depth case studies, the characteristics of a carefully selected range of exemplary programs, including the costs of these programs. Second, we built into our case studies an analysis of institutional and policy contexts, looking in particular at the influences of states and districts, as well as private foundations, which play an increasingly prominent role in financing principal preparation and development programs. Third, we sought to develop a broader perspective by situating our case studies in a national context in order to determine how the preparedness, reported practices, and demographics of graduates of our selected programs compare with those of a national sample. Furthermore, we examined policies influencing leadership development across eight strategically located states from which principals were over sampled. Each of these components required different methods and sources of data, which we summarize below and describe in more detail in Appendix A.

Program Sample Selection

Our selection of pre- and in-service programs to study in depth was based on a multi-stage process in which we acquired information about many programs and vetted potential programs against multiple criteria. The first stage in this process included an effort to identify potentially strong programs through a preliminary literature review, solicitation of recommendations from a list of more than fifty expert consultants via email and telephone interviews, and a survey sent to participants in the 2004 Wallace Foundation grantee conference and to participants in an E-Lead meeting that same year. We also administered web-based surveys to members of several national associations, soliciting recommendations and information about programs.[1] These efforts produced a list of 120 principal training programs that had appeared in the literature or in recommendations from more than one source.

We then compiled our sources of data and narrowed the preliminary list to 13 pre-service and 16 in-service programs, based on the frequency and reliability of mentions in various data sources. We gave particular weight to evidence about outcomes in the research literature and recommendations from trusted experts in the field. For this narrowed pool, we contacted program officials to probe in more depth each program's structure, design, and evidence of effectiveness, and we collected written program materials and self-evaluations. We eliminated programs that had only scant reputational evidence and no additional evidence of their effectiveness. Because they lacked a sufficient track record to draw inferences about outcomes, we eliminated programs with fewer than three years of graduates.

[1] These included members of the National Association of Secondary School Principals, Public Education Network, Education Commission of the States, and Institute for Educational Leadership.

We based the final selection on a desire to create, in the aggregate, a sample of cases that represented variation along key dimensions. The dimensions we chose to vary in our sample included (1) the type of program offered (pre-service, in-service, or both) and (2) the type of institution sponsoring or coordinating the program (district, university, or third-party). Programs fall on a continuum along these two axes. Some programs have a highly developed pre-service component, with some support and induction for in-service principals, while other programs focus on in-service support to improve the leadership of principals already serving schools. Along the sponsoring institution dimension, some programs are created and led by school districts, with assistance from local universities, while other programs are rooted in university graduate programs, but reach out to districts for field experience. Independent third-party organizations also focus on a type of program and develop collaborations with districts and academic institutions to meet programmatic needs. This typology provided a rationale for sample selection that ensured variation along important program dimensions, allowing us to make reasoned comparisons among highly regarded programs. Finally, because we were interested in the effects of state policy, we sought representative variation across states and chose programs based in part on preliminary knowledge of their state policy contexts.

In order to understand program contexts and outcomes, we selected a sample of both pre- and in-service programs with several cohorts of graduates who worked in nearby districts, Because we wanted to be able to follow up with a large enough sample graduates with a track record as principals, we ultimately decided to omit programs like the innovative New Leaders for New Schools, which were too small or too new to have more than a handful of graduates who had become principals in any single location. In addition, since there was little consensus among the experts we consulted about high-quality in-service programs, as well as less evidence in the literature, we elected to narrow the sample of in-service programs to a handful of reputable programs embedded in districts and tied, to varying extents, to pre-service programs we would also study.

Based on these criteria, our final sample included the programs displayed in Figure 2.1. Those programs with two-way arrows were characterized by two-way collaborations, through district relationships to the university in planning pre-service programs and through a flow of university graduates into the districts' in-service programs. The one-way arrow from the University of Connecticut to Hartford Schools designates a one-way flow of some candidates from the pre-service program into the district, whose in-service program we studied, but no other significant district relationship with the university program. Jefferson County's program contains both pre- and in-service components.

Figure 2.1: Programs Selected for Study

Pre-Service	In-Service
University of San Diego (CA) ←→	San Diego Unified School District (CA)
Bank Street College (NY) ←→	New York City Public Schools – Region 1 (NY)
University of Connecticut (CT) →	Hartford Public Schools (CT)
Delta State University (MS)	
Jefferson County (KY)	

We make no claim that our focal pre- and in-service programs are the most effective programs in the country. Rather, they are among those that survived our multiple screens. The programs were also selected to provide variation along conceptually-driven dimensions, representing in the aggregate a variety of approaches with respect to program design, policy context, and the nature of the collaboration between universities and school districts. Each is a strong example of a type of program model and should therefore be regarded as an *exemplar* of a particular category. For this reason, we refer to programs in our sample as "exemplary" throughout the report.

In this report we discuss survey findings for program graduates who completed one of the pre-service programs, program participants who were involved in an in-service program, and program principals from both groups who were currently serving as principals. In addition, there is a small sample of principals who received a *continuum* of support: They graduated from an exemplary pre-service program, and they were leading a school in a partnering district with aligned, ongoing, in-service support.

Their responses were compared to those of a national comparison sample of principals drawn from the membership of the National Association of Elementary School Principals (NAESP) and the National Association of Secondary School Principals (NASSP). We drew a national sample, but oversampled in eight states: the five states in which our programs were located, plus three others selected because of distinctive elements of their state policy contexts. This sample, described later in the chapter, allowed us to compare overall program responses to a national comparison group, and also to compare each program sample to principals from within their state. Finally, it facilitated analysis of the impacts of state policy on principals' preparation and practices.

The Programs as Exemplars of Different Approaches and Contexts

The programs we selected include: traditional university-based programs serving candidates who practice in a range of districts (Delta State University [DSU] and the University of Connecticut), a university pre-service program that developed a close partnership with a district and is tied to an induction and in-service program (Bank Street College with Region 1 in New York City), programs launched by districts in collaboration with universities (Jefferson County Public Schools [JCPS] with the University of Louisville and San Diego City Schools [SDCS] with the University of San Diego). (See Table 2.1.)

Table 2.1: Programs Included in Study

Pre-Service Programs	In-Service Programs	Program Descriptions
Delta State University (MS)		Delta State's program focuses on instructional leadership and features a **full-time internship** and **financial support** so teachers can spend a year preparing to become principals who can transform schools in the poor, mostly rural region. The program benefits from **support from local districts and the state** of Mississippi.
University of Connecticut's Administrator Preparation Program (UCAPP)		The UCAPP program is transforming a **high-quality, traditional university-based program** into an innovative program that increasingly **integrates graduate coursework with field experiences** and prepares principals who can use **data and evidence of classroom practice** to organize change. Some candidates go into Hartford, CT, where they receive additional, intensive professional development.
	Hartford (CT) Public School District	The Hartford Leadership Initiative has used **leadership development to leverage reforms** vital to moving beyond a state takeover. Working with the Institute for Learning at the University of Pittsburgh, Hartford has sought to create **a common language and practices around instructional leadership.**
The Principals Institute at Bank Street College (NY)	Region 1 of the NYC Public Schools	Working with Bank Street College, Region 1 has developed a **continuum of leadership preparation**, including pre-service, induction, and in-service support. This continuum aims to create **leadership for improved teaching and learning** closely linked to the district's instructional reforms.
Jefferson County (KY) Public Schools		Since the late 1980s, JCPS has developed a leadership development program **tailored to the needs of principals working in the district.** Working with the University of Louisville, the district has crafted a pathway from the classroom to the principalship and a wide array of supports for practicing leaders.
Educational Leadership Development Academy (ELDA) at the University of San Diego	San Diego (CA) Unified School District	San Diego's continuum of leadership preparation and development reflects a **closely aligned school–university partnership**. The pre-service and in-service programs support the development of leaders **within a context of district instructional reform** by focusing on instructional leadership, supported by a **strong internship** and **coaching/networking.**

Delta State University: A Bold Strategy to Transform a Region's Schools

A small public university situated in one of America's poorest regions, Delta State University (DSU) may seem an unlikely candidate for recognition as one of the country's exemplary principal preparation programs. We included Mississippi's Delta State because it received the most mentions by experts and in the literature, its pre-service program met all of our initial criteria, and it targets underserved communities. In addition, in contrast to the other programs we studied, Delta State is neither a private university nor a flagship public university. It is a public institution with a mission to serve a disadvantaged population in the rural south. The Mississippi state context is also unusual. Mississippi supports a sabbatical for educators so that they can prepare for the principalship full time. This state program is critical to Delta State's ability to offer the intensive internship program that anchors its program. In addition, the state has taken an aggressive approach to accrediting administrator preparation programs, creating strong incentives for improvement, and it takes an active hand in ongoing professional development for principals in Mississippi schools.

The recommendations from experts and the literature proved warranted. The Delta State program was top-rated by graduates on nearly every indicator of program quality, and the more than 70% of graduates who had become principals (one of the highest proportions in our study) were among those most likely to report deep engagement in instructional leadership activities. Teachers who rated the principals we followed also rated Delta State graduates extremely highly as strong, supportive, effective leaders.

Other programs offer internships, cohort structures, close partnerships with local school districts, and integrated curricula. However, few that we examined put these pieces together as comprehensively or as consistently well as the Educational Leadership program at DSU. Since 1999, Delta State has trained about 15 candidates a year through a 14-month Masters of Education (M.Ed.) program that combines graduate coursework focused on instructional leadership with a full-time internship experience and a passion for developing school leaders capable of transforming the poor, mostly rural schools in the region. The centerpiece of the Delta State program is the internship experience, coupled with financial support so teachers can spend a full year preparing to be a principal. Graduates report strong links between their coursework and the internships, including extensive use of field-based projects, problem-based learning approaches, and action research, along with support from expert leaders in the field and strong university faculty.

The program also benefits from deep support both from local districts and the State of Mississippi. The state provides unprecedented financial support through the Mississippi Sabbatical Leave Program, which pays teachers' salaries for one year while they complete their administrator credential. A consortium of local superintendents helped develop the curriculum. Local districts recruit candidates, provide mentors, open their schools to interns, and enthusiastically hire program graduates. Indeed, more than 70% of the graduates report having been recruited for the program, making them eligible for support

through the state Sabbatical Program. According to our survey results, 96% of DSU graduates received some financial support to attend the program.

The program and districts are recruiting experienced teachers who represent the demographics of the region. Among the graduates we surveyed, 60% were African American and 40% were white. (According to program staff, in a typical cohort about half of the program participants each year are African American.) On average, DSU graduates work in schools where more than 80% of their students are low-income and two-thirds are African American. Despite the challenges they face, principals from DSU were among the most positive about the principalship and the most committed to remaining in these roles. Delta State offers these hardy recruits an intensive, highly successful experience that prepares them well for meeting the challenges they face.

University of Connecticut's Administrator Preparation Program: University and District Support for Continuous Improvement

Since its creation in 1990, the University of Connecticut's Administrator Preparation Program (UCAPP) has been known as a flagship administrator preparation program in a state that has undertaken serious, sustained reforms of teaching for more than 20 years. UCAPP is a 2-year, part-time program designed for working professionals who aspire to positions in school leadership. It combines post-master's graduate coursework with a part-time internship spread across 2 years. UCAPP works closely with local school districts, including Hartford, to prepare educators for leadership roles, and its graduates are in high demand across the state.

Five years after UCAPP was launched at the Hartford/Storrs campus, it was expanded to include a cohort in Stamford; a third cohort was recently added in Southeastern Connecticut. The program admits 15 candidates, often referred by local superintendents, into each of these three geographically based cohorts, for a total of 45 aspiring administrators per year. Candidates who successfully complete the 32-credit program are awarded a Sixth-Year Diploma in Educational Administration, and they are eligible for endorsement for Connecticut State Certification as Intermediate Administrators.

The UCAPP program is dedicated to continuous program improvement, with efforts currently focused on transforming a high-quality, traditional, university-based program into one that provides both expanded field experiences and a comprehensive blend of course work focused on developing an analytical, reflective approach to instructional leadership. In part because of this commitment to improve, the program is characterized by deep and broad support: providing strong, formal, on-going support to its candidates; receiving strong support from local districts and state educator associations; and earning programmatic and financial support from the School of Education and the University.

Graduates rate the quality of the program highly, noting especially its preparation for the targeted goals of developing a collaborative organization that is focused on using data and evidence of practice for continuous improvement. UCAPP serves as an exemplar

of a traditional university-based program, with limited resources, that has been implemented in a coherent and thoughtful manner.

Furthermore, the Connecticut state context is an interesting case of a high-achieving state that over two decades has created a tightly aligned set of professional reforms that build upon one another. Although Connecticut has only recently focused explicitly on school leadership, principals were expected to take an active role in the teacher reforms of the 1990s, receiving intensive training for evaluation and professional development. The state's leadership supports are focused on the assessment of school leaders through a performance-based portfolio, which influences how pre-service programs prepare principals, and the development of leadership academies, which influences district in-service principal development, especially in urban areas.

Hartford (CT) Public Schools: Paving Pathways to Stronger Leadership

The Hartford Public Schools, an urban district of 24,479 students, has faced chronic challenges of low student achievement, high teacher and principal turnover, budgetary problems, and governance struggles that led to a state takeover in 1999. Realizing that school leadership is vital to reforming schools and improving student achievement, Hartford has made leadership development a focus of its effort to reshape the district since the state takeover.

While a substantial proportion of Hartford administrators are UCAPP graduates, there is not a close collaboration between the district and UCAPP, as is characteristic of the San Diego and New York cases. We selected Hartford's in-service program as an affiliated site for study because of its emphasis on leadership development as the means to leverage change. Hartford's initiative has sought to create a leadership pathway to align the work of all instructional leaders and deepen the pool of potential principals. The district supports an on-site credentialing program (in conjunction with its local college, Central Connecticut State University) and ongoing professional development for all school leaders provided by the Institutes for Learning (IFL) at the University of Pittsburgh.

In 2001, Hartford secured a grant from the Wallace Foundation, which has provided the district with the funding needed to develop a leadership preparation and support program that the district calls "Linking Leadership with Learning for ALL Learners." With this funding, Hartford is creating a pathway for talented teachers to assume leadership positions that extend to the principalship and beyond. This path includes opportunities for master teachers to coach other teachers within their school, for coaches to move beyond their own schools and serve as "Turnaround Specialists" for struggling schools, for aspiring principals to complete principal certification, and for all these district employees to enhance their skills, with a focus on teaching and learning. Hartford is also seeking to create a focus and a common language around instructional leadership.

These efforts show initial promise: Test scores in Hartford have increased in recent years, and there is evidence that principals who participated in the district's leadership initiative activities are more likely to improve their schools' standing (Rouse & Markham,

2004). Hartford has also demonstrated success in developing the leadership potential of people already working within the system. According to district documents, all principal and assistant principal vacancies in 2003 and 2004 were filled by hires who had participated in the district-sponsored principal preparation program. The district has now produced achievement gains that match or exceed those of similar Connecticut districts and is now returning to local control of governance. Thus, Hartford is an exemplar of how a district-based leadership initiative can be launched in a high-need district that had lacked capacity to jump-start change.

Bank Street College Principals Institute: An Integrated Approach to Developing Leaders

The Bank Street College of Education's Principals Institute was launched in 1988 in collaboration with the New York City Board of Education to prepare a greater number of women and minorities as public school leaders. The Institute, which focuses explicitly on instructional leadership and school reform, has developed a strong reputation in New York City and nationally for producing urban school leaders who hold a progressive vision for schooling that emphasizes teaching and learning. Despite changes in the political and educational landscape of New York City that have led to the replacement of many university-based programs with a district-run leadership academy, the Institute has remained an influential vehicle for the preparation of New York City's principals. The innovative and influential nature of this program, and its recent integration with a district in-service leadership program in New York City's Region 1, were primary reasons we included Bank Street College in our sample. Another interesting contextual factor is the role of New York State, which has overhauled standards for leadership programs, leading to substantial program reforms in the last few years.

Bank Street College's Principals Institute is defined by several core program design elements, including the integration of theory and practice, a strong advisory system, and three robust internship placements, all of which work together to promote reflective practice. The advisement model, which permeates all the college's programs, provides participants with extremely close individual and cohort-based support that allows them to reflect on practice, identify challenges and weaknesses, and develop new skills and strategies under the guidance of faculty members who are also expert practitioners. The Bank Street model promotes the development of school leaders who demonstrate instructional as well as transformational practices, focusing on supporting teachers in improving teaching and learning, while building the capacity of the school as a whole. Bank Street candidates complete an 18-month, 36-credit master's degree while they are working in New York City Public Schools.

Although initiated through a partnership with several New York City districts, the program has come to be known in particular for its longstanding collaboration with Region 1, an area in the Bronx that encompasses the former community school districts 9 and 10. This partnership, the Principals Institute Region 1 program that is the subject of our study, fits within a continuum of complementary and increasingly integrated leadership preparation and development programs and strategies. The active inclusion of Region 1

practitioners in offering coursework and advisement helps ensure the consistent carryover from learning into practice.

In addition to the strong focus on improving teaching and learning, the Principals Institute identifies four driving goals for its candidates; these are aligned with the goals of Region 1 for its principals: (1) lifelong learning, (2) reflective practice, (3) inquiry, and (4) advocacy. Candidates learn both to develop their own voice and to develop and engage the voices of others in their leadership work, which is focused on creating democratic and equitable school cultures. They do this through their action-learning experiences, linking academics, practice, and inquiry to concerns for equity, ethics, and diversity, as well as for building a collaborative, empowered learning culture. The extent to which the program succeeds in these goals is suggested by the fact that Bank Street graduates rated the program a perfect "5" when asked to assess the extent to which it emphasizes instructional leadership and working with the school community, integrates theory and practice, engages them in inquiry, and provides opportunities for self-assessment. The close alignment between the program and Region 1's focused reform and professional development efforts provides intensive preparation for the well-developed instructional leadership expectations within the Region.

Region 1, New York City: An Aligned Partnership for School Improvement

Located in the Bronx, Region 1 serves a student body that is 93% students of color and 86% low income. Region 1 was established in 2002 with the merger of two of New York City Public Schools' most disadvantaged community districts (9 and 10). These communities have long been plagued by high principal and teacher turnover and difficulties in recruiting quality educators. Under the leadership of Superintendent Irma Zardoya, Region 1 developed a continuum of professional leadership as a means of developing systemic leadership capacity, which in turn increases the schools' capacity for improvement. The regional superintendent credits its leadership preparation and development programs for steady gains in student achievement and for its increasing and increasingly diverse pool of administrator candidates.

Region 1's continuum of leadership development identifies potential leaders, supports their preparation, and provides them ongoing support and training. Cohorts of school leaders from Region 1 participate in the Bank Street Program, and graduates of the Principals Institute return to work in Region 1. In addition to the partnership with Bank Street College that credentials aspiring principals, Region 1's leadership development initiative also includes teacher leader programs; a year-long induction program for new principals; an ongoing professional development process for principals; monthly networking meetings; and a series of professional learning opportunities for new assistant principals, experienced principals, and aspiring principals and district administrators.

These components of the leadership continuum are integrated through the region's vision for schools as student-centered and achievement-driven, and its approach to school improvement through instructional improvement and capacity building. The coherence and integration of these components with the region's mission and approach make them

mutually reinforcing across the continuum of leadership development. Through its leadership development initiative, Region 1 has begun to see strong improvements in student achievement and has addressed a once glaring shortage of principals in the area. Region 1, in collaboration with Bank Street, serves as an exemplar of a comprehensive approach to leadership development within the context of well articulated instructional reform.

Jefferson County (KY) Public Schools: Sustained District Investment in Growing Local Leaders

The Jefferson County Public Schools (JCPS) district serves urban Louisville as well as surrounding suburban and rural communities. With sustained leadership since the late 1980s, JCPS has supported a leadership development initiative that is noteworthy because of both its maturity and its comprehensiveness. Emphasizing a "grow-your-own" approach to leadership development, this large county district has developed and maintained a set of leadership development programs tailored to the needs of principals working in the district, from initial preparation to induction to ongoing support. More recently, working with the University of Louisville, the district has crafted a pathway from the classroom to the principalship that feeds the leadership pipeline. This highly developed pathway and the sustained nature of the reforms over decades were reasons we added JCPS to our study sample. In addition, given the progress of wide-reaching reforms under the Kentucky Education Reform Act (KERA) of 1989, Kentucky provides a rich policy context that has fostered substantial attention to professional development.

Jefferson County's investment in leadership preparation can be traced back to the long-term policy and program stability provided by consistent district leadership. The roots of some initiatives date to the late1970s, when the district embarked upon a deliberate plan to recruit, prepare, and hire more African-American administrators for a diversifying district facing desegregation. More recently, Superintendent Stephen Daeschner, in his twelfth year as the district's chief at the time of this study, provided consistent and stable investment in district-based leadership preparation. The sustained reform effort has paid off in higher student achievement and increased diversity in the administrator ranks.

The JCPS model exemplifies a *portfolio* of investments in leadership preparation and development that includes 24 different components. Programs for aspiring leaders, new leaders, and current leaders are coordinated from the district office. In the words of one planning document, JCPS has implemented "a system of leadership development" with a span that can run from a teacher's or counselor's initial interest in administration into retirement, with retirees serving as many of the leadership instructors, coaches, and mentors used in the various programs. In addition to two pre-service programs sponsored with the University of Louisville, the district has formal induction programs for assistant principals and principals that feature strong mentoring, advisement, evaluation, and feedback, and programs for veteran principals that provide training on topics ranging from literacy to teacher evaluation to classroom management. The district has launched new programs to support instructional leadership skills for teacher leaders and assistant

principals, the former in collaboration with the teachers' union. The goal is to strengthen participants' understanding of instruction and their capacities to contribute to its improvement throughout the school.

Despite shifts in district reforms over the years, the district's commitment to its leadership initiative has remained constant. Its recruitment, selection, and professional development programs represent and sustain the district's organizational emphases and professional culture and provide JCPS with a steady leadership pipeline. The district views leadership as the key variable affecting school improvement and therefore invests significant resources in these programs. Many district officials express faith that the leadership programs are paying off, with the district showing improvement on state tests outpacing its Kentucky peers. JCPS provides an example of a mature, comprehensive approach to leadership development that has evolved over time.

San Diego: A Coherent Commitment to Instructional Leadership

San Diego's continuum of leadership preparation and development was launched as the most tightly aligned partnership of all those we studied. The pre-service program developed by the San Diego Unified School District (SDUSD) in collaboration with the University of San Diego was designed to support the development of leaders for a specific set of instructional reforms in the context of a district-wide transformation of practice launched during the late 1990s. Major, closely connected investments in in-service development for school leaders were also developed. The San Diego reforms emphasized the development of principals as instructional leaders and teachers as instructional experts through a set of highly coherent efforts to reshape principal and teacher recruitment, evaluation, and professional development around instructional improvement. San Diego provides a unique example of a tight partnership between a university and school district, aligned around a common philosophy of school improvement.

The University of San Diego has worked closely with the San Diego schools to provide high-quality pre-service training that allows hand-picked recruits to complete the requirements for initial administrator certification in California during a year of full-time study, coupled with a paid internship under the tutelage of an expert principal in the district. The Educational Leadership Development Academy (ELDA) offers both a program for aspiring school leaders and an induction and support program for new leaders. All elements of the program—recruitment and selection, to curriculum development and instruction, to culminating evaluations of candidates—were developed in close collaboration between the university and the district.

The program emphasizes instructional leadership, organizational development, and change management, and graduates are extremely well-prepared to organize professional learning for teachers and staff in their schools. Part of the training, for example, involves candidates in designing and implementing professional development for teachers and developing school plans that are required by the district. Like Delta State, San Diego recruits candidates from among talented, committed teachers. Similarly, initial funding

from the district and the Broad Foundation enabled candidates to complete a year-long internship under the guidance of an expert principal while completing their coursework.

The SDUSD also offers intensive in-service opportunities for all school leaders working in the district. The intensive in-service program includes a tightly connected set of learning opportunities designed to provide a common orientation toward instruction for leaders at all levels of the district. The varied elements of the district's infrastructure for developing the knowledge and skills of principals are not fragmented events, but part of a tight web of mutually reinforcing supports. These provide each principal with guidance from an instructional leader who oversees a learning community that offers formal and informal principals' networks, study groups, and peer coaching. These activities are linked to the sequence of learning opportunities focused on teaching, learning, and instructional improvement that are offered through monthly principal conferences, professional development institutes, and "walkthroughs" of schools to observe teaching. Beginning principals and others needing assistance have access to mentors. (See Figure 2.2.)

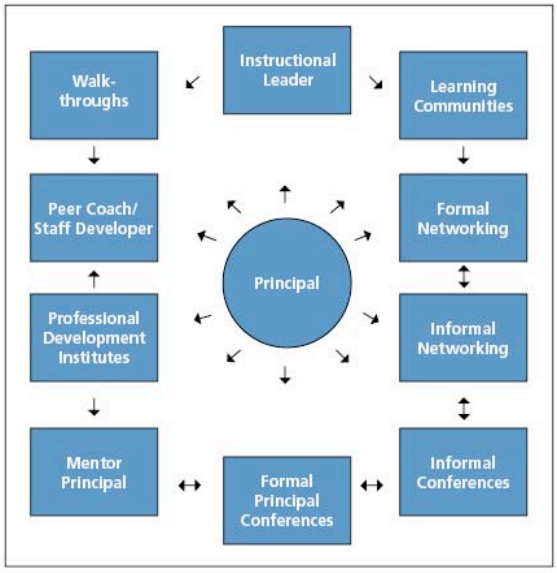


Figure 2.2: Principal In-Service Program Structure

San Diego offers an example of a highly enriched, coherent approach to leadership development that is supported by a strong university-district partnership. This partnership has created an infrastructure for professional learning and developed a common language and orientation toward instruction that has shaped the practice of educators in all levels of the district. The key power of the San Diego reforms is that leadership preparation and support is a fundamental part of the reform model—not only a goal and value in itself, but a comprehensive vehicle for creating and sustaining focused instructional work throughout the district. The California context offers an interesting case of a very diverse state that has pursued a standards-based reform agenda while experiencing dramatic changes in fiscal capacity and educational programs and philosophy over the course of a decade.

Conduct of the Case Studies

Interviews. The research team conducted semi-structured interviews with various stakeholders of each program; these included program founders, administrators, and faculty; district office personnel; principals; university officials; program participants; and graduates. (See Appendix B for instrumentation and protocols.) Members of the research team participated in program workshops and courses when possible and conducted focus groups with current participants. For each program, researchers also conducted on-site observations of three to five program graduates/participants who were active principals. As part of the school observations, we both interviewed and surveyed teachers who worked with these principals. The teacher survey asked about principals' practices as well as school climate and conditions. These teacher assessments of principals' behavior included measures of the core leadership practices described earlier, as well as assessments of the learning culture and approaches to instructional improvement. The teacher survey also captured assessments of teachers' motivation, job satisfaction, and student effort.

At most sites, field work was completed by two researchers who visited the program twice, for a total of roughly 100 hours of face-to-face contact time with research subjects. In two cases (San Diego and New York), part of the research team was local. In these cases, the research did not have to be compacted into two site visits, but instead, took place over several months. Visits began in November 2004 and were completed by Fall 2005. In addition, researchers spent dozens of hours in telephone interviews to prepare for and follow up after the visits. In some cases, it took several sessions to interview a key respondent (often one part in person and the rest by phone), to accommodate the respondent's schedule and address questions that arose.

Table 2.2: Categories of Questions Included in Each Interview Protocol

Respondent Category	Program Staff	Program Faculty	Program Grads/ Principals	Program Participants	District Officials
Program Background	x	x			
Program Theory/Goals	x	x	x	x	x
Program Design/Features	x	x	x	x	x
Program/Participant Assessment	x	x		x	x
Principal Practice			x		x
Context (Policy, Partnerships)	x	x			x

Observations. The research team developed two separate observation protocols to guide observation of program activities and to guide visits to schools led by program completers. These protocols prompted researchers to detail the school setting, demographics of students and staff, and features of the learning environment, instructional practices, and content of instruction. Observations protocols also included questions to guide discussions with instructors and learners.

Surveys. To triangulate with the interview data, we administered surveys to the graduates of the pre-service programs, participants of the in-service programs, and to a subset of teachers in some of the schools led by focus principals. Principals' surveys captured program participants' assessments of the features and quality of their programs, as well as their sense of preparedness, attitudes about and practices in the principalship, and student and organizational contexts in the schools where they now work. An in-service component of the survey asked about principals' participation in professional development activities and their views of the utility of these opportunities. Teacher surveys asked about their principals' attitudes and practices, and the student and organizational contexts in their schools. Survey items were drawn heavily from the federal Schools and Staffing survey (NCES, 2006), Leithwood and Jantzi's (1999, 2000) studies of effective school leadership practices, and the Interstate School Leaders Licensure Consortium (ISSLC) standards. The results were also used in comparisons with state and national principal samples, described further in the next section.

Cost analyses. Using a protocol developed by the Finance Project, case studies included detailed assessments of the costs of various program components and the financing strategies used to support the program. The protocol documents the real costs in time and personpower, including uncompensated time donated by participants and staff and in-kind donations from institutional partners, as well as the budgeted funding for mounting and sustaining each program. A team from the Finance Project conducted interviews and analyzed program documents to secure this information. Team members also analyzed revenue sources, using documents and interviews to examine the extent to which the program was paid for out of the regular institutional budget; through tuition payments by participants; or with outside funding from the state, the federal government, or foundations.

Data Analysis

Each site-visit team produced a case study of the program it visited, systematically combining the multiple sources of qualitative and quantitative data from interviews, observations, documents, and surveys.[2] Where pre-service and in-service programs operated at a common site, the data from the two programs were analyzed together in order to describe the interactions between programs and their influences on both the candidates and the districts involved. Data analysis followed an iterative process that included moving back and forth between quantitative and qualitative data, comparing coding schemes across cases, and refining the final coding scheme to reflect both common themes and unique characteristics of each case. Cross-case analysis focused on uncovering principles and practices common across the distinctive programs and on revealing differences illustrated by the distinct exemplars. The cases were also analyzed in relation to the state context, in order to evaluate possible impacts of policy and other features of the state environment.

[2] The individual case studies are published at http://seli.stanford.edu.

State Policy Cases

In selecting programs to study, we considered geographic diversity along with program quality and design. Our state sample includes the five states in which these programs are located: California, New York, Connecticut, Kentucky, and Mississippi. We also studied the policy contexts of three additional states, selected to represent different approaches to state policy: Georgia, Delaware, and North Carolina. Georgia and North Carolina both sponsor their own well regarded professional development programs. Georgia's Leadership Academy has enjoyed support from the governor, legislature, and higher education. It has used this support to bring together a number of partners, including higher education institutions, the business community, K-12 educators, and the Southern Regional Education Board. North Carolina runs several programs, including the renowned Principal Fellows Program, a distinctive recruitment initiative. Delaware sponsors a state academy that is operated by a university. It has developed a number of innovative state policies that provide additional insights into state policy options, including a mentoring program for principals and initiatives around distributed leadership.

Researchers developed state case studies that focused on policies influencing leadership development by reviewing policy documents and literature and interviewing a range of stakeholders: policymakers and analysts; principals and superintendents; and representatives of professional associations, preparation programs, and professional development programs. In addition to an overview of each state's general approach to reform, we examined policies addressing standards, preparation, and licensure for principals; professional development investments and programs; initiatives aimed at recruitment or retention of principals; and any other policies identified as supporting or impeding leadership development.

The Finance Project reviewed state financial investments in school leadership, both current budgets and investment trends, by conducting interviews and collecting state and program documents. TFP also analyzed how the state paid for its leadership development initiatives; for example, whether they used the regular state budget, targeted state or local revenues, or outside funding from the federal government or foundations.

As described in the next section, national survey data, drawn to include state-level samples for each of these eight states, allowed us to examine patterns in principals' experiences of pre-service and in-service development within these states as compared to one another and to a national sample. These experiences highlighted differences in principals' opportunities to learn that were assessed in light of policy differences.

National, State, and Program-Level Surveys

We surveyed 2000-2004 graduates from the pre-service preparation programs in our case-study sample, as well as all principals participating in the in-service programs and a national comparison sample of principals drawn from the membership lists of the NAESP and the NASSP. We drew a national sample with oversampling in the eight focus states. This method allowed us to compare responses from program graduates to a national

comparison group and to compare each program sample to principals from within their states. Finally, it facilitated analysis of the impact of state policy on a sample of principals within each of the eight focal states. To accommodate the sampling scheme and the various uses of the data, the sub-samples were weighted for different analyses to represent their share of the relevant population. (See Appendix A for more details about the survey methodology.)

In addition, we used three subsets of the program sample for comparison with the national sample to address our inquiry from three vantage points: the impact of exemplary pre-service preparation, in-service professional development, and a continuum of preparation and in-service opportunities—a "double dose" of high-quality program experiences that some principals received within several school districts.

As shown in Table 2.3, among our 1,086 respondents to the principal survey, 661 were part of the national comparison sample and 425 were individuals who had experienced the exemplary programs. Among the program sample, 249 were graduates of the pre-service programs and 244 were participants in the in-service programs, while some in an overlapping group had experienced both. Some of our analyses looked at only those pre-service graduates who were currently principals (124 in total). Other graduates had not yet entered administration or had gone into assistant principalships first, as is the norm in many districts. In some cases, we rely on comparisons of responses of principals from the national sample to those of exemplary program graduates (some of whom have not become principals), due to the small sample size of practicing principals within the program population. This represents a limitation in some of the analyses. As indicated, we restrict other analyses to respondents who had been or were currently principals. (A few were on leave or had just left the principalship). Finally, we analyzed the responses of 79 principals who had experienced the cumulative benefit of both pre-service and in-service exemplary programs, either as an intentional district-designed continuum or an accumulation of two program experiences.[3] In these comparisons, we looked at respondents' views of their learning experiences, their feelings of preparedness for the principalship, their self-reported practices, and their perceptions of school and district conditions.

Our research is necessarily limited by its cross-sectional nature and its reliance on self-reports. To offset this limitation, we triangulate program principals' reports of their practices with observations and teachers' reports of principals' practices for a small sub-sample of participants or graduates from each program. We can examine relationships between past experiences and current views and practices only from a retrospective perspective. We assume that any bias that this creates is similar across samples. That said,

[3] A few principals had attended one of the innovative preparation programs prior to the time frame of our study, but had been in the innovative in-service development program, or, in the case of a few in Connecticut, had attended both the innovative preparation and innovative in-service development programs, although these were not intentionally integrated by the urban district. We included these two groups of principals as continuum prepared principals, as their cumulative experiences were more similar to the other continuum principals.

inferred correlations between program attributes and graduate attitudes and behaviors derive largely from self-reported data and must therefore be interpreted with some caution.

Table 2.3: Survey Respondents by Program and Current Principal Status

	Total Respondents	Current Principals (2005)
Total of all Respondents	1,086	849
Total National Comparison Sample	661	571
NAESP Sample	345	294
NASSP Sample	316	277
Total Program Sample	425	278
Total Pre-Service Preparation Programs	249	124
Bank Street	28	5
Delta State	47	24
University of San Diego/San Diego	65	32
Jefferson County	49	46
UCAPP	60	17
Total In-Service Programs	244	222
Hartford	20	14
Jefferson County	77	72
Region 1	45	39
San Diego	105	97
Total Continuum Sample	103	79
Jefferson County	49	46
Region 1	7	7
San Diego	42	21
Others (with continuum-like experiences)	5	5

In the next chapter, we describe how program graduates and participants differed in their views and experiences of their programs, their sense of preparedness, and their reported practices from their peers within their states and nationally.

Chapter 3: The Outcomes of Exemplary Programs

> [ELDA graduates] take hold in a way that I don't have the same confidence others could. They can articulate a belief and build a rationale and justification that encourages others to believe the same thing and hold high expectations for all kids. I have confidence with the ELDA graduates that the belief doesn't become words that float away in the air—that they put actions behind it, convincing others not by edict, but by actual leadership. . .looking at practice, figuring out what to do about it, and not settling for practice that doesn't produce a good result for kids.
>
> *—San Diego Unified School District principal supervisor*

> As a superintendent, I hired a couple of principals out of [the UCAPP program]; these people came to the table when we were at administrative council meetings, and they knew how to disaggregate data, they knew how to use data, they knew about school improvement plans, they knew about how you effectively evaluate staff. I mean, they came in and they were ready to go to work!
>
> *—Local superintendent in Connecticut*

> When I was doing my interviews, I could always tell who had gone to *Principals for Tomorrow* and who hadn't. I could tell based on the questions who knew [how to lead] and who didn't.
>
> *—Jefferson County Public Schools human resources manager*

These comments about the abilities of graduates of the programs we studied were repeated by employers, colleagues, and the graduates themselves throughout our research, confirming that something distinctive was going on in the preparation the programs offered. Much of the literature about leadership development programs describes program features believed to be productive, but evidence about what graduates of these programs can actually *do* as a result of their training has been sparse. We designed this research around the view that exemplary programs should offer visible evidence of the consequences of preparation for principals' knowledge, skills, and practices—and for their success in the challenging jobs they face.

We found that graduates prepared in these innovative programs report higher quality program practices, feel better prepared, feel better about the principalship as a job and a vocation, and enact more effective leadership practices as principals than do others with more conventional preparation.

Pre-Service Graduates' Views of Their Programs

As Table 3.1 illustrates, graduates of the pre-service programs: Bank Street Principals Institute, Delta State, Jefferson County's Principals for Tomorrow, the University of Connecticut's Administrator Preparation Program (UCAPP), and the University of San Diego's Educational Leadership Development Academy (ELDA) program were, in aggregate, significantly more likely ($p<.001$) to report distinctive program features on virtually every

measure.[4] These differences were generally quite large, with sample means often a full standard deviation apart.

Table 3.1: Graduates' Perceptions of Program Features

To what extent were the following qualities/practices true of your leadership preparation program? 1=Not at All. . .5=To a Great Extent	Program Mean n=242	National Mean n=629
I was in a student cohort—a defined group of individuals who began the program together and stayed together throughout their courses.	4.53***	2.51
Practicing school/district administrators taught in the program.	3.94***	2.86
Faculty members were very knowledgeable about their subject matter.	4.56***	4.15
Leadership-focused program content:	4.28***	3.78
The program content emphasized instructional leadership.	4.58***	4.13
The program content emphasized leadership for school improvement.	4.49***	3.63
The program content emphasized managing school operations efficiently.	3.80	3.81
The program content emphasized working with the school community and stakeholders.	4.11***	3.63
The program gave me a strong orientation to the principalship as a career.	4.39***	3.73
Reflection-rich program content:	4.25***	3.48
The course work was comprehensive and provided a coherent learning experience.	4.42***	3.87
The program provided many opportunities for self-assessment as a leader.	4.18***	3.22
I was often asked to reflect on practice and analyze how to improve it.	4.41***	3.40
The program provided regular assessments of my skill development and leadership competencies.	4.09***	3.23
The program integrated theory and practice.	4.45***	3.73
The faculty provided many opportunities to evaluate the program.	3.94***	3.41
Active, student-centered instruction:	4.25***	3.46
There were field-based projects in which I applied ideas in the field.	4.22***	3.37
There were linkages between coursework and my internship or other field-based experience.	4.29***	3.41
The program used problem-based learning approaches.	4.29***	3.47
The program included action research or inquiry projects.	4.00***	3.34
The program required journal writing about my experiences	4.12***	3.02
The program included analysis and discussion of case studies	4.39***	3.74
The program included lectures	3.74***	3.97
I participated in small group work	4.46***	3.86
I was required to prepare a portfolio demonstrating my learning and accomplishments	4.36***	2.81

ANOVA; ***p<.001

[4] These comparisons are aggregate means reflecting program graduates' reports (some of whom are not principals) in comparison to those of practicing principals' in the national comparison group. There were variations across programs in the strength of graduate ratings, but, with a few exceptions, graduates of programs tended to rate program experiences higher than did principals in the comparison sample.

The exemplary program graduates were, on average, more likely to be in a student cohort, find their faculty members knowledgeable about their subject matter, and have practicing school and district administrators teaching in their programs than the national comparison sample of principals. Our subjects were also much more likely than other principals to report that their program integrated theory and practice and emphasized instructional leadership, leadership for school improvement, and working with the school community. The only area in which these programs and others nationally were similar was the degree of their emphasis on efficient school operations.

The exemplary program graduates were, on average, more likely to rate their programs highly for comprehensiveness and coherence and for the opportunities provided for reflection, self-assessment, assessment of their skills and competencies by others, and assessment of the program. They experienced much more active, field-connected learning, including connections between internships and field work; field-based projects; action research; problem-based learning; and the use of case studies, small group work, and portfolios. They were less likely to experience lectures.

Not incidentally, exemplary program graduates, on average, were significantly more likely to have an internship experience (89% vs. 72%); to have the kinds of experiences in which they were placed in apprentice leadership roles with expert principals (rather than doing a project on the side while working full-time as a teacher) and to report that these experiences were closely supervised, regularly evaluated, offered opportunities for doing the tasks of an educational leader, and represented an excellent learning experience. (Table 3.2). Their internships also tended to be nearly 50% longer, averaging a full year.

Table 3.2: Assessment of Internship Experiences (for those who had internships)

To what extent did your educational leadership internship experience(s) reflect the following attributes? 1=Not at All. . .5=To a Great Extent	Program Mean n=213	National Mean n=446
I was closely supervised and assisted by knowledgeable school leaders.	4.47***	3.63
My internship achievements were regularly evaluated by program faculty.	4.33***	3.19
I had responsibilities for leading, facilitating, and making decisions typical of an educational leader.	4.27***	3.84
I was able to develop an educational leader's perspective on school improvement.	4.51***	3.74
My internship was an excellent learning experience for becoming a principal.	4.53***	3.91

ANOVA; ***p<.001

Finally, exemplary program graduates, on average, felt significantly better prepared for virtually every aspect of principal practice (p<.001), ranging from readiness to lead instruction and organizational learning to preparation for developing a school vision, engaging parents and community, and managing school operations. Again, with the exception of managing school facilities, where there was only a slight edge, these differences were quite

large. As shown in Table 3.3, we organized these survey items into scales representing key aspects of leadership. (For more information about measurement properties of the scales, see Appendix A.) Many of the most pronounced differences were in areas the literature suggests matter most for school effectiveness and student learning, including leading school improvement, including the use of data to plan change, creating an educational program, and supporting professional development for teachers.

Table 3.3: Program Graduates' Perceptions of Preparedness

How effectively did your formal leadership program prepare you to do the following? 1=Not at All . . . 5 =Very Well	Program Mean (n=242)	National Mean (n= 629)
Lead organizational learning:	4.11***	3.27
Create a collaborative learning organization	4.17***	3.36
Use data to monitor school progress, identify problems, & propose solutions	4.14***	3.09
Engage staff in decision-making about school curriculum and policies	4.03***	3.37
Lead a well informed, planned change process for a school	4.03***	3.24
Engage in comprehensive planning for school improvement	4.02***	3.22
Redesign school organizations to enhance productive teaching and learning	3.82***	3.07
Engage in self-improvement and continuous learning	4.48***	3.64
Develop school vision:	4.05***	3.44
Develop broad agreement among staff about the school's mission	3.96***	3.29
Mobilize the school's staff to foster social justice in serving all students	3.67***	3.06
Use effective written and communication skills	4.24***	3.64
Develop a clear set of ethical principles to guide decision making	4.37***	3.77
Serve as an instructional leader:	3.96***	3.27
Understand how different students learn and how to teach them successfully	3.79***	3.20
Create a coherent educational program across the school	4.02***	3.29
Evaluate curriculum materials for their usefulness in supporting learning	3.65***	3.11
Design professional development that builds teachers' knowledge and skills	4.06***	3.13
Evaluate teachers and provide instructional feedback to support their improvement	4.20***	3.53
Manage school operations:	3.66***	3.32
Handle discipline and support services	3.74***	3.40
Find and allocate resources to pursue important school goals	3.55***	3.07
Analyze budgets and reallocate resources to achieve critical objectives	3.43**	3.15
Create and maintain an orderly, purposeful learning environment	4.12***	3.65
Manage facilities and their maintenance	3.46~	3.32
Engage parents and community:	3.74***	3.21
Work with parents to support students' learning	3.63***	3.21
Collaborate with others outside the school for assistance and partnership	3.84***	3.21

ANOVA; p<.05, ** p<.01; *** p<.001

Participants and graduates of these programs describe how the combination of learning experiences focused on helping them understand how to move a school organization forward and how the coherence of these experiences, including strong connections between theory and practice, enabled them to become effective in the schools where they are now principals. As a participant in the Bank Street Institute put it:

> I think the program is structured in a way that makes you think critically. You are constantly connecting what you learned in the past to the real world. I think that is important. A lot of programs are designed to just get through, and at the end you get a masters or a certificate. But this program truly prepares you to become an effective leader. They do that through seminars; you visit different schools [through your internship]; you get to see what really occurs in the schools and what it really takes to become an effective leader.

Similarly, a graduate of San Diego's ELDA program noted:

> The theory around creating an organization and having a plan for that vision and carrying that vision out—I think that was huge. . . .The focus on instruction [and] the work that we did around instruction really helped solidify the intentions that I came in with. But how to do it? There is nothing, no class, no lecture, no other experience than being in the driver's seat with the steering wheel in your hands, with the controls right there. . . .I was an intern, and I said, "I love this. It's stressful." I would say that everything I experienced in ELDA was relevant [to what I am doing today].

It is not surprising that graduates of these programs were, on average, significantly more likely than comparison principals to say that they would choose the same program again if they had the chance to do it over again ($p<.001$), and the strength of this belief remains strong for those who have become principals. (See Table 3.4.)

Table 3.4: Graduates' Views of their Programs

	Program Grads (not principals) n=108	Program Grads (principals) n=125	National Sample (principals) n=614
"If you had the opportunity to do it over again, would you choose the same program?" 1=Yes; 2=Not Sure; 3=No	1.45***	1.44***	2.01

In the next chapter, we discuss program features that contribute to the feelings of preparedness that graduates experienced. But, as we have noted, what really matters is what happens when they become principals. Do they continue to feel adequately prepared for the challenges they face? Do they enact the practices they

learned about in their programs? Do they in fact bring about instructional and organizational improvement? We turn to these critical questions next.

Principals' Beliefs and Practices

Leadership preparation programs have three types of initial impact—what graduates learn, their beliefs about the role of principal, and their commitment to the principalship as a career. Without these initial effects, it is difficult for programs to have an impact on subsequent leadership practices and outcomes. This is particularly important because the progress of program graduates into principalships is not a foregone conclusion. For example, one large state university in California found in a follow-up survey that only 38 % of its graduates who received preliminary administrative services credentials were serving in any administrative role (including deans and assistant principals), and only about half of these were in principalships (Adams, 1999). In another part of the country, Winter, Rinehart, & Munoz (2002) found that only 10% of eligible candidates they surveyed reported they were likely to apply for a principalship. As noted earlier, candidates' self-perceptions of their ability to do the job were the strongest predictor of their willingness to apply for a principalship.

Beliefs and Commitments

To understand the views of practicing principals, we examined the subset of our sample who were current principals in 2005, as not all graduates had yet become principals; for example, many were in districts where their preparation led first to an assistant principalship, and not all national comparison principals were still principals in 2005. Just over half of the 2000-2004 graduates of our programs had become principals, a high proportion compared to many programs nationally, and most of the remainder were in administrative jobs. Nearly all said they were planning to become principals soon.

As Table 3.5 shows, these program principals were in aggregate significantly more likely to be women, members of non-dominant racial/ethnic groups, and were typically younger than the national comparison principals. By virtue of our selection criteria, they had fewer years in the principalship, but had almost as much prior experience in teaching. They were working in much higher need schools: Their schools were more than twice as likely to serve urban communities and with a majority of low-income and "minority" students.

Despite these challenges, the exemplary program graduates felt significantly better prepared, perceived the opportunities offered by the principalship more positively, and were more likely to plan to stay in their jobs. As was true of the graduates generally, practicing principals prepared by these programs rated their learning and preparedness more highly in all areas. They rated their learning most highly with respect to their preparedness to a) lead organizational learning; b) develop a school-wide vision and ethical commitment to all students; and c) develop student and teacher learning, all of which are critical qualities for school improvement according to research on effective leadership. (See Table 3.6.)

Table 3.5: Characteristics of Principals and Their Schools

	Program Principals n=124	National Sample n=571
Personal Characteristics		
Female	72%***	46%
Racial/ethnic minority	36%***	11%
Age	45***	50
Number of years of teaching	12.6**	14.3
Number of years as a principal	4***	10
School Characteristics		
Average number of students	654	637
School community is urban/small city	62%***	30%
% students eligible for free lunch	64%***	42%
% students who are "minority"	55%***	27%

Table 3.6: Principals' Preparedness, Beliefs, and Commitments

	Program Principals n=124	National Sample n=571
Principals' perceptions of how well prepared[1] they were to:		
Lead organizational learning	3.9***	3.3
Develop a school-wide vision and ethical commitment	3.9***	3.4
Develop student and teacher learning	3.8***	3.3
Manage operations	3.5**	3.3
Engage parents and the community	3.5***	3.2
Positive beliefs[2] about the principalship/Allows me to:	4.84**	4.73
Make a difference in the lives of students and staff	4.91	4.88
Provide opportunities for professional growth	4.85***	4.69
Develop relationships with others inside and outside school	4.78***	4.62
Influence school change	4.87***	4.72
Negative beliefs about the principalship:	4.02**	4.10
Requires very long work hours	4.81	4.73
Has too many responsibilities	4.03	4.05
Decreases my opportunity to work directly with children	3.15***	3.52
Creates a lot of stress	4.10	4.10
Commitment[3] to the principalship:	3.13*	2.99
The stress and disappointments involved in serving as principal aren't really worth it (reverse scored).	3.31*	3.14
If I could get a higher paying job, I'd leave education as soon as possible (reverse scored).	3.41**	3.12
I plan to remain principal of this school as long as I am able.	3.02~	2.86
I am thinking about transferring to another school (reverse scored).	3.35**	3.05
I plan to remain a principal until I retire.	2.71~	2.89
I will continue being a principal until something better comes along.	3.00	2.94

~p<.10; * p<.05, ** p<.01; *** p<.001

[1]Scale scores for preparedness reflect averages of 5-point rating scales: 1=not at all . . . 5=to a great extent.

[2]Belief scores are based on an average of 5-point agreement scales: 1=strongly disagree … 5=strongly agree.

[3]Commitment scores are an average of 4-point ratings of six principal commitment items: 1=strongly disagree. . .4=strongly agree.

Principals of these programs also reported more positive beliefs and a greater commitment to the principalship. They shared strong positive beliefs that being a principal enables them to make a difference in the lives of students, influence school change, and grow professionally. Their views of the stresses of the principalship are comparable to those held by the comparison principals, although they are less likely to feel that their work takes them out of contact with children. Interestingly, although they work in more challenging contexts, they are not, on average, more discouraged than principals working in generally more affluent schools. In measures of their commitment, they are less likely to feel that the stresses of the principalship are not worth it and more likely to plan to remain principal of their school as long as they are able.

As we discuss further in the next chapter, these beliefs and commitment are likely supported both by what the programs teach and by whom they recruit. Many of the program principals were recruited because of their strong instructional backgrounds, as well as their demonstrated commitment to student learning and to urban education. More of them share the cultural experiences of the students they serve, and they have identified serving these students as a central part of their educational mission.

Principal Practices

The influence of these learning experiences is reflected in how principals enact their leadership and in their impact on their schools, teachers, and students. As we noted, this work is accomplished by exemplary, program-prepared principals in far more challenging settings than those led by comparison principals. Leadership practices and impact are examined in three ways: 1) what principals report as their leadership practices based on how frequently they engaged in various activities over one month; 2) how they would characterize the school improvement climate and strategies of their schools; and 3) the changes they report in their schools over the previous year. Since principal self-reports of their practices are necessarily subjective, for a subset of these principals, we also examined what their teachers said about their practices, along with what we observed in visits to their schools and examination of data about trends in achievement and other outcomes. The influence of their preparation seems to be most evident in what they focus on and how they have worked to change organizational and teacher efforts over time.

From survey questions in which principals reported the frequency with which they engage in a range of activities, we found that exemplary program principals, on average and in the aggregate, report spending significantly more time than comparison principals on instructionally focused work. Specifically, they were, on average, more likely to report that they engaged at least weekly, and sometimes daily, in specific school and instructional improvement tasks such as developing curriculum, providing feedback and guidance to teachers to improve their practice, planning professional development, and using data to analyze and plan for school improvement. (See Table 3.7.)

In interviews, graduates of the programs described both their intense focus on instructional improvement and their repertoire of creative strategies for improving instruction. For example, a Delta State graduate who was working as a high school principal explained:

> Eighty percent of my job is teacher supervision. It entails, first of all, patting them on the back when they are doing a good job. Whenever I see something good, I always emphasize that first. [Then it entails] observation, and evaluation, and assessment: giving them some feedback so they can understand, and plotting a plan for improvement if we need it.

Table 3. 7: Principals' Practices by Program Status

In the last month, approximately how often did you engage in the following activities in your role as principal of this school? 1=Never; 2=Once or twice a month; 3=Once or twice a week; 4=Daily	Program Principals N=124	Comparison Principals N=571
Number of hours worked weekly	64*	61
Effective leadership practices:	3.2***	2.9
Facilitate student learning	3.6***	3.3
Build a professional learning community among faculty and staff	3.4***	3.0
Evaluate and provide instructional feedback to teachers	3.4***	2.9
Guide the development and evaluation of curriculum and instruction	3.3***	2.9
Work with teaching staff to solve school or district problems	3.3	3.2
Use data to monitor school progress, identify problems, and propose solutions	3.1**	2.8
Work with teachers to change teaching methods where students are not succeeding	3.1***	2.7
Foster teacher professional development for instructional knowledge and skills	3.0***	2.7
Work with faculty to develop goals for their practice and professional learning	2.8***	2.5

* p<.05, ** p<.01; *** p<.001

A Bank Street graduate, currently working as an elementary principal, sounded the same themes, attributing her focus on being a visible instructional presence in her school to her Bank Street training and noting, "The instructional leader has to be where the action is, and the action is in the classroom." She emphasizes building instructionally-focused relationships with teachers, such that they know that she is "not out to get teachers, but out to get them better," identifying as one such effort her "love notes" to teachers pointing out their strengths after she visits their classrooms.

Typical of others was this description of planning for teacher support from a UCAPP graduate working as a principal in Hartford:

> The first course of business is to provide support for the teacher in whatever area I noticed the teacher is weak in. I may provide additional professional development elements, and that could take the form of going to a formal workshop or visiting another teacher's room who is successful in that area, or [I might] support the teacher myself, sitting down to brainstorm or come up with ideas that will support that teacher. I may even send a teacher to another

school that is more successful in a specific curriculum initiative. I want to provide the teacher with as much support as possible.

The two groups of principals rated their schools' current school improvement strategies and climate similarly, in terms of a) teacher collaboration (a scale including the extent to which teachers feel responsible to help each other do their best, are continually learning, and use time together to discuss teaching and learning); b) active, shared, and distributed leadership (the extent to which the faculty has an effective process for making group decisions, teachers take an active role in school-wide decision making, and the principal reports working with staff to solve problems, not just talk about them), and c) use of data and support for organizational learning (the extent to which assessment of student performance leads to changes in curriculum, teachers collect and use data to improve teaching, and the school has a process for ongoing improvement and planning).

As shown in Table 3.8, both groups of principals agreed that these descriptions characterized their schools' improvement strategies, and that their schools also feature instructional coherence (e.g., curriculum and instruction are well coordinated across different grades), accessible instruction (e.g., standards are consistent across classrooms, there is a clear sense of purpose for student learning, and students get needed instructional support), teacher commitment and appreciation (e.g., teachers strongly support the changes we have undertaken, and people who take the initiative are appreciated), and student effort and engagement (e.g., students work hard and are aware of the learning expectations). Exemplary program principals were, on average, more likely to report that teachers feel supported in and supportive of the change process.

Table 3.8: School Improvement Strategies and Climate

Extent to which principal feels these qualities characterize his/her school: 1= Strongly disagree. . .5= Strongly agree	Program Principals n=124	Comparison Principals n=571
School improvement strategies:		
Teacher collaboration	4.1	4.1
Active shared, distributed leadership	4.2	4.2
Data driven decision making/organizational learning	4.2	4.2
School climate and conditions:		
Coherence	4.3	4.2
Accessible quality instruction	4.1	4.1
Teacher commitment encouraged and practiced	4.3*	4.2
Student effort and engagement	4.3	4.2

* $p<.05$

Despite their similar reports on school improvement strategies and climate, the two groups of principals differed significantly on how much they believed their schools had increased their organizational effectiveness and teacher effectiveness over the past year. Exemplary program principals were, on average, more likely than comparison principals to report that their school had gained in both organizational functioning (consensus on school goals, collaborative decision making about curriculum and instruction, use of data to guide

decisions, coordination between regular and special programs, and staff recognition) and in improved teacher effectiveness and engagement (efforts among teachers to expand their teaching strategies and to share practices, sensitivity to student needs, focus on improving instruction, and attention to the needs of low-performing students).

Table 3.9: Principals' Perceptions of School Progress

"Over the last year, to what extent do you believe there has there been an increase or decrease in the following in your school:" 1=Much less. . .3=No change. . .5=Much more	Program Principals n=124	Comparison Principals n=571
Organizational improvement	4.1***	4.0
Consensus among staff about the school's goals	4.1*	4.0
Collaboration among teachers in making curriculum and instructional decisions	4.3**	4.1
Use of performance assessments and exhibitions of student learning	4.0	4.0
Opportunities for teachers' professional growth	4.3***	4.0
Staff recognition for a job well done	4.2**	3.9
Emphasis on student discipline and enforcing consequences for misbehavior	4.0**	3.8
Use of student performance data for instructional improvement	4.4***	4.1
Coordination of curricular and instructional materials among regular and special programs/classrooms	4.1*	4.0
Involvement of parents and families in school decision making and student learning	3.7	3.6
Teacher effectiveness and engagement	4.2***	4.0
Focus by teachers on improving and expanding their instructional strategies	4.4**	4.2
Job satisfaction experienced by staff	3.9*	3.7
Staff sensitivity to student needs	4.0**	3.8
Confidence in the value of our work	4.2**	4.0
Attention to the needs of low-performing students	4.3***	4.1
Efforts among teachers to share practices with each other	4.2***	4.0

* p<.05, ** p<.01; *** p<.001

Our observations of a subset of program principals and surveys of their teachers in 22 schools (discussed later in this chapter) confirmed that staff members generally perceive that their schools are changing for the better, that teaching practice is getting stronger, and that the needs of students are at the center of their improvement efforts. Achievement gains were also noted for the schools where such data were available.

The Relationship Between Preparation and Principals' Practices

It is possible, of course, that the different characteristics of the exemplary program graduates or the contexts in which they worked accounted for these differences in practices,

rather than the programs in which they had studied. Indeed, it is likely that these other factors play an important role in what principals do. At the same time, the principals we interviewed who had completed innovative preparation programs described connections between their leadership preparation and their leadership practices that were consistent with these results and provided further insight into their leadership practice choices. Their comments centered in three areas: building an instructionally focused vision as the centerpiece of their efforts; developing teacher skills and engaging them in collaboration; and building the capacity and motivation for change. Many described how specific preparatory experiences had developed these capacities, which they now use in their school improvement work, and stressed that their programs had also developed their reflective capacity, which they carry throughout their work.

With respect to building a school vision, many principals described how their program—through its priorities, course readings, internship experiences, and cohort members—helped to shape their views about having a strong instructional leadership focus and relentless attention to reflective practice. As a [Bank Street] graduate put it, the program helped her learn to crystallize a vision of "how I want a school to look." Another noted that her sense of empowerment to lead the development of a strong, consensual vision was reinforced by the powerful role models in the program and by explicit study of diverse approaches to building a school around a vision:

> By doing the Bank Street program, you get to meet so many types of leaders; they took you to these different schools where [principals] had to create [that] type of environment. . . .So you had a model, or if it didn't exist, you learned how to make it exist.

A Delta State candidate pointed to the importance of becoming a role model as a leader:

> One thing that I have learned from this program is that as a future administrator, we have to set the tone for the environment. The best way is to be the example, and then they see what you are doing. That's the best way to do it, instead of having that attitude, "Don't do as I do, do as I say." Then [teachers] perceive that you're somebody who's willing to lead change, to lead people who will be afraid to go by themselves.

Many attributed their commitment to reflective practice to their programs and noted how they found ways to actively reflect with colleagues, both within their staff and with fellow principals, about how to continually improve their schools.

Second, principals we interviewed described how their programs helped them to learn how to develop teachers. For example, one principal explained how she learned through program-related discussions to work with staff in facilitating change. As a consequence, she strives to enable "staff members to not feel like they need to tell me what I want them to say, but to tell me exactly what they're seeing and thinking, and let's do this kind of thing together. You know, move in the same direction." Another principal explained how he has carried the program's sense of innovation into his work with teachers, encouraging them to

work together as teams and organizing their common planning time to promote collaborative practice. He also learned through the program how to develop learning communities, facilitate professional development, and promote conflict resolution, all of which he promotes in his leadership work.

A third principal applied her program's distributed leadership/collaboration emphasis to strengthen her staff's instructional development roles, while decentralizing decision making. She noted that she had learned already that she must develop the staff's capacity to collaborate, since they were unaccustomed to sharing input and responsibilities, documenting their work, and having instructionally focused discussions. A fourth principal stressed how she models professional learning and uses book talks as a start, based on her preparation experiences. Many others credited their programs with shaping their distributed leadership and collaboration skills.

Finally, principals described how they applied their program experiences to facilitate change. We heard a consistent emphasis on leading change toward a student-centered vision of instructional excellence and equity. As a San Diego ELDA graduate noted:

> We are really trained to become change agents, wherever it is that we go, either to join in the work as we thought we knew it here or to lead someone else.

A Bank Street graduate echoed the same theme, observing that a key element of her learning had been to "think of another way to do it. Think of how you can do better in your school what benefits the children of the school." Like a number of others, a UCAPP graduate, now an assistant superintendent in Hartford, noted that the quality of her preparation for enabling change became visible to her once she was on the job:

> You just go in and figure, "Well everyone has had this preparation." From the time that I had my first leadership role as an assistant principal in the high school, I realized what I had been taught and what I was able to actually implement as a leader. I was very fortunate to have a lot more than what other people had. I was able to make a bigger impact more quickly.

Among the principals we interviewed, one described her program as developing transformational leaders, not supervisors, inculcating the ability to develop culture, think outside the box, and build capacity. One principal credited the program and its full-time paid internship with providing her with the skills necessary to put a school-wide reform program into action and assume leadership of a school in transition. The program's clinical correlation assignments (problem-based case studies and analyses) gave her insight for dealing with her own school's problems. The program also helped her to learn to be better organized and work better in groups. Another principal described at length how she had put the program's instructional improvement strategies into practice, by making instructional improvement a priority, establishing grade-level meetings to share and model the use of data and problem solving, and exploring instructional strategies. She added public writing celebrations of the students' work as well. A third principal credited her preparation experience with helping her

become more innovative in thinking about school problems and using school management issues to better leverage improved learning.

In-Service Leadership Development Programs

Increasingly, school districts focus on leadership and its development as part of comprehensive school improvement strategies. This study selected four districts with extensive leadership development programs for both new and experienced principals that had been designed to improve school performance and effectiveness. These programs in Hartford, CT; Jefferson County, KY; New York City's Region 1; and San Diego, CA, overlapped to varying degrees with the pre-service programs we studied.

Tightly coupled pre- and in-service program designs operated in San Diego, where ELDA and the intensive in-service program were both created to work in close collaboration with the district reform effort, and in New York's Region 1, which developed a special relationship with Bank Street's Principals Institute to support both pre- and in-service training based on a shared conception of teaching, learning, and leadership practices. In Jefferson County, the rich web of in-service learning opportunities eventually spawned a closely related pre-service program with the University of Louisville. A much looser relationship exists between the University of Connecticut's UCAPP and the Hartford schools. Although a number of UCAPP graduates go on to work in Hartford, Hartford's major partner for pre-service development is Central Connecticut State University. At least three of the districts that we studied provided additional support for new principals in the form of mentoring or an induction program of some kind.

Relying on surveys of all the principals in these districts, as well as interviews and observations of a smaller subset, we examined whether principals in these districts experienced learning opportunities that were distinctively different from those others principals encounter. We also sought to discover whether the programs make a discernible difference in principals' leadership practices.

Because new principals often received more extensive support than did more experienced principals, we looked at their experiences and outcomes separately, as we also did for comparison principals. A majority (57%) of the innovative in-service principals had 5 or fewer years of experience, as compared to only 39% of the comparison principals.

As was true of the pre-service program participants, the principals in the districts we examined were more likely to be female, minority, and to be serving low-income students in urban schools, than the comparison principals. Although they were also more likely to be serving in elementary schools, their schools were larger on average than those of the comparison group. They also served much higher percentages of low-income students. (See Table 3.10.)

Table 3.10: Characteristics of In-Service Principals and Their Schools

	New Principals (0-5 years)		Experienced Principals (6+ years)	
	Program N=125	Comparison N=205	Program N=93	Comparison N=357
Personal Characteristics				
Percent female	75%	48%	66%	45%
Percent racial/ethnic minority	38%	8%	27%	9%
Age	46	48	54	52
Number of years of teaching	13	16	15	15
Number of leadership responsibilities prior to the principalship	3.9	4.0	3.7	3.6
Number of years in any certified leadership position	7.5	10.8	17.8	18.9
Number of total years as principal	2.6	3.4	9.8	13.9
Number of years as principal in this school	2.3	3.0	5.9	7.7
School Characteristics				
Elementary school	63%	42%	56%	47%
Average number of students	599	682	878	608
Students eligible for free or reduced-fee lunch	71%	45%	68%	39%
Percent minority students	70%	30%	62%	24%
Urban or small city location	81%	30%	76%	31%

Type and Quality of Learning Opportunities

All principals potentially have professional learning opportunities available to them through university coursework, conferences, and professional books and articles. The innovative district in-service leadership development programs we studied often enhanced these opportunities by paying for conference participation and hosting study groups, for example. More important, these districts created their own intensive leadership development strategies by offering such supports as coaching, mentoring, peer observation, and principal networks.

When asked about how frequently they participated in both generally available and district-created leadership development opportunities, the in-service principals from exemplary program districts reported far more participation both in the range and overall

amount of learning opportunities. The one exception was university course-taking, in which comparison principals were more involved. The greatest differences were in program principals' access to the most intensive, experiential forms of leadership development that allow direct analysis of teaching and grounded problem solving—school visits, peer observations and principal networking. Moreover, the exemplary program principals were significantly more likely to rate their leadership development as helpful to improving their practice, even for professional learning experiences in which both groups reported high rates of participation (such as professional reading). (See Table 3.11.)

Table 3.11: Principals' Participation in Professional Development and Its Perceived Helpfulness to Their Practice

Frequency of Participation Over the Last 12 Months (% of principals)	New Principals (0-5 years)		Experienced Principals (6+ years)		Rated More Helpful by Program Principals
	Program N=125	National N=205	Program N=93	National N=357	
University coursework at least once***	27	48	10	35	
Visit to other schools 3 or more times***	54	16	50	16	X
Individual or collaborative research at least once	71	66	69	74	X
Mentored or coached by an experienced principal 3 or more times***	59	25	29	4	X
Peer observation or visit with other principals***	46	17	47	24	X
Principal network participation 3 or more times***	76	60	79	50	X
Presented at a workshop at least once***	53	30	63	51	
Attended a workshop 3 or more times***	71	61	69	53	
Read professional books or articles 3 or more times	82	82	83	81	X
Participated in professional development with teachers 6 or more times***	83	48	75	50	
Participation in district supported professional development + ***	2.5	2.0	2.3	1.9	

* p<.05, ** p<.01; *** p<.001

+Scores reflect frequency of participation in the last 12 months; 1=not at all. . .3=three times or more. Score averages ratings of five types of district-supported professional development (mentoring, coaching, peer observation, principal network, and attending conferences).

New principals in our program districts were more likely than other new principals to have been mentored by an experienced principal through a formal district arrangement and to have attended and presented at conferences. Innovative in-service principals also participated much more frequently in professional development activities with teachers from their school than did comparison principals: Most had attended six or more activities with their teachers over the last year.

Taken together, innovative in-service principals participated in significantly more professional learning with other principals and their teachers than did the comparison principals over a 12-month period. As perceived by the principals, such learning was both intensive in its hands-on nature and helpful for their school improvement work.

We did note differences in the mix of professional development activities available in different districts we studied. For example, principals in New York's Region 1 were much more likely to engage in university courses, conferences, and a principals' network than others, and were less likely to engage in peer observations or coaching. Those in Hartford were least likely to have access to a principals' network and most likely to engage in visits to other schools—also a frequent practice in New York, Jefferson County, and San Diego. Whereas Jefferson County principals were least likely to participate in university courses or research, they were highly likely to engage in peer coaching or observation, as were San Diego principals.

The mix of learning opportunities represented somewhat different learning theories and accountability strategies across the districts. In general, the highly developed aspects of each district's system were perceived to be helpful by the principals. Interestingly, principals' overall sense of district support for improving teaching and learning and their school's improvement was strongest in New York City Region 1. We pay particular attention to the strategies used by different districts in the next chapter.

Beliefs and Practices

Principals in the exemplary in-service programs report, on average, greater emphasis on instructional leadership and organizational development activities in their on-the-job practices than do comparison principals. As Table 3.12 shows, they report significantly more frequent engagement in effective leadership practices, as measured on a scale comprising how often they participate in ten activities: 1) facilitating student learning; 2) guiding curriculum and instruction; 3) building a professional learning community; 4) fostering teacher professional development; 5) evaluating and providing feedback to teachers; 6) using data to manage school improvement; 7) working with parents on students' needs; 8) working with teaching staff to solve problems; 9) helping faculty develop goals for their practice and professional learning; and 10) working with teachers to change teaching methods where students are not succeeding.

They also report, in aggregate, stronger perceptions of organizational changes in their schools, perceiving greater increases over the past year on indicators of organizational improvement and teacher effectiveness. The organizational improvement scale includes changes in staff consensus on school goals, teacher collaboration, opportunities for professional growth, staff recognition, use of performance assessments and student performance data, curricular coordination, and involvement of families. The teacher effectiveness scale includes teacher focus on improving instruction; teacher efforts to share practice; staff sensitivity to student needs, attention to needs of low-performing students, job satisfaction, and confidence in the value of their work.

New principals in the exemplary program districts, who, as we noted, were more likely to be receiving mentoring and other supports, held more positive beliefs (and fewer negative beliefs) about the principalship. The positive beliefs scale included principals' views of the extent to which the principalship allows them to make a difference in the lives of students, provide opportunities for professional growth, develop relationships with others inside and outside the school, and influence school change. The negative beliefs scale included the extent to which principals report that the principalship requires long work hours, has too many responsibilities, decreases opportunities to work with children, and creates a lot of stress. Finally, program principals reported working longer hours and showed a significantly stronger commitment to remaining in the principalship, regardless of their years of experience.

Table 3.12: Principals' Practices, Beliefs, and Commitment, by Program Status

Principals' Reported Practices and Perceptions	New Principals (0-5 years)		Experienced Principals (6+ years)	
	Program N=125	Comparison N=205	Program N=93	Comparison N=357
Effective leadership practices[1]	3.2***	2.8	3.2***	2.9
School improved in:[2]				
Organizational improvement	4.2***	3.9	4.0	4.0
Teacher effectiveness	4.1***	4.0	4.1***	3.9
Perceptions of the principalship:[3]				
Positive beliefs	4.9**	4.7	4.8	4.8
Negative beliefs: Principalship	4.1*	4.0	4.2	4.2
Commitment to the principalship[4]	3.2**	3.0	3.2**	3.0
Number of hours worked weekly	66**	60	63**	61

* p<.05, ** p<.01; *** p<.001; weighted=wtcom2tr

[1]Scores are based on an average of 4-point Likert ratings of frequency of engagement in 10 leadership activities (1=never. . .4=daily).

[2]Scores are based on an average of a 5-point Likert rating scale of the extent of perceived school change over the last year (1=much less. . .5=much more).

[3]Scores are based on an average of 5-point scales (1=strongly disagree. . .5=strongly agree) of 4 items each.

[4]Scores based on an average of four commitment items reflecting plans to stay in the principalship using a 4-point agreement scale (4=strongly agree. . .1=strongly disagree).

Program principals were typically purposeful about their engagement in the leadership practices we assessed. As self-perceived change agents, many of the principals were conscious of setting goals for school improvement and working with their staff to measure progress. For example, a UCAPP graduate working in Hartford noted:

> We set an improvement plan each year as a school—it's a collaborative effort with the classroom teachers—and we set our assessments right in that plan, so we have action steps and how we're going to evaluate them. . . .At the end of the year, I have the staff members [look at] each of our action steps and [review] how far they feel we have progressed toward [the plan], and then they comment on that as well. Then we meet as a staff to determine if that's a goal that needs to continue the following year with a different plan, or if the plan should continue as it is, because there is some success noted.

Similarly, a principal in San Diego explained:

> I think it's really important to look at your data and see what's working and what isn't, and to involve everybody in that process, . . .to look at how you can build capacity. . . This goes back to the training that we received with the district, to look at your staff and identify their strengths and areas they need to work on. I think it's building a culture of learners and letting the staff know that you're a learner too, and that we're in this together as staff, parents, and students.

Principals we interviewed who had participated in innovative in-service activities credited regular principals' meetings through conferences, networks, and study groups, as well as their experience of mentoring or coaching, with helping them institute instructional leadership and school improvement according to their district's expectations. The mentoring, in particular, gave them someone from whom to seek advice on strategy, both in the school and with the district. As one principal explained, the district program for new principals helped him learn how to "*put a vision in place in your school,*" learn how to sequence time, and how to facilitate change over multiple years. His mentor stressed that they planned how to enter a school and make it better, by being visionary, not being complacent, developing community buy-in, and working with all constituencies on change.

Some principals described the opportunities to network around instructional issues as invaluable. The monthly principal meetings in San Diego and New York City's Region 1 were described as a focused source of support, providing skills and knowledge that principals could bring back to their schools and apply immediately to their practice. These meetings were credited with broadening principals' knowledge base and instruction in such areas as literacy development, serving students with limited English proficiency, and designing and developing professional development.

A Region 1 principal described the value of her participation in the district-operated principals' network both for the exchange of ideas and as a springboard for follow-up school visits and problem-solving:

> We got a chance to sit with our networks, bring in our work, and see other principals' ideas who have been principals longer then I have, who have a lot more to share. I'm always asking, "how did you do that?" or. . . "Can I come to your school and see that?" They are always open and willing.

A San Diego principal also noted that the relationships forged in the network spill over into other kinds of supports that reinforce mutual commitments to professional learning and to the community of colleagues. For example:

> I am thinking about [one principal who] said [this summer], "You know, I am having a difficult time finding time to read *Non-Fiction Matters* and think about it in some kind of constructive way. Maybe if we get together and make ourselves do it, that would be beneficial." And I said, "Sign me up, because I'm experiencing the same thing." We met at [the other principal's] house. I felt more obligated to do it for my colleagues. I knew I needed to do it for myself, too, for the learning community.

These types of opportunities helped districts foster a culture of professional growth.

Program Principals in Action

Much of the analysis we have reported has rested on the views of principals themselves about their preparation, professional development, and practices. But self-reports in interviews and on survey items cannot tell the whole story about what principals actually do in their schools. To get a sense of what these programs enable principals to do, we followed up with three to five principals from each of the programs we studied, observing them in their school sites, interviewing them in depth about their work, surveying their teachers about their schools and leadership practices, and examining data about the school, including trends in achievement.

Teachers' Views of Their Principals

There is some prior evidence that principals' preparation can affect their practices in distinctive ways that influence their work with teachers. For example, Leithwood and colleagues (1996) surveyed graduates of 11 innovatively redesigned preparation programs and sampled teachers in their schools to examine program effects on leadership practices. They found that some innovative program features—instructional strategies, cohort membership, and program content—were most predictive of teacher perceptions of principals' leadership effectiveness.

Here we report on data from surveys of 454 teachers in 19 schools led by principals who had participated in the programs we studied and continued to practice as principals in the same district or region (New York City Region 1, San Diego, Jefferson County, the Delta region for DSU graduates, or nearby areas of Connecticut for UCAPP graduates). We compare teacher responses to those of a national sample of teachers surveyed in the federal

Schools and Staffing Surveys (SASS) in 2000 for questions included in both surveys. We also examine responses by the type of program experiences principals had.

As was true of the national comparison group of principals we surveyed, the national group of teachers surveyed by SASS was much less likely to be working in urban schools or in schools with large proportions of low-income or minority students than our sample. We found that teachers' views of their principals' practices were similar for many items, but that the program principals were rated as more likely to encourage professional collaboration, facilitate professional development for teachers, and encourage staff to use evaluation results in planning curriculum and instruction—the kinds of instructional leadership tasks the programs claimed to focus on. In addition, we found that those principals who had experienced the continuum of both pre-service and in-service preparation through these programs were often more highly rated by their teachers on these and other items (e.g., working with staff on curriculum standards, school problem-solving, and changing teaching methods if students are not succeeding) than principals who had had only in-service learning opportunities. This suggests that there may be additional benefit of a tightly coherent, ongoing learning experience that develops a framework for practice and continues to develop prospective leaders' skills.

Table 3.13: Teachers' Views of Their Principals' Leadership Practices

Extent to which teachers agree that their principal: (1=Strongly Disagree. . .5=Strongly Agree)	**All Programs** N=454	**Continuum** N=171	**In-Service Only** N=170	**SASS** N=1046
Works with staff to develop and attain curriculum standards	3.76 (1.02)	3.80 (1.09)	3.54* (1.03)	3.73 (1.06)
Encourages professional collaboration among teachers	4.00*** (.941)	4.05*** (.987)	3.94* (.980)	3.76 (1.15)
Works with teaching staff to solve school or departmental problems	3.65 (1.08)	3.68 (1.17)	3.38* (1.07)	3.57 (1.22)
Encourages teaching staff to use student evaluation results in planning instruction	3.98*** (.952)	3.96*** (.948)	4.02*** (.973)	3.70 (1.11)
Develops broad agreement among the teaching staff about the school's mission	3.67 (1.02)	3.65 (1.08)	3.47 (1.02)	3.62 (1.12)
Facilitates professional development activities of teachers	3.99*** (.967)	4.01*** (.997)	3.87* (1.01)	3.78 (1.12)
Encourages teacher to change teaching methods if students are not doing well	3.58 (.995)	3.64 (1.03)	3.41** (1.01)	3.61 (1.07)
Lets staff members know what is expected of them	4.15 (.876)	4.09 (.916)	4.06 (.926)	4.21 (.995)
Knows what kind of school he/she wants and has communicated it to the staff	4.17 (.872)	4.17 (.829)	4.02 (.979)	4.16 (1.01)

T-tests of group means, all groups compared to SASS national sample; *p<.05; **p<.01; *** p<.001
Mean (Standard Deviation)

Another analysis of these data used structural equations modeling to look at urban elementary principals with up to 5 years of experience and the views of the teachers in their schools in both our sample and the SASS sample (Orr & Stelios, 2007). In this study, teachers gave higher marks for leadership practices to those principals who were trained through an innovative leadership preparation program. Leadership practices included offering a clear direction and strong supports for staff. In turn, principal leadership was found to have positive and significant effects on teachers' degree of professional development, teachers' influence on school policies, teachers' engagement in their work, and teachers' satisfaction.

A Case Study of Principal Learning and Practice in Action

Our observations of program principals in their school contexts allowed us to see up close what they do to support instruction and school improvement. Leslie Marks,[5] for example, experienced the continuum of pre- and in-service development opportunities in San Diego, entering the first cohort of the ELDA "Aspiring Leaders" program in 2000-01 after more than 10 years as a bilingual teacher at the elementary level. At the conclusion of the ELDA program, Leslie assumed a position as vice principal at a low-performing elementary school. During this time, she was part of the first cohort of students participating in the ELDA Induction & Support program for early-career site leaders. In 2002, Leslie was assigned to Tompkins Elementary School, a school requiring a major turnaround, where we met her.

On one of the days we followed her, Marks was in the process of visiting 15 classrooms during her regular "walkthroughs". As she entered a bustling 5th-grade classroom, small clusters of students were working together to craft an outline of their social studies chapter. Leslie quietly watched the teacher review how to identify and summarize the main points in their text, and then observed as the students began working together on their task. She approached a group of students who appeared to be puzzling over their task and engaged them in discussion about what they knew about the reading and how they were determining what to emphasize.

After 15 minutes spent observing and speaking with several students about their work, she moved to a 4th-grade classroom down the hall. In this classroom, students were engaged in a math lesson. Working together in groups, the students were solving a new problem that built on the previous night's homework and which the teacher had just reviewed. Some were writing in their math journals to describe their thinking about the problem, while others were talking in pairs or sketching out possible solutions. After 10 minutes, the teacher brought the class back together to discuss its findings. As the students offered their solutions, the teacher engaged them in articulating their thinking about the problem. Some read aloud from their journals while others talked about how they defined the problem and their approach to finding a solution. Again, Leslie jotted down her observations. As she moved with the researcher from class to class, she talked about what she saw in each classroom and how she interpreted these observations within her broader vision for the school:

[5] All principal, teacher, and school names are pseudonyms. Actual names are used for district leaders.

> As a school, we've been looking at "How do we really know kids get it?" And the only way that we really know is because they either talk about it or they write about it. If they're talking or they're writing, they're showing their understanding. And in the upper-grade classes we went to, there were three different ways that [teachers] were looking at getting kids to explain their thinking. So, I'm kind of 'heartwarmed' about that.

With each class she visited, Leslie collected notes on the strengths and areas of need she identified during her observations. As she reflected on her instructional observations, she began to think through the conversations she planned to have with specific teachers about what she had seen. For example, with the social science teacher, she planned to build on her diagnosis of his practice in several subject areas:

> With the 5th-grade class, that was an opportunity for kids to talk and write about; he wanted them to get the main idea. I think they needed a little more scaffolding, and that's an interesting place to go with him, because I know he's really working on strengthening his reading instruction in the same way that his math instruction has gotten stronger. So I want to ask him, "So how did it go?" and "Why were the kids struggling?" It may be that they needed a couple more steps before they launched out at that point. . . . I felt like the kids needed to talk about the main idea before they had to write anything down.

Leslie used her notes from each of the 15 classrooms she visited that day to map out individual conversations she would have with each teacher and to plan for grade-level and school-wide professional development. She planned to focus in these conversations on the degree to which students had learned and internalized the material. Imitating what she might say in a teacher conference, she suggested she might say:

> "How did you know that your kids were engaged? Why? Why didn't the kids have a chance to respond to that?". . . an ongoing conversation like that. My observation sheets are student talk and teacher talk. As we go through observations, it's about "I want to see less talk here and more talk here." We are trying to expand the student's role in the classroom because they are not just there to have their little heads filled up. They want to be able to process it.

She framed these planned conversations in terms of inquiry: asking teachers for their assessment of what was effective for students' learning, their rationale for their strategies, and their views about how to improve.

It was evident from accompanying Leslie on these walkthroughs that she was driven by her commitment to raising student achievement for all of her more than 500 students, 85% of whom are students of color (65% Latino; 12% African American; and about 8% Pacific Islander, Southeast Asian, and other), and more than 80% of whom are eligible for free or reduced-price lunches. In the 3 years she had been principal, the school's Academic Performance Index (API), a composite measure of achievement test scores, had grown by

more than 150 points, exceeding state and federal targets for improvement, and far outstripping the performance of most schools serving similar students statewide.

The ELDA Experience. Marks described her preparation experience as a critical influence on her current leadership. She noted that she had already formed a lot of her instructional beliefs before beginning the ELDA program, but had not believed that being a principal could be a vehicle for achieving her vision until the district's reform initiatives began to reshape the job:

> [Before ELDA] I didn't think that the principalship was any [place my vision] would have an outlet, because the principals that I had known were not about instruction. . . .I was just being freed when I came into the internship and got into this other part of this world [where] we would be. . . looking at instruction.

As one of the initial five members of ELDA's first cohort, Leslie joined the program while it was still being developed. She spent her first 4 months in the program focused solely on the full-time internship, and started coursework in January. She described this time as an intense "whirlwind," as she and her cohort members took 24 units of graduate coursework in 6 months. In subsequent years, the year of coursework and internship have been fully interwoven with each other throughout the year. Despite the fact that she was part of the pioneering group of students, Leslie described her overall experience with ELDA as "super powerful." When asked about the most influential component of the program, she pointed to the full-time internship:

> Well, the first thing would be the internship itself, because working side-by-side with someone for a year is incredible. I mean, all of those different situations that would come up. . . just learning to be a problem-solver and thinking outside the box. I would attribute so much of that to my mentor.

Leslie spent her internship year with Jan Smith, an experienced supervising principal whom she had requested, known by many in the district as a strong instructional leader whose school change efforts had been highly effective. Leslie worked alongside Jan, learning how she thought and made decisions as well as what she did. Because it was the first year of the program, the scope of the internship and the nature of the relationship between the ELDA intern and the supervising principal were still being invented. Leslie jokingly observed that, given the newness of the program, her supervising principal was trying to learn her role as a mentor while "flying the plane." Nonetheless, Leslie found the opportunity to shadow her supervising principal throughout all her work and to listen in on her thinking extremely productive:

> I just watched her. . . . That was like the best, just watching her. I am really glad, because she said, "I don't know what to do with you." [I responded,] "Well you could do this," [and she agreed,] "Okay, you could do this." She wasn't exactly the most compartmentalized principal anyway. So I just got the

> walkthrough and listened to her and heard her think out loud. . . . I still think of what she would say when I make decisions. So it was very powerful.

A coherent approach to pre-service and in-service development. As an experienced principal, Leslie's mentor, Jan, was already part of the broader San Diego reform initiative (for an in-depth account, see Darling-Hammond et al., 2005) and was experiencing the many supports for experienced principal development the district was putting into place. These included intensive, ongoing professional development focused on instructional practices and instructional leadership, conducted through regular monthly principals' meetings and sustained through a principal's network and a set of study groups. Also key was the support Jan received from one of the district-level Instructional Leaders (ILs) who coached her in her work. The ILs regularly visited each of their schools, conducted walkthroughs, and looked at data to examine teaching and learning. They worked with their principals to design professional development opportunities for individual teachers and the school as a whole. Jan acquired the district's new practices through these in-service learning opportunities. In turn, Leslie learned these practices *in* practice from Jan.

Among the lessons Leslie credited to her year with Jan was how to find alternative perspectives and creative solutions to difficult situations. She described this as finding the grey in a black and white world. Rather than regarding structures and dynamics as fixed, she approaches problems from multiple angles and with greater flexibility. As an example of this, Leslie recounted her response in her current job to several teachers at the same grade level who were remaining entrenched in their teaching practices and resisting collaborative grade-level work. She reassigned several of them to different grade levels where she felt they would be stronger teachers, thereby also breaking up the previous dynamics. As a result, the previously resistant teachers were placed among other teachers who modeled strong and effective collaborative practice.

Leslie also credited her development as a school leader to specific coursework she undertook through ELDA. For example, she felt the school leadership and management course deepened her understanding of her role as a leader of adult learning in her school community:

> Just getting a big, thick, binder full of reading from Michael Fullan, Tom Sergiovanni, and a bunch of other [great writers]: really thinking about the principalship, because that opened up this world. There are so many different ways to think about being a principal. . . . I would go back and reread people like Sergiovanni, who talked about ways to support the adults so that the adults could support the kids. I think that that became my philosophy.

She described how the readings and discussions from this course were linked to other courses in the program and to the internship itself. While the school leadership and management course addressed the supports a leader puts in place to foster improved instruction, the instructional supervision course focused on the structures and expectations a principal creates to move change forward.

These courses, taken together with the internship, provided frequent opportunities for Leslie to transfer her learning from the classroom to the arena of authentic practice. This was further supported by a course addressing teacher evaluation, taught by one of San Diego's ILs. The course was centered on the rigorous evaluation practices being put in place in the district, which included frequent observation and feedback, along with very detailed plans for teacher professional development and coaching, tied to individual and school-wide improvement goals and plans. In the course, Leslie learned how to develop the kind of work plan used district-wide by principals in their own professional development planning, and she used the work plan in her internship to develop her capacity to monitor, evaluate, and support teachers' practice.

Outcomes of Integrated Principal Development. All these tools, and others that Leslie gained in the district in-service program, came into play in her current challenging assignment at Tompkins. Under the previous principal, achievement had slipped and teachers had become demoralized. Teachers described the previous principal as rigid and controlling, causing many to feel defensive and fearful. Teachers also characterized the early years of the district's reform, spent under the leadership of Leslie's predecessor, as time lost to instructional improvement and teacher professional development:

> [Teacher 1:] When [the former principal] was here for the first couple of years of the Blueprint [for Reform], I feel like it was completely wasted. We never learned anything. We were completely confused.
>
> [Teacher 2]: I was always defensive and worried.

In addition to changing the climate and engaging Tompkins' teachers in her vision for the school, Leslie had to evaluate the individual needs of the school and the readiness of her staff to undertake the work necessary to improve student achievement. At the same time, she also had to assess the school's and the staff's capacity to support the reform efforts that had been initiated 4 years earlier, but which had been barely begun at Tompkins. As a result, she noted that the school was several years behind the district as a whole in its developmental growth, "It was hard to figure out how to do 4 years of work that I felt had been done in the district. . .in my first year."

She used the framework and resources of the district's reform effort, as well as what she had learned in ELDA, to structure professional development among her instructional staff. Because there had been little positive reaction at her school to the district's reform initiatives before her arrival, she spent considerable time "back-tracking" by reviewing the training that had been undertaken and re-engaging teachers in the work. In order to begin raising the level of Tompkins' work, Leslie focused on making the teachers "comfortable in their skin" and addressing shared beliefs about teaching, learning, and the students. She noted that one of the chief challenges was changing teacher beliefs about students and a punitive culture that blamed the students for not learning. She addressed this by using literature on children's experiences with schooling and engaging teachers in these issues, encouraging talk about the role and expectations of teachers and their instructional hopes for their students, and then linking those goals and visions to daily strategies in getting students there.

Under Marks's leadership, teachers described a significant shift in the school climate, borne out by substantial, steady improvements in the school's academic performance. In our survey, the faculty reported that Leslie sets a respectful tone for interactions with students (91%), and promotes an atmosphere of caring and trust among staff (85%). They noted that she has created more collaboration among staff in making curriculum and instructional decisions (88%), and there are more efforts among teachers to share practices with each other (88%). Teachers credited Leslie's professional development work with improving their own practice. As one of the previously resistant staff members observed:

> In the last several years we have had heavy staff development. I have been resistant to some of it, but I have watched and seen and tried it on anyway. Seeing things that work, I have given myself permission to look into it further. [In the past,] I tended to get on my own agenda and go, go, go. Everybody's goal is to try to make [instruction] more student-centered. I want to do better at that, but I have to keep catching myself and going, "Okay now." I am used to saying, "I'm not going to do that. It is not valuable." Now I'm seeing that it is valuable.

Teachers noted that while the initial transition was difficult, Leslie has shown respect for their professionalism and provided support for their development:

> She will give you that kind of support. I feel a lot more that I am empowered as a teacher, that I can make some decisions. I have to back up those decisions when I am going to do something, but I feel like we can do that now, whereas before, I don't think we felt that we could.

Leslie is credited with creating and sustaining a vision of learning that permeates the Tompkins community. Teachers described her vision as focused on helping all students to meet grade-level standards and pushing and supporting all teachers to accomplish their goals for their students:

> I think that one of Leslie's strengths is that she has a really good vision and she sees the big picture. She spends her energy where it needs to be spent. She is going to coach or suggest or push the people who need that. She is going to see the people who are competent and ask them to help other people or leave them be for the time being. She focuses her energy where it is needed primarily at the moment. That is what helps the school run effectively.

Characterizing this vision as conducive to the effective leadership of the school, teachers agree that Leslie has leveraged school resources to support professional development as well as teachers' individual and collective initiatives. Ninety-one percent say that "she stimulates me to think about what I am doing for my students;" 85% feel that she is "aware of my unique needs and expertise;" and 82% find her "a source of new ideas for my professional learning."

Ongoing inquiry and learning are essential elements of Leslie's vision. She described her view of a "learning community" as driven by the continual self-reflection and growth of the teaching staff. She characterized this as a space where teachers feel able to experiment, aware that there is always room for improved student achievement, and to question their own work as learners, all in a collaborative space:

> I wanted teachers to be able to recognize that there is always room to try something new. There are always places to go to raise student achievement and to be open and honest about their questions—the more you know, the less you know—and to really engage with that because that, I think, makes you a learner, and that's when you start really trying to figure out how to do what it is you need to do.

In order to facilitate stronger work among teachers, Leslie initiated "collaboratives," regular grade-level meetings at which teachers discuss their practice and student work and develop strategies for improvement. Initially held every 3 weeks, she increased the frequency to weekly meetings to better foster deep, ongoing discussion among teachers about their instructional work. Leslie observed that when she first established these meetings, many teachers were reluctant and not engaged. By framing the meetings with purposeful agendas and focusing relentlessly on student work, however, Leslie began to see teachers using each other's expertise. She notes:

> First-grade [teachers are] at the point where they are okay going into each other's classrooms and looking at each other's practice, bringing each other's work to the table. It never would have happened 2 years ago.

Teachers recognized the strides Leslie had made in fostering collaborative work at their school, describing the collaborative grade-level work as a vehicle for achieving the increasingly shared vision for improving student achievement. In our survey, 97% of teachers reported that they share ideas on teaching with other teachers at least weekly; 91% discuss how to help students having problems at least once a week, and 85% meet to discuss common challenges in the classroom at least that often. In addition, about half said they observe another teacher teaching and are observed by another teacher at least monthly, and fully 91% are involved in peer observation at least once in a while. More than 80% meet at least monthly: to develop teaching materials for particular classes (82%), to share and discuss student work with other teachers (85%), and to discuss particular lessons, including those that were not successful (82%).

In addition, 84% of the teachers reported that the school now pays more attention to the needs of low-performing students, which is the focus of much of this effort:

> [Teacher 1:] I think what we have really been focusing on is how to raise the achievement level of our lower achieving students, [those at] the "basic" and "below basic" level, and bringing them up to "proficient." Then, also, [helping] the kids that are above, raising everybody's achievement level.

> [Teacher 2:] One of the ways that we have been moving toward that end is through weekly collaboration among grade levels. [We ask ourselves] what can we do to support those kids and push those kids that need to be pushed and need extra support?

Teachers attributed this collaborative work as central to their development, with one referring to a recent staff meeting at which teachers volunteered to be resources for others who might be relatively weaker in specific areas, noting that people are starting to be comfortable with sharing expertise and observing each other's work:

> I've been here a long time, and I've watched people be very reluctant: "I'm doing my thing, and don't come into my room to watch me because I'm afraid of you, or I'm afraid that you're going to criticize me." I think people are more receptive to their peers and saying, "We're all here to help each other, we're not going to be critical, and I think it would be of great value to use our experts."

Several teachers described examples of colleagues identified as having particular expertise, such as in Writers Workshop, invited by others into their classrooms to help share their knowledge and skill. Leslie talked excitedly about the progress she has seen in collaborative grade-level work since she first assumed the principalship.

> I remember our first collaborative: The upper grade teachers all came to sit around the table, put their car keys on the table, and crossed their arms as if to say, "Why are we here?" Now, they've got their books open, and they are really working hard.

In the school survey, teachers affirmed their sense of Leslie's strong leadership, which conveys high expectations along with significant support for their work and ongoing improvement. Large majorities agreed that the principal lets them know what is expected of them (94%), has communicated a vision of the school to all staff (94%), and is supportive and encouraging (85%). Staff say that Marks is "very effective" at encouraging professional collaboration (91%), working with staff to develop and attain curriculum standards (88%), encouraging staff to use student evaluation results in planning curriculum and instruction (88%), facilitating professional development for teachers (88%), and working with staff to solve school or departmental problems (82%). Most also reported that Leslie had increased their desire to succeed (82%), their willingness to try harder (79%), and their commitment to the school (73%). More than half felt she had had a great deal of impact on the effectiveness of their teaching, the quality of the curriculum, their opportunities for professional growth, the engagement of students, and the quality of their academic performance.

Clearly, this new principal has had a substantial influence on the quality of teaching and learning at Tompkins Elementary School. Equally important, we found the same kinds of practices in the work of other principals we shadowed who had graduated from the ELDA program. In addition, we found that veteran principals who had experienced the intensive

professional development integral to San Diego's overall reform were transforming their practice to become stronger instructional leaders.

Conclusion

Effective school leadership requires a range of practices focused on and mediated through individual staff, organizational conditions, and the school community. It is difficult to measure how principals improve these school and teaching conditions and create a continuously improving environment. They may begin and make progress in many different areas. Over time, such work should accumulate, if facilitated effectively, to fostering improved organizational conditions, quality instruction and learning conditions, and teacher effectiveness and engagement.

In examining principals' current leadership practices and school improvement work, we found promising differences in the leadership practices of principals who experienced exemplary pre- and in-service programs, in contrast to comparison principals. These innovatively prepared principals and in-service principals work longer hours and with greater focus on fostering organizational, instructional, and school culture improvement through a variety of leadership, organizational, and professional development strategies. They give priority to developing and supporting their teachers, as evidenced by their greater participation in teacher professional development and their reported gains in teacher effectiveness. They cited more recent improvements in broad areas of organizational effectiveness and teacher effectiveness and engagement, both essential mediating conditions for improved student outcomes.

Thus, how principals are initially prepared and subsequently supported by their districts appears to be significantly associated with how they lead and what kind of school improvement gains they achieve, as reported by them and their teachers, and as we observed when we visited their schools. The principals we interviewed and followed provide some insight into why this is so—the powerful themes of leadership purpose and organizational change that are integrated in their programs, their opportunities for both field-based practice and guided reflection, and their encouragement to take initiative in striving beyond school management to instructional leadership. Having a reinforcing district leadership environment—particularly as described by the continuum-prepared principals—appears to have a cumulative effect on enabling their improvement work to focus especially on teacher effectiveness. In the next chapter, we describe in more detail what the programs do to support these kinds of outcomes.

Chapter 4: What Exemplary Programs Do

In the aggregate, the programs we studied appear to produce graduates with the knowledge and skills necessary to undertake instructional improvement, organizationally sophisticated leadership practice, and a stronger commitment to a career in school leadership. What do the programs do to accomplish these goals? As we noted earlier, the literature points to a number of features of leadership development programs as important, including:

- Research-based content that is aligned with professional standards and focused on instruction, organizational development, and change management;
- Curricular coherence that links goals, learning activities, and assessments around a set of shared values, beliefs, and knowledge about effective organizational practice;
- Field-based internships that enable candidates to apply leadership knowledge and skills under the guidance of an expert practitioner;
- Problem-based learning strategies, such as case methods, action research, and projects, that link theory and practice and support reflection;
- Cohort structures that enable collaboration, teamwork, and mutual support;
- Mentoring or coaching that supports modeling, questioning, observations of practice, and feedback;
- Collaboration between universities and school districts to create coherence between training and practice as well as pipelines for recruitment, preparation, hiring, and induction (Davis, Darling-Hammond, LaPointe & Meyerson, 2005; Jackson & Kelly, 2002).

These strategies were evident in the eight programs we studied, in different configurations and combinations. In addition to these components, we identified several other factors that contributed to program effectiveness. These included:

- Vigorous recruitment of high-ability candidates with experience as expert, dynamic teachers and a commitment to instructional improvement;
- Financial support for pre-service candidates to enable them to undertake an intensive program with a full-time internship; and
- District or state infrastructure that supports specific program elements and embeds programs within a focused school reform agenda.

Detailed examinations of each of the eight programs allow us to describe how these kinds of program components operate and matter. We also found that the programs' approaches and outcomes were tied to their contexts and were shaped by the complex interactions between the components and the institutional partners that support and implement the programs. Each program was a dynamic system that produced school leaders with an orientation toward instructional leadership, the ability to organize a school to focus its activity on student learning, and a commitment to working with schools throughout their careers. The programs provide very different examples of how to influence the development of leadership ability in school principals.

Critical Pre-Service Program Components

These exemplary programs have implemented virtually all the program elements that we found in the research literature. The content of these programs focuses on *instructional leadership, organizational development, and change management*, conceptualized and implemented in a *highly coherent* fashion. The curriculum is both *research-based* and tightly *aligned with professional standards* and state and district accountability requirements (Sanders & Simpson, 2005). The programs stress the importance of *problem-based learning* situations that *integrate theory and practice* (Hallinger & McCary, 1992; Bridges & Hallinger, 1993; Knapp et al., 2003; Kolb & Boyatzis, 1999; Daresh, 2001; Baugh, 2003). In addition to strong internships, these include field-based projects, action research, analysis and discussion of case studies, and, usually, a portfolio of evidence about practice.

Programs *actively support candidates* by facilitating supportive relationships such as *cohort groups* and strong *mentoring and advising* relationships (Lave, 1991; Leithwood et al., 1996; Barnett, Basom, Yerkes, & Norris, 2000; Browne-Ferrigno & Muth, 2001; Daresh, 2001). Our study also documents the importance of *financial support* to allow full-time study, including an administrative *internship* that allows candidates to learn on-the-ground leadership skills under the guidance of an expert principal. This support, coupled with *purposeful recruitment* of talented, committed teachers with the capacity to become instructional leaders, produces a diverse, dynamic group of candidates who have demonstrated their ability to teach and to lead their colleagues. Finally, we found that the programs' strength was often a product of strong *relationships between local school systems and universities*, with a clear focus on a shared mission and a specific vision of instructional reform at the center of the work. We found that several elements of the local context matter (Leithwood et al., 2004), including state, district, and university *policies that provide resources and direction* for the work and *champions* who are willing to launch, prioritize, and sustain innovative approaches.

Recruitment and Selection

In contrast to many programs that passively admit candidates from whatever pool decides to apply, the programs in our study actively recruit talented potential principals. Districts play a major role in identifying, recommending, and, sometimes, sponsoring these

recruits. This is borne out in our survey data: A higher percentage of exemplary program graduates were referred or recommended to their program by districts (63% v. 32%), and two-thirds had at least some costs paid, as compared to one-third of the national sample. In programs like Delta State University's (DSU) and San Diego's Educational Leadership Development Academy (ELDA), candidates must have substantial teaching experience and be nominated by their districts to be considered for admission.

Our interviews with faculty and staff made it clear that they are consciously recruiting a different type of educator for school leadership. The programs focus on enrolling experienced teachers with strong teaching and leadership skills who are committed to educational change. Most programs have an explicit goal of expanding the racial/ethnic, cultural, and gender diversity of the principal pool, as well as its overall quality. To support particular goals, programs often look for educators with a track record of coaching other teachers, working in high-need settings, or providing other needed skills and experience.

These recruitment processes, which sought to find candidates with the experience needed to become strong instructional leaders, produced results that differ significantly from traditional norms. In contrast to the national comparison sample of principals, the pre-service program graduates we surveyed were more likely to be women (73% v. 48%) and members of a racial/ethnic minority group (37% v. 8%). While program and comparison principals had similar amounts of teaching experiences (13.4 years v. 14.7 years), the types of experiences varied. As Table 4.1shows, program principals were, on average, about twice as likely to have been a special education teacher and less than half as likely to have been a physical education teacher. Program principals were also more than twice as likely to have been literacy or math coaches and less than half as likely to have been athletic coaches, a role held by more than 40% of the comparison principals.

Table 4.1: Principals' Teaching and Leadership Background

	Pre-Service Graduates n=213	In-Service Principals n=230	National Sample n=661
Teaching Field:			
• Elementary School	67.3%	67.8%	55.0%
• Middle School	48.1%	40.0%	47.4%
• Secondary School	31.8%	30.9%	43.2%
• Math or Science	27.8%	17.0%	30.0%
• English/Language Arts	25.2%	18.3%	20.0%
• Special Education	20.1%	23.9%	10.5%
• Physical Education/Health	4.7%	9.1%	18.7%
Other Experience:			
• Assistant Principal or Program Director	46.9%	68.2%	65.7%
• Department Head	27.1%	34.5%	36.1%
• Curriculum Specialist	25.6%	30.5%	19.6%
• Athletic Coach or Director	17.9%	14.3%	40.5%
• Literacy or Mathematics Coach	29.5%	20.2%	8.0%

To recruit teachers with a record of strong instructional practice and the ability to lead their colleagues, the pre-service programs use some innovative selection methods. For example, at Bank Street, the application form requires reference letters from candidates' principal and teaching colleagues about their teaching and leadership abilities, plus an autobiographical essay that reflects on candidates' commitments to education. Several raters evaluate this pool, and those remaining after a first cut are invited to a group interview, during which five to six participants work collaboratively to solve a problem based on a real challenge in the field. Applicants are observed and rated by two or more people, including a district representative, and they are filmed. The criteria used by the raters assess applicants' abilities to discuss appropriate content, communicate ideas clearly, work cooperatively, influence group opinion, and facilitate task completion. The raters look at how each person interacts with others and contributes to problem solving. The district superintendent and deputy superintendent also look at the videos and make the final decision about who is selected.

In San Diego, ELDA's recruitment process also relies on nominations from district leaders in order to find dynamic teachers with a reputation for teaching excellence. The program selection process includes traditional measures of achievement but centers on observations of the candidates leading instruction with adults and/or children, as the ability to lead professional learning is a key component of the program's conception of leadership. Another way to gauge candidates' abilities is by constructing pathways to leadership, as Hartford Public Schools have done. Potential leaders are identified early in their careers and recruited into positions where they can develop their abilities to work with teachers; these positions can be instructional coaches, turnaround specialists, assistant principals, and finally the principalship.

Strong Curriculum Focused on Instruction and School Improvement

A second feature that distinguishes these programs from many traditional principal development programs is the tight focus on instructional improvement and transformational leadership that guides high-quality coursework and fieldwork. Whereas traditional programs have focused on administering schools as they are, these programs seek to develop principals' abilities to build a shared vision for instructional improvement and to lead a team to implement that vision, both by supporting teachers individually and by developing a more productive organization. The programs share a conception of instructional leadership focused on teaching and learning—one in which principals develop and evaluate curriculum, use data to diagnose the learning needs of students, serve as a coach and mentor to teachers, and plan professional development. Furthermore, the programs aim to develop transformational leaders who work to improve the school as an organization, develop norms and structures that support high quality teaching and learning, enhance the capacity of the faculty to meet the needs of students, and implement reform strategies that will improve student outcomes.

The survey results and interviews confirmed this emphasis. Programs launched recently, like San Diego's ELDA and Delta State's new program, were developed with an instructional focus and the goal of helping leaders prepare to transform low performing

schools. In long-standing programs like those in Jefferson County and at the University of Connecticut, respondents noted a shift from a management focus to an emphasis on instructional leadership and change management that is built through collaboration. The program philosophies were clearly articulated by faculty and students. For example, a candidate in Delta State's program noted:

> I believe the old-school way was to be a manager; now we need to be leaders. Let your faculty and staff have a sense of belonging and a sense of ownership in what you're putting out there. I think when you do that, it just creates a cultural environment that's conducive to learning.

Similarly, a Jefferson County Principals for Tomorrow (PFT) instructor described the way that the program's emphasis has changed over time, away from nuts-and-bolts management toward theories of change leadership: "The program has changed. . . . [Candidates are] not just getting to know this is how you put a budget together, but this is how you get a school to *support* the development of a budget." This emphasis on team and community building was shared by the Jefferson County in-service initiatives, as well as the other programs we studied.

While they shared an emphasis on instructional leadership, the programs exhibited some relative strengths based on their curricula and designs. Graduates of Delta State felt most consistently well prepared across the board, except for dealing with budget and resource allocation issues, a skill at which Bank Street graduates felt best prepared. Graduates of Bank Street and San Diego's ELDA joined Delta State graduates in feeling particularly well prepared to serve as instructional leaders, far outscoring a national comparison group of principals on how well they felt their programs prepared them to evaluate teachers and provide feedback to support their instruction, as well as design professional development. Graduates of UCAPP, along with those of Delta State and Bank Street, felt exceptionally well prepared to manage a school improvement process, use data to guide school change, and create a collaborative learning and decision-making culture with teachers.

As we noted in Chapter 3, our respondents reported that the exemplary pre-service programs were more likely to exhibit features recommended in the research literature: These components included a comprehensive and coherent curriculum; program content that stresses instructional leadership and leadership for school improvement; faculty who are knowledgeable in their field of expertise; inclusion of practitioners among the faculty; learning in a cohort structure; the integration of theory and practice; extensive opportunities to reflect on their experiences and development as a leader; and opportunities to receive feedback about their developing competencies. Participants in exemplary in-service professional development programs also reported that they experienced learning opportunities that integrate theory and practice and provide opportunities to work collaboratively with colleagues, through coaching and peer networks.

Program graduates, on average, reported that their programs strongly incorporated strategies to foster learning: They were almost twice as likely as principals from the

comparison sample to have been in a cohort and to have experienced active, student-centered instruction (such as use of case studies, problem-based learning, and action research). Finally, they were much more likely to have had strong content and field experiences, with most participants rating their programs more highly on having provided cohesive content that integrated theory and practice and having had, on average, better quality internship experiences when compared to principals in the larger sample.

Well-Designed, Tightly Integrated Coursework and Fieldwork

These exemplary programs demonstrate how knowledge and skills develop over the course of the program of study, integrating important disciplinary theories and concepts and linking them to internship experiences. The programs provide a logical array of coursework, learning activities, and program structures, all framed around the principles of adult learning theory that link theory and practice. Program activities provide a scaffold on which to construct new knowledge, offer opportunities that foster deep reflection, and help candidates link past experiences with newly acquired knowledge. Courses are problem-oriented rather than subject-centered and offer multiple venues for applying new knowledge in practical settings (Granott, 1998; Lave, 1991).

One of the most important levers for learning is the close integration of coursework and fieldwork. In alignment with the literature on adult learning, these programs offer cross-disciplinary studies that expose candidates to concrete elements of real-world practice. These in turn increase a leader's ability to contemplate, analyze, and systematically plan strategies for action (Kolb & Boyatzis, 1999). Pedagogies such as case methods, action research, problem-based learning, and journaling support these connections. Internships provide an extended opportunity to grapple with the day-to-day demands of school administrators under the watchful eye of an expert mentor, with reflection tied to theoretical insights through related coursework.

For example, instead of teaching academic content in separate courses, ***Delta State University*** faculty present critical theories and concepts of administration in an interdisciplinary fashion framed around the issues, events, and problems experienced during the year-long internship, which is integrated with other coursework through weekly seminars. A candidate's experience handling a student discipline problem might be used to stimulate an in-class examination of the principles of school law, rights for students with disabilities, conflict resolution, problem solving, time management, and school-community communications. In addition to group discussion, internship experiences are brought to the university faculty and the cohort through "Clinical Correlations." These written assignments require candidates to analyze internship activities through the lens of the overarching goals of the program. Students are required to describe the situation, explain how it is connected to the goal, describe how their mentor principal resolved the issue, and offer alternative solutions. The faculty will often select among the written correlations and present a situation to the entire cohort for reflection, pushing candidates to link the situation not only to the program goal, but also to course readings and their own experiences.

While learning experiences are assigned traditional university course numbers, work is completed through portfolios and reflective activities and may take longer than one semester to complete. Students typically receive a grade of "IP" (in progress) at the end of each semester, and only get official letter grades once they complete the entire curriculum sequence. It is not surprising that, on a scale of 1 to 5, DSU graduates rated their program a 4.89 on integration of theory and practice. A graduate explained:

> We didn't learn by sitting in a classroom, reading it out of a textbook, and listening to a lecture every day. That's not how we learned everything. Even though all the theories and the ideas were thrown at us over two months over the summer, and most of us were asking, "What is this? How are we going to use all this information?," once we got into our internship, everything started to play out. We started to see why we spent so long on change and the reason why we were introduced to the different leadership styles. All of that came into play once we actually got into the internship. So what we learned was not a result of reading out of a textbook somewhere and sitting in a class taking notes, it's because of the interaction that we've had here—the interaction that we've had with our professor and what we've been able to discuss since we've been out into our internship.

This integrated approach to considering theory in the light of practice—and practice in the light of theory—enables principals to become responsible for their own professional learning after they leave the program. They have developed the habit of applying professional readings to their practical experiences, a skill they take with them into their work as principals.

In a similar fashion, ***Bank Street's Principals Institute*** emphasizes action research and field-based projects as a means to link coursework to a progression of field-based experiences and an intensive internship. The curriculum is organized around a progressive vision for schooling that emphasizes teaching and learning as well as school reform and redesign. It includes coursework on adult development and staff development; curriculum development; team building and collaborative decision making ("practices of democratic schooling"); school change and school redesign; and the role of the transformative leader. Coursework also includes foundations; research; supervision; law and the practical areas of policy; budget; technology; and communications.

The program's courses employ an inquiry model that requires candidates individually or in groups to research the theoretical supports for their current practice. Beginning in their first Foundations course, this approach uses the candidates' school-based experiences to generate research questions and to encourage their use of research in their practice as school leaders. For example, in the research class, participants develop an action research project at their school sites, based on their interests. The professor of this course noted:

> The research is some aspect of their experience that they're in the midst of while they're taking the course. It's necessarily rooted in something that

> they're involved in. The topics come out of what their interests and preferences are, given of course, the conditions they're working with.

One side-effect of this approach is a strong sense of relevance and motivation for candidates. As one explained about the coursework:

> You take ownership of your learning. In every course, we learn certain things, but when you do your projects and you work in groups, you take ownership and you take it in the direction that you want to take it. If you want to explore an area further in action research or whatever the topic may be, you can do so. Everyone learns at their own level and at their own pace.

The program places a strong emphasis on connecting theory and practice through reflection at the individual, conference group, and cohort level. It does this through multiple aspects of the program delivery, including the advisement model and journaling. Several courses, as well as the internship, require participants to maintain a journal in which they document critical incidents, challenges, and discoveries and reflect on how these experiences have shaped their leadership development. Submitted on a weekly basis, the journal is a confidential document, shared only between the candidates and their advisors and returned to candidates with comments or guiding questions to deepen their thinking. One of the principals we followed credited the journaling and ongoing reflection that occurred during the program with reinforcing critical reflective skills that keep her focused on her instructional vision. She also credited this experience with helping her become more innovative in thinking about school problems:

> You have to look at things outside of the box. You have to be innovative. [For example,] if you want to increase parent involvement, you can't keep doing the same old thing and expect to get different results. And that's one of the things that I think [Bank Street] really taught me.

Integration of theory and practice is further supported by the blend of university faculty and school practitioners who teach the classes and serve as advisors. As one participant observed, "The fact that some of the professors are actually people who work in our region not only brings in the theory, but the practice as well."

San Diego's ELDA program—also directly embedded in local district practice—uses many of the same strategies to link experiential learning to relevant theory and research. The coursework is co-designed and co-taught by university instructors and district practitioners, and it is linked directly to the internship. The thematic courses include Instructional Leadership and Supervision (two semesters), Human Relations for Leaders, School Leadership and Management, School Law, and Diversity. Like Bank Street, ELDA also has a separate course on Technology, supporting skill development in data management, internet research, instructional technology uses, and technology resources for school-wide planning.

ELDA students view the courses as highly relevant to their needs, both because they often include problem-based learning cases and applied tasks, and because they are linked to the real-life demands of school-level practice through the year-long internship. In Instructional Leadership and Supervision, for example, students develop a work plan, aligned with the district's principal work plan, that prepares them to analyze, improve, and integrate a school's professional development structures, the plan for building staff capacity, and the monitoring of student achievement. One assignment asked candidates to identify six teachers, discuss how they would improve the practice of those teachers, design an action plan and an accountability system, and figure out how to organize resources to implement it. In many cases, these plans are then put into action in the internship context.

All the courses use a problem-based learning model that engages participants in authentic problems of practice. The School Leadership and the Politics of Education course, for example, uses three problem-based modules that ask groups of candidates to work together to study and prepare detailed responses to complex school problems of school safety, instructional improvement informed by student data, and teacher supervision and evaluation. Participants appreciate the power of this integrated strategy. As one intern put it:

> I thought it was just brilliant to combine the theory and practice. I like that the program has been modeled around learning theory. I like the fact that our classes are germane to what is going on daily in our school. It really helps to make the learning deeper and, obviously, more comprehensive.

Another principal in San Diego described a colleague who quit her Tier II program at another university to enroll and start over in ELDA's Induction & Support program:

> She opted to stop at [the other university] and enroll for her Tier II through ELDA because of the rigor and the parallel to the work that we were doing. You know, it is so connected. It actually makes going back to your school site and doing your work easier, because you're getting support for the work that you're engaged in. [For example,] teacher supervision: . . .being able through the ELDA program to go out and visit a school with colleagues, with leadership within the district, have conversations that problem solve what's working in those teachers' classrooms, what would the conversations sound like when you conference with that teacher about the lesson, about what works and what the next steps are. I could immediately go back to my school and I could use that—even that very afternoon.

The problem-based approach is also a hallmark of ***Jefferson County's PFT program,*** described by a graduate as "both practical and rigorous." The program uses problem-based case study exercises to emphasize both "how to work with other people who are resistant to change," and "getting into the most recent instructional processes." Describing the PFT curriculum as "very hands-on," this graduate emphasized that:

> I never thought about this as a course. I've always thought about this as an experience, because we never sat down and just listened to lectures. Everything we did was always very interactive and very, very much hands-on, with very practical applications for everything.

The ***University of Connecticut's Administrator Preparation Program (UCAPP)*** has made this interaction between coursework and practical applications a major goal over the last few years, as the program has been redesigned from one in which connections between courses and the internship were at best ad hoc to one in which they are planned and continuous. Two major strategies are used: weaving reflective discussions of on-the-job leadership experiences into courses and conducting a series of field-based projects. These begin right away, in the first summer session, with a project to orient interns to the district and school to which they have been assigned. The school/community analysis project familiarizes candidates with the context and the issues influencing the schools assigned as their internship sites. The analysis project must be turned in to the UCAPP coordinator in the first summer session, but it is continued throughout the 2 years of the internship as the candidate researches an important issue for that district or school. At the end of the internship, the project is presented to the candidate's mentor principal and site supervisor. Many of these embedded projects have influenced practice and policy at the local level. Some candidates are amazed at how quickly the UCAPP program plunges them into practical experiences:

> I just felt from the very beginning how important that real world experience is. It never occurred to me that other institutions feel you need to have x number of classes before they'll allow you into the real experience. I think having the real experience almost from day one has been critical and fabulous, very enriching and realistic.

Robust Internships

The internship experience is clearly critical to the success of these program models, rendering the coursework more valuable because it is tightly interwoven with practice. This is not surprising, as research suggests most adults learn best when exposed to situations requiring the application of acquired skills, knowledge, and problem-solving strategies within authentic settings (Kolb & Boyatzis, 1999). Although more than 90 % of all administrator credential programs require an internship experience of some kind (Murphy, 1992), these experiences vary widely in their design (especially the extent to which they provide an actual apprenticeship in a leadership role), duration, intensity, level of support, and quality of supervision. A study of 61 programs found that many internships do not provide participants with genuine hands-on leadership experiences or decision-making opportunities, nor do they provide opportunities to develop instructional leadership related to improving student learning. Instead, interns tend to spend much of their time as passive observers (Fry, Bottom, & O'Neill, 2005). Frequently, the internship is merely a project teachers conduct in the school where they are teaching, rather than a opportunity to experience leadership opportunities under the close guidance of an expert

principal. Our exemplary programs offered a different model for the internship, one that provided authentic, active learning experiences in school settings.

Even when programs know what elements are required for a successful internship, they often have difficulty implementing these opportunities effectively. Major barriers are 1) the lack of resources to allow practicing professionals to leave their jobs in order to spend extended time learning in a leadership role and 2) the difficulty in ensuring that candidates receive guidance from highly effective mentor principals and supervisors. Several of the programs in this study offer examples of particularly robust internships, and offer ideas on how to release and support teachers as they gain field experience in administrative roles.

The internships most highly rated by graduates were the full-time, year-long, paid internships offered to all Delta State University and San Diego ELDA participants. At ***Delta State University,*** the internship is the core of the Educational Leadership Program. Candidates intern at an elementary, a middle, and a high school, and also spend two weeks working in a district office. In each location, the interns are mentored by a full-time, certified administrator (who is generally a program graduate). During the internship, candidates are required to observe lessons, conference with teachers, and facilitate professional development activities geared toward improving instructional practice. Although formal teacher evaluations are left to the principal to complete, interns are provided with full access to observe the process. Almost without exception, candidates and graduates spoke enthusiastically of the intern experience and were grateful to have the chance to work full time as a school leader, but in a guided situation, before assuming the principalship. As one candidate said, "I think one thing that we can all agree on is that our internship has been the most beneficial part of the program for us. It's hands-on, being involved, doing it on our own."

At DSU, the internship is a transformative experience. Many participants told us they were unclear about their roles as school administrators when they took on the first internship assignment. However, each successive internship placement enhanced candidates' feelings of self-confidence, knowledge of how to interact productively with teachers and parents, and perspectives about the functions of school administrators within the school context. We met our focus cohort during the first week of their second internship placement. Many voiced surprise at how much their self-concept had already evolved. In the first placement, they thought of themselves as teachers and waited for direction on how to function as an administrator. In the second placement, they proactively sought opportunities to practice their leadership skills from their first day in that school.

A full-time, year-long internship has also been a defining characteristic of the ***University of San Diego's ELDA program***, conducted in partnership with San Diego City Schools. Rooted in the belief that authentic, experiential learning provides the most effective preparation for school leadership positions, the program places candidates alongside experienced principals who are handpicked for their expertise, successful management of school improvement efforts, and mentoring capacity. These supervising

principals offer a live leadership model for their apprentices to observe and emulate. Through the financial support of a large foundation grant, coupled with additional district resources, the district was able to pay participants' full salaries while releasing them from their regular teaching responsibilities.

This robust internship goes far beyond conventional programs that might have administrative candidates shadow a school leader for a brief period or undertake discrete activities. The ELDA internship was designed to span more than 1,200 hours over the course of a full school year, with a gradual release of leadership responsibilities to the candidates. Although ELDA participants described a range of activities and projects they were involved with over the course of their internship—and these varied by site and supervising principal—they all agreed that the bulk of their internship was spent on instructional tasks:

> Sometimes we are observing behaviors, student or teacher, teaching practices, or the learning that is going on; sometimes we're in there co-teaching, sometimes coaching side-by-side. So the majority of my day is spent focused on instructional work, hands-on with the teachers and students.

Another critical aspect of the internship is the opportunity to understand the analytic process used by leaders in making decisions. One candidate described how she and her supervising principal regularly discuss the thinking that underlies the principal's decision making, noting how this model of reflective practice helps her learn:

> Just to give you a situation, with the two debriefs with the teacher after a leadership meeting, we always reflect afterwards. People will leave, and she and I will sit there, and I can ask her, "Well, when you said this, what did you mean? Why did you use those words?" Or she will call me and say, "Did you notice I was about to say something else?" I know her so well that I can say, "Yes, you changed your mind or you went in there thinking you were going to say this, but since the teacher said this to you, you had to change." It is the luxury of time, but we do take the time out to do that after almost every conversation. She is very open to me questioning her and saying, "Why did you make that decision? That is something that I really enjoy because I get to see how she listens to different points of view.

ELDA graduates and candidates identified the internship as an essential feature of their credentialing program. Several likened it to a "safety net" that supported learning in a lower stakes environment than independent practice would offer:

> I really like the fact that my first year of administrative experience is the year where I can, for the most part, do no harm. And a safety net is important to me. I feel like so many of my mistakes that I will make as an administrator, I get to make now, when somebody else helps to catch them,

so that I won't have to make those mistakes when I'm the one who is ultimately in charge.

Participants in the ELDA program see the internship experience as a vehicle for transforming their approach to operational and instructional issues from the lens of a teacher to that of an administrator. More recently, as the foundation grant has ended, the affordability of the model has been extended by placing interns in assistant principalship positions which are funded in the normal budget. While this imposes some constraints on the number of placements available and the amount of time the candidate can spend with the principal, it still allows candidates to experience most of the tasks needed to develop needed leadership skills, with strong guidance and supervision.

The ***Jefferson County Public Schools*** (JCPS) has also designed an intensive, paid, year-long field experience for a small number of participants. (There were eight during the course of this study.) Candidates are released from teaching or instructional coaching duties to participate in highly-structured, full-time, standards-based leadership preparation coordinated through the central office. There is a rigorous selection process for this resource-intensive program. However, not all pre-service candidates have access to this experience. Those who do, receive a qualitatively different preparation than others in the PFT program. One respondent noted that the research-based internship experience was explicitly research-based and focused on instructional program issues, while the PFT, in her experience, was focused more around "other school-related preparatory experiences, which were all very appropriate." She pointed out that aspiring leaders who participated in both the PFT and the internship received "a very coherent program of development. It's not like you're going off in 50 directions that don't relate to each other. I think it's very well-organized—a good schema for developing principal capacity."

In JCPS, the intense internship experience is explicitly designed around a medical model, with questioning strategies utilized to highlight both strengths and gaps at school sites and in principals' and interns' knowledge. In this model, the candidates rotate in teams through different school sites, develop case studies of certain issues, and recommend specific localized interventions. Respondents indicated that the internship has changed over time, becoming increasingly demanding. One of the JCPS internship instructors indicated that the quality and rigor of feedback had changed also. In the past, this person told us, feedback was a discussion of strengths and weaknesses. Now, the internship uses structured evaluation formats to provide interns with more specific assessments of their preparedness from supervisors, mentors, and principals:

> The internship is supposed to be "Okay—get ready. This is it." They want to see if people are going to live up to the task [and understand] that being principal is not a 40-hour-a-week job. It's something you have to have a passion for. . . .I think the people that are coming out of the internships now have much more knowledge of what the job is and are much more prepared all around to take on the leadership.

Candidates work closely with central office staff during the internship year and are provided with both a mentor principal who is currently at a school site and a retired

principal who serves as a professional coach. These coaches use an analytic framework, introduced as part of the district's reform strategy, which identifies "seven systems" encompassing all aspects of school improvement: planning, assessment, curriculum and instruction, interventions, professional development, structure and culture, and leadership and quality staff. JCPS interns focus on each of the areas in turn at different schools, evaluating progress and making recommendations. One JCPS instructor described the outcomes of this internship experience in this way:

> I think the hands-on experiences, that they get to actually go into schools, is transformative. . . . They are looking at the seven systems and are able to break those down by hearing from experts for each one of those systems. . . . They go back and they study that system in the school, and then they come back and report on it. But they not only report on what they found, they report on what they think that particular school should do to make that system more effective and more efficient for student achievement. Then they get feedback from those experts and also from our staff on where they hit it and where they didn't hit it. I think those field experiences and having a variety of learnings in all seven systems across the board really is something that makes them very prepared for going in and dealing with [all]those [issues] as they become principals or assistant principals.

The benefits of this model are strong for those who receive it. However, as we have noted, this comprehensive, full-time internship is provided to a small number of candidates, while other candidates prepare for the principalship part time. Without outside funds, it can be difficult and costly to release experienced teachers so they have time to intern; hard for candidates to take on an unpaid internship, hard for districts to provide substitutes for teachers, and hard for dedicated teachers to leave their students. As detailed below, Bank Street College and the University of Connecticut have worked hard to try to provide high-quality internships under these more common circumstances.

Bank Street's internship experience provides a good example of what is possible when a full-time internship is not feasible due to lack of funds. At one time, New York City would underwrite salaries for a semester so that candidates could take time off from teaching to be placed under a principal's wing full time. Now, most candidates have to fit internship experiences in around their teaching jobs. Nonetheless, the creatively designed three-semester internship sequence still nets very strong ratings as an excellent learning experience from graduates, in large part due to the effort Bank Street and Region 1 put into making the experience productive. Each candidate is supervised by an on-site internship mentor, usually the building principal or other school administrator. Principals Institute staff meet with all mentor principals at an orientation at Bank Street to ensure that all mentor principals have a shared understanding of both the program and their role and responsibilities in it. In addition, each advisor meets once or twice a month with each mentor principal. The advisors try to negotiate what is possible at the site, and mid-way through each semester, review ways to create an even better experience.

The level and complexity of candidates' responsibilities increases each semester. During the first semester, candidates engage in observations guided by a protocol for field experience planning, observation, and reflection that they develop in conjunction with their internship advisor. This document addresses the core areas of leadership field experience: vision and mission, culture and climate, communication, leadership, diversity, data, planning, instructional procedures, technology, professional learning, organizational structure, and parent and community involvement. Through the use of this planning document, candidates identify questions that guide their observations, document what they have learned, and identify new questions. These reflections focus the subsequent internship experience.

When the program was originally created, participants received district sponsorship for this second-semester internship, and they were placed in a school different from their home school for a semester. Now, they continue to work at their school site under the supervision of their school-site mentor with the support of individualized and conference group advisement. Guided by an Intern Program Plan, the internship is a well-structured, standards-based set of activities that develop candidates' knowledge and capacity in each of the areas outlined by the Interstate School Leaders Licensure Consortium (ISLLC) and New York State (NYS) leadership standards: school governance, organizational management, planning, fiscal management, human relations and resources in the school and community, regulations, contractual issues, and administrative and instructional technology. For most, these tasks have to be fit in on the edges of their teaching assignment. To get administrative experience, participants may manage an after-school program, supervise a professional development initiative, or take on school-related projects. Candidates document the work done in each of these areas by preparing a professional portfolio composed of artifacts, documents, and reflections.

Region 1 has created a paid summer program leadership experience to allow candidates to take on more formal responsibilities at a school or level different from their teaching assignment. Participants may work as an assistant principal or as a summer school director, for example. The experience is carefully planned with Region 1 administrators. As a regional official told us:

> [Participants are] deliberately placed with a leader that we think they can learn from, deliberately placed in a level different from the one they have experience in, because they need to be stretched. So, if they're elementary, they need to understand how to work in a middle school or a high school and vice versa. We're putting a lot of time and effort into designing that internship. [We ask ourselves], "What are the experiences we want them to have? What are the particular skills we want everyone to develop?" [Also], because the advisors are working so closely with them we're able to say, "This particular person really needs time on so and so and we're building that into their internship experience."

During a third semester, candidates take on more independent work in leading and managing at their site. Participants describe this internship sequence as an intense experience that prepares them for the demands of site leadership:

> As I continue to go to the internship, I'm starting to see why things are the way they are. It is not easy to be a school building leader at all. You have to be knowledgeable [about] all the elements that are involved in a school. . . . I am starting to be more aware of why things are the way they are and more aware of how a school functions. I am gaining a lot of insight and value.

The University of Connecticut's UCAPP program also works hard to sandwich an 80-day internship around the demands of candidates' full-time teaching jobs. This time is split between an assigned internship site, the school where the candidate teaches, and the summer internship site. The eighty days are divided into thirty days per school year and twenty days during the summer. The thirty days per school year are divided between on-site days, site-related days, and course-related days. Site-related days can include conducting a project for the mentor principal while not actually on-site, or assisting the mentor principal at meetings after school. UCAPP asks candidates to intern in another district, one with a different vacation schedule from their own. This lets them see how another school and district function, and it allows them to complete field work when they are on vacation from teaching. UCAPP works with the candidate and his or her school district to find the time for a meaningful internship experience, negotiating on behalf of the candidates for release time from teaching. One of the program leaders notes that it is not always easy to find the ideal situation, where the candidate spends in-depth time at the intern site:

> We have become more flexible and more creative: Half of the students use perhaps two professional development days and their personal days during the year. If they're having a problem, we encourage them to take one of those days and do two half-days—leave at 12:30 or 1:00, depending on what the schedule is, and stay with their mentor until 4:00 or 5:00 to try and maximize the time in a creative way.

UCAPP also helps place candidates as administrators for summer school. Most candidates complete a large portion of their internship days during the summer months. UCAPP supervisors, who are retired principals, work actively to help candidates find a good placement, both in terms of completing challenging work and in terms of scheduling in all the required days. They maintain constant contact with candidates and mentor principals, including periodic three-way meetings to take stock and plan for future work. As at Bank Street, candidates and mentors are guided by a leadership plan that, in addition to individual goals, requires a core set of experiences. These include teacher supervision and evaluation, budgeting, scheduling, analysis of test data in order to recommend curriculum and instructional improvement, and management of special education. During the course of this study, UCAPP began implementing electronic portfolios to document completion of the leadership plan. Most candidates spend 2 years at their intern site, and

build a relationship with their mentor principal. Increasingly, mentor principals are UCAPP graduates who can advise candidates through all facets of the program. In many instances, the candidates come to depend on their mentors and see them as an invaluable resource to support their learning. In the words of one candidate:

> At first, I [had the] attitude of, "How could I assist the administrator who is my mentor?" I recognize now that. . .I am going there to get something for me. So it's like, "What can you do for me?" My mentor really helped to shed light on that for me. Although there is that disconnect, and you really only get to go maybe once a month or once every six weeks or so, [my attitude is] more like: "Okay, I need to get in there, get something, get an experience and then kind of reflect on it, bring it back to my job, and try to connect it with what I am doing."

A UCAPP graduate echoed the sentiments of many when he said:

> The internship experience is phenomenal. We really got to see schools because we were given an opportunity to experience an internship that put [us] in the school and had [us] working with a principal doing things for the school—not just sitting around hearing about it. You're actually doing it, and that was one of the benefits of this program. . . .It's authentic. [We had] authentic experiences that helped us learn, so we had not only an opportunity to discuss it through classes, but we experienced it though doing.

While candidates clearly appreciate what they learn in these experiences, and the internship productively grounds much of the coursework, UCAPP candidates are less likely to report that they had responsibilities for leading, facilitating, and making decisions typical of an educational leader than candidates in the other programs we reviewed. While still relatively strong given its limited resources, UCAPP's internship experience was rated by its graduates as weaker than its other program features and less highly than other programs' graduates' ratings of their internships. Finding time for the internship and funding to subsidize candidates' time while they pursue it are among the greatest challenges facing university-based programs. UCAPP faculty recognized this limitation and acknowledged their desire to secure resources to subsidize candidates while they took time off from regular employment to participate in administrative internships.

All programs struggle with ways to provide robust internships. Programs address this in different ways, most by trying to provide structures that can add-on productive leadership experiences for practicing teachers. We found some creative models for doing this at Bank Street and UCAPP that are noteworthy for their ingenuity. At the same time, our research clearly demonstrates the strong benefits of the full-time internships provided to aspiring principals by Delta State with state and federal funds, by Jefferson County for a subset of its candidates with state and district funds, and by San Diego's ELDA when it had access to district and foundation funds. Candidates appear to feel better prepared and to engage more intensely and consistently in instructional leadership practices when they have had these opportunities. Providing robust internships is vital to the development of

school leaders, but it presents more challenges than other program elements. As we discuss in Chapter 6, these challenges can sometimes be met through policy interventions in support of stronger preparation.

Cohort Groups

These programs also offer their principals and aspiring principals strong supports for ongoing problem solving through both peer supports like cohort groups and collegial networks and expert supports like mentoring and coaching. The availability of these supports to program principals was significantly greater than to their peers nationally.

All the pre-service programs we studied use cohort groups to create collaborative learning relationships among peers that they can rely on to share experiences and knowledge and to solve problems. At their best, cohorts promote collaboration, networking, and teamwork. Cohorts provide natural opportunities for group projects, for candidates to share knowledge, and for forums in which they can collectively reflect on their leadership development. Many participants spoke about the importance of these relationships. As one noted:

> I will say one of the things I really enjoyed about UCAPP was the cohort that we had. In my case, there were twelve of us who went through it together. You had people from all different levels and all different backgrounds. I think one of the biggest things that came out of that is how much you can learn from somebody who may be coming from a different point of view. I think it was a lot of those debates that got me to an understanding of how I want a school to look.

The benefits of this collegial atmosphere were corroborated by a local superintendent who is an adjunct professor in the UCAPP program:

> I think one of the real strengths is the cohort model that they use. It's amazing how these people function as a team and help one another. . . . I think that's important, because if you're going to be an educational leader in this day and age, you can't function in isolation. The only way you can operate and do a good job is to function as [part of] a team.

This emphasis on using the cohort to learn to work in a team is also an explicit goal of the Educational Leadership Program at Delta State. During the initial summer session, candidates are put into groups, where they complete a variety of team projects and team-building exercises. The program director worked actively to build each individual's skills as both a team member and a team leader. She explicitly modeled group facilitation and guided the cohort members in active reflection on their work. Graduates of the program at DSU vividly remember the team-building activities, and often try to use similar strategies with the faculties of the schools they lead. They continuously reflect on their director's example as a leader, and model their principal practice on her actions and advice. As one graduate said:

> We learned what it was really like to work together as a team. I think that's important, because you have to learn to be a team player when you become an administrator.

Another DSU graduate noted that these relationships often live on past the end of the program:

> Any time I need any one of them or they need me, I can pick up to the phone or email. . . . That is great. I know that there are different strengths that these people have. You go back and you draw from them and say, "I know this. She knows this person; she knows that person."

Such networks allow principals to turn to someone in a similar job and ask for advice when encountering a new situation. A Bank Street graduate also described how she sees her former and current colleagues as a critical professional resource in her leadership work, maintaining contact with five of her former cohort members, whom she uses as a "sounding board" for their shared work as school leaders:

> I do call a lot on the cohort friends from Bank Street. . . . We bounce frustrations as well as successes and questions off each other. And I'll have colleagues call me back [with] a question when they need an answer to something. Hopefully we can provide it [to each other]. When there are new principals, I try to reach out in that sense of my responsibility.

The extensive advisory system at Bank Street offers a coordinated individual and collective group advisement model that uses the cohort for both support and deep reflection. Said one candidate, "We are taken in under their wing and looked after and shepherded through this program." Advisors use a reflective dialogue process that integrates themes of personal development, interpersonal relations, and substantive knowledge to guide candidates in their development from awareness to action. The advisors work together to identify the issues emerging in their groups in order to assess candidates' needs and plan for the next conference group session. One advisor noted:

> The curriculum emanates from the needs of the students. It emanates as you assess and get to meet your interns. It emanates from each current issue they will have to face as new leaders. A lot of it comes from the skills they need or the problems they are facing within their internship sites.

A participant observed: "The structure of the cohort helps [make] the transformation happen. . . .It is not like we are just going through a series of classes to get a certificate. We are going through a process of reflecting." Another candidate described these as opportunities to learn how to work collectively to solve problems and improve one's practice:

> This is really the most valuable experience that this program has to offer because it is not only practice, it is the state of mind. We reflect and share our experiences. Things are put out on the table based on the experiences we are having. We come up with collective, shared solutions. It is a way of thinking about how to solve problems. They are training us by modeling.

Similarly, in the University of San Diego's ELDA program, the cohort serves as the structure for reflection both on coursework and the internship, as well as a professional network after candidates have assumed leadership positions. ELDA graduates identify their cohort membership as both a key support and a means for "calibrating" individual work across sites. As one explained:

> The cohort method means you develop a good rapport with a set of people you know you can trust who will give you an opportunity when you are going to back away … and drop out and give you a push to move you forward. I think that has always been a rewarding thing in the internship cohort program.

Cohorts help principals learn to work in teams and to recognize that they are leading a team of educators at their school. When implemented well, as they are in these exemplary programs, cohorts build an environment where ideas can be tested in a shared and non-judgmental setting. In part because of the cohort experience, our program candidates and graduates appear to have an expanded view of leadership in schools. They understand that leadership is not just vested in the office of the principal, but rather, that everybody in the school has a leadership role. This philosophy is encouraged and fostered by the programs and is embraced by most of the faculty, candidates, and graduates. Under the cohort model, the preparation experience demonstrates the importance of collaboration and sharing knowledge. As we describe below, both university-based programs and district programs have recognized the need to provide these kinds of educational and relational supports to school leaders.

Critical Supports for On-the-Job Learning

Many of the features we discovered in the exemplary pre-service programs were also present in districts' supports for new and veteran principals. These in-service programs also focused on standards-based content emphasizing instruction, organizational development and change management; pedagogies that connect theory and practice; on-the-ground supports, including coaching and mentoring; and collaborative learning opportunities embedded in ongoing networks. In some ways, the presence of these features in ongoing professional development contexts is perhaps even more remarkable, given the time demands of the job, the historical emphasis of training on generic leadership skills, and the tradition of principal isolation, which has meant that individual course-taking and conference-going were typically the few opportunities for learning available.

Three aspects of these districts' approaches are especially noteworthy. First, they have developed a comprehensive approach that enables principals to develop their instructional leadership abilities *in* practice, by connecting new knowledge to specific,

concrete practices (Ball & Cohen, 1999). Second, they conceptualize leadership development as a continuum extending from pre-service through induction, ongoing support, and engagement of expert and retired principals in mentoring. Third, they conceptualize leadership as a communal activity embedded in collective work around practice, rather than as a solitary activity.

A Comprehensive Approach to Developing Practice *in* Practice

Each of the districts we studied provides a set of well articulated approaches for principals to learn how to develop stronger schools that feature more effective teaching and learning. These multiple opportunities are distinguished by the way in which they are informed by a coherent view of student learning, teacher development, and school leadership; are connected to one another; and are grounded in both theory and practice. Rather than offering a flavor-of-the-month approach to professional development, they offer an ongoing approach to the development of a holistic, identifiable professional practice.

Extensive, High-Quality Learning Opportunities. The range of strategies used to focus the work of school leaders on teaching and learning includes regular principals' conferences and networks focused on curriculum and instruction, as well as mentoring and coaching. Both the extent and the quality of these learning opportunities are unusual, with principals in exemplary programs, on average, experiencing more opportunities to visit other schools, participate in a network, receive coaching, and engage in professional development. They often find these learning opportunities more helpful. (See Tables 4.2 and 4.3.) In addition to finding visits to other schools and participation in a principals' network more helpful, the exemplary program principals also find engaging in research and reading professional material more helpful, presumably because of the context within which they engage in these activities with their peers.

Table 4.2: Frequency of Participation in In-Service Learning Strategies

In the past 12 months how often did you: 1=Not at All; 2=Once or twice; 3=Three times or more	**In-Service Principals** n=215	**National Comparison** n=515
Visit other schools	2.42*	1.84
Participate in a principal network	2.69***	2.37
Receive mentoring/coaching from an experienced principal	1.98***	1.38
Attend conferences (presenter)	1.86***	1.56
Attend conferences (not a presenter)	2.68***	2.50
Engage in individual or collaborative research	2.05	2.04
Read professional books	2.81	2.84

* p<.05, ** p<.01; *** p<.001

Table 4.3: Helpfulness of In-Service Learning Strategies

Proportion identifying the learning opportunity as "helpful" or "extremely helpful"	In-Service Principals	National Comparison
Visits to other schools	72.3***	52.8
Participating in a principal network	85.1***	70.8
Formal mentoring/coaching by an experienced principal	78.4	72.2
Attending conferences (as a presenter)	58.2**	67.3
Attending conferences (not a presenter)	68.4	68.6
Engaging in individual or collaborative research	80.1*	66.1
Reading professional books	84.2***	69.8

* p<.05, ** p<.01; *** p<.001

Principals in these districts were also much more likely to have participated in professional development with their teachers: 77% had done so seven or more times in the last year, as compared to 50% of comparison principals (p<.001).

Leadership Learning Grounded in Practice. Much of school leaders' professional learning is grounded in analyses of classroom practice, supervision, or professional development using videotapes or on-the-job observations. For example, several programs in our study, including San Diego, Region 1, and Hartford, use "walkthroughs" of schools as occasions when principals, guided by specific criteria, can look at particular practices in classrooms. These are sometimes conducted with a mentor and other times with groups of principals who can caucus together about what they see.

We observed a walkthrough with a San Diego principal and her Instructional Leader (IL) that was typical of the genre. It began with a lengthy conversation between the two in the principal's office to discuss how the principal is addressing the instructional needs of the school. Then they spent 60 to 90 minutes observing 10 to 12 classrooms for 5 minutes each. These observations focused on specific instructional strategies that the teachers had learned about in professional development. The principal had also attended the development session and had further explored the strategies in monthly principals' conferences and network study groups. Between classroom observations, the two discussed student learning, teacher practice, and potential "next steps" for each classroom. After this physical "walkthrough," they debriefed for another hour. During that time, the IL asked the principal to synthesize what she saw across classrooms, and what she planned to do next with her staff. The IL shared her own impressions as well, and noted items on which the principal would work next.

The principals' conferences often resemble the training we observed in Region 1 offered by the University of Pittsburgh's Institute for Learning (IFL). IFL had worked with all three of these districts at one time, and it was continuing work with Region 1 and Hartford when we were conducting our study. In Region 1, IFL used a turnkey approach, with IFL staff providing direct training for experienced principals and regional and network staff (called Tier I), who then provided training to other principals (called Tier II).

The monthly Tier I meetings are attended by the Region 1 Local Instructional Superintendents (LISs) (who are much like San Diego's instructional leaders) and their leadership teams, comprising selected principals, instructional specialists (responsible for several sites' professional development), and English language learner coaches, all of whom work with a group of schools that function as a network. After IFL staff trains the group as a whole, participants then divide up by network to plan how to transfer their learning to all the schools within their network.

In a day-long Tier I session in May, the IFL staff began with a conversation initiated during a previous session about "accountable talk," a learning practice the district was trying to cultivate in classrooms. As defined by IFL, "accountable talk uses evidence appropriate to the discipline (e.g., proofs in mathematics, data from investigations in science, textual details in literature, and documentary sources in history) and follows established norms of good reasoning." The session began with questions that had arisen as participants tried to introduce this concept in their schools, aiming to support teachers in creating the norms and skills of accountable talk in their classrooms.

The IFL staff then focused the group on using accountable talk in mathematics instruction. After talking about the theory and meaning of the concept in this discipline, the session turned to problem-based group work. Each table of 6 to10 individuals from one network worked on coding transcribed text for examples of accountable talk. After debriefing this exercise and reinforcing the indicators of effective accountable talk, the IFL staff presented a math problem for the groups to solve on their own. For about 30 minutes, each table was engaged in an often heated conversation about the "best" way to solve the problem, frequently commenting on the difficulty and resultant anxiety they experienced working on the problem. The IFL staff circulated throughout the room, pulling out individuals' and groups' thinking process, and providing support for those who were "stuck." They then led a debriefing session that linked this experience back to student learning, reinforcing the experience that many students have in their mathematics learning. The session closed with an hour-long discussion by each network group about how to introduce the work they had addressed to the Tier II group. Each table took a different approach to planning, some proposing a replication of the day's session to their network schools, and others suggesting an abbreviated presentation.

The next month, these ideas were brought to the Tier II group, which meets monthly, and includes all principals and one assistant principal or lead teacher from each school. This June session began with breakfast and informal networking. The Tier I principals, who facilitated the meeting, played video snippets from classrooms, taken during principals' observations, looking for evidence of accountable talk. They asked the principals at the five tables to fill in a four-square form about types of talk, stressing the need to comment on what they saw using non-value-based language (e.g., not "I like," but "I saw" or "I wonder"). They discussed different instructional formats and how students and teachers participated in each class segment, particularly about how much the instruction was teacher-directed or student-centered. One LIS observed at the end how much the group has changed in being able to talk about "accountable talk," and suggested

that the principals play the videos in their schools and assess where their staff is on recognizing and using accountable talk.

The remainder of the meeting included a discussion of critical thinking in mathematics, including a hands-on exercise engaged in by each group. This enabled the principals to evaluate how they talked about their various solutions in light of the earlier discussion of accountable talk. A discussion of talk functions was stimulated by each table coding a common transcribed text for the specific moves teachers made to support students in presenting and justifying their thinking. The LIS stressed that principals were learning to label what they see so they can talk about it with teachers later. After some discussion, the LIS asked the principals what they would do in their schools and how would they use specific "talk moves," or ways of shaping student discussion. A Tier I principal suggested that a principal would need to have all the administrators and support staff observe and reach agreement on what they are seeing as the first step to learning leadership. Another principal suggested using this with a learning walk and a fishbowl exercise.

Near the end of the meeting, the LIS stressed the importance of each principal videotaping teacher talk for later analysis, stating, "You need to practice this to grow together. . . .You need to think deeper about the work and make it real." She closed by encouraging them to replicate the day's experience in their professional development with their teachers by showing the videos and asking the teachers to provide reasoning and observations about the moves. She stressed the need for reflection on practice, not just observation about practice. Finally, she handed out a several books on instruction—*Craft Lesson; When Children Can't Read; Lessons that Change Writers Notebooks* (Atwell)—that would provide grist for further shared work on improving instruction.

These examples illustrate several things about the very distinctive professional development for principals in these districts. First, the various activities principals engage in are embedded in a connected set of instructional ideas and a connected group of professional learners who are developing a common language and practice around instructional leadership. Second, there is a close interplay between theory and practice as these districts develop leaders who understand curriculum and instruction and who have the ability to manage a process of change necessary to improve schools. Principals learn concrete, grounded strategies for supporting teaching, learning, professional development, and instructional improvement that are solidly based in research on instruction and organizational change. Finally, their work is continuous and comprehensive: It accumulates over time and expands to incorporate all the staff in a school and all the elements of instruction.

A Learning Continuum

A second critical feature of the learning context for leaders in these districts is that they have conceptualized a continuum of opportunities from pre-service, through induction, and ongoing throughout the careers, with both group and individual supports for principals.

For example, in addition to the pre-service program offered through Bank Street College, ***Region 1*** of the New York City Schools has developed an in-service continuum that offers mentoring, a principal network, and monthly workshops focused on the University of Pittsburgh's PFL. As Region 1's former Superintendent, Irma Zardoya. noted, "The belief has always been that we have to grow our own leaders. . .that we have to have a constant, ready supply of leaders, which means that we have created a continuum. We keep adding steps to it every year, to get people from the classroom right up to the superintendent."

New principals participate in a year-long program that includes an intensive summer institute, bi-monthly half-day seminars, and a principal mentor/coach. These elements guide first-year principals through their new operational responsibilities while grounding them in how to use these to foster school improvement. Current principals have a two-tiered professional development process, described above, with monthly training of experienced principals. There are also monthly network and regional administrative meetings, which are used primarily for thematically focused professional development. As we have noted, these programs focus tightly on instructional leadership; their design reflects an assumption that, given the difficulty of maintaining an instructional focus in the complex rush of practice, principals benefit from meeting regularly with colleagues to reinforce their vision and to develop and carry out a strong school improvement plan.

Finally, there are a series of related professional learning opportunities for new assistant principals, experienced principals, and aspiring principals and assistant superintendents. As is also true in our other districts, these programs and strategies emphasize the principal's role in improving supervision and teacher development. Moreover, as we discuss further in the next section, the learning opportunities are cohort- and network-based. As such, they cultivate continuous learning and reflection and help leaders to learn and try out new ideas, return for reflection and problem solving, and receive peer support from colleagues.

A very similar set of opportunities exists in ***San Diego***, which is not accidental, as San Diego's Chancellor Tony Alvarado first began to develop this conceptualization of professional development in New York City's Community District 2. From there, it spread to other districts in and around New York and migrated with him across the country. In addition to the kinds of opportunities described above, principals in the San Diego public schools often receive mentoring once they assume a leadership position. Those who participate in the Induction and Support component of ELDA receive a mentor for the year during which they complete a Tier II credential. Many veteran principals also receive mentoring.

In ELDA's Induction and Support program, new leaders work with their mentor to examine and develop their leadership style, reflect on the needs of their school, strengthen their problem-solving ability, design and execute strategic plans, and use data to improve instruction. Mentor principals and participants are expected to spend a minimum of three hours together each week to focus on the different elements of the induction plan and work on the development and reinforcement of leadership skills. These mentoring sessions

might consist of reviewing and analyzing student achievement data and developing appropriate strategic plans to improve school-wide teaching, or they might include a mentor observing a principal's conversation with a teacher and then providing one-on-one feedback.

ELDA's director, Ann Van Sickle, explained that the focus is on "building a culture of adult learning" in the school. In addition to three hours a week with their mentors, candidates' courses include *Leadership for Effective Instructional Practice* and *Leadership for Change: Supporting Teachers for Instructional Improvement*, which uses the district's instructional walkthrough as a frame for building capacity to analyze and improve professional development. Another course, *Mentoring and Support: Adult Learning*, uses class discussion and analyses of students' videotaped leadership practice to support the development of their instructional leadership practice. A culminating project at the end of the program looks at videos of the candidate delivering a professional development presentation at the beginning of the program and then again at the end of the program, with much of the work in between focusing on planning, analyzing, and critiquing professional development strategies.

In addition, mentor principals, full-time mentors to several new or struggling principals, meet almost weekly with their mentees and, along with ILs, support the professional development of principals. In our survey conducted in 2005, 54 % of all principals in San Diego (and 76% of ELDA graduates) reported that they had had some mentoring or coaching by an experienced principal as part of the formal arrangement supported by the district. This compared to only 14% of principals nationally.

About half of all principals also receive mentoring in ***Jefferson County***, where retired administrators serve as mentors who provide institutional memory and socialize new school leaders to the culture in JCPS, as well as work with veteran principals who need assistance. Both principals and assistant principals participate in highly structured induction programs that are focused on instruction and include mentoring as well as class sessions. New assistant principals write an induction support plan that focuses on specific areas of growth, and they must meet with their mentor for at least 50 hours outside the workday, in addition to meeting for two formal observations of their instructional work annually.

The JCPS Induction Support Program for principals lasts 2 years and includes similar mentoring supports, plus two shadowing experiences at the school of the mentor. In addition, a Certificated Evaluation Training program provides 18 hours of training on effective evaluation strategies for new administrators. Veteran principals have a wide array of learning opportunities. Virtually all (over 90%) participate in a principals' network and more than 70% participate in peer coaching and visits to other schools.

The continuum in ***Hartford*** focuses on developing leaders through multiple pathways, including teacher leaders who can become instructional coaches and turnaround specialists, as well as certificated administrators. Teachers and leaders along all parts of the continuum receive related professional development. As a district description notes:

> Starting with the Aspiring Teacher Academy, student teachers receive training that prepares them to work in Hartford schools. The Instructional Teacher Leader Academy prepares teachers to become teacher leaders, and the Aspiring Teacher Leader Academy works to retain teachers during their 3rd through 5th years. The Focus Group Principals Academy mentors new administrators and trains them to collegially coach each other, while the Administrators-in-Induction Academy helps new administrators adjust to their leadership positions. The Institute for Learning (IFL) Leadership Academy teaches staff and management to integrate the IFL Principles of Learning into daily classroom instruction.

Here, as in our other districts, the learning supports developed for principals are also substantively integrated with those developed for central office administrators, teachers, and other staff to enhance the likelihood that all educators will be working toward the same goals using the same strategies. The coherence of the approach is reflected by the fact that all the principals in Hartford report being involved in visiting other schools and participating in professional development with their teachers at least three times in the last year. Eighty percent were involved in conducting research or inquiry about problems of practice. More than half also participated in a principals' network—a common strategy across all the districts we studied.

Collegial Learning Networks

The primary delivery strategy for professional development in all these districts has been to create leadership learning communities of practice. In Region 1 and San Diego, formal networks of schools and principals operate as part of the district structure for all school leaders. In Hartford, principals work in groups around instructional leadership development, and most participate in principals' networks. In Jefferson County, groups of principals (e.g., middle school leaders and assistant principals) participate in specific long-term professional development courses focused on topics ranging from literacy to teacher evaluation to classroom management.

San Diego provides a useful glimpse at the way such networks operate. There, each IL is responsible for a group of about 10 schools and for the professional learning of the principals in those schools, who operate in both formal and informal networks.

Most ILs host book clubs where principals meet to discuss shared readings. They also coordinate opportunities for principals to learn from one another, such as small, principal-led workshops where, for example, one principal might share strategies for managing school budgets or another might host a non-evaluative walkthrough for other principals. Networks of principals meet regularly to work on instructional issues. Principals connect in couplings and other small groups that emerge from these meetings. One principal described the range of activities:

> We've gone to each other's campuses; we've had wonderful discussions; we've read books together. We've watched each other's staff development

tapes and talked about what we could do better: what kinds of things we think would help the staff move.

Often principals are paired up and expected by their ILs to serve as each other's mirror and sounding board. One principal gave this example of her work with her partner:

> [I might say,] "When I went into the classrooms today, I looked at questioning [a reading comprehension strategy] and, you know, look at this page." And so we go back, and we would read, and we would look at this, or we'd look at our [video] tapes and say, "Oh, see, this is the way I should have said it. Why didn't I say it like this?" or "Oh, I thought that's what I said, but that isn't even what I said to the staff." So it's more really analyzing how effective we are in the words we use and how effective we are in our thinking and in our statements. I think for me that's been the biggest change. And it's really a focus not on behavior and discipline and those kinds of things, but on instruction. That's the biggest change I've seen. It's been wonderful. I've really enjoyed that.

Initially, principals get to know each other in formal settings, such as principal conferences, "walkthroughs" scheduled to include peers, and meetings between coaching principals and their mentees, where they discuss professional reading, observe each other's videotaped staff conferences and critique them, share their school's instructional needs and professional development priorities, and examine their efforts to evaluate teachers. This leads to informal networks in which principals have formed their own book clubs, visited each other's schools, talked and provided support to one another.

A similar cohort approach is used in Region 1, where the schools are grouped into 10 to 12 networks, supervised by LISs who provide support in implementing new instructional approaches and improving teaching and learning. The goal is for principals to share and talk together about their work, as facilitated by regular, intensive, professional learning seminars around regional priorities and emerging ideas. For example, in one session we observed, 19 principals worked together on how to conduct annual performance reviews of staff. The leader of the session explained:

> I show them all the management protocols they need to start in September, so that they will have what they need to rate a teacher, whether it's satisfactory or unsatisfactory, that is based on data and good information that helps teachers, and is not just, "Oh, you are a good teacher so I am going to give you an S (satisfactory)." Even the teacher who gets an "S" needs to get feedback on how to grow. So we set those things up for them. . . . We take the time to go through the how. We break it down and instead of talking about pedagogical ratings, we talk about, "How do you do a pedagogical rating?"

She tied the performance review to their starting mission and goals and each staff person's professional development goals and supervisory support. Next, she gave them a model for how to conduct an "end of year" conversation with each pedagogical staff person, including documentation and feedback. The session provided participants with a

safe environment to share their concerns and anxieties about their roles and responsibilities, as well as to share successes and strategies. Thus, elements of the principalship that are difficult and often avoided become manageable and increasingly well managed by leaders who are working together to develop their skills.

Although the strategies districts adopted for leadership development were remarkably similar, there were, of course, some differences across districts. New York City's Region 1 principals were more likely to take university courses and attend conferences. Along with principals in Jefferson County, they were also most likely to participate in principal networks. Principals in Hartford and San Diego were most likely to visit other schools and engage in peer observation or coaching for sharing practice. Principals in New York and San Diego were most likely to receive formal mentoring from a veteran principal and to engage in individual or collaborative research. Overall, principals perceived their districts to be helpful, but this too varied, with New York's Region 1 principals rating their district strongest in its support for improving teaching and learning, and Hartford principals rating their district weakest of the four in this regard.

What Conditions Foster Exemplary Programs?

Each of the programs in this study has implemented components of high-quality principal preparation that have been cited in the research literature. Close examination of program implementation shows that additional factors—beyond strong program content and delivery—appear to facilitate or constrain the execution of a comprehensive system of development. These factors include leadership that champions and supports the development of the program, partnerships with local organizations and stakeholders, financial supports for key program design elements, and the purposeful use of policy, including local, state, and national standards, to guide program content and improvement.

Program Champions

Most of the programs included in our study had one or more key champions who guided their development and implementation. Programs were often the brainchild of a particular individual or a team, who brought together the right mix of funding, partners, and experts to develop and maintain a successful program. In several cases, continuity in district leadership allowed a program to flourish and make an impact on local schools. In other cases, there is a history of strong leadership, with various people shepherding different stages of implementation.

At ***Delta State***, for example, the development of the Educational Leadership Program can be attributed to the strong vision and leadership of the former Dean of the School of Education, E.E. Caston, and to the alignment of values across community, academic, and government institutions, extending all the way to the Mississippi Statehouse. Caston realized in the early 1990s that DSU's administrative credentialing program did not produce the change-oriented school leaders needed to transform public schools into places that would enhance opportunities for the children of Mississippi. As a

result, he began working with a consortium of local school districts to figure out how to accomplish this mission. According to Caston:

> We went to our administration, and we said, "We are part of the problem when it comes to K-12 leadership." . . .We found ourselves lamenting that the training program for administrators created an insurmountable stretch from the classroom here to the work environment there. It left too much for [the candidate alone] to build that bridge, close the gap, make the connection from training to actual job performance.
>
> We came to realize that we didn't want what we had: a traditional program, predominantly part time, where you were looking at people stretching course content over a period of years so that the impact of the given course is lost over that period of time.

Under Caston's direction and with support from the university administration, the faculty within the School of Education completely redesigned the administrator training program. Mississippi's decision to fund a sabbatical program allowed the program to take candidates full time. The implementation of the program, particularly at the time of our visit, rested heavily on the shoulders of the program coordinator, Sue Jolly. She was instructor, mentor, program administrator, and a dynamo of energy and skill supporting the program's success. She was able to use the cohort as a pedagogical vehicle to model and teach team leadership. Although Dr. Jolly has left Delta State, the transition appeared seamless, due both to her work with newly hired faculty and to the current Dean's leadership and vision for the program. During the transition, Dean Lynn House consistently supported the programs leaders, allowing them the leeway to implement the program according to their best professional judgment, while asserting leadership to help the program maintain its high standards.

House noted that this was not the program's first transitional period: She is the second dean to oversee the program, and Dr. Jolly was actually the second program coordinator. House said that she often tells her faculty that "a program can't be a function of a person or a personality. If a person dies in the night, we need to be able to sustain the good parts of the program." This need to institutionalize the leadership process demonstrated the institutional commitment to the program, and also shows the depth of leadership at Delta State. Despite significant staffing changes, Delta State appears poised to sustain its innovative Educational Leadership Program.

Unwavering support from University of Connecticut's Dean of Education, Richard Schwab, has been equally important to the continuing improvement of ***UCAPP.*** After an audit of programs several years ago, Schwab declared the School's priorities would be teacher education and leadership education. Some programs were cut, and those funds were re-directed toward the school's priorities. The School and the University have never denied a budget request from the Department of Educational Leadership. George Drumm, the out-going program coordinator, noted that "the support has been unwavering, and whatever we've needed we've received. The Dean has been absolutely tremendous as far

as fiscally supporting [the program]. . . .All these supervisors and adjuncts; there are less expensive ways of doing all this and getting people certified, but that's never been a concern at the university." Indeed, the program recently expanded to three cohorts rather than one per year. As Drumm explained:

> I was in a dilemma 3 years ago. We have information sessions, and we usually end up [with] 20 to 23 people. Well, we had 60 [at a session], and they sent in their applications. We interviewed a large number of them, and they were terrific. I [went] to the Dean and the department, and I said, "Listen, we have at least 40 people here who will excel in this program, and I don't think for the sake of rejecting people, we should only take 15 of those people and turn away 25 others. It's immoral to do that; I think it's unethical, and I think it's going to trigger negative responses from principals and superintendents who have highly recommended these people." The dean and the department head gave us another cohort. We had to have two supervisors for that cohort, and all the adjuncts that go with it. We had to find another location for it, and their support was 100 percent. . . . There was never a question of finances and never a question as to whether we should do it or not.

As the reputation of the program expanded and more qualified educators applied, the department expanded the program to accommodate the increased number of qualified applicants without sacrificing quality.

This kind of commitment is equally important at the district level. In ***Region 1***, senior administrators, principals, parents, and community advocates attributed the gains to "years of hard work and steady leadership, particularly on the part of Irma Zardoya, the region superintendent" (*New York Times*, 200x, p. B1). Zardoya was a critical force in building an integrated continuum of professional development to support and sustain a stronger cadre of effective school leaders throughout all levels of the region's schools. As superintendent of District 10, Zardoya realized she could not support her 54 principals effectively and needed to diversify her approach to leadership development and support. She engaged Laura Dukess, who had worked with Anthony Alvarado and Elaine Fink (formerly of District 2 in NYC and later of San Diego public schools), in helping her obtain a Project LEAD grant from the Wallace Foundation which supported a Professional Development Leadership Center. They later secured a federal school leadership grant to transform the work from the district to the Region during the reorganization of New York City's schools. Zardoya used the school system's reorganization as an opportunity to develop new organizational systems and structures for leadership development. She focused on the quality and continuity of leadership by reducing turnover and improving working conditions, supporting school schedules that could enable shared teacher time and foster communities of practice, restructuring schools into small schools, and forming a continuum of leadership development and a leadership career ladder.

Stable, committed district leadership was also a key factor in allowing leadership development to grow over time in the ***Jefferson County Public Schools***. Superintendent

Stephen Daeschner, in his 12th year as JCPS's chief at the time of this study, has provided consistent and stable investment in district-based leadership preparation. Daeschner began his tenure two years after the Kentucky Education Reform Act (KERA) was passed, in a policy context of heightened state supervision and high expectations for school growth. Given that he believes that "the principal is everything," it is not surprising that the leadership preparation portfolio attracted steady district investment.

Daeschner's long tenure and his focus stand in sharp contrast to the average urban superintendent tenure of less than 3 years and the frequent experience of urban district reform as "spinning wheels" (Hess, 1999). As one district administrator acknowledged, "It's unusual to see a district that's invested so much in leadership development over a long period of time." One sign of that commitment is JCPS's continued investment in its internship program, even after funding for the Kentucky Principal Internship Program was halted. (That funding has since been restarted at the state level.) Although JCPS leadership programs have changed from year to year in response to feedback and internal assessments of program effectiveness; the district's investment in the programs has not wavered, and the programs have been able to balance innovation and consistency.

Alan Bersin and Tony Alvarado built the leadership development programs in ***San Diego*** over 6 years , with the assistance of Dean Paula Cordeiro at the University of San Diego, who was a strong advocate for innovative leadership development. Some of these champions have influenced several exemplary leadership development programs and have built on a foundation of prior experience and expertise. Elaine Fink and Tony Alvarado both worked in New York City before championing the reforms in San Diego. Paula Cordeiro shepherded the program at the University of Connecticut before she was hired as dean at the University of San Diego. Experienced leaders are in demand, and they may be recruited to replicate their reforms in another location.

The long-term availability of such leadership is also a concern. Hartford now has its third superintendent since the leadership initiative began, and it is not yet clear if the new reform agenda will invest as heavily in leadership development. In Region 1, Superintendent Zardoya recently resigned, and leadership development may not have the same priority for her replacement. However, Bank Street's ongoing commitment may provide an anchor. Having a program too strongly identified with a particular leader can also be a risk. In San Diego, Superintendent Alan Bersin became a focal point for those unhappy with the rapid change. When the Board changed and Bersin left, some critical aspects of the reform were jeopardized. Although the new superintendent, Carl Cohn, cautiously kept some parts of Bersin's *Blueprint,* ILs and content administrators were discontinued, as were paid internships for aspiring principals. The ELDA program at the University of San Diego continues and is evolving to serve a broader range of districts with a more varied internship model (such as accepting assistant principals) because of the University's ongoing commitment to leadership development. Thus, some risks can be balanced by the existence of strong partnerships.

Partnerships

The exemplary programs we studied built partnerships with other organizations. The need for stronger clinical training has encouraged a growing number of universities to collaborate with districts and schools as equal partners in the design, implementation, and assessment of principal preparation programs. Districts have also turned to local universities to develop tailored preparation programs to certify their aspiring administrators. Collaboration between partners can prepare leaders for specific district and regional contexts and yield a stronger and more committed leadership pool (Orr & Barber, in press). Strong partnerships can also help during leadership transitions, as one partner can take the lead while another is going through change. Partnerships appear to facilitate the institutionalization of these exemplary programs.

The generative nature of partnerships can be seen in several examples. In some cases, the partnerships are between an urban district and a local university. For example, the San Diego Unified School District worked closely with the University of San Diego to co-create and support an aligned program of support to aspiring and current principals that is tailored specifically to the district's leadership needs and reform efforts. The professional development continuum thus created was so seamless that it could be hard to distinguish which staff members work for the university and which work in the professional development office for the district. A very similar partnership exists between Region 1 and Bank Street College. Even if the intimate relationship is somewhat weakened with changes in district leadership, these local universities may prove to be the anchors that sustain programs so that they can evolve.

While these two examples represent partnerships where the university has taken a strong role in program design (and may take a stronger one while they weather transitions in the district leadership), Jefferson County has pioneered a new model where the district takes the leading role. JCPS also turned to the University of Louisville to develop a credentialing program tailored to the needs of principals in its district. The district directs this collaboration, recruiting and selecting candidates for each cohort, advising the university on the redesign of its credentialing program, and paying for most of the graduate credits required for administrator certification. The vast majority of JCPS principals earn their credential through the district-sponsored program: It is recognized as *the* pathway to the principalship in the district. The educational leadership program at the university recognizes that JCPS is its primary customer, and the university has allowed that relationship to determine the direction of its principal credentialing program.

This model may become more common as districts take a more active role in recruiting principal candidates and at least referring them to a local credentialing program. In fact, candidates in ***Hartford*** expressed a desire that the educational leadership program at Central Connecticut State University be more closely structured to meet their needs, now that their cohort represents one-third of the enrollment in that university's administrator credentialing program. As districts increasingly become "customers" of

local universities, they may be able to exert more influence over university-based administrator preparation programs.

In some cases, where universities serve more than one major district, the partnerships are regional. Delta State University works with a regional consortium of Mississippi Delta superintendents on program design, on recruiting candidates, and on securing internships. The University of Connecticut's UCAPP works with both local districts and the state principals' associations to develop field placements. During the course of this study, UCAPP contracted out the supervision of the internships to the principals' association. This will allow the program to place aspiring principals into internships in any district in the state. UCAPP has also brokered a partnership with three districts to place interns in paid assistant principal positions. Until this point, the program had not been able to provide paid internships. The districts have agreed to leave a certain number of assistant principal positions open, and to rotate candidates through those schools. The university's strong relationships with these districts and the state principals' association have allowed it to expand the internship opportunities available to its candidates, leading to a stronger program model.

Financial Supports

These partnerships also bring resources with them that help break the cycle of weak program designs. Candidates for administrative credentials typically put themselves through their local certification program, taking courses at night or on weekends while they teach. During their careers, principals often must seek out their own professional development opportunities on a one-by-one basis, paying for them by themselves. The exemplary programs discussed here provide greater financial supports for principals' learning than are typically available to their peers. These supports include district investments in quality, continuous professional development that is offered free of charge, tuition waivers, release time to facilitate clinical fieldwork, and paid internships.

Although the research literature has been largely silent on the issue of financial support, its importance was mentioned frequently by candidates and staff in our programs. Each of the districts we studied put substantial local resources into the learning experiences they designed and offered for practicing principals, and they conceptualized time for learning as part of the principal's job. All of them had access to federal, state, or foundation resources to offset some of their costs, with the Wallace Foundation's leadership initiative an important source of support in several districts.

At the pre-service level, support for full-time internships was especially critical, given the importance of intensive field experiences and the fact that few candidates have the luxury of giving up their jobs. Most of the participants in the programs we studied received financial support, at rates twice those of the national sample. More than 70% of the national comparison group paid for all their costs themselves, in contrast to 38% of graduates of exemplary pre-service programs. Many of these financial supports were possible because of outside funding, including foundation grants, state funds, and district resources targeted to support administrative interns, sometimes in assistant principalship

positions. For example, *Mississippi's* State Sabbatical Program underwrites the salary of DSU candidates while they complete the full-time program and internship. Delta State uses a federal grant to waive tuition. The ***University of San Diego*** used funding from the Broad Foundation, as well as district funds, to support tuition and intern salaries during candidates' preparation. ***Hartford*** has used part of its Wallace Foundation grant to reimburse aspiring principals enrolled in the district-sponsored credentialing program.

These grants provide important resources to both programs and aspiring principals. However, they also raise the question of whether these program models are sustainable. Without outside funding, would they be able to continue to recruit, support, and provide high-quality professional development to aspiring school leaders? In Chapter 5, we describe policy supports that some states have introduced to support and sustain high-quality preparation.

Policy and Standards Alignment

The districts in our sample have developed both systems and policies that foster professional development. They expect and encourage their principals to continuously improve their skills and create incentives toward that end. When we asked what motivated them to participate in ongoing professional development, program principals were significantly more likely to report district requirements as a motivation (53% vs. 28% of national comparison principals).

Another source of leverage was the use of professional standards to guide program design. All these programs are aligned with the ISSLC standards, which focus on instructional leadership and seek to integrate theory and practice. In fact, respondents in ***Jefferson County*** suggested that being an early adopter of ISLLC helped them shift their expectations of principals from building managers to instructional leaders. Leaders in other programs, including ***UCAPP*** and ***DSU***, also discussed the importance of these professional standards in guiding their work. Since the National Council for Accreditation of Teacher Education (NCATE) has adopted the ISLLC standards, the accreditation process has also helped to facilitate change among programs.

Looking Across Programs

Our analysis suggests that there are consistent cross-program characteristics at the core of these exemplary programs. Recruitment and admission practices are rigorous, admitting strong candidates and diverse cohorts into the programs. Programs are aligned with state and professional standards. Programs have formed collaborative relationships, working with institutions in their region to provide a comprehensive and integrated experience for program participants. Focused coursework is linked to robust internships. Cohorts are not simply a way to group candidates, but are used as a pedagogical tool to teach teamwork and model distributed leadership. Signature pedagogies, such as "walkthroughs," appear increasingly common across programs. Perhaps most important, programs maintain an intense focus on instructional leadership and transformational leadership.

While there are many similarities across the programs in our study, there are also some interesting differences. In-service programs vary in how tightly coupled their components are and in how much they are linked to a distinct district reform guided by a theory of teaching and learning. Programs differ in the intensity of their internship programs, and indeed, programs with full-time internships got the highest participant ratings on this aspect of their program. Their graduates also report more focused instructional leadership practices. A full-time administrative placement allows candidates to experience the range of leadership activities and to more completely develop their abilities.

Our data also suggest that principals who do not receive as much ongoing support and development tend to exhibit fewer of what have been identified elsewhere as effective instructional leadership practices. For example, while UCAPP graduates rated their preparation program highly, because many were hired by districts with little professional development capacity, they received fewer ongoing learning opportunities than our other program principals. They rated themselves as less frequently engaged in instructional practices encouraged by professional development than graduates from the other sites we studied.

Another difference across programs is the level of support, both financial and relational. Most programs provide an internship mentor, usually the principal at the school where candidates are interning. Only a few programs also include advising or an internship supervisor (e.g., an instructor in the program who supports the intern and assesses progress toward goals, with the authority to change the placement if the internship is not providing a rigorous experience). Graduates of programs like Bank Street and San Diego's ELDA garnered additional benefits from their clinical experiences.

Finally, most programs in our study offered financial support—in the form of grants, a state-funded sabbatical from teaching, or tuition waivers. While this strong financial support allows programs to recruit from previously under-represented groups, it raises the question about the sustainability of these programs in their current form. What happens if the outside funding cannot be renewed? Programs weigh the need for financial support to implement a maximally effective design against the desire to be self-sustaining. These issues and others are shaped by the nature of the resources programs have available, to which we turn in the next chapter.

Chapter 5: Costs and Financing of Principal Development Programs

Designing and implementing principal development programs that produce strong principals requires an understanding of how to organize and finance key components and supports. Elements of the exemplary programs discussed in previous chapters include a vision of high-quality leadership, a coherent program design that integrates theory and practice, rigorous recruitment and performance standards, and collaborative relationships among educational leadership institutions. In addition, contextual factors including funding and policy environments can enable or impede the success of educational leadership programs. These topics are the subjects of this chapter and the next.

This chapter focuses on the financing of principal development programs, based on the experiences of the eight exemplary programs in this study, by examining the resources involved in such programs, their costs, sources of support, and financing arrangements. Many of the programs in our sample make innovative use of university, district, state, philanthropic, volunteer, and other sources to meet their resource requirements. These resources come from public and private sponsors and partners. Their terms and conditions, and the levels at which they are provided, greatly influence how programs are designed and what they accomplish. Financing plays a key role in determining what training opportunities are provided, who benefits from them, and, consequently, what results are achieved. Financing policy and strategy also define investment and program priorities, creating incentives for program leaders and participants to invest in principal professional development initiatives in certain ways. Thus, policymakers and program leaders interested in strengthening principal development need to understand what kinds and levels of resources these programs require and what kinds of funding sources and financing strategies they can use to help support, sustain, and scale-up strong programs.

Key Financing Questions

The principal development programs examined in this study vary widely. For example, they include preparation programs and continuing in-service professional development initiatives; they may be sponsored or based primarily in university or school district settings; they range in size from cohorts of roughly 10 to 20 aspiring or new principals to initiatives aimed at hundreds of administrators in a district; and they are located in five geographically diverse states and communities across the country. Looking across these programs to analyze their finances, we sought to examine:

- Resource Needs: What are the key cost elements found across principal development programs? What program components do they support?

- Program Costs: What level of resources is used to support the different principal development programs? What is the monetary value of these resources? How do total costs and the costs of key program components compare across programs?

- Funding Sources: From what sources do these principal development programs obtain their resources? What levels of resources does each source provide, in what forms, and for what purposes?

- Financing: What financing arrangements do these programs use? What are their implications for success and sustainability?

Resource Needs and Costs

Policymakers and program developers need to be able to identify and project the type and scope of resource needs and costs for principal development programs in order to find funding sources and implement financing strategies that can meet those needs. This includes understanding the characteristics of these costs, such as whether they are monetary or non-monetary, and how they are affected by design features such as size.

We gathered information regarding the uses and sources of resources from staff, partners, and participants at the eight case study sites. Rather than looking at budgets, which may be set up quite differently across programs, or expenditure amounts that may not reflect actual program needs or may include donated resources, our methodology seeks to capture all the resources involved in implementing the principal development initiative and then assigns a standard value to those resources so that cost estimates can be generalized and compared. For example, salaries for teachers and principals are valued at national average rates regardless of geographic cost differentials.[6] Further, the cost of uncompensated time contributed by program participants—a potentially important resource in professional development programs—is included in every program. (See Appendix C for a more detailed explanation of the cost estimation methodology.)

Based on our methodology, the cost estimates represent the total societal cost of the programs, including the value of both monetary and non-monetary resources. Although both types of resources must be planned for, some may be donated or provided in-kind. Further, program sponsors, such as universities and school districts, may be able to cover some of these costs through grants or other external funding sources.

Program Cost Components

A first step in understanding program costs is to identify the key cost components or common programmatic elements of principal preparation and continuing development programs. In other words, for what basic purposes are the funds used? Based on previous use of this methodology and detailed research into the program design at the eight case study sites, we identified the following broad categories as key cost components of some or all of the principal professional development programs studied.[7] While preparation programs and in-service programs may differ in the activities they choose to incorporate in

[6] State and local decision makers can generate cost estimates that reflect their own circumstances by substituting locally representative values.
[7] The application of this methodology in three different studies is discussed in Rice & Cohen (2005).

their designs, we identified a set of programmatic components that encompass both groups of programs. These include:

- General Administration and Infrastructure—All programs require a certain level of administrative capacity to support program operations. This includes personnel who coordinate and manage the program and infrastructure needs such as office space, materials, and equipment. However, the configuration of these resources can vary widely across programs, ranging, for example, from employing a full-time director and staff, as in the San Diego Educational Leadership Development Academy (ELDA) program, to drawing on part of the time of individuals who also carry other responsibilities, as in Hartford. Likewise, programs devote different levels of resources to office space: In ELDA, the program director is provided space both at the university and district offices, whereas in the Jefferson County Public Schools' (JCPS) initiative, several program coordinators share office space at the district headquarters, each using it on a part-time basis.

- Recruitment and Selection—Candidate recruitment and selection can be an important factor in the design of a principal development program, affecting the quality, diversity, and experience base of program participants. Some of the programs we examined, such as Delta State University (DSU), the Bank Street Principals Institute, and San Diego's ELDA, had intensive recruitment and selection processes. These included, for example, nominations of candidates by districts, multiple reviewers of candidate applications, and candidate observations. Nevertheless, the amount of total program resources generally devoted to recruitment and selection activities tended to be small and, typically, most of these costs were incurred by program administrators. Thus, we have included these costs within the above category of Administration and Infrastructure.

- Coursework/Institutes and Workshops—In all the programs, at least some of the training for prospective or current principals takes place in formal group sessions led by a professor, expert administrator, or other leader. These may take the form of university courses or institutes, workshops, or other forums provided by a district or other professional development provider. In the preparation program at the University of Connecticut, for example, these costs represent the vast majority of all program costs. In other cases, such as ELDA's Tier II program or New York City Region 1's array of offerings for new principals, coursework is combined with other professional development experiences such as mentoring.

- Internships—Hands-on, on-site experience under the guidance of an experienced practitioner is a vital opportunity for aspiring principals to gain knowledge and skills they will need to address the challenges of the principalship. Nearly all the programs in our study make use of internships in varying ways. In our sample of programs, internships range from a certain number of required credit hours that can be satisfied at least partially at a candidate's home school or during school breaks, to year-long paid assignments working side-by-side with a mentor principal. Thus, the form of the internship has major implications for program costs.

- Mentoring and Mentor Training—Individual mentoring by experienced principals or other administrators and experts can be a powerful form of learning and improvement for principals already on the job. Mentoring for new or struggling principals is a key component cost of several of the district-based programs we studied, including those of San Diego, JCPS, and Region 1, as well as ELDA's Tier II program. The time of mentors and mentees (outside of their regular responsibilities), and costs for training mentors to perform this function, are included in this category.

- Networking and Group Meetings—In some programs, notably those of the San Diego Unified School District (SDUSD), New York City's Region 1, and Bank Street Principals Institute, formal and informal networking and group meetings among principals or aspiring principals is an important component of the program design. Such activities provide a forum for valuable peer-to-peer sharing and learning in which significant resources may be invested.

- Other—"Other" costs are related to activities that do not fit the categories above and are unique to (and may be secondary to the main focus of) the programs. For example, in the Delta State program, these costs include travel to the state capitol to meet with legislators. In JCPS, they are related to the production of a newsletter to disseminate information on the district's principal development initiatives.

Budgetary Cost Components

Our analysis also involves identifying the budgetary resources needed to support these programmatic elements. Examining the costs of principal development programs in terms of conventional budget categories, such as personnel, office space, and travel, gives insight into the kinds of resources for which leaders need to plan in order to replicate or adapt such programs. Since budgets for the programs we examined are not all organized in a common way—and in some cases, do not even exist—we allocated program costs into budget categories based on our understanding of the program designs. The major budget cost categories we used for our analysis are personnel; facilities, materials, and equipment; travel and transportation; and "other."

Personnel resources account for the vast majority of budgetary resources devoted to these initiatives, ranging from an estimated minimum of 67% of costs in the Hartford initiative to well over 90% of costs in several of the pre-service and in-service programs. (See Tables 5.1 and 5.2.) Personnel costs reflect the number of staff and participants and the amount of time they engage in program activities. Because our cost methodology seeks to identify all budgetary resources required by the program design, our estimates of personnel resources include time that is paid (except time paid under existing responsibilities, even if the program adds to these responsibilities), as well as donated time. Thus, the time of program staff and participants, even if uncompensated, is included.

In the preparation programs, internship as well as coursework requirements affect participant time. In particular, the widely differing amounts of internship time required by

the programs in our sample have a large impact on program costs. Likewise, in the in-service programs, the intensity of the mentoring, workshop, and networking components affect the level of participant time and, hence, costs involved.

Personnel costs also reflect choices about the type and level of staff expertise used, including program administrators and support staff, principals, principal mentors, university faculty, and others. For example, San Diego employs eight high-level Instructional Leaders (ILs), whose primary responsibility is to coordinate and provide professional development to principals and other school leaders. In contrast, Jefferson County contracts with several retired principals to provide portions of the district's mentoring and professional development training. Other programs may economize by using sitting principals as mentors or adjunct professors rather than university faculty.

Resources devoted to facilities, materials, and equipment (FME); travel and transportation; and other budget items are typically relatively small compared to the magnitude of personnel resources. Costs for facilities, materials, and equipment include the value of office, classroom, or meeting space; equipment and services; and supplies and materials such as computer programs, books or handouts. These are estimated to range from 1 to 4% of total costs across the programs in our study. Travel and transportation costs, including time and expenses (e.g., airfare and lodging) associated with long-distance travel to meetings and conferences, as well as local transportation to participate in program activities, were generally estimated to be between 1 and 3% of total program costs. Miscellaneous other costs include catering expenses or the value of items such as tuition payments that are not offset by corresponding program expenses.

Larger programs can expect to realize economies of scale for fixed costs, including office space and equipment, which can be spread out across larger numbers of participants. Travel and transportation costs are affected by program design as well as program location, which can affect the time staff and participants typically spend traveling to program sites. For example, travel costs were noted to be most burdensome in the Bank Street program, where participants can spend an hour or more in local travel, and in the Delta State program, because its rural location necessitated long travel distances.

Estimated Costs

The estimated costs for the programs included in this study are based on estimates of the annual cost of the programs implemented at the eight study sites in 2004-05. Table 5.1 provides the estimated total annual direct costs of the programs, excluding uncompensated costs of participant time and tuition payments, and compares the estimated costs of the program components on a per-participant basis. Table 5.2 shows the total costs of the programs, including costs of participants' uncompensated time, which are sizable in programs like Bank Street and the University of Connecticut Administrator Preparation Program (UCAPP), where candidates' salaries and tuitions are not fully covered while they complete their training.

	TABLE 5. I: ESTIMATED PROGRAM RESOURCE COSTS ("DIRECT COSTS")							
	ELDA	Bank Street	UCAPP	Delta State	JCPS	San Diego	Region I	Hartford
Estimated Dollar Cost								
Administration	522,000	182,000	286,000	272,000	279,000	39,000	101,000	98,000
Coursework	174,000 (Tier I) 255,000 (Tier II)	93,000	274,000	91,000	53,000 (IDEAS) 82,000 (PFT I,II)	290,000	352,000	303,000 (Aspirant Acad.) 10,000 (Tchr Ldr. Acad.) 135,000 (IFL Wkshops)
Internship	877,000	545,000	250,000	688,000	725,000 (Interns) 68,000 (IDEAS)			215,000
Mentoring	154,000				119,000 (ISP Prin.) 22,000 (ISP APs)	1,947,000	139,000	
Networking						1,937,000	319,000	
Other				20,000				
TOTAL	1,863,000	819,000	810,000	1,071,000	1,349,000	4,213,000	912,000	762,000
Estimated Number of Participants								
Coursework	Tier I: 15 Tier II: 27 (2 cohorts)	40 (2 cohorts)	120 (2 cohorts)	24 (2 cohorts)	IDEAS: 25 PFT PFT I: 15 PFT II: 9	188	21	Aspirants: 30 (2 cohorts) Teacher Leader Acad.: 8 IFL Wkshops: 100
Internship	15	40	120	12	Interns: 10 IDEAS: 25			30
Mentoring	27				ISP Prin: 24 (2 cohorts) ISP APs: 12	188	21	
Networking						Monthly principal confs: 360; other meetings & confs: 188	21	
Other				12				e

Estimated Per-Participant Cost								
Administration*	11,400	4,600	2,400	11,300	13,100	200	4,800	2,900
Coursework (excluding tuition)	11,600 (Tier I) 9,500 (Tier II)	2,300	2,300	3,800	2,100 (IDEAS) 3,400 (PFT I,II)	1,500	16,800	10,100 (Aspirants' Academy) 1,300 (Teacher Leader Academy) 1,400 (IFL Workshops)
Internship	58,500	13,600	2,100	57,400	72,500 (Interns) 2,700 (IDEAS)			7200 (Aspirants' Academy)
Mentoring	5,700 (Tier II)				5,000 (ISP Prin.) 1,900 (ISP APs)	10,400	6,600	
Networking						7,300	15,200	
Other				1,700				

*weighted average of administrative costs in each part of program

Table 5.2: Estimated Total Resources Costs (With Uncompensated Costs Included)								
	ELDA	Bank Street	UCAPP	Delta State.	JCPS	San Diego	Region I	Hartford
Total Program Resource Costs, in dollars	1,863,000	819,000	810,000	1,071,000	1,349,000	4,213,000	912,000	762,000
Admin Personnel Costs	366,000	159,000	252,000	255,000	138,000	37,000	78,000	80,000
Program Staff Costs	204,000	119,000	484,000	91,000	266,000	1,502,000	433,000	238,000
Compensated Participant Time	860,000	518,000		688,000	652,000	2,327,000	354,000	110,000
All Other Program Resource Costs	432,000	23,000	74,000	37,000	293,000	346,000	47,000	334,000
Uncompensated Time/Out-of-Pocket Costs	310,000	1,637,000	2,732,000	380,000	575,000	128,000	10,000	556,000
TOTAL RESOURCE COSTS, INCLUDING UNCOMPENSATED TIME	2,172,000	2,457,000	3,542,000	1,451,000	1,924,000	4,340,000	922,000	1,318,000
Total Program Resource Costs, as % of total	86%	33%	23%	74%	70%	97%	99%	58%
Administrative Personnel Costs	17%	6%	7%	18%	7%	1%	8%	6%
Program Staff Costs	9%	5%	14%	6%	14%	35%	47%	18%
Compensated Participant Time	40%	21%		47%	34%	54%	38%	8%
Program Resource Costs	20%	1%	2%	3%	15%	8%	5%	25%
Uncompensated Time/Out-of-Pocket Costs	14%	67%	77%	26%	30%	3%	1%	42%
TOTAL RESOURCE COSTS, INCLUDING UNCOMPENSATED TIME	100%	100%	100%	100%	100%	100%	100%	100%

We estimate the total costs of the exemplary programs (including both the compensated and uncompensated time of participants) to range from approximately $900,000 (Hartford Public Schools) to $4.3 million (San Diego). These aggregate estimates largely reflect the size of each program's target population and the extent to which participants' time is compensated. The lower cost programs are primarily targeted at specific small subgroups of principals within the district (for example, new principals in Region 1 and those in the Aspirants program in Hartford), while San Diego's in-service professional development program is available to all principals throughout the district, including subgroups of new and struggling principals.

The estimated total costs of the four university-based pre-service programs range from $1.5 to $3.5 million per year, while direct costs (excluding participants' uncompensated time) range from $800,000 to $1.9 million. The smaller programs—DSU, ELDA, and Bank Street—with cohort sizes of 12 to 20, range in total cost from $1.5 to $2.5 million. The total estimated cost for UCAPP is larger, representing a program of 60 students admitted each year for a 2-year program. Note that the differences between direct and total costs are largest for those programs in which participants do not have their salaries covered through a paid internship. Their uncompensated time makes up 67% of the total costs of the Bank Street program and 77% of the total costs of UCAPP's program.

In order to better understand and compare the use of resources across programs, we also estimated the per-participant cost of the major programmatic components (coursework/workshops; internship; mentoring; networking; and group meetings) at each site. The main component costs of the principal preparation programs—the four university-based programs as well as Jefferson County's IDEAS program and Hartford's Aspirants Program—are coursework and internships. (See Table 5.1 for the share of overall program costs organized by programmatic component.) Table 5.3 provides details on these programs' coursework and internship requirements, including the number of credit hours of coursework and time commitment or duration of the internship.

Total per-participant costs for pre-service program coursework are estimated to range from under $20,000 to over $40,000. This pattern generally corresponds to the number of credit hours of required coursework in the program. In addition, these costs include the uncompensated costs of participants, as applicable to each program model. As discussed above, staff time is the primary driver of our cost estimates. Consequently, differences in the amount and intensity of coursework and the resulting number of hours that participants, faculty, and other staff spend in class and preparation primarily account for differences in per-participant coursework costs. These costs are also influenced by other program features, including economies of scale due to larger class sizes, such as in the UCAPP program, and the allowance in some programs for credit hours to be fulfilled through internship or field experiences, such as in the Hartford Aspirants program.

Per-participant internship costs vary even more widely than those for coursework, reflecting the great variation in design and intensity of these experiences across programs. In the Jefferson County IDEAS, Hartford Aspirant, and UCAPP programs, where internships are part-time and may be concurrent with the regular duties of the participant,

direct costs are estimated to range from $2,100 to $7,200 per participant. In the Bank Street program, where interns serve in summer placements, as well as field experiences throughout the year, internship costs rise to $14,000 per participant. Internship costs for ELDA and DSU are estimated at about $58,000 per participant, since both of these programs incorporate a full-year paid internship for aspiring administrators. Finally, the JCPS intern program includes a full-year paid internship for 10 aspiring principals or assistant principals using a medical model of hands-on experience through rotations addressing different school problems. The estimated per-participant cost of $72,500 for this program reflects a full year of pay and benefits for the interns at their previous salary level, plus an allotment to compensate them for the extended hours expected of principals. In addition, the district supports the interns with coordination and coaching staff, training materials and equipment, and related resources that contribute to the program's cost.

Table 5.3: Coursework and Internship Requirements, Costs, and Payments

	Coursework			Internship		
	Required Credit Hours	**Estimated Cost per Participant**	**Tuition Payments**	**Required Internship**	**Estimated Cost per Participant**	**Payment for Internship**
Bank Street	36 credits (3 semesters)	$41,800	$430 per credit hour (reduced by univ. from $835); paid ½ by district, ½ by student	Summer internship + field experiences during year	$28,100	District pays for summer internship as administrator for summer school program.
UCAPP	32 credits (2 years)	$24,100	Students pay regular tuition of $2,567 per semester	80 days (20 days in summer and 30 days per school year)	$14,200	11 credits of practicum are integrated with coursework; some internship requirements can be satisfied at own school or on leave time.
Hartford Aspirants	30 credits (1-1/2 years)	$28,300	Students pay regular tuition of $380 per credit	Internship is a core course in second year	$7,500	Many activities count toward internship, often duties related to participant's regular job.
ELDA Tier I	24 credits (1 year)	$20,300	$500 per unit (reduced by univ. from $905); paid 70% by Broad Foundation, 30% by student	Full year	$58,600	Students paid full salary & benefits at previous year's rate. District pays for 10 (2/3 of cohort) through APS grant; university pays for 5 (1/3 of cohort) through Broad grant.
Delta State	24 credits (school year plus two summers)	$18,600	Full tuition waiver by university	Full year	$59,400	State pays salary & benefits at rate of teacher with 5 years experience; district may supplement up to actual amount.
JCPS IDEAS	3 courses (1 year)	$18,900	$912 per course; LEAD grant pays for 2 courses; university for 1	Minimum 50 hours outside workday	$4,800	Hours outside workday are unpaid.
JCPS Interns	N/A	N/A	N/A	Full year	$72,500	District pays regular salary + amount for extended day of principals

The mix of costs varies with program design. For example, coursework for Tier 1 participants accounts for 23% of the overall Tier 1 program cost at San Diego's ELDA, or about $20,300 per participant (including the uncompensated time of participants), while the full-year paid internship, supported by both district funds and a foundation grant, costs nearly three times as much at $58,600 per participant (about 60% of total costs). The costs of Delta State's full-time internship, supported by state funds, are about the same. At the other extreme, the $24,000 per candidate spent on coursework at UCAPP represents the bulk of the total cost, while the internship activities that candidates undertake while they are still full-time teachers cost only $14,200 per candidate. Clearly, these internships differ dramatically in form, function, and outcomes. However, program structures are constrained by the availability of funding streams to support different activities.

Similarly, cost allocations for district-based in-service programs also vary widely as a function of design. The in-service programs in our study sample make use of some combination of workshops/coursework, mentoring, and networking or group meetings, but to differing extents and in different proportions. Hartford, for example, uses its resources for in-service principal professional development to provide the Institute for Learning's (IFL) Principles of Learning workshops for all principals, assistant principals, and coaching administrators. These workshops are estimated to cost $1,400 per participant. JCPS's in-service program, on the other hand, focuses on providing induction support for new principals and assistant principals through mentoring, at a direct cost of $1,900 per new assistant principal and $5,000 per new principal. Resources for training new principals and assistant principals in San Diego ELDA's Tier II program are balanced between coursework and mentoring (costing $5,700 and $9,500 per participant, respectively).

Region 1 and San Diego use all three approaches: workshops, mentoring, and networking/group meetings. Both districts devote significant resources to peer sharing and learning through group meetings such as monthly principal conferences. Both also place a strong emphasis on principal learning through mentoring from other experienced administrators. For example, not only does New York City's Region 1 use resources of about $17,000 per new principal on several different kinds of city-wide and regional workshops, it also devotes about $22,000 per year on networking and mentoring for each new principal (including the time of both the mentors and mentees). San Diego also invests heavily in mentoring for new and struggling principals. Because the program also includes mentoring of many other veteran principals, per-participant costs are lower—estimated at $10,400.

In Jefferson County where retired principals provide mentoring for a larger number of candidates each, the full costs range from $1,900 to $5,000 in its two programs. As with internships, it is clear that what is called mentoring in one program is not necessarily comparable to what is called mentoring in another. Since the cost of programs and individual program components varies widely, as does the intensity, scope, and impact of each specific program feature, it is dangerous to draw generalized conclusions about the impact of any given program component (e.g., internships, mentoring, or networks) without specifying the scope, duration, and intensity of the particular intervention.

It is clear that each of the exemplary principal development initiatives requires significant investments of resources, and these investments shape the professional development that principals experience. It is also clear, however, that the programs vary in how they use professional development resources—differentially emphasizing coursework or mentoring or internships—and in the level or intensity of resources they invest, for example, for a part-time vs. a full-year internship. It is also important to remember that not all costs translate into budgetary expenditures. Uncompensated time contributed by principals or other staff, or other in-kind resources such as tuition forgiveness, reduce the fiscal resources required to operate professional development programs. As Table 5.2 reflects, some of the preparation programs assume that a significant amount of unpaid participant time will be donated at night or during summers. For example, UCAPP's program requires participants to complete 2 years of coursework on their own time, as well as internships of 30 days per school year and 20 days in the summer, although some of the internship time may be concurrent with other coursework or school activities.

While some models of principal development are clearly more costly to state and local agencies than others, it is also important to consider what they buy. For the exemplary pre-service programs we studied, direct costs ranged from $13,400 per participant for UCAPP's 2-year model – which relies on the uncompensated time of candidates to manage coursework and part-time internships that are conducted largely while they hold full-time teaching jobs – to $74, 200 for Delta State's program and $81,500 for San Diego's ELDA program, both of which provide a full-time, paid internship year under the guidance of an expert principal, with the internship experience tightly integrated with coursework. The candidates from these more expensive models rated their internship experiences most highly. Once hired as principals, they also engaged in instructional leadership practices to a very high degree, carrying over into their work what they learned in this experience, and noting that they began their tenure with considerably greater skill and competency than would have been the case without this experience. As we were reminded in San Diego, where school size averages close to 1,000 students, this year-long investment in intensive training costs, on average, approximately $80 per student in the principals' schools. Although it requires significant resources to fund such a program, on a per-student basis, it represents a modest investment in a substantially more successful start for the principal, teachers, and students in the school.

Among in-service programs, the least expensive program model was Hartford's, with direct costs of $4,300, which includes bimonthly workshops offered by IFL, an outside organization, and regular principal meetings. (Hartford spent another $1,300 per participant for the eight teachers involved in the Teacher Leadership Academy.) The most expensive in-service program model was Region 1's approach, which cost $36,800 per participant and included regular monthly training for two tiers of principals and instructional leaders; frequent principals' conferences and network meetings; and specific role-targeted supports for teacher leaders, assistant principals, new principals, veteran principals, and local instructional superintendents. In addition, administrative meeting time at the regional and network levels was reorganized to support ongoing leadership development. While Region 1 also used IFL training, it was designed to increase local staff capacity: IFL trainers worked with district leaders, who then were prepared to train

other site leaders. This process created deeper, long-term knowledge within the district. All 21 new principals also received intensive mentoring at a cost of $6,600 apiece. Although it represents a major investment, this more expensive and pervasive model cost only $13 per pupil in the district. Given the fact that Region 1 principals reported they had the most intensive and helpful learning opportunities of any of the districts we studied, and that many principals associated these supports with the large achievement gains the district experienced, it might be considered a strategic investment in more productive schools.

It is difficult to compare precisely the costs estimated here with those for other professional development initiatives in education, because cost studies are rare and estimates are not comparable. Studies have estimated the amount school districts spend on in-service professional development from less than 2% to more than 6% of district operating budgets (Neville & Robinson, 2003). One study in five large urban districts found that they spent between 2.2% and 3.7% of their total operating expenditures (totaling $8.6 million to $123 million), providing some benchmark for the total program costs we estimate (Miles, 2003). These estimates, however, focus on expenditures rather than total costs and encompass costs of *all* professional development, including that for teachers.

A recent study of teacher professional development provides some comparisons for per-participant costs (Cohen & Rice, 2005). The study reviewed induction programs, district-sponsored professional development programs, professional development associated with comprehensive school reform models, master's degree programs, National Board Certification, and privately marketed institutes and academies. Costs (in 2003 dollars) cited for nine of these initiatives range from a low of $1,438 per participant to $15,804 per participant. However, as the study points out, these cost estimates vary dramatically in terms of what resources are included, and most include only fiscal costs.

The study compares the costs of earning a master's degree in Virginia, as estimated by Knapp and colleagues (1990), with the full costs of National Board Certification candidacy and support programs (estimated using the same methodology as applied in this study). Both these cost estimates include the costs of providing the program as well as the cost of participants' time to participate in the program. The costs per participant (in 2003 dollars) in the master's degree program were estimated at $31,050 for evening enrollment, $44,563 for summer enrollment, and $71,052 for full-time enrollment, with the differences due to the amount of foregone earnings accrued in each scenario. Costs for National Board Certification candidacy and support programs were estimated to range from $18,254 to $31,014 in the four sites studied, substantially in participants' time.

Thus, the range of costs estimated for the various exemplary principal professional development programs and program components in this study are essentially within the same broad range of costs as those that have been estimated for other professional development initiatives and approaches. As a whole, the exemplary principal professional programs studied here are no more or less costly than the range of other professional development programs that have been studied. Clearly, professional development programs, whether exemplary or not, can involve a wide variety of resources. The challenge is to use those resources most effectively.

Funding Sources and Financing

Successful education initiatives frequently draw resources from a variety of sources and employ different strategies to obtain them. However, different funding sources and financing strategies have different characteristics, such as the level of resources they are able to bring in, how they distribute the cost burden, and how flexible and durable they are. Thus, choices about funding sources and financing strategies determine how closely aligned a program's financing is with its resource needs over the short and longer term. This, in turn, affects programs' prospects for success and sustainability.

We sought to identify the organizational and individual sources of monetary contributions or in-kind donations of time or other resources to these programs, regardless of whether these resources flow through other institutions or actors. For example, grant funding to a district from a foundation or governmental source used to pay for tuition at a university would be attributed as a cost to the foundation or government grantor, not the district. Time for principals to participate in professional development that is compensated by the district is counted as a district cost; uncompensated time is counted as a contribution from individual principals. We also sought to understand the relative levels of resources contributed by each source and the purposes for which the resources were used.

Funding Sources

We identified seven categories of organizations and individuals who provide the resources that allow the principal preparation and/or continuing development programs in our sample to operate. These are universities; school districts; foundations; state government; the federal government; participants; and program staff.[8] Each program relies on at least three of these sources, and some as many as six, as shown below.

Table 5.4: Sources of Program Funding

	University-Based Programs				District-Based Programs			
Site	Univ. of San Diego	Bank Street College	Univ. of CT UCAPP	Delta State Univ.	Jefferson County	San Diego	NYC Region 1	Hartford
University	X	X	X	X	X			
District	X	X	X	X	X	X	X	X
Foundation	X	X			X		X	X
State				X				
Federal Govt.		X		X	X		X	
Participants	X	X	X	X	X	X	X	X
Program Staff	X	X	X	X	X	X	X	X

[8] This list is not exhaustive of the many organizations and individuals that can provide resources to professional development initiatives. In other studies, sources of support have also included teacher unions, individual businesses and business groups, other school staff, and community organizations and volunteers.

The types of resources each source provides, and the distribution of costs we observed are summarized below:

- **Universities**—Universities provide faculty, staff, space and materials, and other resources to their programs. Tuition, grants, and other contributions offset these costs. In our sample of programs, the share of total costs borne by universities ranged up to 18% in the university-based preparation programs.

- **School Districts**—School districts assume widely varying shares of the cost burden for their programs—from virtually none in Hartford to almost all in San Diego. Districts also contribute an estimated 3 to 14% of program resources in each of the university-based programs. These resources take the form of tuition support for their students in the program (e.g., payments by Region 1 for students in the Bank Street program) and the in-kind provision of personnel or space (e.g., the use of district facilities by the UCAPP program).

- **Foundations**—Several programs relied on foundation grant funds, some quite heavily. For example, other than funding participants in the Aspirants program, foundations shouldered the main cost of Hartford's principal development initiative. Foundation funding also accounted for about 75% of ELDA's resources. The Wallace Foundation's LEAD initiative supported several grant-funded programs.

- **State government**—State governments can support principal development programs financially through budget allocations or grants to providers, as well as by providing scholarships or other funding for participants. State funds played a major role in one of programs studied: In Delta State University's preparation program, funds allocated through Mississippi's Sabbatical Program allowed aspiring principals to participate in this state-approved program while still being paid full-time for a year, making this funding source the single largest source of resources for the program. Despite the involvement in strengthening principal preparation and continuing professional development systems of many of the other states in which the exemplary programs are located, these states did not provide direct financial support to the university or district initiatives studied here.

- **Federal government**—The federal government provides an array of funding programs for professional development in education, including principal preparation and in-service programs (Cohen & Freiman, 2001; Robinson, 2003). Federal Title II funds that flow through states to districts for professional development activities provided a small amount of funding to the JCPS initiative. Other federal grant funds helped support university-based (Delta State) and district-based (Region 1) programs.

- **Participants**—Participant contributions may take a number of forms. These include tuition payments, the value of uncompensated time, and out-of-pocket costs for books and transportation. These contributions are the major source of resources

for some programs, as in UCAPP, but represent a smaller share of total resources in programs such as ELDA, which have other funds to reimburse participants for these costs.

- **Program staff**—The time of program staff is generally compensated, but program staff may also contribute resources if they use uncompensated time to fulfill program responsibilities or incur out-of-pocket expenses that are not reimbursed. Meetings by San Diego ILs with principals outside of normal work hours, for example, account for a small share of total resources in that program, as does the volunteered time of an editor in the JCPS initiative.

Financing Arrangements for Preparation Programs

Our sample of exemplary programs illustrates a variety of financing arrangements, from traditional tuition financing to foundation-sponsored initiatives to innovative partnerships with local school districts and other funders. Each program uses a different mix of funding sources and strategies to meet its resource needs. These diverse financing arrangements spread the cost of the programs very differently among universities, districts, program participants, and other public and private funders.

Tuition Financing. The UCAPP program is the simplest example of preparation program financing. In contrast to the three other university-based programs, tuition is the only source of external revenue for the UCAPP program; thus, participants pay for nearly all the costs of the program. A relatively small amount of program resources comes from districts that contribute space for the program's courses at two satellite locations.

Because the tuition model of program financing places a large cost burden on participants, it can discourage aspiring principals who are less able to afford these costs from entering the program. However, because the UCAPP program is well established and well regarded within the state, it is able to attract a steady stream of students, and its tuition revenue is fairly stable. As part of a university, however, UCAPP does not completely control the tuition rates that are charged or the use of revenue that is received. Thus, for example, the ability of the program to adequately support its resource needs depends on how tuition payments are allocated within the university.

University-District Partnerships. The ELDA and Bank Street programs represent university-district partnerships that share the cost burden with participants and also take advantage of external funding sources. As described earlier, ELDA was developed jointly by the University of San Diego and San Diego city schools with support from The Broad Foundation. As documented in a Memorandum of Understanding between the school district and university, Broad agreed to pay 70% of the tuition costs for ELDA with students paying 30%, while the university agreed to forego tuition revenue of $405 per unit. In addition, the district agreed to pay the full salary and benefits for 10 of the Tier I participants (2/3 of the cohort), while Broad agreed to support the remaining participants. In 2004-05, the university used the Broad grant funds (about $1.5 million) to support all components of the program, including program staff and mentors. The district used grant

funds from Atlantic Philanthropic Services (APS) to pay for its share (about $575,000) of the salary and benefits for the Tier I students. These grants covered about 75% of all program costs. About 20% of program resources were contributed by participants for their share of tuition, out-of-pocket costs for expenses such as books and transportation, and for the uncompensated time of Tier II participants. The remaining costs were covered by contributions from the district, university, and program staff, mainly in the form of in-kind contributions of staff time and facilities.

The Bank Street College Principals Institute, another university-district partnership, partners with New York City's Region 1 to provide a preparation program for aspiring principals that is part of the district's continuum of leadership development programs. Bank Street College obtains funding for the program through tuition, but foregoes substantial revenue by discounting the amount it charges by about half of its usual rate (from $835 to $430 per credit). Of the amount charged, half is paid by the student and half by the school district. The district uses federal grant funds to help pay its share of the tuition. In addition, the district pays for summer intern salaries through a Wallace grant, which accounts for about 1/3 of total program resources. Including tuition payments as well as the cost of their uncompensated time and out-of-pocket expenses, participants' share of the program's total costs is about 60%.

In the ELDA and Bank Street programs, diversification of funding sources has brought in resources for the programs and helped to spread the cost burden. However, diversification also requires programs to satisfy the terms and conditions of external funders as well as their institutional funders. As grant funds expire, program leaders will have to find replacement funding or reshape their programs.

State and Federal Funding. The Delta State program is unique in our sample in that the state is a key provider of resources. Through the Mississippi School Administrator Sabbatical Program, the state reimburses districts for an amount equal to a full year's pay for a teacher with 5 years' experience for qualified participants who participate in an approved administrator preparation program. The state also allows districts to supplement this amount up to the teacher's actual salary. The sabbatical program provides a powerful financial incentive that attracts candidates into DSU's program and supports them while they are there. In recent years, students funded under this program have formed the core of the program's enrollment. State and district funding account for over half of all resources devoted to this program.

The university also reduces the burden on students by providing a full tuition waiver, using funds from a federal grant to cover most of the costs of coursework as well as the program's administration and infrastructure. A $1 million award from the U.S. Department of Education's Fund for the Improvement of Post Secondary Education program, referred to as the Delta Education Initiative (DEI), is shared among four university programs, with the School Leadership Program at Delta State receiving approximately $250,000, or about 25% of program costs. Because the DEI funds are flexible, they are used to support faculty and program support salaries, equipment, and a variety of other program expenses. Remaining program costs are borne by the university

and participants, who bear a small amount of costs in foregone earnings and out-of-pocket costs.

Financing Arrangements for In-Service Programs

The four district in-service programs we studied also vary in their financing arrangements, with different mixes of district funds and external grants. The programs represent a continuum, ranging from the district assuming essentially all the costs, as in San Diego, to nearly exclusive reliance on external funding sources, as in Hartford. In between these extremes, Region 1 provides most of the funding for its programs, with some grant funding to supplement costs, while JCPS uses mostly grant funds, with district supplementation.

Full District Funding. San Diego assumes full financial responsibility for the continuing principal development activities it offers. Just as the activities are well integrated into the regular work of principals, their funding is also integrated into the district's general budget. The major costs—salaries for the ILs who work with principals, and for the staff and other resources that support their activities—are contained within the Office of Instructional Support under the direction of the Executive Director of Instruction and Curriculum. The other major resource, the time of principals throughout the district—including regular 1.5-day per month principal conferences during the school year, the equivalent of 4 days of additional formal training sessions per year, and mentoring or coaching and other group meetings—is built into the cost of principals' salaries. Since almost all of this ongoing professional development occurs as part of principals' regular job and the district's regular activities, there are few additional resource costs for uncompensated time or expenses borne by participants or others. Funding for this program will continue to be stable as long as there is ongoing political support for the program.

Partial Grant Funding. In the other district-based programs, the district's costs are offset to varying extents by public or private grant funding. Region 1's system of supports for new principals has similar components to those in the San Diego schools, including principal network meetings, individual mentoring, and summer and school-year professional development sessions. In contrast to San Diego, however, Region 1 draws on grant funds from the Wallace Foundation and the federal School Leadership Program to supplement professional development funds from the district.

Jefferson County relies heavily on foundation funds to support its principal professional development activities. The district groups all of its principal development activities under the umbrella of LEAD, and the LEAD grant funds form a budget core that is supplemented with district general funds, federal Title II funds, and in-kind contributions from program partners, staff, and participants. The LEAD grant is the initiative's single largest funding source, supporting about 40% of total program resources.

JCPS has combined district and external funds to sustain pre-existing programs such as IDEAS and to accomplish a range of other principal professional development efforts. Recognizing that its partial reliance on grant funds leaves the program somewhat

exposed to changes in external funding priorities, district officials have modified the array or scope of programs each year to make maximum use of the available funding. In interviews, program officials indicated that if grant funding were to end, they would work to maintain or expand district funds and to place them where they were most effective. In fact, the district has funded new School Administration Manager (SAM) positions and expanded its partnerships with local university preparation programs. Furthermore, the Wallace Foundation has provided JCPS with additional funding to support SAM replication and innovation projects in five other states.

Full Grant Funding. Hartford represents the opposite end of the district-grant funding spectrum. In this case, all major professional development offerings for principals are funded through a Wallace Foundation grant, and the extent of the grant seems to drive the initiative. It is not clear what plans the district has for sustaining its program in the absence of these grant funds.

Conclusions and Implications

The eight programs in our study provide a window into the financing of effective principal development programs and a range of potential financing options for leaders of other programs to consider. Looking across all the programs, it is clear that effective programs and reforms require significant resources, especially personnel resources, to support principal learning and continuing development. However, the organization of these resources—in terms of costs, funding sources, and financing arrangements—differs considerably across programs, as do design features such as the number of participants; program components such as coursework, internship, and mentoring; staffing configurations; and the amount of time required of participants. These features are associated with differential distributions of costs by component and by budgetary category.

There are a number of considerations that could aid policymakers or program developers as they seek to evaluate, replicate, or adapt various approaches to principal professional development. These include the need to:

- Budget comprehensively. It is important to acknowledge all the resources that will be required by a program in order to ensure that they can be financed and secured. For preparation programs, this primarily includes those resources necessary for coursework and internships, while for in-service programs, it includes those resources associated with workshops, mentoring, and networking.

- Consider the design. How program components are designed and implemented will affect both their cost and their value. For example, a multi-faceted in-service program may become more economical and more effective if different components are managed in synergy rather than separately. Similarly, a longer and more intensive internship may be more costly, but if well designed, its benefit may also be greater for candidate learning and performance. Conducted in partnership, direct costs may be offset by placement designs that allow districts to reap some of

these benefits. Program developers should consider the implications of design choices for the costs, benefits, and sustainability of their programs.

- Recognize the importance of personnel choices for costs. Personnel resources, both paid and unpaid, are the major cost component of professional development initiatives. Consequently, choices concerning the types of personnel resources and level of staffing or time required have important implications for costs and quality.

Our analysis also illustrates a range of funding sources and financing arrangements. Funding and in-kind contributions for both the university-based and district-based programs in our sample came from universities, school districts, foundations, state government, federal government, participants, and program staff. Some relied heavily on a single source of resources, whether that source was the university or the district providing the program, or on external funding sources, such as tuition or grant payments. Others represented partnerships among several institutions that shared the funding responsibility.

Financing arrangements—including such key features as the treatment of tuition and compensation for participant time—affect the cost burdens associated with each program. The financial incentives also determine the resources available to the program and the likelihood of continued support. There are dilemmas to be worked through in the choice of financing arrangements. For example, covering costs from steady funding streams such as tuition, general operating budgets, and state programs, as in the UCAPP, San Diego, and Delta State programs, improves the outlook for funding stability and sustainability. However, embedding program financing in institutional budgets may not give the program sufficient attention or funding to meet its goals.

Using partnerships and a diversified portfolio of funding sources, such as in ELDA, Bank Street, Delta State, JCPS, and Region 1, has allowed these programs to be innovative. Diversifying funding brings in additional revenues and reduces a program's vulnerability to funding losses from any one source. However, grant funding, including foundation funding and categorical federal funding, may be conditioned on program design or other factors that may limit a program's flexibility to use funds as needed and may be time limited. Thus, external funding can create vulnerability. Heavy reliance on time-limited grant funds, such as in Hartford and San Diego, leaves district officials vulnerable to changes in external funding priorities. The expiration of time-limited grants can create funding instability if program leaders are not able to acquire replacement funding.

In the long run, developing quality program models that are sustainable will depend on long-term policy supports from state and local governments, so that innovative programs can be institutionalized and become stable features of the leadership development landscape. We turn to these policy issues in the next chapter.

Chapter 6: Policy and Leadership Development

State and district policy contexts greatly affect what leadership development programs can do and with what results. We examined policy contexts in eight states: California, Connecticut, Delaware, Georgia, Kentucky, Mississippi, New York, and North Carolina. These included the five states represented by our exemplary program sample, as well as three others that had been proactive in launching leadership development initiatives. The combination provided a broader perspective on how state policy and financing structures influence program designs. As we interviewed state and local officials, along with program participants, we also took account of district policies that were important in shaping the context for leadership programs.

As part of this research, we analyzed the survey data we had collected from 1,086 principals nationwide, including 728 from the eight focal states. In our national survey sample, which was drawn randomly from lists provided by the National Associations of Elementary and Secondary Principals, we over-sampled principals in the eight states to support estimates of principals' views and practices in these states. In addition, we sampled graduates and participants from the eight preparation programs.[9] This gave us a lens for understanding principals' collective learning experiences, as they reported their experiences and preparedness from pre-service training, the professional development experiences they have had, and the practices they engage in. (See Appendix D for state-by-state analyses of survey responses.)

In this chapter, we examine principals' perceptions of their learning opportunities and practices, we review the landscape of state policies targeted at leadership development in the eight states, and we look at how state and local policies influenced the evolution of our exemplary programs. We focus on state-level trends to draw inferences about state policy effects, while acknowledging the variation across districts within these states.

While we focused on policies that are specifically targeted at the development of school leaders, we were also keenly aware that many other kinds of policy are also relevant to the development of strong leadership in public schools. Among these are state and local accountability policies that influence curriculum and assessment as well as professional evaluation and performance incentives; recruitment and retention policies that shape the nature of the teacher and administrator workforce; and fiscal resource policies that influence both the tools available to do the work and the constraints leaders may confront in trying to do their jobs. We attended to these policies as we found they influenced specific programs and the general landscape for leadership development.

Learning Opportunities for Principals

In Chapter 2, we described some of the outcomes of the leadership programs we studied, which differed substantially from those reported by principals in our national

[9] The data were weighted at the state level so that program participants were represented proportionally to their share of the state population of principals and at the national level so that states were proportionally represented to their share of the nation's principals.

sample. We also found substantial variability in principals' preparation and professional development experiences, and their reports of practices, from state to state. We characterize these trends here and examine the policies that may be associated with them.

Characteristics of Preparation Programs

While the exemplary programs stood out as exhibiting more of the components the literature suggests are important, we found that principals consistently reported several of these program components across states. (See Table 6.1) As we interpret these data, we note that many principals had been practicing for a number of years, so that their responses did not always represent the contemporary features of leadership preparation programs in a given state. On average, principals responding to the survey had been in their current jobs for 9.5 years, ranging from just under 8 years (Georgia, Mississippi, and New York) to nearly 11 years in North Carolina.

Contrary to the conventional wisdom, which assumes a generally low quality of principal preparation programs across the country, principals tended to agree "to a great extent" that their preparation program had emphasized instructional leadership and that faculty members were knowledgeable in their subject area. (Both of theses were rated, on average, above a "4" on the 5-point Likert scale.) Principals also tended to agree, to a somewhat lesser extent (rated between 3.65 and 4.0 on average) that their programs offered comprehensive coursework and a coherent learning experience; integrated theory and practice; emphasized the management of school operations as well as leadership for school improvement; and gave them a strong orientation to the principalship as a career. Most also said their programs included a range of teaching strategies: lectures and small group work were represented to a similar degree, and most reported that their programs included case methods and field-based projects.

Fewer principals, however, said that they were asked to reflect on their practice and analyze how to improve, or that they were frequently assessed on their development of leadership competencies, or that they engaged in self-assessment. (Ratings averaged between 3 and 3.5 on these items.) Still fewer (ratings averaged below 3.0) said that they were in a student cohort, had practicing administrators teaching in the program, used journal writing to reflect on their experiences, or prepared a portfolio to demonstrate their learning.

There was substantial variability on a number of dimensions. As one indication that there may be differences across states, Mississippi principals were the most likely to report these and most other program features as having been present in their programs "to a great extent," while Delaware principals were the least likely. Mississippi principals were also the most likely to feel well prepared on nearly all the dimensions of preparedness we asked about. As we describe below, Mississippi undertook a radical reform of leadership preparation programs in 1994, while Delaware launched major reforms only recently, so few principals in our random sample had been touched by them.

Table 6.1: Preparation Program Characteristics as Reported by Principals, by State

Principals' responses to: "To What Extent Were the Following True of Your Preparation Program?" (1=Not at all. . .5=To a great extent)	National Mean (n=1086)	Highest State Rating	Lowest State Rating
Faculty members were very knowledgeable about subject matter	**4.16**	4.47** (MS)	4.09 (GA)
Program content emphasized instructional leadership	**4.07**	4.45** (MS)	3.89 (DE)
Course work was comprehensive and provided a coherent learning experience	**3.84**	4.04 (MS)	3.45** (DE)
Program content emphasized efficient school operations management	**3.78**	4.38** (MS)	3.44** (CT)
Program integrated theory and practice	**3.73**	4.10** (MS)	3.32** (DE)
Program gave me strong orientation to the principalship as a career	**3.72**	4.01** (MS)	3.32** (DE)
Program content emphasized leadership for school improvement	**3.65**	4.19** (MS)	3.42 (DE)
Program content emphasized working with the school community and stakeholders	**3.59**	4.10** (MS)	3.34 (DE)
Principal was asked to reflect on practice and analyze how to improve it	**3.37**	3.73** (MS)	3.03* (DE)
Faculty provided many opportunities to evaluate the program	**3.35**	3.53 (MS)	2.97** (NY)
Program provided many opportunities for self-assessment	**3.19**	3.49* (CA)	3.00 (DE)
Program provided regular assessments of skill development and leadership competencies	**3.16**	3.70** (MS)	2.58** (DE)
Practicing school or district administrators taught in the program	**2.89**	3.56** (CA)	2.11** (NC)
Principal was in a student cohort	**2.41**	3.63** (CA)	1.94** (GA)
To What Extent Were These Practices Part of Your Coursework?			
Lectures	**3.97**	4.34** (NC)	3.75 (CA)
Participation in small group work	**3.78**	4.34** (MS)	3.73 (CA)
Analysis and discussion of case studies	**3.73**	4.30** (MS)	3.38** (DE)
Field-based projects in which ideas were applied in the field	**3.67**	3.91** (CA)	2.82** (DE)
Use of problem-based learning approaches	**3.41**	3.81** (CT)	3.18 (DE)
Linkages between coursework and internship	**3.37**	3.91** (CA)	2.53** (DE)
Action Research , inquiry projects	**3.29**	3.71** (MS)	3.10 (NY)
Journal writing of experiences	**2.96**	3.21 (MS)	2.53** (DE)
Portfolio demonstrating learning and competencies	**2.73**	4.34** (MS)	1.97** (DE)

T-Tests of group means; *p<.05; **p<.01; ***p<.001

There were also specific program features that appeared most often in some other states: For example, there was wide variability across states in principals' access to internships as part of preparation, ranging from 92% in New York to only 8% in Delaware. (See Table 6.2.) The nature of these internships varied, with fewer than half being full time, even in the states with the most access. In most cases, the internship was a part-time administrative appointment within the teacher's own school, rather than a dedicated experience in a different school. Principals in New York and Kentucky were most likely to have had a full-time internship. These differentials in access to internships track both state program requirements and supports. Where state accreditation has required it, most principals have had some form of internship (e.g., New York, Georgia, and North Carolina), and where states or major cities have offered funding for internships, more principals have had a full-time internship and/or an internship outside their school (e.g., Georgia, Kentucky, New York, and North Carolina.)

Table 6.2: Internship Access and Quality (Percent of Principals)

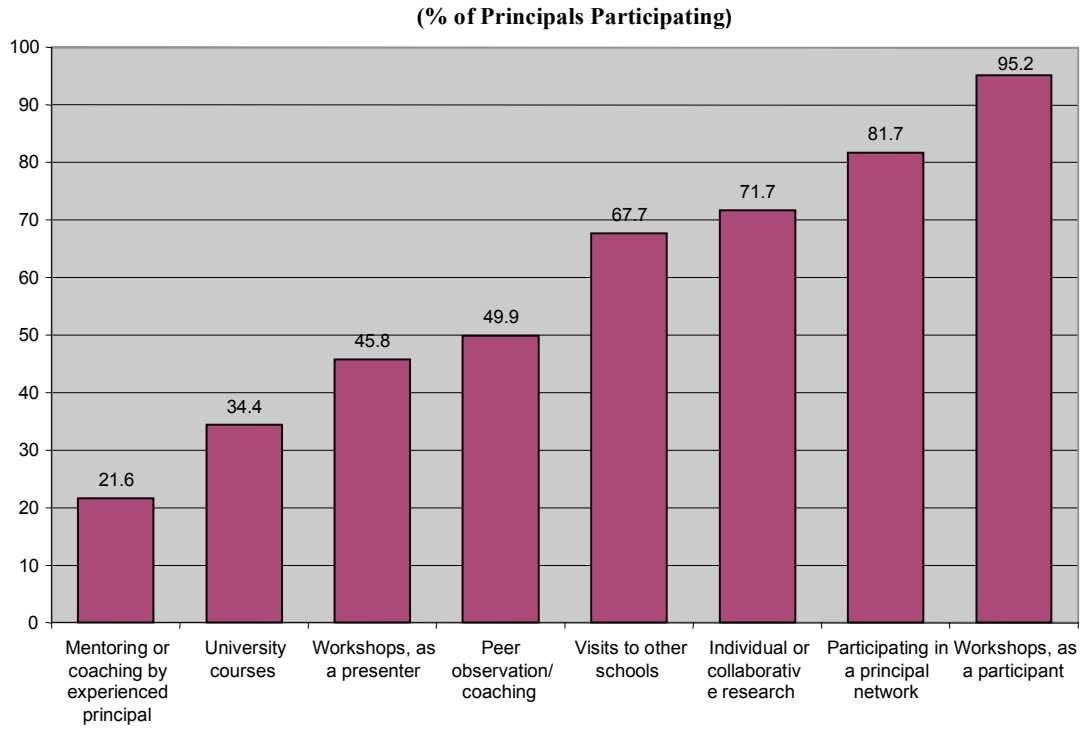
	Nation	CA	MS	CT	KY	NY	DE	GA	NC
Principal had administrative internship	**0.63**	0.29**	0.28**	0.54	0.55	0.92**	0.08**	0.60	0.71
Principal had no internship but other supervised experience	**0.11**	0.23*	0.20	0.10	0.12	0.08	0.11	0.11	0.17
Principal had no internship or other supervised experience	**0.26**	0.48**	0.52**	0.36	0.34	0.00**	0.81**	0.29	0.11**
For those who had an internship, "To what extent did your educational leadership internship experience reflect the following attributes?" (Percent of principals)									
Internship was at the prospective principal's school	**0.47**	0.34*	0.28**	0.39	0.36	0.74**	0.10**	0.37	0.56
Internship was at a different school	**0.15**	0.08	0.16	0.16	0.15	0.18	0.03**	0.16	0.22
Internship was a full-time position	**0.26**	0.20	0.36	0.27	0.46**	0.43**	0.38	0.40	0.28
Principal had some release time from teaching to carry out the internship	**0.18**	0.18	0.07*	0.14	0.10**	0.12	0.13	0.16	0.21
Teacher did the internship during the summer	**0.07**	0.06	0	0.12	0.00**	0.03*	0	0.12	0.07
For those who had an internship, "To what extent did your educational leadership internship experience reflect the following attributes?" (1=Not at all. . .5=To a great extent)									
Principal worked in schools serving students with a variety of socioeconomic backgrounds	**3.37**	4.00*	3.31	3.34	3.31	3.40	3.38	3.27	2.83*
Principal was closely supervised and assisted by knowledgeable school leaders	**3.54**	3.42	3.76	3.89**	3.49	3.79	3.50	3.68	3.45
Principal had responsibilities for leading and making decisions typical of a school leader	**3.76**	3.88	3.80	3.86	3.89	4.21**	3.63	3.64	3.41
Internship achievements were regularly evaluated by faculty	**3.20**	3.16	3.62	3.39	3.53	3.56**	2.50	3.19	3.21
Principal was able to develop an educational leader's perspective on school improvement	**3.67**	4.07	4.16**	3.95	3.91	3.82	3.88	3.77	3.55
Internship experience was an excellent learning experience for becoming a principal	**3.81**	3.87	4.41**	3.90	3.97	3.80	4.33	4.09	3.67

Other interesting trends cannot be directly tied to policies, although they may be shaped by professional or policy influences that deserve further inquiry. For example, of those who had participated in an internship, Connecticut principals were most likely to say they were closely supervised and assisted by knowledgeable school leaders, while New York principals were most likely to say they were closely supervised by their program faculty as they took on leadership roles in their internship. Although they were less likely to have had an internship, those who had had access to such an experience in Mississippi were most likely to say they were able to develop a leadership perspective on school improvement and that the internship was an excellent learning experience for becoming a principal, suggesting that the structure of these internships may have been particularly productive.

Professional Development

Across the country, principals reported access to traditional kinds of professional development, such as workshops and conferences, at high levels. Most had also participated in a principals' network, engaged in research on a topic of interest, and undertaken visits to other schools at least once in the last 12 months.

Figure 6.1. Principals' Access to Professional Development in Last 12 Months

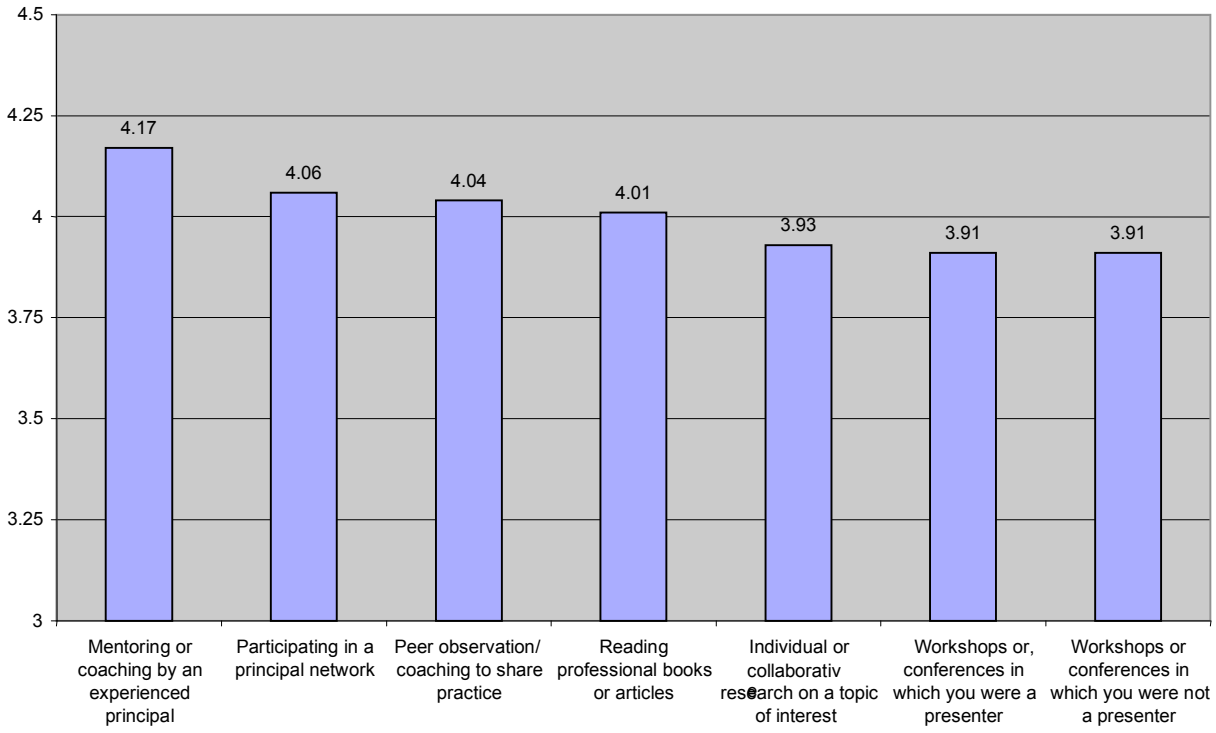


As we saw with preparation, principals' experiences of in-service learning opportunities varied by state as well. For example, while 75% of principals in California, Connecticut, Kentucky, and Mississippi visited other schools in order to improve their work, only about half did so in Delaware or New York. Connecticut principals were most likely to have done this kind of visit multiple times in the last year. They were also the most likely to have engaged in individual or collaborative research on a topic of interest on multiple occasions. More than 80% were engaged in this kind of professional development, and half had conducted such inquiries at least 3 times in the past year.

About half of principals nationally engaged in peer observation or peer coaching to share practices, but this proportion was fully 70% in Mississippi. And while mentoring or coaching from an experienced principal was rare (only 21.6 % of principals nationally), in Delaware, nearly 40% of principals had had this kind of assistance in the last year, likely because of the new state requirements for multi-year mentoring and the provision of mentoring supports through the state's Academy for School Leaders at the University of Delaware (discussed below).

Interestingly, although mentoring was rare, it was rated more highly than any other form of professional development by those who had experienced it. (See Figure 6.2.)

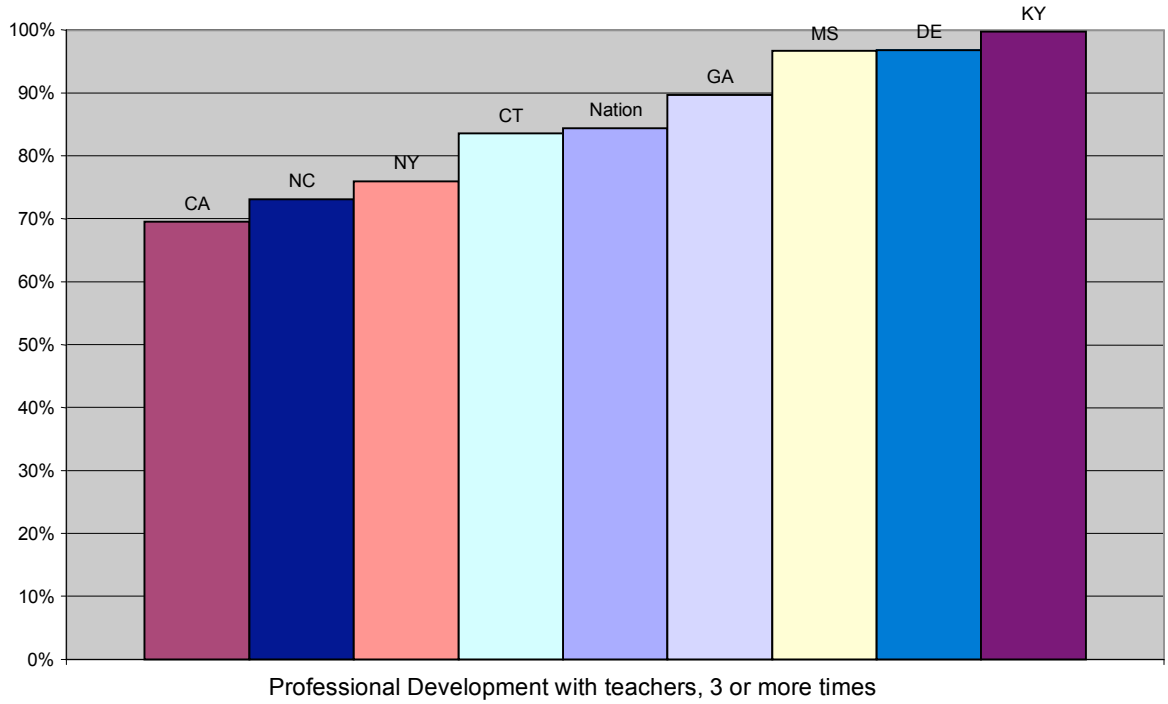
Figure 6.2. Principals' Views of the Helpfulness of Professional Development
(1=Not at all Helpful; 5=Very Helpful)



However, principals appeared to value all kinds of learning opportunities, and this was fairly consistent across states. Some issues in the design of professional development may be suggested by the fact that, on the one hand, principals in California report finding workshops, peer observations, and mentoring significantly less helpful than principals in other states, while principals in Mississippi found school visits, mentoring, and professional reading significantly more helpful than those nationally. Similarly, principals in Delaware found university courses, workshops, research, and engagement in a principals' network more helpful than others across the nation. As we discuss below, these opportunities are structured in very different ways across the states.

Finally, a change in practice nationally is signaled by the frequency with which principals are engaging in professional development alongside teachers. Nationally, 80% of principals participated in professional development with teachers in their schools in the previous 12 months, a proportion that ranged from 70% in California to 100% in Kentucky. (See Figure 6.3.)

Figure 6.3: Percent of Principals Participating in Professional Development with Teachers
(3 or more times in the last year)



In what follows, we describe some of the trends in state policy approaches that may account for some of these differences, and we discuss their implications for preparedness and for practice.

A Landscape of State Leadership Development Policies

As the importance that leadership has for school success has become increasingly evident, policymakers have placed greater demands on principals. Between 1975 and 1990, the number of states with state-mandated principal evaluation increased from 9 to 40 (Snyder & Ebmeier, 1992). State, national, and international investments in in-service training of principals increased during this period (Hallinger, 1992; Murphy, 1990). In 1996, a consortium of states, the Interstate Leadership Licensing Consortium (ISLLC), translated the new leadership expectations into standards for principal preparation and licensing to guide pre-service programs and, in some states, new assessments for principal licensing. At least 46 states have adopted or adapted these standards, and some have developed performance assessments to evaluate candidates' acquisition of the skills they outline. New leadership development programs have been launched by some foundations, as well as by states and districts.

However, these new initiatives have just begun to take root, and they provide a spotty landscape of supports across the country. A few states and districts have moved aggressively to overhaul their systems of preparation and in-service development for principals, making systemic investments that have been sustained. Others have introduced individual programmatic initiatives without system changes. Similarly, some universities or other program providers have dramatically transformed the programs they offer, while others have made marginal changes.

While there is not a consistent set of policies or program strategies in place across the country, we noted some similarities in the kinds of strategies used across the eight states we studied that provide a framework for assessing policy approaches. We caution that it would be premature to suggest that the emerging policy strategies we saw in the eight states we studied constitute a coherent approach for supporting leadership development, or that we can attribute all of the trends we observed in states to specific policy effects. For one thing, few states have attempted a comprehensive approach. Most have launched a few initiatives, which are often partial rather than systemic in how they affect the field. It is in looking across states that one can see the possibilities for addressing various aspects of a potential policy system.

In addition, changes in practice have often been initiated by universities and/or districts rather than by states, and states have often been silent—or quiet—partners, acting in ways that variously support or impede the spread of reforms. Often, innovative districts and universities have taken advantage of a state policy opportunity that others have failed to exploit, thus experiencing benefits that do not unfold state-wide. Thus, the experiences principals report are often a result of trends in practice that are independent of or loosely coupled to state policy as much as they are indications of policy outcomes.

Nonetheless, we did find strategies that state policymakers, stakeholders, and local program leaders in selected states suggested had made a difference in how they have pursued leadership recruitment and development. We outline seven policy levers used in states we studied and how they affect the context for leadership programs.

1. Providing Vision and Standards for School Leadership

Most states, including seven of the eight we studied, have adopted the ISLLC standards for guiding principal preparation programs; where implemented, these have sharpened the focus of principal training considerably. Some states, like Connecticut and Delaware, have infused these standards into multiple aspects of their efforts, creating a coherent approach to training and practice. For example, both states' standards for administrators guide all aspects of state education leadership policy, including accreditation of preparation programs; licensing and certification of administrators, continuing professional development requirements; and administrator assessment and evaluation. In both cases, the state works closely with other leaders in the state (including universities and districts) to advance reforms consistent with standards.

In Mississippi, where principals felt far more positively about their preparation than principals in any other state, a number of integrated reforms of administrator preparation and development were undertaken based on the recommendations of a state Task Force on Administrator Preparation in 1994. Using standards as a mechanism, these reforms have included substantial upgrades in program accreditation and licensing requirements and coordination of all in-service professional development for school administrators through a state-level leadership institute, as well as an innovative year-long sabbatical program that allows teachers to train for the principalship in programs that offer a full-year internship.

2. Improving Leadership Preparation through Accreditation or Program Review

Although many states have adopted standards to guide leadership development, they have differed in how they use and enforce these standards and how they encourage programs to improve. Among the policy tools available to states are program monitoring and approval strategies, licensure assessment, and investments in specific program elements, such as internships.

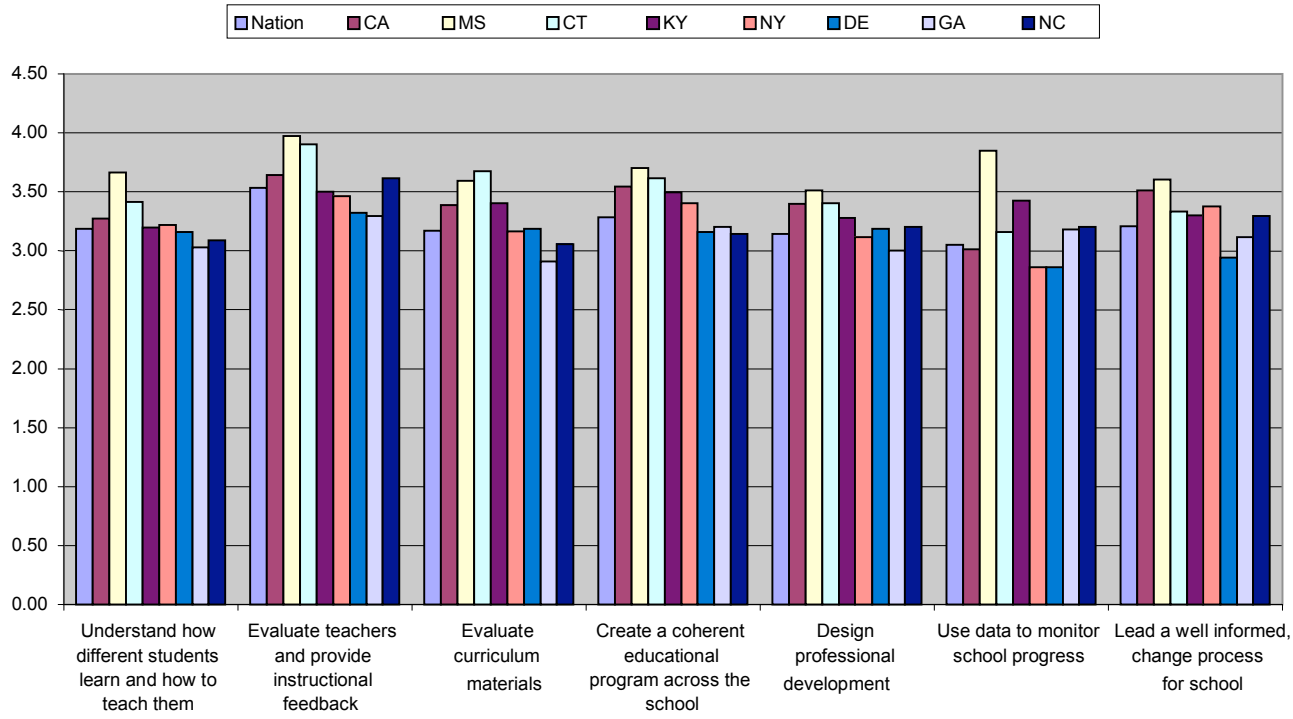
A number of states have developed approaches to program review that create both leverage and support for program improvement. In Mississippi, the reform of administrator preparation programs appears to have been unusually successful, if the results of our survey are any indication. Mississippi principals were significantly more positive than principals nationally or in our other states in both their assessments of program quality and their perceptions of their own preparedness for most dimensions of leadership: They rated themselves significantly better prepared than the national average on 21 of 22 dimensions of preparation. (See Figure 6.4 and the survey responses in Appendix D.)

These outcomes may be related to the unusually aggressive approach Mississippi took to improving program quality. In the early 1990s, the state closed all its college and university administration programs, and made them re-apply for accreditation. They were required to become nationally accredited through the National Council for Accreditation of Teacher Education (NCATE), and demonstrate how they met the Mississippi

Administrator standards, which were aligned with the national ISLLC standards. None of the programs passed accreditation in the first round, and many, including Delta State, took the opportunity to substantially overhaul their entire approach.

The state accreditation process has a performance emphasis. It includes standards for the admissions process (for example, the application packet should address knowledge, teaching experience, leadership capacity, interpersonal skills, and communications skills); prior to admission, programs must interview candidates to evaluate them against these standards. Applicants must compile a portfolio demonstrating their qualifications for education leadership. Programs' continued accreditation depends on at least 80% of their graduates passing the state administrator test in the 3 years before the accreditation process. The reform of administrator preparation in 1994 also established external review panels to make approval recommendations. The audits conducted by these review panels are perceived to have had a positive impact on the rigor and quality of preparation programs, which were held in generally high esteem by the respondents we interviewed.

Figure 6.4 - Principals' Preparedness, By State



"How well did your program prepare you to do the following?" Not at all (1); Very well (5)

Like Mississippi, New York more recently required all administrator preparation programs to close and submit plans for approval under new standards and regulations. The new rules require all candidates to graduate from an approved program (rather than picking up credits at a variety of universities over time), and require all programs to offer

redesigned coursework, along with a 15-week, full-time internship supervised by a certified building-level leader, in addition to other practicum experiences. As in Mississippi, programs must become nationally accredited; outcome data from the state's newly piloted administrator assessment, launched in Spring 2006, will be part of that accreditation process. As in Mississippi, principals in New York were much more likely than others nationally to say their preparation program faculties were highly knowledgeable. They were also most likely to have an internship (92%), although about half of these were part time in the teacher's own school, and to report that their coursework was integrated with the internship.

California introduced new standards for programs in 1994 and required that programs be redesigned to reflect these standards. (An additional renewal of the standards occurred more recently, this one tying the state's standards explicitly to the ISLLC standards.) The California program expectations value connections to practice and emphasize school improvement, which is reflected in principals' feelings of preparedness. California principals felt significantly better prepared than their peers nationally in several areas dealing with the organizational aspects of leadership, including their ability to find and allocate resources to pursue important school goals; analyze budgets and reallocate resources to achieve critical objectives; engage in comprehensive planning for school improvement; and redesign school organizations. Enforcing these standards has been a challenge in the last few years, however, as the state discontinued accreditation site visits. These visits were reauthorized in Summer 2006, holding promise for a more meaningful accreditation process in the future.

Using standards in ways that make them meaningful is a prerequisite for widespread change. A review process similar to that employed by Mississippi's external review panels has been instituted by Georgia's Leadership Institute for School Improvement (GLISI), created as a partnership among the Board of Regents of the University System of Georgia, business leaders, the Georgia Partnership for Excellence in Education, the Georgia Professional Standards Commission, the Department of Education, and the office of the Governor, as well as a number of K-12 education organizations. GLISI often participates in annual principal program evaluations required by the Board of Regents. These reviews require demonstration of impact data as well as partnerships with K-12 districts. GLISI is trying to encourage preparation programs to move toward using research-based methods to show "high-impact performance" against ISLLC standards. In 2006, the state announced that, as in Mississippi and New York, programs will soon sunset and will have to re-apply for accreditation, demonstrating that they meet the new state administrator certification requirements in order to continue to operate. These initiatives are stimulating further reform.

The Educator Performance Standards Board in Kentucky also monitors programs annually and assigns a Quality Performance Index score based on a number of measures, including the state's principal licensure assessment. Kentucky's longstanding school reform efforts under the Kentucky Education Reform Act (KERA) may have influenced some of the program emphases, as Kentucky's principals are significantly more likely than others nationally to feel well prepared to use data to monitor school progress and to find and reallocate resources to achieve school goals.

3. Using Principal Assessment as a Lever for Program and Candidate Improvement

As the above discussion suggests, licensure assessments for the principalship, based on the ISLLC standards, are becoming commonplace. Among the states we studied, at least seven of the eight now require such a test (California, Connecticut, Delaware, Georgia, Kentucky, Mississippi, and New York). Most of these states use the Educational Testing Service's School Leaders Licensure Assessment (SLLA), which incorporates multiple-choice and short answer responses to questions based on the ISSLC standards, as well as brief scenarios of practical dilemmas. A number of states incorporate evidence from these assessments into the accreditation process for programs as accreditation has become more performance based.

The most innovative of these assessments is the Connecticut Administrator Test (CAT), a performance assessment based on the ISLLC standards that poses challenging, authentic problems for potential principals. The CAT strongly reinforces the state's requirements for principals, which are much more focused on instructional leadership than programs in many states and include coursework in pedagogy, curriculum development, administration, supervision, contemporary education problems, and the development of exceptional children.

Instituted as a requirement in 2001, the CAT consists of four modules lasting 6 hours in all. These include tasks covering both elementary and secondary education. Two modules require the test-taker, acting as an instructional supervisor, to make recommendations for supporting a teacher in response to the teacher's lesson plan, videotaped lesson, and samples of student work. The other two modules ask the candidate to describe a process for improving the school or responding to a particular school-wide problem based on school and community profiles and data about student learning. The test is rigorous; about 20% fail it each year. Candidates must pass the test in order to be licensed to practice.

In addition to the incentives the test provides for programs to focus on teaching, learning, and school improvement—areas in which Connecticut principals feel better prepared than most in the country, each university is judged on its pass rates, and state accreditation depends, in part, on how well its candidates do on the test. If 80% or more do not pass, the university must redesign its program. Furthermore, because the assessment is evaluated by experienced Connecticut administrators and university faculty, who are trained for scoring, the assessment provides a powerful professional development opportunity for these other Connecticut professionals and a shared sense of standards of practice throughout the state. In line with the expectations of the assessment, Connecticut principals are most likely to report that they engaged in problem-based learning in their preparation programs. They also report spending more time than others working with parents and staff on solving school-wide problems, a reflection of one of the assessment items that has influenced preparation for practice.

4. Creating a Continuum of Training

Most states we looked at had developed tiered licensing systems that require continuing development of principals. Many also used standards to align preparation programs, assessments, and continuing professional development requirements.

California's two-tiered administrator credential, the first of its kind in the country, was enacted in 1984. As a result, universities have long offered "Tier 1" and "Tier 2" training for school principals. The Tier 1 requirement is for pre-service preparation. The Tier 2 requirement is intended to provide a supervised field experience tied to ongoing study after principals enter their first job; however, it has been difficult, especially in tight budgetary times, to marshal the resources and organizational infrastructure for providing this experience in a well supervised manner that promotes systematic learning of critical skills. Thus, while the two-tier credentialing format holds possibilities for deeper learning of leadership skills, these possibilities have not always been fully realized. The University of San Diego took advantage of these requirements, however, to launch the Tier 2 component of its Educational Leadership Development Academy (ELDA), offering a coherent continuation of training through the first year of the principalship for its Tier 1 graduates, with coursework and mentoring that could build on what they had already learned and connect it to the San Diego instructional context.

A Principal Training Program launched by the California legislature in 2001, and renewed in 2006, takes advantage of the Tier 2 requirement, as it provides incentives for Local Educational Agencies (LEAs) to train school-site administrators. Funded at about $5 million per year, with some augmentation from federal funds and the Gates Foundation (the latter targeted at technology use), the program has allocated $3,000 per participating administrator to LEAs to underwrite the cost of training, while districts provide $1,000 in matching funds. Principals can use this voluntary training, offered as an 80-hour Institute and an 80-hour follow-up Practicum, to satisfy their Tier 2 credentialing requirement.

The law requires that principals receive training in curriculum and instructional materials aligned to the state's academic standards, use of state test data to improve student performance, school financial and personnel management, and use of instructional technology. The follow-up practicum is supposed to offer individualized support; but individual coaching rarely occurs. More often, principals satisfy this requirement by attending curriculum training that is required for teachers. The fact that this "one-size-fits-all" approach is the only state-funded training for principals in California may be one reason for California principals' significantly lower ratings of the helpfulness of workshops and coaching than reported by principals in other states. Still, while the program is not tailored to the needs of all principals, it has extended principals' knowledge of curriculum standards and instructional materials and, often, including them in professional development alongside teachers as well as fellow principals.

The ongoing professional development requirements implicit in tiered licensing systems can include mentoring as well as professional coursework. For example, as part of Delaware's three-tier licensing system, new principals must receive 30 hours per year of

mentoring for 3 years, with each year focusing on different components of the standards. The state provides funding for this program as part of its new induction program for new school principals and assistant principals. A state-funded Principal's Academy helps to implement the state's mentoring program, and the Delaware Academy for School Leadership (DASL), housed at the University of Delaware, also offers mentoring for new principals and other professional development programs for school leaders. The state approves both content and providers for the required ongoing professional development. Delaware principals rate the courses, workshops, research opportunities, and principals' network they experience as exceptionally helpful to their practice as compared to others nationally. In addition, the state has used funding from the Wallace Foundation to develop an assessment center program that gives new administrators or those working through improvement plans feedback on their performance. The full-day assessment center assesses strengths and areas of needed improvement and provides the school leader with a professional development plan that can be shared with his or her mentor.

Other states have also extended support for principals into their early years on the job. The Kentucky Principal Internship Program (KPIP), the state's year-long induction program launched in the mid-1980s, assigns the new principal a three-member team that provides support focused on attaining the ISLLC standards. The team is composed of a principal colleague (mentor), a district representative (the superintendent's designee), and a university education administration professor. Although budget cuts eliminated the funding for this program from 2002 to 2005, the legislature returned funding to KPIP in 2005. Kentucky's placement of the internship after initial preparation and its struggles to create sustainable funding may be related to the fact that Kentucky's principals were significantly less likely than others to say that their coursework was integrated with the internship, which may reduce some of its power.

Connecticut has also introduced an individual professional development plan for its principals as part of its Wallace-funded work to improve leadership training. Building on its innovative and rigorous initial licensing assessment, the state developed school leader evaluation and professional development guidelines in 2002. These are the basis for targeting specific skills and abilities for instructional leadership for inclusion in each principal's professional development plan.

In an interesting and productive approach, Connecticut tied principal development to statewide teacher education reforms that were part of the tiered licensing system for teachers when they were adopted in the late 1980s. The ambitious reforms of teaching that began with the Education Enhancement Act of 1986 sharply raised teacher (and principal) salaries, while dramatically increasing standards for teacher education, certification, and on-the-job evaluation and development. After meeting content, pedagogy, and testing standards to enter teaching on a provisional certificate, teachers were required to complete an induction program, pass a performance assessment, and complete a master's degree as a condition of receiving the professional credential. Principals were trained to evaluate teachers in the beginning teacher performance assessment system, which became part of the professional development required for renewal of the principal certificate.

When a sophisticated portfolio evaluation of new teachers was later introduced, principals could earn professional development credit by participating in the training to be scorers and by scoring the portfolios and classroom observations. This involved principals in learning deeply about instruction by virtue of intensive training in teacher assessment. Thus, the state's continuum of development for teachers and its continuum of learning for principals are intertwined, supported by professional development requirements embedded in both credentialing systems, which creates a shared understanding of good teaching.

Given this strategy for professional development and the emphases of the Connecticut Administrator Test, it is not surprising that Connecticut principals report that they felt better prepared than others nationally to evaluate teachers and provide instructional feedback, develop curriculum and instruction to support learning, and develop professional development for teachers.

5. Developing Strategies for Recruitment and Training

Some states and districts have developed new strategies for recruiting talented individuals into the principalship, to address longstanding dilemmas that have historically undermined the supply and quality of school leaders. Typically, the pool of potential administrators has been limited to those who self-recruit into preparation programs. Since only a small share of these practicing teachers has been able to afford full-time study without a salary, most programs have operated part-time and have not enabled an internship under the guidance of a strong administrator in another school. Instead, to the extent that internships have been required, they have often been reduced to projects that teachers do in their own schools while they are teaching full time. This recruitment strategy has had the effect of both failing to recruit many talented educators to leadership roles and under-preparing most potential leaders, thus limiting their effectiveness.

One key strategy for improving both administrator supply and quality has been the development of funding streams for recruitment that also provide for internships. Perhaps the most extensive state effort we found was North Carolina's Principal Fellows Program (PFP), launched in 1993 to attract outstanding aspiring principals to full-time, 2-year Masters in School Administration (MSA) programs, thereby increasing the number and enhancing the quality of licensed school administrators available to serve in the public schools. Modeled after the very successful NC Teaching Fellows program, PFP provides each recipient an annual scholarship loan of $20,000 for two years of full-time study, for a total of $40,000. This covers both tuition and a stipend in a public university.

The first year of study is dedicated to academic coursework at one of eight universities in the University of North Carolina system. The second year is spent in a supervised, full-time administrative internship in a public school in North Carolina. During this time, the candidate receives a stipend equal to the entry-level salary for an assistant principal, which is paid by the host district through funds from the State Department of Public Instruction. In return, each participating Principal Fellow agrees to repay the scholarship loan with 4 years of service as a principal or assistant principal in a North Carolina public school within 6 years following graduation from the program. More

than 800 scholarships have been awarded since the program began in 1994. Today, about half the candidates in MSA programs in North Carolina are Fellows, and more than 12% of the state's principals and assistant principals are graduates of the PFP.

On a smaller scale, Mississippi has developed the School Administrator Sabbatical Program. Funded by the legislature since 1998, this program allows candidates to participate full time, with pay, for 1 year in an approved administrator preparation program. School districts that recommend qualified teachers for the program grant a 1-year leave of absence to participants in exchange for their commitment to serve as an administrator at their sponsoring school district for at least 5 years. Participants in the sabbatical program remain on their district payroll, but districts are reimbursed by the State Department of Education for the salary equivalent of a teacher with 5 years of experience. If the teacher's actual salary is higher than this amount, the district may choose to pay the difference. The sabbatical can be used to enable candidates to participate in a full-year internship under the direct supervision of an expert principal while attending courses, which proved to be a central element of the Delta State program we studied. Since DSU was the only full-time preparation program in the state at the time of our study, its candidates received the majority of the sabbaticals offered.

Some states also offer alternative licensure as a way to recruit principals. Although this practice has raised concerns about the level of preparation in states like California, where coursework can be waived entirely for those who pass a test, there are states that have developed designs that preserve high standards for leadership training. For example, Mississippi offers an alternate principal licensure program called the Mississippi Alternate Path to Quality School Leadership (MAPQSL). Interested business, industry, or organizational leaders with MBA, MPA, or MPP degrees, at least 5 years of supervisory experience, and a recommendation from a school district can participate in a free 3-week summer training session. This program is also available to K-12 teachers holding a master's degree in education who have at least 3 years of teaching experience. Candidates secure commitment of an administrative position with a school district and apply for a 5-year, entry-level administrator license, which is valid for only the assistant principal or assistant coordinator positions and is non-renewable. The Praxis I and II exams (including the Principles of Learning and Teaching test) are required for this initial license. The first year of the entry-level license is considered an internship and includes supervision and mentoring, as well as nine practicum sessions during the school year following the summer program. The candidate may then use the remaining 4 years of the entry-level license to complete the coursework requirements for conversion to a standard career-level license. This program facilitates both theoretical and practical learning about teaching and leadership, and ensures that prospective principals have practical experience in schools so that they can become grounded leaders.

Kentucky's alternate route to certification builds in this grounded knowledge of practice, as the target pool is the set of experienced Highly Skilled Educators (HSEs, formerly known as Distinguished Educators) who help struggling schools meet the accountability provisions of the KERA. Both teachers and principals are selected to work in the HSE program. Teachers who complete the 3-year term of service in the HSE

program are eligible for an alternative administrator certification program. While serving as HSEs, these experienced educators participate in university coursework that confers provisional licensure. The Kentucky Department of Education works with the university to identify courses that will fill in any gaps in candidates' learning during their work with the Department, for example, in areas like finance and law. Thus, the state has created another route to the principalship for expert teachers by combining their leadership experiences and additional coursework into a certification pathway.

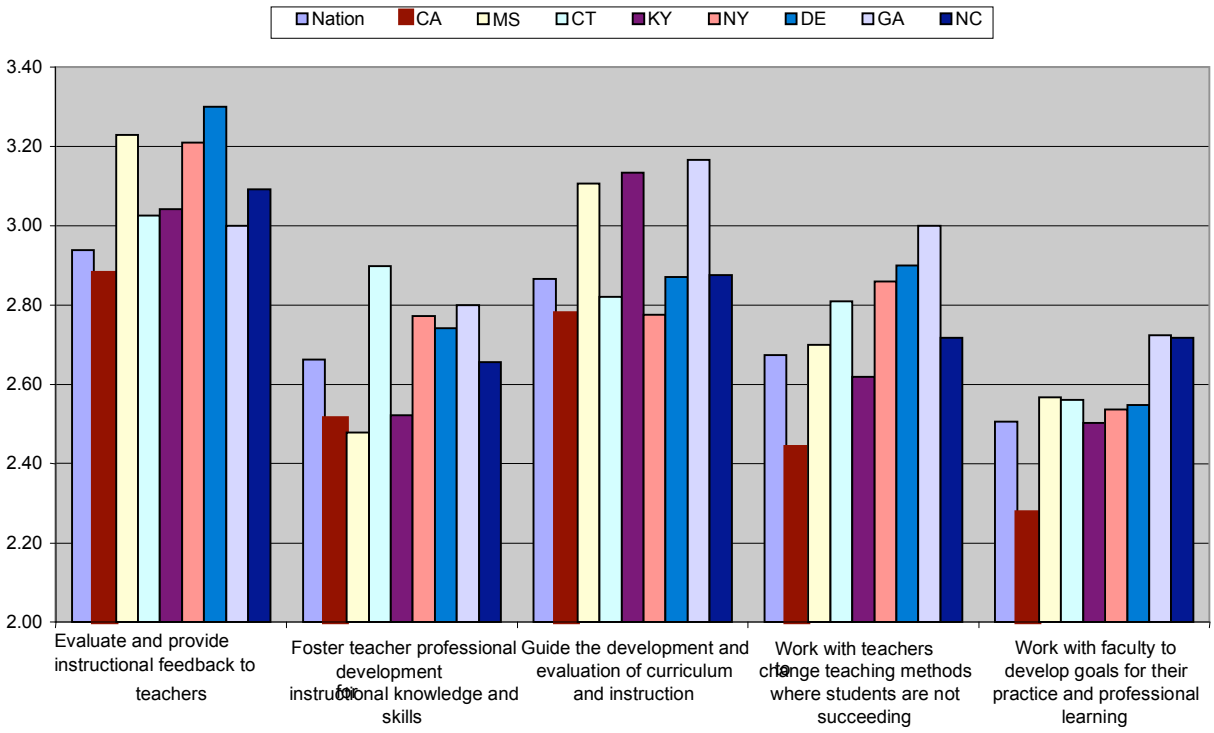
6. Building an Infrastructure for Ongoing Professional Development

If states are to offer high-quality professional development on a regular basis, they need to create a capacity for continuous knowledge development and transfer around problems of practice. Several states have established state-wide administrator academies to ensure a stable source of learning opportunities for principals and other school leaders. North Carolina's Principals' Executive Program (PEP), funded by the state legislature and located at UNC-Chapel Hill, has been offering widely available continuing education for principals for more than 20 years through both residency programs and topical workshops and conferences. North Carolina's principals rate the helpfulness of the university courses and research opportunities they experience as extraordinarily helpful (near the very top of the scale we offered) and significantly more highly than their peers nationally.

Similarly, through a combination of state appropriations and foundation funds, Georgia's GLISI offers several kinds of professional development for leaders, including ongoing sessions with district leadership teams on instructional improvement and the use of data. These programs have reached nearly half the districts in Georgia. Those districts whose leaders have participated in this training to date have had greater student achievement gains in all subjects and grades on state tests than demographically similar districts that have not participated. This initiative may be related to our finding (discussed further below) that principals in Georgia were significantly more likely than the national average to report spending time guiding the development of curriculum and instruction; working with parents, community, and staff to solve school problems; working with teachers to change their practices where students are not succeeding; and working with staff to set goals for their practice and professional learning. (See Appendix D and Figure 6.5.) They were also significantly more likely to see increases in teachers' attention to low-performing students and in teachers' opportunities for learning in their schools.

GLISI also runs other ongoing training and support for school leaders, including "hot topic" sessions and workshops that provide credit for principals' ongoing licensure requirements, as well as a new coaching model for candidates in programs to help them meet state performance standards for their license. Indeed, Georgia principals were more likely to have experienced coaching or mentoring than the national average and most likely to find it helpful in changing their practice. They also rated the helpfulness of their university courses exceptionally highly.

Figure 6.5: Principal's Frequency of Engaging in Instructional Activities
1=Never, 2=Monthly, 3=Weekly, 4=Daily



In Mississippi, the state also plays an important role in the in-service professional development of principals. The School Executive Management Institute (SEMI), part of the State Department of Education, was created in 1984 to coordinate and provide in-service training for school administrators. Through SEMI, the Department provides all in-service training to entry-level administrators in a 2-year series of sessions that earn the 95 credits of training required in order to convert the entry-level license to a career-level license. SEMI recognizes and approves all the courses in this required *Orientation for School Leaders* program. SEMI also offers the courses from which career-level license holders can select to renew their license every 5 years. A great deal of this training is offered through programs offered regionally and locally, which are staffed by state department staff, current and former administrators, and university professors.

Notably, principals in Mississippi rated the helpfulness of much professional development highly, and found their experiences with professional reading, workshops, school visits, and mentoring more helpful than did their peers nationally. They were also significantly more likely than peers nationally to spend time guiding the development of curriculum and instruction and evaluating and providing instructional feedback to teachers.

The New York State Center for School Leadership was established in 2001 through a combination of foundation grant support, state, and federal funding. The center helped to

support the creation of Urban Leadership Academies in four cities: Buffalo, Rochester, Syracuse, and Yonkers. New York City created its own Leadership Academy using private funding sources. In addition, the center collaborated with the state education department on updating regulations for leadership preparation and certification, creating fiscal training for school leaders, and supporting research on recruiting and retaining school leaders.

The center also collaborated with statewide professional leadership associations on leadership and school improvement efforts. Recently, the center has supported demonstration programs on leading mathematics reform, through district and university partnerships, and curriculum development in school leadership fiscal management. This latter project is to develop new approaches to financial resources reallocation in New York City that will serve as the basis for larger-scale training for school leaders in the city and the state in how to effectively allocate resources to improve student achievement.

These efforts expand long-standing traditions in New York (especially in New York City) for principal development through well-established principals' networks and coaching strategies. A number of sophisticated practices designed to help leaders working collaboratively on practice were developed in New York; these include "walkthroughs" and other analyses of teaching. Not surprisingly, New York principals reported finding such networks, peer coaching opportunities, and mentoring significantly more helpful to their practice than did our random sample of principals nationally.

A similar state/city strategy was developed in Connecticut through a multi-year Wallace Foundation grant, which created an Urban Leadership Academy to provide professional development for administrators in Bristol, East Hartford, and Hartford. The Academy is a collaborative effort drawing on the expertise of universities and local and regional education agencies. Each of the districts has identified an administrator team and an assigned change coach to work together on a specific instructional focus to improve student achievement.

Also focused on school improvement, the Kentucky Leadership Academy (KLA) has been a source of in-service learning for principals across the state since in 1996. The Kentucky Department of Education aligned its in-service offerings with the standards it uses for scholastic audits of school performance. KLA was developed as a result of districts' requesting the training provided to the Highly Skilled Educators (HSEs), whom the state assigns to help struggling schools improve. Acknowledging the benefits of the HSE process, the Department set up the Leadership Academy to provide training sessions with regional coach support to district teams over a 2-year period.

There are four components for the training: assessment and accountability, best practices in curriculum and instruction, comprehensive planning, and instructional leadership for facilitating change. Cadres of 35 participants each in nine regions of the state participate in a KLA program. Each cadre has a coach, who meets four times a year with his or her cadre. In addition, participants join a week-long session in the summer when all KLA cadres come together. Coaches visit every person in their cadre three times

per year. Each participant has a personalized plan for improvement, so that the learning process is both individual and collective.

Kentucky principals report finding the workshops, their own professional reading, and principals' networks they encounter as significantly more helpful than their peers nationally. Furthermore, in line with the emphases of the program, they are significantly more likely than others nationally to report that they are frequently engaged in guiding the development of curriculum and instruction. They are also more likely to report an increase in teachers' focus on expanding their instructional strategies, staff efforts to share practices, sensitivity to student needs, and use of data for instructional improvement at their schools.

These state initiatives provide a more institutionalized means of supplying school leaders with individual and collective learning opportunities that are focused on the improvement of schools and student learning than is usually the case when professional development is ad hoc and relies on initiatives that start and stop continually.

7. Creating a Capacity for Planning and Improvement

Some states have further developed their infrastructure for ensuring a supply of high-quality, well prepared leaders by supporting research and planning on supply and demand trends, as well as effective training models. For example, Kentucky has examined statewide coordination, recruitment, and retention issues in recent years and has conducted a study of the supply of principals to guide state decision making. A statewide conference bringing together officials from all the key state agencies created a joint forum for reviewing ways to improve recruitment and preparation in the state. This conference led to the development of policy options for the state legislature.

Delaware is taking a deliberative approach to planning by developing and testing models for distributed leadership in middle and high school, as well as for succession planning in school districts. Distributed leadership involves spreading out leadership among a team, including providing teachers and other school members with opportunities to take on leadership roles in the school. Delaware's goal is to create denser leadership models that improve principals' conditions of work so they can concentrate more extensively on learning and teaching. This idea has been difficult to explore because of personnel contract issues. However, four school districts are currently working with the state to pilot models, and all 19 districts are engaged in planning. In addition, all 19 districts are creating models for succession planning. The goal is to address issues of principal recruitment by developing a pool of aspiring school leaders who have the skills, knowledge, and dispositions to take on leadership roles in Delaware schools when positions become available. Funding for succession planning has gone to the 19 districts and three higher education institutions. Seven districts and one charter school are engaged in a pilot initiative. As part of their succession planning models, these sites hope to develop a program similar to student teaching for principals. The results of these pilots will be studied, with the best features integrated into the state's future efforts.

Policy Contributions to Exemplary Programs

Our studies of exemplary programs noted a number of state and local policies that influence these programs' ability to develop high-quality learning opportunities for school leaders. In some cases, policy influences were positive; in other cases, negative. But it is clear that policy matters—and could matter more to the development of high-quality programs on a wider scale. Among the areas of policy we found to be important were the development of leadership standards; the nature of funding streams—especially for the availability of strong internships; university and state/district policies regarding training; and the broader policies affecting curriculum and teaching in states and districts.

The Use of Standards

Virtually all the programs we studied, both pre-service and in-service, identified the establishment of new state standards for administrator licensing as important in overhauling their programs. The practice of requiring programs to "sunset" and re-register in Mississippi and New York had a profound influence on the new programs that Delta State and Bank Street developed. The influences of professional leadership standards were also important in Jefferson County and San Diego. As just one example of this influence, a program administrator for the Bank Street Principals Institute explained that the recent re-registration process around New York's new standards caused a revision of the leadership program curriculum course, the addition of a new management course, and better integrated coursework and field work throughout the program. The program now addresses the New York standards in all its courses, lists the standards in its handbook and courses, and discusses the standards with the candidates to make them aware and to underscore their importance for student learning and developing best practices. Thus, candidates, as well as program instructors, are clearer about what they are trying to accomplish together.

The Nature of Funding

We saw the strong influences of financial support and funding streams in the programs we studied. The coherence of programs and the extent to which internships could be full-time placements with expert principals were strongly related to the nature of funding. Where states or districts developed policies to underwrite these internships by paying at least partial salaries for candidates while they undertook this clinical training, high-quality internships were affordable and became the nexus around which the coursework was organized. Thus, Mississippi's Educator Sabbatical Program was critical to the design of the Delta State University program. The KPIP was critical to the development of internships in many Kentucky districts, although JCPS had created and continued to fund its own program even after KPIP funding was halted for several years.

Foundation funding has been critical for launching a number of these exemplary programs. The Wallace Foundation played a major role at several of our sites. In addition, the Rockefeller Foundation and the Broad Foundation were important in certain programs. The innovative designs that were developed could not have been created without this

support. At the same time, foundation funding that is not fully incorporated into state or district policies leaves programs vulnerable.

New York City and San Diego both supported salaries for candidates undertaking internships for a period of time, and these were very important to the Bank Street and ELDA programs. Bank Street's program also initially received funds from the Rockefeller Foundation. However, when the Rockefeller funds ran out and New York City stopped funding these internships and when the Broad Foundation funds ran out in San Diego, the programs had to settle for less intensive approaches, because they were financially unable to place candidates with expert principals outside their schools for a full year of training in a leadership role. The learning potential of the internship is reduced when it is a set of activities teachers undertake before or after school hours in their home school in roles that are not direct leadership roles.

University and State/District Policy Regarding Training

One of the greatest challenges of professional learning is the frequent fragmentation of efforts in universities and schools. What educators have to do on the job may not connect to the courses offered either by universities or their own districts, for that matter. And the systems are rarely connected. Conversely, a critical element of all the exemplary programs was the willingness of key actors in local school districts and universities to get their policies and practices in synch. It was important that program content and incentives (for example, subsidies for credits, streamlined hiring pathways connected to preparation) were jointly developed by JCPS and the University of Louisville, Hartford and Central Connecticut State University, San Diego City Schools and the University of San Diego (USD), Bank Street College and Region 1, and a consortium of Mississippi Delta districts and Delta State University.

Shared ownership of financial responsibilities for programs was often part of this collaboration. For example, San Diego worked with USD on who would be admitted to the program and paid for intern salaries while they were in training, and the university reduced the tuition costs for participants and worked with the district on the curriculum. In Kentucky, Jefferson County pays part of the tuition for the IDEAS program and the University of Louisville pays part, while they design the program together.

Similarly, when the NYC Board of Education ended its program support for the Bank Street Principals Institute in 1999 as part of a city-wide effort to decentralize professional development funds, the Trustees of Bank Street College agreed to waive a portion of tuition as their commitment to public education leadership in New York City. The Institute created a formal relationship with District 10 to offer the program to their aspiring leaders, with the district paying a portion of the tuition using federal and foundation funding to support a continuum of leadership preparation and development.

Incentives for veteran principals to participate in professional development are provided by state requirements for re-certification credits in Connecticut, Kentucky, Mississippi, and New York. In addition, district funding for ongoing training can be an

important lever for engagement. In Hartford, for example, the district reimburses all staff for up to 6 credits of coursework per year. This funds 12 credits over 2 years of the principal development programs.

Broader Policies Regarding Curriculum and Instruction

District policies and funding commitments anchored the web of supports for the ongoing leadership development we found in San Diego, Hartford, New York City Region 1, and Jefferson County. As a Jefferson County planning document stated, the district has implemented "a system of leadership development," from recruitment and initial preparation through a range of supports for learning. In these districts, we saw changes in policies regarding how principals were recruited, screened, hired, and evaluated, and the development of new policies that established multiple supports for their learning. These range from monthly principal conferences and networks to professional development institutes, coaching, study groups, and instructional training in areas like literacy and mathematics.

We also saw how the content and focus of these initiatives were influenced by district and state policies regarding curriculum and instruction more generally. San Diego's programs, for example, were directly rooted in the instructional reforms that guided all the work the district undertook. These were embedded in district policies rather than undertaken as direct responses to state policies, although the state's accountability system created some of the press and information for focusing on the learning of struggling students that motivated much of the principal training.

The KERA also served as an incentive to refocus the content of administrator preparation on how best to meet the needs of diverse learners. Jefferson County's Principals for Tomorrow, IDEAS, and internship programs were shaped at least in part in response to the growing accountability emphasis and to a persistent student achievement gap. KERA also influenced the leadership programs by mandating shared decision making. As a result, JCPS leadership candidates now receive training and support in establishing positive working relationships with their site committees and managing shared decision-making processes.

Connecticut's omnibus reform of teaching in 1986 had major consequences for principal development, given the large role principals were asked to play in teacher evaluation and the extensive training they received. These teaching reforms were also tied to curriculum and assessment changes in the state's accountability system and an emphasis on meeting the needs of all students. As a consequence, the University of Connecticut program prominently includes among its leadership preparation goals developing skills in teacher supervision and evaluation as well as understanding the growth and development of exceptional children, two features of Connecticut's preparation that are absent or minimally treated in many other leadership development programs.

Thus it is clear that policy can matter for leadership development programs. Yet, state policy is as yet an underused resource for supporting leadership development. The

examples we observed of policies that help guide and support strong programs are still occasional rather than widespread across the country. Furthermore, no state that we studied had put together all the promising elements that might create a system that would routinely recruit promising instructional leaders, ensure that they receive high-quality preparation, and sustain their ongoing learning in contexts that are organized for productive instructional practice. That kind of systemic approach is perhaps on the horizon, but is not yet realized.

It is also important to note that, among the policies our respondents identified as most useful, many were productive because they helped build capacity within universities and school districts—the agencies outside of state government that do the real work of developing and transmitting knowledge and skills to educators. Among the more productive approaches we identified were:

1) The use of professional leadership standards to guide—and often revamp—programs, and the skillful use of performance assessments and accreditation to leverage change in preparation;

2) The development of dedicated funding streams for recruiting talented instructional leaders into strong preparation programs, especially in support of high-quality internships that allow them to undertake clinical training with expert principals;

3) The development of a continuum of learning opportunities, often reinforced by tiered licensing systems, and supported by systematic opportunities for mentoring, networking, and further study. State contributions include funds for mentoring and investments in leadership academies that create an ongoing capacity for developing high-quality professional development.

These approaches were most fruitful when they could stimulate or support district and university partnerships that enabled joint financial support and substantive guidance of programs, and when state and district curriculum and teaching policies embedded leadership development in a clear vision for high-quality teaching for all students.

Chapter 7: Conclusions and Implications

Tremendous expectations have been placed on school leaders to solve the ills facing the nation's schools. The critical role of principals in developing successful schools has been well established by researchers over the last two decades, and the means by which this influence is exerted are becoming clearer. According to a growing number of researchers, policymakers, and practitioners, committed leaders who understand instruction and can develop both teachers' individual capacities and school organizations' capacities for improvement are the key to solving the mounting crisis in education (NPBEA, 2001; Peterson, 2002). With these hopes for the potential of school leaders has come a surge of investment in and scrutiny of programs that recruit, prepare, and develop principals for their challenging roles.

Can well designed preparation and professional development programs for principals deliver on this promise? Some skeptics, believing that leaders are "born, not made," doubt the potential impact of leadership development programs. They argue that the recruitment and selection of bright people may be the only intervention that truly matters. Others wonder whether there are likely to be any systematic principles for developing strong programs, even if a few programs appear to succeed. This study set out to determine if some programs are particularly effective and reliable in producing strong school leaders, and if so, how and why? What program components and design features do effective programs share? How much do these programs cost? And how are they supported and constrained by relevant policies and funding streams?

We were concerned about whether we would be able to differentiate high-quality programs from mediocre ones, and whether we could determine which program features and supporting conditions contribute most to program quality. After 3 years of research, we are convinced that some programs are more effective than others, and we find that the approaches and design features of these programs and the conditions supporting them follow systematic patterns. We summarize our findings and highlight the implications for policymakers and program leaders below.

Summary of Findings

1. Exemplary Programs Can Produce Leaders Who Engage in Effective Practices

Our research suggests that it is possible to create pre- and in-service programs that develop principals who can engage successfully in many of the practices found to be associated with school success: cultivating a shared vision and practices, leading instructional improvement, developing organizational capacity, and managing change. Using multiple metrics, the principals who participated in the preparation and professional development programs selected as exemplary reported being significantly better prepared, holding more positive attitudes, and engaging in more effective practices on average than did the principals in their relevant comparison groups.

As a group, graduates of the initial preparation programs (Bank Street Principals Institute, Delta State University, the University of Connecticut Administrator Preparation Program [UCAPP], and the University of San Diego's Educational Leadership Development Academy [ELDA]) rated themselves significantly better prepared to lead instruction and school improvement. They felt exceptionally well-prepared to create a collaborative learning organization, plan professional development, use data to monitor school progress, engage staff in decision making, lead change efforts, engage in planning for improvement, redesign their schools to enhance teaching and learning, and engage in continuous learning. These graduates attributed their confidence and preparedness to their preparation experiences and were more likely than those in the comparison group to report that they would select the same program if they had another opportunity to choose.

Furthermore, those who became principals were significantly more likely than the comparison group to hold positive beliefs about and feel strongly committed to the principalship. They were more likely to plan to stay in their jobs, despite the fact that their schools served more low-income students and experienced more challenges than those of the national sample. They also reported spending more time than comparison principals on instructionally focused activities that are associated with stronger school performance, including tasks like building a professional learning community among staff, evaluating and providing feedback to teachers, and using data to monitor school progress.

We also found these emphases in the work of principals who participated in the district in-service programs we studied in San Diego, (closely linked to ELDA), New York Region 1 (partnered with Bank Street's Principal Institute), Jefferson County, and Hartford, Connecticut. It is worth noting that the effects were more pronounced for those who had experienced both strong pre-service programs *and* in-service learning opportunities. As detailed in Chapters 3 and 4, we also found that particular features of individual programs, for example, strong internship designs, specific curricular emphases, more intensive mentoring, and more pervasive professional learning opportunities, were associated with stronger outcomes in particular areas for those programs.

Teachers who worked in the schools included in the sub-sample of principals we followed from both the pre- and in-service programs confirmed stronger leadership for instructional improvement and the development of collaborative organizations than other teachers nationally. Our observations of these principals documented these behaviors and confirmed strong school outcomes.

2. Exemplary Pre- and In-Service Development Programs Share Common Features

While the programs were selected as exemplars of different models operating in distinctive contexts, our study confirmed findings of prior research regarding productive design features. We also uncovered some important program components and facilitating conditions that have received less attention in the literature, especially the importance of recruitment and financial supports.

Pre-Service Programs. The number of common elements we uncovered in the pre-service programs we studied was striking. We found that all of them included:

- A comprehensive and coherent curriculum aligned to state and professional standards, in particular the NCATE/ Interstate School Leaders Licensure Consortium (ISSLC) standards, which emphasize instructional leadership;

- A program philosophy and curriculum that emphasize leadership of instruction and school improvement;

- Active, student-centered instruction employing pedagogies that facilitate the integration of theory and practice and stimulate reflection, such as problem-based learning; action research; field-based projects; journal writing; and portfolios that feature substantial use of feedback and ongoing self, peer, and faculty assessment;

- Faculty who are knowledgeable in their subject area, including practitioners who have had experience in school administration;

- Social and professional support in the form of a cohort structure as well as formalized mentoring and advising from expert principals;

- Vigorous, carefully targeted recruitment and selection processes that proactively bring expert teachers with potential for leadership into the principalship; and

- Well designed and supervised administrative internships that provide opportunities for candidates to engage in leadership responsibilities for substantial periods of time under the tutelage of expert veterans.

Some of these features had spillover effects beyond the program itself. For example, cohort groups typically became the basis of a peer network that principals relied on for social and professional support throughout their careers. Strong relationships with mentors and advisors also often continued to provide support to principals after they had left the program.

Other features had strong enabling influences on what the program could accomplish. In particular, the programs specifically reached out to *recruit* candidates who had backgrounds that would allow them to become strong instructional leaders. Rather than waiting to see who would enroll, all the programs worked with districts to recruit excellent teachers with strong leadership potential who reflected the local population of teachers and students. Thus, program graduates were significantly more likely to have strong and relevant instructional leadership experience than the national comparison group. For example, in contrast to the comparison group, program graduates were much more likely to have been a literacy or math coach or to have had other instructional leadership experiences. They were also more likely to be female and members of racial/ethnic

minority groups. These candidates were committed to their communities and capable of becoming instructionally grounded, transformative leaders.

In-Service Programs. We found that the exemplary in-service programs had developed a comprehensive approach to developing practice *in* practice, through a well connected set of learning opportunities that are informed by a coherent view of teaching and learning and are grounded in both theory and practice. Rather than offering an array of disparate and ever-changing one-shot workshops, these systems organized a continuous learning program aimed at the development and implementation of specific professional practices required of instructional leaders. These programs had created their own leadership development strategies to foster a well-defined model of leadership and develop leaders' skills to enact that model. These target practices typically included developing shared school-wide goals and direction, observing and providing feedback to teachers, planning professional development and other productive learning experiences for teachers, using data to guide school improvement, and developing learning communities.

In addition to offering extensive, high-quality learning opportunities focused on curriculum and instruction, the programs typically offered supports in the form of mentoring, participation in principals' networks and study groups, collegial school visits, and peer coaching. We found that three features characterized the districts' efforts:

- A learning continuum operating systematically from pre-service preparation through induction and throughout the career, involving mature and retired principals in mentoring others;

- Leadership learning grounded in practice, including analyses of classroom practice, supervision, and professional development using on-the-job observations connected to readings and discussions and organized around a model of leadership; and

- Collegial learning networks, such as principals' networks, study groups, and mentoring or peer coaching, that offer communities of practice and sources of ongoing support for problem solving.

Aside from university course-taking, the principals from exemplary in-service programs reported far more participation in a wide range of learning opportunities. They participated much more frequently in district-supported professional development that fostered educationally rich peer observations and visits to other schools, participation in principals' networks and conferences, and participation in professional development activities with teachers. Nearly all the districts engaged principals in guided "walkthroughs" of schools to look at particular practices in classrooms and consider how to evaluate and improve learning and teaching. These powerful experiential learning opportunities were tied to studies of teaching, learning, and leadership grounded in research and theory. Because of the way the learning process was structured, principals in the districts we studied were also significantly more likely to find school visits, principals' networks, professional reading, and research helpful to improving their practice.

3. Program Success Is Influenced by Leadership, Partnerships, and Financial Supports

In addition to district supports for school improvement, the study also pointed to the significance of three facilitating conditions that were present, to varying extents, in the exemplary programs: dedicated program champions and leaders; the political will and capacity to build university-district partnerships; and significant financial support.

Leadership. Each of the exemplary programs benefited from a core team of individuals who acted as tireless champions and leaders for their respective program. Faculty involved in programs consistently attributed the programs' creation, survival, and success to leaders who had the vision, commitment, and capacity to coordinate stakeholders, secure resources, and implement the critical features well. Program leadership was provided by people in a variety of roles: district superintendents, college deans, university and district program directors, and combinations of these. It is worth noting that the districts in our sample had had superintendents who defied the national trends and remained in their school systems for many years.

Partnerships. The programs we studied were distinguished by the willingness of central actors within both districts and universities to establish policies facilitating cross-sector collaborations. For example, districts provided subsidies for credits, streamlined hiring, and, in some cases, collaborated in the development of university-based curriculum. Universities provided tuition waivers, mentors, and coaches for prospective principals, as well as faculty to support district-based professional development. As evidenced by these partnerships, collaborations between organizations can prepare principals for specific district and regional contexts and can develop a stronger and more committed leadership pool. Partnerships expand programs' resource pool for offering both quality coursework and quality field placements. In addition, collaborations between universities and districts increase the likelihood that leaders receive relevant and consistent support and professional development once they have completed their credential program. Finally, partnerships have helped sustain programs through funding and leadership changes, especially the all-too-frequent changes in urban superintendents.

Finances. It is not surprising that financial support emerged as an important enabling condition of strong programs. On average, graduates of exemplary programs were much more likely to be financially supported to attend their programs than comparison principals, although the amount of support varied widely across programs. Federal, state, and foundation grants, as well as district and university contributions, enabled this support. Perhaps the most powerful effect of financing occurred through its impact on the design of internships and the ability of candidates in some programs to undertake full-time study. We found that financial assistance also makes it possible for programs to be more selective in recruiting candidates, enabling programs to target candidates from under-represented populations and to recruit strong instructors who may not otherwise be able to afford time away from paid employment to participate in a preparation program. In this way, financial support was also an important condition of the programs' capacity to target their recruitment and selection efforts.

4. State and District Policies Influence Program Designs and Outcomes

Long-term institutionalization of high-quality principal development models will likely require more systematic policy supports. We noted real differences in principals' reports of their learning opportunities across states, some of which were clearly policy-related. States and districts varied in the combination of policies used to support the recruitment and development of school leaders. In Chapter 6, we described and illustrated a set of policy levers states use in different combinations to support the recruitment and development of school leaders. The more productive strategies included:

The use of standards to drive change. Although 46 states and all the programs we studied have adopted the ISLLC standards for principal preparation, states vary in how they have used the standards. National accreditation (which incorporates these standards) played a key role in states like Mississippi and New York, which closed down their programs and required them to meet state and national standards in order to be re-registered. These states and others also use data from performance assessments of principals, based on the same standards, as part of their program review and accreditation processes. We found that Connecticut's Administrator Test, a state-developed performance assessment that evaluates principals' abilities to guide teacher professional development and design school improvement processes, had strong effects on principals' preparation in the state. Because 80% of graduates must pass the test for a program to remain accredited, it is a strong policy lever.

State requirements for certification have also motivated induction and ongoing professional development. Many states, like California, Delaware, and Kentucky, have adopted tiered credentialing systems that require additional training and support before new administrators can gain a professional credential. These stimulated the ELDA Tier 2 program in San Diego and induction supports for new principals in Jefferson County, Kentucky. Some states also require on-going professional development credits for license renewal. State policies regarding re-certification in Connecticut, Kentucky, Mississippi, and New York provided incentives for veteran principals to participate in professional development funded by their districts and provided through university-district collaborations.

Supports for candidate recruitment and development. As we have noted, Delta State's program was made possible by Mississippi's Educator Sabbatical Program, which allows districts to target talented teachers for a full year of preparation, including a year-long internship. Another, even more ambitious model is provided by North Carolina's Principal Fellows Program, which underwrites preparation in eight state universities and full-time internships with expert principals in participating school districts in exchange for at least 4 years of service in the state's schools. This program has supplied that state with 800 highly trained principals, and half of all current candidates for the Masters in School Administration are Fellows.

At the local level, we found that some districts had developed policies to support recruitment of prospective principals and provide strong internship placements. All four of

the districts we studied had developed pathways into preparation for candidates they identified as worth recruiting into the principalship. These future principals were supported by policies offsetting costs that range from tuition reimbursement or waivers to paid internships. Three of these districts, Jefferson County, NYC Region 1, and San Diego, had figured out how to fund some form of internship and first-year mentoring for some or all of their candidates. In an important change of policy paradigm, none of these districts were continuing to rely on self-selected applicants coming to them already trained. They had all become more purposeful in seeking out recruits and figuring out how to develop them, sometimes with the support of state, federal, or foundation funding.

Development of state and local infrastructure. Most of the states we studied had begun to create some infrastructure for ongoing professional development for principals by supporting one or more Leadership Academies to organize, broker, and provide professional development on an ongoing basis. In at least one case (Delaware), the university-based academy organizes systematic mentoring of principals at different stages of their development. These state initiatives hold the potential for providing a more institutionalized means of supplying school leaders with individualized and collective learning opportunities that are focused on improving student learning.

Despite these examples of promising practices, no state we studied had yet assembled all the elements of a high-quality, financially stable system for recruiting, preparing, and supporting the development of school leaders. Furthermore, based on our national survey, relatively few practicing principals across the country have regular opportunities for the kinds of support they find most useful to improving their practice, such as mentoring, peer observations, and coaching to share practices.

Implications for Programs

Our findings point to several implications for program designers and leaders. First, recruitment and selection are essential qualities of program design, not incidental activities. The individuals who enter a program determine to a great extent what the program can build on, what kind of curriculum can be effective, and what kind of leader can emerge. The strong program outcomes and commitments of program graduates we found are likely related to the fact that the exemplary programs were more likely than others to recruit excellent teachers with strong instructional backgrounds and leadership potential who better represent the populations of their communities. Proactive outreach to desired candidates, coupled with program funding, particularly the ability to pay candidates' salaries during their training period, influences the candidate pool.

Second, all the exemplary programs were aligned with state and professional standards and found that the process of creating a standards-based approach had strengthened their focus on instructional leadership and school improvement. However, the alignment of preparation programs to standards may not, by itself, be sufficient to cultivate and sustain effective leadership. Robust implementation of the standards through strong, tightly related coursework and clinical experiences, reinforced by a continuum of supports upon entry into the career, appears to be necessary to secure transformed

practices. Candidates who did not receive strong internships wrapped around their coursework, or who did not receive ongoing professional development once in the field, were less likely to report high levels of effective practices. Thus, while alignment with standards is important, so, too, is the coherence and comprehensiveness of principals' learning experiences before and after they enter the field.

Third, durable partnerships between districts and universities, as well as states and districts, facilitate the development and implementation of a consistent and coherent program of professional development. Together, our exemplar programs demonstrated the importance and possibilities of various forms of collaboration for reinforcing a model of principal practice and supporting leaders as they attempt to enact these practices. Where these links are weak and where professional development is not coordinated with preparation, the impact of preparation on leaders' attitudes and behaviors—no matter how effective the program—is more likely to fade with time, particularly in challenging school contexts. Although school district/university partnerships take effort to develop, they reveal many benefits, including expanded resources, a more embedded, hence powerful, intervention for developing practice, and a reciprocal process for institutional improvement, producing better preparation programs and stronger leaders.

Fourth, although our study looked at the presence of specific program features as well as quality of overall programs, what appears to be most important is the integration of features and whether the program as a whole reinforces a robust model of leadership. The presence or absence of a single celebrated feature in a program design may be less important than how well the existing features are implemented, how well they reinforce and convey a consistent model of leadership, and whether the design provides important learning for program participants. Although some features, such as internships, have been shown by prior research and this study to produce powerful learning, that is only the case if they are well implemented and are mutually reinforcing with other program elements in the knowledge and skills they convey. Similarly, courses, no matter how appropriate their topics, are more powerful if they are wrapped around reinforcing clinical experiences that illustrate the principles under study and employ field-based inquiries, action research, case studies, and other tools that connect theory and practice.

Moreover, any given feature can be implemented to convey different messages about leadership. For example, several principals we interviewed described learning how to conduct "walkthroughs" as part of their professional development. As a signature pedagogy of several programs, the practice is meant to develop certain instructional leadership skills: a particular way to observe teaching and learning and provide feedback to teachers to improve instruction. Yet if that purpose and the skills involved are not reinforced elsewhere in a program, the practice of "walkthroughs" can be implemented superficially, with little understanding of the quality of teaching, and it can be interpreted by others as a means of surveillance—a way to control teachers—rather than a practice to promote ongoing learning and instructional improvement in a school. What appears to be the same practice can convey very different models of leadership, depending on how it and other practices are implemented and understood.

Fifth, effective programs require significant resources, especially human resources, to support learning that is embedded in practice. Costs and benefits differ considerably across programs based on design features such as number of participants or the organization and intensity of coursework, internships, and mentoring.

Program leaders should budget comprehensively, acknowledging all the resources that will be required by a program in order to ensure that they can be financed and secured. Leaders should also budget strategically, investing in designs that are likely to provide a strong intervention. For example, our research suggests that approaches that closely link coursework and clinical work, using problem-based learning methods, gain greater traction on eventual practice, as do approaches that create collective, ongoing supports for learning through cohorts and networks of professionals that amplify the effects of formal learning activities focused on the improvement of instructional practice.

Although the most coherent and powerful designs cost more—up to $80,000 per participant in pre-service models offering a full-time, full-year, paid internship tightly integrated with highly-relevant coursework, and up to $35,000 per participant in in-service models offering intensive mentoring, networking, and study for all leaders at all levels—our data illustrate the stronger benefits associated with these models. We found that leaders in these high-intensity programs felt better prepared and demonstrated stronger leadership practices on the job. Their teachers also felt better supported and better led, reporting more collegial work on instruction and more focus on school improvement in schools led by the program graduates we followed.

Putting these costs in context, it is useful to recognize that these investments in leaders translate to relatively small costs on a per pupil basis. For example, in San Diego, one of the most expensive pre-service models, the year-long investment in intensive training costs, on average, about $80 per student in the school. Region 1's comprehensive approach, viewed by principals as the most helpful of any we studied and by respondents as responsible for much of the district's achievement gains, cost only $13 per pupil in the district. Thus, these investments, while considerable, may be considered a high-leverage, relatively low-cost investment in more productive schools.

Programs also vary in financing strategies and funding sources. Stable funding depends on a reliable base of support. Covering costs from steady funding streams such as tuition, general operating budgets, and state programs may improve the outlook for funding stability. That said, depending solely on institutional budgets for funding may not give a program sufficient resources to meet its goals. Diversified funding solves some of these problems, but creates its own constraints. On the one hand, use of diversified funding sources may foster innovation and reduce a program's vulnerability to funding losses from any one source. On the other hand, grant funding, including foundation and categorical federal funding, creates its own challenges. Program leaders must be prepared to acquire replacement funds or to re-invent aspects of their programs when outside funds disappear. Strong partnerships can sometimes allow programs to capitalize on institutional opportunities, for example, assigning interns as assistant principals or summer school administrators, when circumstances shift.

A clear implication of this study is that the implementation of high-quality preparation (including recruitment) and professional development for school principals is a complex and costly venture. It is complex because to do it well requires institutional coordination between state, district, university, and often foundation actors. It requires cooperation with and commitment by each of these institutional actors. However, actors change and commitments waver. Policy and financing infrastructures are required to support collaborations and sustain programs in the face of these vulnerabilities. On a positive note, we have seen that when states, districts, and university actors cooperate in a comprehensive plan for leadership development, and provide the financial resources to sustain the programs, much can be accomplished to transform the shape of the administrator workforce and the knowledge and skills principals possess.

Implications for Policymakers

The study points to two primary implications for policymakers. First, the design, quality, and impact of principal preparation and development programs can be significantly shaped by purposeful policy agendas at the state and district levels, particularly when these take a comprehensive approach. The positive impact of a comprehensive and supportive state and district infrastructure is most dramatically illustrated by Mississippi. Driven by the recommendations of a state Task Force on Administrator Preparation more than a decade ago, the state set out to overhaul its entire system of recruitment, preparation, and development of school leaders. Reforms in Mississippi were wide-ranging and in some cases dramatic. These included redesigning programs to align with the ambitious standards-based accreditation criteria and closing down programs that did not meet the standards; upgrading administrator licensing requirements for pre-service, induction, and ongoing learning; coordinating all in-service professional development for school administrators through a state-level leadership institute; and creating an innovative year-long, fully funded sabbatical program allowing teachers to train for the principalship in programs that offer a full-year internship.

Mississippi principals outranked our national and state samples of principals on almost every attitudinal and behavioral measure of leadership effectiveness. Mississippi's policy infrastructure was driven by top-down as well as bottom-up initiatives, involved deep coordination and collaboration with districts and university partners, and required a sustained commitment of political will and financial resources. It employed all three of the major policy strategies we identified: 1) the purposeful use of standards to leverage change, 2) supports for the proactive recruitment and development of aspiring principals, and 3) development of a state infrastructure to support ongoing learning.

Other states we studied had invested in specific elements of support for leadership development—program redesign, accreditation leverage, recruitment subsidies, internship supports, mentoring, and professional development academies, often with productive results. But the absence of long-standing systemic initiatives in most states leaves most programs unable to mount or sustain the most powerful models of preparation and support.

Where states do not provide policy backing, districts may take on a bigger share of the burden, but the lack of a state infrastructure can be costly, as illustrated in San Diego. Largely due to a forceful team of reformers, San Diego took on a massive reform that put the development of instructional leadership at its core. This comprehensive initiative included developing a robust continuum of leadership preparation and development that was aligned with professional standards and supportive of the district's mission to place instructional improvement at the center of its reform strategy. Nearly all aspects of leadership development, from recruitment to ongoing development, were touched by this district effort. Yet as impressive and comprehensive as this district-driven reform effort was, it did not have the backing of a state infrastructure behind it, leaving it vulnerable to changes in district leadership and to funding priorities of the private foundations that subsidized the program.

Supportive state and district policies in the form of standards, accreditation, and accountability systems must have sufficient resources to enable institutions that deliver programs to meet these requirements. This brings us to the second major policy implication: State and district financing policies are critical. At the most fundamental level, what programs are able to accomplish, whom they are able to recruit, and the choices that enter into program designs depend profoundly on the sources, amounts, and stipulations of funding.

Foundation and other sources of external funding can get programs off the ground, but heavy reliance on time-limited grants leaves programs and districts vulnerable to changes in foundation funding priorities. The expiration of such grants can create instability if program leaders are not able to acquire replacement funding or if a district or state is not prepared to step in and close funding gaps. If education policymakers at the state and district levels are committed to building leadership development into reform efforts, they must build in sufficient resources to invest in high-impact programs. There is no escaping the fact that developing and sustaining high-quality leadership preparation and development requires a comprehensive plan and significant financial commitment.

In particular, subsidies that allow candidates to engage in the critical hands-on work of a high-quality administrative internship seem central to the most powerful program designs. Funding for mentoring or networking for new principals also appears to enable new entrants to get stronger traction in implementing the more complex and sophisticated aspects of an instructional leadership agenda. And a state's capacity to organize and offer high-quality ongoing professional development, through academies or institutes that can serve a range of needs, appears to help sustain learning opportunities for leaders in districts large and small.

Although the challenges are substantial, the lessons of this research are hopeful. First, it is possible to create systematic learning opportunities for school leaders that help them develop the complex skills needed to lead and transform contemporary schools. Second, programs that succeed in substantial ways in developing such leaders have a number of elements in common, including the nature of their curricula, the teaching and learning strategies they employ, the ways they organize communities of practice, and the

kinds of clinical experiences they construct. Third, our review of distinctive models operating in diverse contexts illustrates that there are a number of ways to build such programs and to develop the partnerships and funding supports that enable them to survive and succeed. And finally, state and local leaders have begun to develop policy strategies that hold promise for eventually making such initiatives commonplace rather than exceptional. The collaborative effort needed to create such a system is made worthwhile by the importance of developing a generation of strong, savvy leaders who can create schools that provide expert teaching for all students in settings where they can succeed.

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Appendix A: Principal Survey Methods

The principal survey was designed by the Stanford team and administered by WestEd in both paper and Web formats. This appendix describes the survey process, including the survey design, sample selection, survey dissemination, return rates, and weighting process. We also describe here the development of survey scales as part of the analysis process.

Survey Development

The principal survey instrument drew on a number of existing surveys, as well as newly developed items, to evaluate principals' perceptions of: their principal preparation program and on-going professional development opportunities, views of the principalship, self-reported practices, and characteristics of their schools. Among the instruments used were the federal Schools and Staffing survey and a survey developed and piloted by the UCEA/TEA-SIG Taskforce on Evaluating Leadership Preparation Programs based on conceptual work by Orr (2003), national leadership standards (ISLCC and ELCC), Leithwood and Jantzi's (1999) leadership effectiveness research, and Leithwood and colleagues' (1996) research on leadership preparation program effectiveness. Additional survey measures of school improvement were drawn from research conducted by the Center on the Contexts of Teaching at Stanford University. Other items were drafted to meet study priorities.

The draft survey instrument was piloted with principals in two stages, with survey refinement between stages. Surveyed principals were interviewed about the survey's readability, length, comprehensiveness, and redundancy. Based on the pilot survey results and conceptual priorities, the survey was further refined. WestEd conducted a final survey edit and formatted it for on-line and mail survey administration.

Measures

The survey was designed around seven categories of measures:

- demographic and other characteristics of principals;
- preparation and professional development features and experiences;
- what graduates feel they learned about leadership and their leadership beliefs;
- engagement in specific leadership practices;
- school improvement strategies and climate;
- recent school improvement changes; and
- moderating influences (e.g., school features; district supports, or impediments).

Characteristics of program participants. The study included two kinds of pre-conditions for participants: personal and professional demographic attributes, and district support for program participation. The demographic measures, drawn from the federal School and Staffing Survey, were age, gender, race, ethnicity, and years of teaching experience. The survey also included the respondent principals' intentions prior to

enrolling. The district support measures were *whether the respondent was recommended to the program or volunteered*, and the extent to which the respondent *paid participation costs (tuition, books, instructional materials)*.

Program experiences. The study included six measures of program features. These items were based in part on Leithwood and colleagues' (1996) research on effective leadership preparation and Orr and Barber's (2004) research review. Two measures are sets of items that used a five-point Likert scale (1=not at all. . . 5=to a great extent) to assess the extent to which graduates perceived that their pre-service program had program content that was "*leadership-focused"*(based on five items, such as content emphasized instructional leadership and leadership for school improvement), and "*reflection-rich"*(six items, such as often being asked to reflect on practice and analyze how to improve it, and having opportunities for self-assessment as a leader).

Two other measures used the same Likert scale to examine pedagogies and clinical experiences. One, which we called *active student-centered instruction*, used six items to examine the extent to which the program used active instructional practices and strategies that connect theory and practice (such as field-based projects, problem-based learning, action research, and portfolios on accomplishments). The other measure, *quality internship attributes*, included six items examining the extent to which the respondents' educational leadership internship experience reflected recommended attributes of a quality internship. This measure included items such as "was closely supervised and assisted by knowledgeable school leaders" and "was able to develop an educational leader's perspective on school improvement." Two measures are single items: the extent to which the graduate was in a student cohort, and the extent to which faculty members were very knowledgeable about their subject matter.

Principals' *professional development opportunities* were based on their ratings of the frequency and helpfulness of five different types of district-sponsored professional development. Principals rated their participation over the past 12 months on a three-point scale (1=not at all, 2=once or twice, and 3=three times or more) and the helpfulness of the professional development for improving their practice on a five-point scale (1=not at all helpful. . .5=extremely helpful). These items were modeled on items used for the teacher survey version of the federal School and Staffing Surveys, and expanded to include professional development strategies provided by the innovative programs documented in this study.

Leadership learning and beliefs. We asked principals how well they felt their initial leadership development program prepared them for specific leadership tasks (1=not at all. . .5=very well). The learning outcomes, based largely on the ISLLC/ELCC standards and represented by 23 items, include five scale measures of leadership: leading organizational learning (seven items), developing school-wide vision and ethical commitment (four items), leading student and teacher learning (five items), managing operations (five items), and engaging parents and community (two items).

Three attitudinal measures were constructed. Two were five-point Likert scales measuring positive (four items) and negative (four items) beliefs about the principalship, drawn in part from Pounder and Merrill's (2001) and Dituri's (2004) research on aspirants' beliefs. We also examined commitment to the principalship (asked only of current principals) using six items that measure agreement with such items as "I plan to remain a principal until I retire" and "if I could get a higher paying job, I'd leave education as soon as possible." Four items were negatively worded and were reverse coded before being averaged. This measure was drawn from the federal School and Staffing survey.

Effective leadership practices. First-level outcomes of preparation are leadership practices, which we measured using items drawn from the federal School and Staffing Surveys for principals and new items reflecting aspects of effective leadership that surfaced in our own literature review (see especially, Leithwood & Jantzi, 1999; Leithwood et al., 2004). This set of items asks principals how often in the last month they engaged in 23 activities, using a four point frequency Likert-rating scale (1=never. . .4=daily).

School improvement climate and strategies. A second level of outcomes of leadership preparation is the *climate of the school*. We asked principals to rate their school's climate by indicating their degree of agreement (using a five-point Likert scale) to 21 questions grouped as four measures: *accessible quality instruction (four items)*, *instructional coherence and coordination (three items), teacher commitment encouraged and practiced (four items),* and *student effort and engagement (two items)*. These items were drawn primarily from the McLaughlin and Talbert's study of the Bay Area School Reform Collaborative (BASRC). A measure of coherence was drawn from Newmann et al. (2001), and organizational learning measures were drawn from Marsick and Watkins (2003).

School improvement progress. A third level of outcomes is *the principal's perceptions of progress on school improvement.* These outcomes are based on principals' ratings of 13 items using a five-point Likert scale rating the extent of an increase or decrease in particular conditions or practices over the last year. These items were grouped as measures of *improved organizational development (nine items)* and *improved teacher effectiveness (six items)*. These items were drawn from research by Marks and Printy (2003) and Orr's (2004) research review.

Moderating factors. Moderating factors measured in the survey include school demographics (urbanicity, school size, and student poverty) and the extent to which 11 possible problems exist in the school (1=not a problem. . .5=a serious problem). These items, drawn from the federal School and Staffing Survey, are grouped into student-related problems (four items, such as attendance, and verbal and physical abuse), and teacher and parent problems (four items, such as teacher attendance and expectations, and parental involvement).

Finally, principals' perceptions of district support for the school were measured on a four-point Likert scale (1=strongly disagree. . .4=strongly agree) by four items, such as "the district helps me promote and nurture a focus on teaching" and "the district supports my school's efforts to improve." These items were drawn from a study by McLaughlin and Talbert (2002).

Factor analyses demonstrated strong conceptual integrity for the survey measures. All scales had robust reliability coefficients (.7 and higher, with one exception) and strong factor loadings (.6 and higher, with most at .7 or above). Table A-1 shows the items that comprise each scale, the factor loadings, and the reliability coefficients.

Table A-1

Scale: Preparation: Leadership focused program content

Items	N	Mean	Std. Deviation	Factor Component	Reliability coefficient alpha
Preparation: leadership focused program content	1045	3.88	.718		.799
q6a: The program content emphasized instructional leadership	1044	4.15	.916	.795	
q6b: The program content emphasized leadership for school improvement	1045	3.86	1.016	.814	
q6c: The program content emphasized managing school operations efficiently	1041	3.81	.909	.514	
q6d: The program content emphasized working with the school community and stakeholders	1037	3.75	1.008	.751	
q6m: The program gave me a strong orientation to the principalship as a career	1042	3.86	1.024	.823	
Valid N (listwise)	1029				

Five-point extent scale (1=not at all…5=to a great extent)

Preparation: Reflection rich program content

Items	N	Mean	Std. Deviation	Factor Component	Reliability coefficient alpha
Preparation: reflection rich program content	1045	3.64	.92343		.915
q6e: The course work was comprehensive and provided a coherent learning experience	1042	3.96	.956	.808	
q6h: The program provided many opportunities for self-assessment as a leader	1037	3.48	1.200	.883	
q6i: I was often asked to reflect on practice and analyze how to improve it	1040	3.64	1.192	.873	
q6j: The program provided regular assessments of my skill development and leadership competencies	1036	3.38	1.167	.863	
q6k: The program integrated theory and practice	1041	3.90	.955	.824	
q6n: The faculty provided many opportunities to evaluate the program	1040	3.46	1.139	.780	
Valid N (listwise)	1019				

Five-point extent scale (1=not at all…5=to a great extent)

Preparation: Active, student-centered instruction

Items	N	Mean	Std. Deviation	Factor Loading 1	Reliability coefficient alpha
Preparation: Active, student-centered instruction	1044	3.65	.86836		.893
q7a: Field-based projects in which you applied ideas in the field	1041	3.57	1.161	.805	
q7b: Linkages between coursework and your internship or other field based experience	1043	3.58	1.199	.837	
q7c: Use of problem-based learning approaches	1043	3.67	1.054	.826	
q7d: Action research or inquiry projects	1040	3.51	1.132	.775	
q7e: Journal writing of your experiences	1041	3.25	1.366	.753	
q7f: Analysis and discussion of case studies	1041	3.94	1.002	.688	
q7h: Participation in small group work	1041	4.05	.881	.695	
q7i: A portfolio demonstrating my learning and accomplishments	1039	3.23	1.551	.733	
Valid N (listwise)	1021				

Five-point extent scale (1=not at all…5=to a great extent)

Preparation: Quality internship attributes

Items	N	Mean	Std. Deviation	Factor component	Reliability coefficient alpha
Quality internship attributes	762	3.84	.935		.847
q13a: I worked in one or more schools serving students with a variety of socioeconomic backgrounds.	759	3.59	1.490	.530	
q13b: I was closely supervised and assisted by knowledgeable school leaders.	761	3.88	1.157	.777	
q13c: I had responsibilities for leading, facilitating, and making decisions typical of an educational leader.	760	3.93	1.152	.761	
q13d: My internship achievements were regularly evaluated by program faculty.	754	3.59	1.268	.778	
q13e: I was able to develop an educational leaderÕs perspective on school improvement.	758	3.98	1.077	.859	
q13f: My internship experience was an excellent learning experience for becoming a principal.	752	4.06	1.117	.880	
Valid N (listwise)	746				

Five-point extent scale (1=not at all…5=to a great extent)

Prepared to lead learning for students and teachers

Items	N	Mean	Std. Deviation	Factor component	Reliability coefficient alpha
Prepared to lead learning for students and teachers	1025	3.48	.91125		.898
q14a: Understand how different students learn and how to teach them successfully	1025	3.37	1.079	.839	
q14b: Create a coherent educational program across the school	1024	3.53	1.027	.887	
q14c: Evaluate curriculum materials for their usefulness in supporting learning	1023	3.33	1.078	.836	
q14d: Design professional development that builds teachers' knowledge and skills	1022	3.41	1.147	.868	
q14e: Evaluate teachers and provide instructional feedback to support their improvement	1024	3.76	1.069	.788	
Valid N (listwise)	1018				

Five point rating scale (1=not at all. . . 5=very well)

Prepared to Develop School-wide Vision and Ethical Commitment

Items	N	Mean	Std. Deviation	Factor component	Reliability coefficient alpha
Prepared to Develop Vision and Ethics	1024	3.62	.883		.853
q14g: Develop broad agreement among staff about the school's mission	1020	3.51	1.105	.855	
q14m: Mobilize the school staff to foster social justice in serving all students	1020	3.23	1.143	.813	
q14t: Use effective written and communication skills, particularly in public forums	1020	3.82	1.003	.842	
q14w: Develop a clear set of ethical principles to guide decision making	1018	3.93	1.032	.825	
Valid N (listwise)	1007				

Five point rating scale (1=not at all. . . 5=very well)

Prepared to manage operations

Items	N	Mean	Std. Deviation	Factor Loading 1	Reliability coefficient alpha
Prepared to manage operations	1024	3.44	.8751		.863
q14f: Handle discipline and support services	1019	3.49	1.110	.771	
q14i: Find and allocate resources to pursue important school goals	1020	3.27	1.096	.823	
q14j: Analyze budgets and reallocate resources to achieve critical objectives	1019	3.26	1.132	.806	
q14k: Create and maintain an orderly, purposeful learning environment	1020	3.79	.983	.832	
q14l: Manage facilities and their maintenance	1020	3.38	1.095	.796	
Valid N (listwise)	1005				

Five point rating scale (1=not at all. . . 5=very well)

Prepared to engage parents and community

Items	N	Mean	Std. Deviation	Factor component	Reliability coefficient alpha
Prepared to engage parents and community	1024	3.37	.962		.732
q14n: Work with parents to support students' learning	1021	3.32	1.076	.885	
q14u: Collaborate with others outside the school for assistance and partnership	1020	3.41	1.082	.885	
Valid N (listwise)	1017				

Five point rating scale (1=not at all. . . 5=very well)

Prepared to lead organizational learning

Items	N	Mean	Std. Deviation	Factor component	Reliability coefficient alpha
Prepared to lead organizational learning	1024	3.52	.969	.863	.941
q14h: Create a collaborative learning organization	1017	3.62	1.110	.806	
q14o: Use data to monitor school progress, identify problems and propose solutions	1019	3.40	1.211	.882	
q14p: Engage staff in a decision making process about school curriculum and policies	1018	3.54	1.114	.902	
q14q: Lead a well-informed, planned change process for a school	1021	3.45	1.142	.914	
q14r: Engage in comprehensive planning for school improvement	1018	3.45	1.148	.875	
q14s: Redesign school organizations to enhance productive teaching and learning	1016	3.27	1.116	.775	
q14v: Engage in self-improvement and continuous learning	1023	3.93	1.001		
Valid N (listwise)	989				

Five point rating scale (1=not at all. . . 5=very well)

Positive beliefs about the principalship

Items	N	Mean	Std. Deviation	Factor component	Reliability coefficient alpha
Positive beliefs about the principalship	1031	4.77	.430		.812
q18a: Make a difference in the lives of students and staff	1030	4.86	.420	.792	
q18b: Provide opportunities for professional growth	1026	4.74	.530	.840	
q18c: Enable me to develop relationships with others inside and outside the school	1025	4.68	.613	.795	
q18d: Enable me to influence school change	1027	4.79	.502	.803	
Valid N (listwise)	1021				

Five-point agreement scale (1=strongly disagree…5=strongly agree)

Negative beliefs about the principalship

Items	N	Mean	Std. Deviation	Factor component	Reliability coefficient alpha
Negative beliefs about the principalship	1028	4.04	.719		.728
q18e: Require very long work hours	1024	4.74	.583	.592	
q18f: Have too many responsibilities	1025	4.05	1.020	.828	
q18g: Decrease my opportunity to work directly with children	1026	3.32	1.227	.710	
q18h: Create a lot of stress	1023	4.08	.981	.842	
Valid N (listwise)	1016				

Five-point agreement scale (1=strongly disagree…5=strongly agree)

Effective leadership scale (includes instructional and transformational leadership measures)

Items	N	Mean	Std. Deviation	Factor Loading 1	Factor Loading 2	Reliability coefficient alpha
Effective leadership	838	3.00	.484			.829
q39a: Facilitate student learning (e.g. eliminate barriers to student learning; establish high expectations for students)	834	3.38	.721	.587	-.398	
q39b: Guide the development and evaluation of curriculum and instruction	835	3.01	.769	.681	-.373	
q39c: Build professional learning community among faculty and other staff	834	3.15	.829	.643	-.357	
q39g: Foster teacher professional development for instructional knowledge and skills	834	2.79	.727	.731	-.088	
q39h: Evaluate and provide instructional feedback to teachers	834	3.12	.705	.663	-.040	
q39i: Use data to monitor school progress, identify problems and propose solutions	832	2.82	.752	.609	.118	
q39k: Work with parents on students' problems or learning needs	831	3.33	.711	.408	.534	
q39m: Work with teaching staff to solve school or department problems	827	3.24	.729	.522	.638	
q39n: Work with teachers to change teaching methods where students are not succeeding	833	2.82	.737	.739	.091	
q39p: Work with faculty to develop goals for their practice & professional learning	834	2.61	.699	.679	.174	
Valid N (listwise)	802					

Four point frequency scale (1=never, 2=once or twice a month; 3=once or twice a week; 4=daily).

Commitment to the principalship

Items	N	Mean	Std. Deviation	Factor Component	Reliability coefficient alpha
Commitment to the principalship	812	3.08	.59288		.752
revq44a: The stress and disappointments involved in serving as principal of this school arenÕt really worth it	810	3.25	.72831	.678	
revq44b: If I could get a higher paying job, IÕd leave education as soon as possible	808	3.27	.79695	.720	
revq44d: I think about transferring to another school	809	3.19	.89515	.696	
rev: q44f: I will continue being a principal until something better comes along	798	2.96	.95175	.640	
q44c: I plan to remain principal of this school as long as I am able	808	2.96	.900	.603	
q44e: I plan to remain a principal until I retire	808	2.88	1.013	.693	
Valid N (listwise)	788				

Four-point agreement scale (1=strongly disagree. . .4=strongly agree)

Sampling Process

WestEd assisted Stanford in compiling the contact information for the principal survey, obtaining the information from the program leader for each of the eight exemplary programs' graduates (pre-service) and participants (in-service). We sampled all graduates (or participants) from 2000 through 2004 from each program. The list for the national comparison group of principals was compiled by directors of the National Association of Elementary School Principals (NAESP) and the National Association of Secondary School Principals (NASSP) according to the stratified random sampling rules supplied by the research team.

According to the lists, 22,720 principals were members of NAESP and 14,706 were NASSP members. We eliminated from the NAESP and NASSP lists any program participants identified by program leaders before we selected the sample. We then randomly selected 1,229 from these 37,426 members for our sample (657 NAESP principals and 572 NASSP principals). Of the 1,229 principals, 600 principals came from the focus states for our study: California, Connecticut, Delaware, Georgia, Kentucky, Mississippi, New York, and North Carolina. Seventy-five principals were randomly selected for each of these states. A total of 623 principals represented the other 42 states. Fifteen principals were randomly selected from each state.

Once the sample was selected, we tried to fill in any missing contact information by searching the Internet for mailing and email addresses. We had 1,147 respondents with good email addresses. Those respondents who did not have a valid email address received only a paper copy of the survey. In all, the sample included 821 program principals from the eight preparation programs and 1,229 comparison principals from all 50 states.

WestEd sent the first survey to all respondents in February 2005. Each principal in the sample received a hard-copy survey, with a cover letter describing the study, instructions to complete the survey online if the respondent desired, and a confidentiality assurance statement. All the principals for whom we had an email address also received an email with the Web address for the survey and login information. The hard-copy survey packet for comparison principals also included an endorsement letter from the appropriate principal association (e.g., NAESP or NASSP).

After the initial survey mailing, we sent two more follow up mailings, one in March and one in May. The last hard-copy mailing also included a $1 incentive to encourage principals to return their surveys. For each mailing, we asked respondents to complete the survey within three weeks. Stanford researchers called program participants from programs with less than a 50 percent response rate after the third mailing to request participation. We ultimately received approximately 60 percent hard-copy surveys and 40 percent Web-based surveys. Table A-2 below lists the number of principals surveyed for each program and the response rates. Final response rates for individual programs ranged from 50 percent to 71 percent.

Table A-2: Numbers of Surveys Sent Out by Program and Response Rates

Program	Originally Sent Out	Bad Mailing Addresses	Adjusted n	Surveys Returned	Response Rate
University of San Diego	98	4	94	63	67
San Diego Public Schools	160	5	155	88	57
University of Connecticut	117	9	108	57	53
Jefferson County Public Schools	147	2	145	77	53
Delta State University	74	8	66	47	71
Region 1	24	-	24	13	54
New York-Other Region 1 (non-new principals)	100	2	98	27	28
Bank Street	57	1	56	28	50
Hartford Public Schools	44	2	42	21	50
NAESP	657	4	653	346	53
NASSP	572	2	570	317	56

Weighting

Data were weighted to estimate characteristics of principals within states and nationwide. The data were first weighted (WWT) to the number of possible respondents by program and by state (for the national comparison sample). Analyses that use this weight variable provide counts that represent the total population. We computed a second weight (WT) to allow comparisons for the number of respondents in a total group (i.e., all elementary principals, all secondary principals, or all program principals) to the national comparison group of principals. We computed this weight by multiplying the results from the first weight by the total number of respondents. Then we divided by the total population separately for the program group and the national comparison principals.

We computed a third weight (WTTSGWN) to calculate comparisons between a specific program and the national sample. The treatment subgroup weight equals 1 and the national sample is the WT value. A fourth weight (WTINST) was calculated for comparing principals from a specific program to principals in the state. This weight takes into account the response rate differences between the two groups of comparison principals within the state (i.e., elementary and secondary principals). A final weight (WT2SCHLS) was calculated for the national comparison principals, which took into account the total number of principals in each state (i.e., the total number of schools in each state) and adjusted the proportion of respondents to the total population of principals within the state. The formulas for these weights are presented below.

Weights based on the lists provided for program and national populations

WT2POP: This weight takes into account the total population (i.e., all the program principals and all the secondary/elementary principals); used for descriptive statistics to provide counts that represent the total population.

$$WT2POP_{sp} = N_{sp} / n_{sp}$$

Where:
N = number in the population
n = number in the sample
s = State (STATE)
p = program or primary principals or secondary principals (PROGID)

WT2SAMP: This weight is used for inferential statistics when comparing the number of respondents in a total group (i.e., all elementary principals, all secondary principals, or all program principals in California) to the national comparison group of principals.

WT2SAMP= $$WT2SAMP_{sp} = (N_{sp} / n_{sp}) * (\sum_{s=AL}^{WY} \sum_{p=1}^{8} n_{sp} / \sum_{s=AL}^{WY} \sum_{p=1}^{8} N_{sp})$$

Where:
N = number in the population
n = number in the sample
s = State (STATE)
p = program (PROGID=1-8)

National $WT2SAMP_{sp} = (N_{sp} / n_{sp}) * (\sum_{s=AL}^{WY} \sum_{p=98}^{99} n_{sp} / \sum_{s=AL}^{WY} \sum_{p=98}^{99} N_{sp})$

Where:
N = number in the population
n = number in the sample
s = State (STATE)
p = program (PROGID=98, 99)

WTCOM2TR: This weight is used to make comparisons between a specific program and the national sample.
Programs $WTCOM2TR = 1$
National $WTCOM2TR = WT2SAMP$

WTINST: This weight is used to make comparisons between a specific program and its state.
Programs $\mathrm{WTINST}_{sp} = 1$
Where:
s = State (STATE)
p = program (PROGID=1-8)

National $WTINST_{sp} = (N_{sp} / n_{sp}) * (\sum_{p=98}^{99} n_{sp} / \sum_{p=98}^{99} N_{sp})$
Where:
N = number in the population
n = number in the sample
s = State (STATE)
p = program (PROGID=98, 99)

Weighting based on state populations

WT2PRINC: This weight is used to compare the program to its state or national comparison group and to combine across program and national samples to compare states.

$WT2PRINC_{sp} = (N_{sp} / n_{sp}) * (\sum_{s=AL}^{WY} \sum_{p=1}^{8} n_{sp} / \sum_{s=AL}^{WY} \sum_{p=1}^{8} N_{sp})$
Where:
N = number of schools represented by respondents
n = number in the sample
s = State (STATE)
p = program (PROGID=1-8)

National $WT2PRINC_{sp} = (N_{sp} / n_{sp}) * (\sum_{s=AL}^{WY} \sum_{p=98}^{99} n_{sp} / \sum_{s=AL}^{WY} \sum_{p=98}^{99} N_{sp})$

Where:

N = number of schools in state
n = number in the sample
s = State (STATE)
p = program (PROGID=98, 99

Appendix B: Instrumentation for Fieldwork and Survey Data Collection

This appendix includes the protocols we used as the basis for semi-structured interviews with respondents associated with the exemplary programs we studied, as well as protocols for school and class observations, and copies of the surveys we used to gather feedback from program graduates, participants, and the national sample of principals The documents reproduced here included:

Protocols for interviews of:

- Program officials
- Preparation program faculty
- District staff associated with in-service programs
- District staff who hire or supervise principals
- Program participants and graduates

Protocols for observations of:

- Classes or professional development activities
- The school site, including:
  1. Interview with the principal
  2. Shadowing the principal
  3. Classroom visits

Surveys of:

- Principals (graduates of preparation programs, participants in in-service programs and national sample respondents)
- Teachers (in the schools of selected principals who are graduates / participants in exemplary programs)

PROTOCOL FOR PROGRAM OFFICIALS (FOUNDER, COORDINATOR, ADMINISTRATOR, INTERNSHIP COORDINATOR)

Note to interviewer:
1) Make sure all background material is reviewed prior to interview.
2) First-order questions to ask are bold-faced; sub-questions can be used as probes.

Suggested key attributes we are looking for:

1. *Coherence*
2. *Standards based/driven*
3. *Dual emphasis on instructional leadership and transformational leadership*
4. *Learning experiences that are transformative*
5. *Inquiry oriented*

I. Background Information

Demographics

Name
Gender
Role/job
Length of time with the program
Prior experience
Prior educational leadership experience

Warm Up Questions

Why do you think your program was selected for the study?
What distinguishes this from other programs (preparatory or in-service)?
What are the most special things about the program?
What is the thing you are most proud about in your program?

II. History of Program and Recruitment

Describe how the program came into existence.
Probes if necessary:

Why was it started?
When?
Who were the key actors?
What factors influenced the design?

How has the program changed over time?

What caused it to change over time?
What has been the role of the district over time?
How have policy shifts (influence the program over the past 5 years? NCLB, state, or fiscal policies? University or school policies?)

What do you and your colleagues look for when you recruit and select candidates?
Where do most participants come from?
How are they selected? Are interviews used?
What are the requirements? How are they weighted?
Do you do anything deliberate to increase the diversity of the candidate pool?
Are there common attributes you look for?
Why do candidates choose this program? Who are the competitors? What differentiates this program from others?
Are admission standards set by the university, district, or school?
What aspects of the admission process concern you or your colleagues?

III. Program Theory and Goals

What are the foundations upon which this program rests?

What are the views of schooling that underlie this program?
Where and how do you see this emphasized in the program?
How is the program designed to do this?

Describe in a few sentences the beliefs about the principalship that undergird this program.
Where and how do you see this emphasized in the program?
How is the program designed to do this?

Describe the views on school improvement that evident in the program design.
Where and how do you see this emphasized in the program?
In other words, how is the program designed to do this?

Describe the views of leadership underlying the program.
Where and how do you see this emphasized in the program?
How is the program designed to do this?

Overall, what are the goals of the program? What is the program trying to prepare participants to do?
PROBE: for emphasis (e.g. on social justice, school transformation, instructional leadership, change management, administration)
For each area of emphasis, where in the program does this get emphasized?
How do students learn this?
To what extent do program faculty members share these goals?

Does the program seek to prepare/develop principals for specific types of schools? If yes, what types?
Probe for: Grade level, size, urban, low-income, recent immigrant, community type?
Where is this emphasized in the program?

In general, what does the program do most effectively to turn participants into strong school leaders? What parts of the experience do you believe are transformative?
PUSH FOR SPECIFICS

IV. Program Content, Structure, and Pedagogies

Note: prior to site visit, we should have collected program material. Fill in as appropriate.

Describe the curriculum.

How is it organized (according to courses, units, etc.)?
Has the curriculum changed? Why?

Can you help us see how the curriculum connects to the foundations you described earlier?

What components of the program are most important? Why?

How are courses sequenced and integrated? Why? (What is the rationale for this organization?)

How is learning integrated? Note: Look for mechanisms to create continuity and coherence.
How are courses linked to internship experiences? What courses or seminars are designed for students to reflect on their internships? Note: Look for mechanisms to help students reflect on internship experiences.

Do program faculty work together on the curriculum? How?

Is there any team teaching?
Are there formal planning sessions and committees?
Do you have curriculum development or review meetings?

What teaching strategies are used in the classroom regularly? Note: Push for examples (portfolios, projects, PBL, lecture, cases, simulations, etc.), but don't lead.

Where in your programs do participants develop knowledge to be _____? (what they emphasized earlier) May ask them specifically:

Where in the program are they prepared to become effective instructional leaders?
Where do they learn about effective teaching and curriculum?
Where do they learn how to evaluate and provide feedback to teachers?
Where do they learn how to use data to improve student performance? For planning and problem solving?
Does the program prepare participants to:
Plan for and organize effective professional development? If so, where?
Work with students with diverse learning needs? How? What is the key program feature that allows you to accomplish this?

Work with English language learners, immigrant populations, and special needs children?
Work with diverse populations of staff and teachers? Where is this emphasized?
Engage in self improvement or self reflection? Where?
Engage staff in shared decision making in problem solving? Where? How?
Work with parents from diverse communities? Where?
Work with community members? Where?
Manage change? Where?
Deal with cultural differences?
Make difficult ethical choices? Where?
Manage resources and operations? Where is this emphasized?
Manage human resources? Where?
Deal with federal, state, and local policies? Where in the program does this get emphasized?

Can you describe the field based dimensions of your program? Describe the internship experience.

How is it structured? (How long is placement, where is it, how many hours per week?)
What kinds of experiences are built in? (Administrative? Variety of student populations?)
Do participants have more than one placement?
Who does placement? (The district or the university?)
What are formal commitments and expectations?
How are these placements supervised and evaluated?
How is the experience linked to classroom experiences?
Give an example of an internship that went well. Is this typical?
Are there distinctive aspects of your internship program, as compared to other programs?
How are interns matched with supervisors?
- Are they assigned a formal mentor?
- What are mentors' responsibilities?
- How are mentors selected?
- How is a match made?
- How effective has this been?

How would you characterize faculty relationships with participants? Can you give examples of this?

Does the program do anything to foster relationships among participants?
If it is cohort based, what do they do as a cohort?
How do you cultivate cohesiveness?
What could you do better?
Do you help graduates maintain their network? If so, how?

V. Program and Student Assessment/Improvement and Placement

Program

How is the effectiveness of the program evaluated?

What kinds of data are used to make judgments about program effectiveness? Whether you are meeting program goals? What kinds of analysis are used?
How often are data collected and examined?
Who conducts the evaluation?

Describe the process used to facilitate ongoing program improvement?

How often are course syllabi updated?
Does anyone other than the instructor see/review syllabi to ensure congruence with program goals and professional standards?
How are courses added?
How are courses reviewed?
How are courses revised/improved?

How do faculty get feedback (formal and informal) about what participants are learning and what aspects of program are and are not working well?

How are course evaluations used?
How difficult is it to make changes based on this feedback?
What sort of supports do you get to help improve faculty practice? What sorts of faculty development are available?

Participants

Can you walk us through the process by which participants and their work are assessed throughout the program? (early, mid, end)

What happens when a participant is not progressing well?
What would enable you to catch a student's problems? (PROBE here for assessment processes)
How often do you counsel a student out of the program?
What are some of the reasons that students leave?
What processes do you have in place to support students who are having trouble?

Placement

Tell us about the relationship between the program and participant employment/advancement.

What is done for participants?
How does the program follow up with participants?
Is assistance given in transitioning to leadership positions?
Is there ongoing mentoring/coaching?
Is there ongoing professional development/support?

VI. Context: District and University

State

How have federal, state, or district standards or accountability measures shaped how you prepare/develop principals? In what ways?

Are there specific government policies that support or hinder your principal training/development program (certification, funding, curriculum, assessment, admissions, financial aid, rewards, personnel, reporting processes, accountability measures)? Can you talk about them?

How did these guide program design?
How are these things reflected in the program design and implementation?
How do these standards guide program evaluation and planning?
How do standards guide assessment of candidates?

What linkages does the program have with state or national organizations?

What is the influence of accreditation policies and practices?
What is the impact of NCLB influences?

District

Can you describe the nature of the district/university collaboration?

What type of collaboration do you have with the district(s)?
What is the history of the collaboration? How has it changed over time? Why?
Who does what? How is work and authority divided between the district and the university?
How does the involvement of district influence:

- Teaching?
- Internship?
- Mentoring?
- Governance?

How involved is the district in assessment and improvement? In placement?
Does other professional development by the district have a relationship with this program?

- Induction programs
- Aspiring principal programs?
- Other principal development programs

What are the benefits of the collaboration?
What are the challenges of the collaboration?

School/University

Can you describe the relationship between the program and the rest of the school? (For prep programs only)

What are the ways in which the school of education supports the program?
What are the ways in which the school constrains the program?

What is the reputation of the program?
What is the nature of faculty involvement in the program?
How have policies within the institution been adapted to facilitate the program?

Can you describe the relationship between the program and the university?
What policies or offices support the program (e.g., funding, curriculum, admission, financial aid, acreditation)?
Are there ways in which the university hinders the program?

VII. Final Questions

Overall, what do you think the program is most successful at accomplishing?

Overall, what do you think are the program's area of weakness? Be specific. Examples?

Overall, how well prepared do you think graduates are to assume the role of the principal? What is your evidence for saying this? How do you know?

How can we get in touch with program graduates we've selected to interview?

PROTOCOL FOR PROGRAM FACULTY

Note to interviewer:
1) Make sure all background material has been reviewed prior to interview.
2) First order questions to ask are bold faced, lettered sub-questions can be used as probes.

Suggested key attributes we are looking for:

6. *Coherence*
7. *Standards based/driven*
8. *Dual emphasis on instructional leadership and transformational leadership*
9. *Learning experiences that are transformative*
10. *Inquiry oriented*

I. Background Information

Demographics

Name
Gender
Role/job
What do you teach?
Length of time with the program
Prior experience
Prior educational leadership experience

Warm Up Questions

Why do you think your program was selected for the study?
What distinguishes this from other programs (preparatory or in-service)?
What are the most special things about the program?
What is the thing you are most proud about in your program?

II. History of Program and Recruitment

Describe how the program came into existence.

Why was it started?
When was it started?
Who were the key actors in establishing the program?
What factors influenced the design?

How has the program changed over time?

What caused it to change over time?
What has been the role of the university/college over time?

Are you involved in the recruitment and selection of candidates? If so, what do you and your colleagues look for?

Where do most candidates come from?
How are they recruited? Selected? Interviewed?
What are the program requirements? How are they weighted?
Do you do anything deliberate to increase the diversity of the candidate pool?
Why do candidates choose this program? Who are the competitors? What differentiates this program from others?
What aspects of the admission process concern you or your colleagues?

III. Program Theory and Goals

What are the foundations upon which this program rests?

What are the views of schooling that underlie this program?

Where and how do you see this emphasized in the program?
How is the program designed to do this?

Describe in a few sentences the beliefs about the principalship that undergird this program.

Where and how do you see this emphasized in the program?
How is the program designed to do this?

Describe the views of school improvement that are evident in the program design?

Where and how do you see this emphasized in the program?
How is the program designed to do this?

Describe the views of leadership underlying the program?

Where and how do you see this emphasized in the program?
How is the program designed to do this?

Overall, what are the goals of the program? What is the program trying to prepare participants to do?

Probe for: issues of administration, instructional leadership, change management, social justice, school transformation.
For each area of emphasis, where in the program does this get emphasized?
How do candidates learn this?
To what extent does program faculty share these goals?

Does the program seek to prepare/develop principals for specific types of schools? If yes, what types?

Probe for: grade level, size, urban? low-income? type of community?
Where is this emphasized in the program?

In general, what does the program do most effectively to turn participants into strong school leaders? Are there parts of the experience you believe are transformative? Can you give specific examples?

III. Program Content, Structure, Pedagogies

Note: Prior to site visit, review the program material that has been collected. Fill in as appropriate.

Program Components

What components of the program are most important? Probe for: specific courses, internship. **Why?**

Curriculum

How is curriculum organized (according to courses, units)?
How are courses sequenced and integrated? Why? (What is the rationale for organization?)
How is learning integrated? Note: Look for mechanisms to create continuity and coherence.
How are courses linked to internship experiences? What courses or seminars are designed for candidates to reflect on their internships? Note: Look for mechanisms to help candidates reflect on internship experiences.
Can you help us see how the curriculum connects to the foundations you described earlier?

Do program faculty work together on the curriculum? How?
Are there formal planning sessions or committees?
How do you engage in curriculum development or review?

Instruction

What teaching strategies do you use in the classroom? Note: Probe for examples (portfolios, projects, PBL, lecture, cases, simulations), but don't lead.
Is this typical?
What do your colleagues rely on?
Is there any team teaching?
Have you done any team teaching?

Does the program do anything to foster relationships among participants?
If program is cohort based, what do candidates do as cohort?
How do you cultivate cohesiveness?
What could you do better?
Do you help graduates maintain their network? If so, how?

Fieldwork

Can you describe the field-based dimensions of your program? Can you describe the internship experience?

What are the goals and purposes of the internship?
How is it structured? (How long is placement, where, hrs/wk)
What kinds of experiences are built in? (Administrative? Variety of student populations?)
Do participants have more than one placement?
Who does the placement? (District or university?)
What are the formal commitments and expectations associated with the internship?
How is the internship supervised and evaluated?
How is the internship linked to classroom experiences?
Can you give an example of an internship that went well. Is this typical?
Are there distinctive aspects of the internship program as compared to other programs?
How are interns matched with supervisors?

Are participants formally supervised and/or mentored? How?

Are they assigned a formal mentor?
What are mentors' responsibilities?
How are mentors selected?
How is the match made?
How effective has this been?

How would you characterize your relationship with candidates?

Can you give examples of this?
What can you say about other faculty?

Where in your programs do candidates develop knowledge to be ____ (what they emphasized earlier). May ask them specifically:

Where in the program are they prepared to become effective instructional leaders?
Where do they learn about effective teaching and curriculum?
Where do they learn how to evaluate and provide feedback to teachers?
Where do they learn how to use data to improve student performance? For planning and problem solving?
Does the program prepare participants to plan for and organize effective professional development? If so, where?

Does the program train students to:

- work with students with diverse learning needs? How? What is the key program feature that allows you to accomplish this? (Probe for examples re: English language learners, immigrant populations, special needs children?)
- work with diverse populations of staff and teachers? Where is this emphasized?
- engage in self improvement or self reflection? Where?
- engage staff in shared decision making in problem solving? Where? How?

- work with parents from diverse communities? Where?
- work with community members? Where?
- manage change? Where?
- deal with cultural differences?
- make difficult ethical choices? Where?
- manage resources and operations? Where emphasized?
- manage human resources? Where?
- deal with federal, sate, and local policies? Where in the program does this get emphasized?

V. Program and Candidate Assessment/Improvement and Placement

Program

How is the effectiveness of the program evaluated?

What data are used to make judgments about: Program effectiveness? Whether you are meeting program goals? What kinds of data are used? How are they analyzed?
How often are data collected and examined?
Who conducts the evaluation?

Describe the process used to facilitate ongoing program improvement.

How often are course syllabi updated? Does anyone other than the instructor see/review these to ensure congruence with program goals, professional standards?
How are courses added?
How are courses reviewed? Revised? Improved?

How do you get feedback (formal and informal) about what participants are learning and what aspects of program are and are not working well?

How are course evaluations used?
How difficult is it to make changes based on this feedback?
What sort of supports do you get to help improve students' practice? (Faculty development?)

Candidates

Can you walk us through the process by which candidates and their work are assessed throughout the program? (early, mid, end)

What happens when a participant is not progressing well? What would enable you to catch this? (PROBE here for assessment processes)
How often do you counsel a candidate out of the program? What are some of the reasons?
What processes do you have in place to support candidates who are having trouble?

Placement

Tell us about the relationship between the program and graduate employment.

What is done for candidates seeking employment?
How does the program follow up with graduates?
Is assistance given in transitioning to leadership positions?
Is there ongoing mentoring and coaching?
Is there ongoing professional development?

VI. Context: District and University

Can you describe the nature of the district/university collaboration? (*Ask if relevant)*

What type of collaboration do you have with the district(s) you work with?
What is the history of the collaboration? How has it changed over time? Why?
Who does what? How is work and authority divided between the district and your school?
How does involvement of district influence:

- teaching?
- internship?
- mentoring?
- governance?

How involved is the district in:

- assessment and improvement?
- placement?
- other professional development by the district and its relationship with this program?
- induction programs
- aspiring principal programs?
- other professional development Programs?

What are the challenges associated with the collaboration?

Can you describe the relationship between the program and the rest of the school? (For prep programs only)

What are the ways in which the school of education supports the program?
What are the ways in which the school constrains the program?
What is the reputation of the program?
What is the level of faculty involvement in the program?
How have policies within the institution been adapted to facilitate the program?

Can you describe the relationship between the program and the university?

What policies or offices support the program (e.g., funding, curriculum, admission, financial aid, acreditation)?
Are there ways in which the university hinders the program?

VII. Final Questions

Overall, what do you think the program is most successful at accomplishing?

Overall, what do you think are the program's area of weakness? Be specific. Can you give examples?

Overall, how well prepared do you think graduates are to assume the role of the principal?

What is your evidence of this?
How do you obtain this information?

PROTOCOL FOR DISTRICT STAFF/INSERVICE PROGRAM

I. Background Information

Demographics

Name
Gender
What is your position with the district?
How long have you been in this position?
How long have you been with this district?
What is your role in relation to the program?

Warm-Up
Why do you think this program was selected for the study?
What distinguishes this from other programs (prep or in-service)
What are the most special things about the program?
What is the thing you are most proud about in your program?
Why did this program develop?

II. District as Employer

Do you try to hire graduates of ____? Why or why not?

Do you notice any difference between graduates of ____ and those of other programs from which you recruit administrators?

Compared with graduates of other programs, how well prepared do you think graduates of this program are to work as instructional leaders? In what ways? How can you tell?
How well prepared are graduates of _____ to work with diverse learners (compared to other program grads)? How can you tell?
How well prepared are ____ graduates to build learning communities? How can you tell?
What is your view of these principals' capacity to work with parents and community members?
How well prepared are principals from ____ for the specific challenges of your students and your communities? How can you tell? What evidence convinced you of your view?
What are ___ graduates particularly good at?
Are there areas in which ____ graduates are relatively weak or unprepared?
How selective do you think ___ is in admitting candidates? Do you think they should be more selective or less? Why?
What do you think the program does to help its graduates?
Do you have any other observations about the _____ program?

III. District View of Principalship and Program

"I want to back up and get a slightly broader view of the district and its views on the principalship and then circle back to some similar questions about the ___ program."

What are two or three characteristics of a good principal? What does a good principal need to know and be able to do?

Does this district have explicit standards for what principals should know and be able to do?

- If so, what are they? May we have a copy?
- What criteria are used to evaluate principal performance?
- How well do graduates of this program meet district standards as compared with principals prepared by other programs?

Overall, how would you characterize the goals of ____ program?

What leadership competencies is the program trying to develop?

When you hire/supervise graduates of the _____ program, what do you expect they will believe about education and school leadership?

Do you have a sense of when and how the program teaches the things principals need to do in your district? If so, which components of the program are most powerful? (If they don't know about the details of the program, skip to next question.

Overall, how would you rate this program?

What are the program's strengths?

What do you think are the program's area of weakness? Be specific.

How can the program improve its ability to prepare effective principals?

IV. Program Context and Collaboration

Is the program part of a continuum of professional development?

If it is part of a continuum, describe how the program links to or is aligned with your district's in-service professional development activities.

Are schools led by graduates of this program meeting their accountability targets?

How do they compare to schools led by principals who did not attend this program?

Are graduates of this program any better prepared to turn around low-performing schools? In what ways?

Describe the collaboration.

How, in your view, has the district shaped the program's emphases and design?

Who has been involved with the ___ program? Is there a designated person/liaison?

What is the history of the collaboration between this district and the program?

- Why did it form?
- How has it changed?

Does the district play a role in the selection of candidates? Placement? Internships? Mentoring of candidates?

What are the two or three biggest benefits of the collaboration?
What have been the two or three greatest challenges in sustaining the collaboration?
Where are there areas of disagreement between the school and district? When there are disagreements, how are they resolved?

V. State Context

How have federal or state standards or accountability measures shaped this program?

Are there specific government policies that support or hinder your principal training/development program?

(Probe for: certification, funding, curriculum, assessment, admissions, financial aid, rewards, personnel, reporting processes, accountability measures)?
Can you talk about them?

How did these guide program design?

How are they reflected in program design and implementation?
How do these standards guide program evaluation and planning?
How do standards guide the assessment of candidates?

PROTOCOL FOR DISTRICT STAFF WHO HIRE OR SUPERVISE PRINCIPALS

I. Background Information

Demographics

Name
Gender (FILL IN)
What is your position with the district?
How long have you been in this position?
How long have you been with this district?
What is your role in relation to the program?

Warm-Up

Why do you think this program was selected for the study?
What distinguishes this from other programs (preparatory or in-service)?
What are the most special things about the program?
What is the thing you are most proud about in your program?
Why did this program develop?

II. District as Employer

Do you try to hire graduates of ____? Why or why not?
Do you notice any difference between graduates of ____ and those of other programs that you recruit administrators from?

IF SO, PROBE:

- Compared with graduates of other programs, how well prepared do you think graduates of this program are to work as instructional leaders? In what ways? How can you tell?
- How well prepared are graduates of _____ to work with diverse learners (compared to other program grads)? How can you tell?
- How well prepared are ____ graduates to build learning communities? How can you tell?
- What about these principals' capacity to work with parents and community members?

Probe for other skills: change management, collaborative problem solving, etc.

How well prepared are principals from ____ for the specific challenges of your students and your communities. How can you tell?

- What evidence convinced you of your view?
- What are ___ graduates particularly good at?
- Are there areas where ____ graduates are relatively weak or unprepared?
- How selective do you think ___ is in admitting candidates? Do you think they should be more selective or less? Why?
- What do you think the program does to help its graduates?
- Other observations about _____ program.

III. District View of Principalship and Program

"I want to back up and get a slightly broader view of the district and its views on the principalship and then circle back to some similar questions about ___ program."

What are 2-3 characteristics of a good principal? What does a good principal need to know and be able to do?

Does this district have explicit standards for what principals should know and be able to do?

- If so, what are they? May we have a copy?
- What criteria are used to evaluate principal performance?
- How well do graduates of this program meet district standards as compared with principals prepared by other programs?

Overall, how would you characterize the goals of ____ program?

- What leadership competencies is the program trying to develop?
- When you hire/supervise graduates of that program, what do you expect they will believe about education and school leadership?
- Do you have a sense of when and how the program teaches the things principals need to do in your district? If so, which components of the program are most powerful? (If they don't know about the details of the program, skip to next question.)

Overall, how would you rate this program?

a. What are the program's strengths?
b. What do you think are the program's area of weakness? Be specific.
c. How can the program improve its ability to prepare effective principals?

IV. Program Context and Collaboration

Is the program part of a continuum of professional development? If it is part of a continuum, describe how the program links to or is aligned with your district's in-service professional development activities.

Are schools led by graduates of this program meeting their accountability targets?

- How do they compare to schools led by principals who did not attend this program?
- Are graduates of this program any better prepared to turn around low performing schools? In what ways?

Describe the collaboration.

How, in your view, has the district shaped the program's emphases and design?
Who has been involved with the ___ program? Is there a designated person/liaison?
What is the history of the collaboration between this district and the program?
Why did it form? How has it changed?

Does the district play a role in the selection of candidates? Placement? Internships? Mentoring of candidates?
What are the two or three biggest benefits of the collaboration?
What have been the two or three greatest challenges in sustaining the collaboration?
Where are there areas of disagreement between the school and district? When there are disagreements, how are they resolved?

V. State Context Questions

How have federal or state standards or accountability measures shaped this program?

Are there specific government policies that support or hinder your principal training/development program?

(Probe for: certification, funding, curriculum, assessment, admissions, financial aid, rewards, personnel, reporting processes, accountability measures)?
Can you talk about them?
How did these guide program design?
How reflected in program design and implementation?
How do these standards guide program evaluation and planning?
How do standards guide assessment of candidates?

PROTOCOL FOR PROGRAM PARTICIPANTS/GRADUATES

Note: Bold Face = questions; sub-questions can be used as probes.

I. Background Information

Name
Gender
Current position, if you are employed, or your most recent position before entering the program?
How many years have you taught? been an administrator? where? what kinds of schools?
What program did you attend for your teaching credential? Any other degrees?
What are your career goals?
When did you begin this program? How long have you been in this program? When did you finish?

Why did you choose to attend this program?
- How does this program prepare you for your career goals?
- What are the program's distinguishing features?
- What other programs did you consider? How did they compare? What was the deciding factor that brought you to this program?
- If you did not consider other programs, why not?

While we are visiting this program, what particular courses, activities, or instructors/staff do you recommend that we should see?

II. Program Goals/Theory

Overall, what are the primary goals or emphases of this program?
- What do believe this program is trying to prepare you to be able to do?

What are the views of schooling that underlie this program? How does this get emphasized in the program?

What beliefs and values about school leadership do you think the program is developing in its candidates? How does this get emphasized?

How has the program shaped your own beliefs about education and school leadership? What aspect(s) of the program most influenced your beliefs?

Does the program seek to prepare principals for specific types of schools? If yes, what types?
- Probe for: grade level, size, urban, low-income, recent immigrant, community type?
- Where in the program is this emphasized?

The role and purpose of public education is emphasized differently in various teacher and leadership preparation programs. What does your program stress as the role and purpose of public education?

What is the role of leadership in addressing this purpose? In what way does the program develop your understanding of this purpose(s)? (through coursework, field experiences and related experiences)

III. Program Content, Structure, and Pedagogy

Content and Emphasis

Overall, what does the program do most effectively? What parts of the experience have been transformative for you? For others?

What program components are most important? In other words, what part of the program do you feel are most important to you becoming an effective school leader? Why?

What 2 or 3 courses or learning experiences have been most powerful for you? WHY? What did you learn?
GET SYLLABI AND TRY TO OBSERVE COURSES THAT ARE MENTIONED REPEATEDLY

Where in your programs do you develop knowledge to be ____ (what they emphasized earlier). May ask them specifically:

Where in the program are they prepared to become effective instructional leaders? What is emphasized and where?

- Where do you learn about effective instruction?
- Where do you learn how to evaluate and provide feedback to teachers
- Do you learn how to use data to improve student performance? For planning and problem solving

Does program prepare you to plan for and organize effective professional development? If so, where in the program? Specifically, did the program train you to:

- work with students with diverse learning needs? How? What is the key program feature that allows you to accomplish this? English language learners, immigrant populations, special needs?
- work with diverse populations of staff and teachers? Where emphasized?
- engage in self improvement or self reflection? Where?
- engage staff in shared decision making in problem solving? Where? HOW?
- work with parents from diverse communities? Where?
- work with community members? Where?
- manage change? Where?
- deal with cultural differences?
- to make difficult ethical choices? Where?

- manage resources and operations? Where emphasized?
- manage human resources? Where?
- deal with federal, sate, and local policies? Where in the program does this get emphasized?

Pedagogy and Components

What are the primary teaching methods used most commonly in the program?

What methods facilitated your learning?
What did not?

Have you had an internship experience? Describe it:

- Where?
- When?
- Number of hours and weeks?
- Types of responsibilities and degree of independence?
- Contract?
- Mentor on site?
- Supervision?
- How evaluated?
- Linked to an internship seminar?
- Nature of the internship seminar?

What are you learning / have you learned in your internship experience?

How is this related to program competencies and standards?
How could your internship experience be improved?
Is your coursework connected to the internship? Do they build on one another? How?

In general, is there an effort made to connect theory to practice in your courses? How well is this accomplished?

Is there coherence among your courses?
Do courses build on one another?
Do they seem coordinated or are they fragmented?

Does the program foster relationships among participants in the program?

Does it feel like a cohort?
Between students and program faculty/staff? Between students and the field?
What constructive relationships have you developed in this program, if any?

Were you assigned a mentor and/or supervisor?

How has that shaped your learning?
In what ways has it been helpful?

How might this be structured to be more helpful? (Probe for details about expertise of mentor and university supervisor, time and accessibility, quality of learning opportunities, quality of feedback).

Who knows you best in this program? Who do you go to with a concern or issue? Do you get the help you need?

Is there a faculty member or mentor who has had a particular positive impact on you? Describe.

IV. Assessment

How is your learning and competency assessed in the program?

Course grades? Portfolios? Mid-program and end of program assessments?

Are there ways by which you can figure out how you are progressing toward meeting the standards or goals of the program?

Do you receive regular feedback?
What would happen if you were to have trouble?
Are there supports available?

VI. Post-Program Career Plans

What do you/did you plan to do when you finish(ed) the program?

Return to same district?
Go to a new district?
Advance in your career to a leadership position (_____)?
Continue your education?

IV. Final Questions

What do you see as the major strengths of this program?

Are there aspects of the program that you think could be improved and how?

Overall, how well prepared to you think you will be at the end of the program to lead a school?

Is there anything else you'd like to share about this program its influence on your leadership development?

If you had to do it over again, would you choose the same preparation program?

OBSERVATION PROTOCOL
CLASS OR PROFESSIONAL DEVELOPMENT ACTIVITY

Questions to Guide Observation

1. Describe the physical environment where the activity takes place.
    a. Are there distractions from outside the room?
    b. Is the room adequately supplied (e.g,. are there enough chairs, enough supplies to complete activities, etc.)?
2. Describe the students.
    a. How many students are in the course?
    b. What is the demographic make-up of the class? Does it reflect the profile of the candidates provided by the program coordinator?
3. How are students grouped for learning?
4. Are students engaged in the class?
    a. Are they attentive, participating in discussions, presenting their work, working in small groups, or having side conversations?
    b. Does the instructor encourage participation from all students, or is the class dominated by a few individuals?
5. Does the instructor appear to have students' trust and respect?
    a. Does the instructor respect the students?
    b. If so, how is an atmosphere of trust and respect fostered? (e.g. reflective listening, encouraging students' opinions, allowing students to share their experiences.)
6. Is the learning activity instructor centered or student centered?
7. Is the class team taught? How many instructors teach the course?
8. Are the instructors male or female, white or a minority?
9. Is the instructor a clinical member of the faculty or a professor?
    a. Is there a difference between the instructional practice of clinical faculty vs. the professors? How are they different?
10. What type of learning activities and instruction are evident? (e.g., lecture, students presenting, whole class discussion, small group discussions, group activity)
    a. Were a variety of instructional methods and learning activities evident in this course?
    b. Are the instructors modeling the kinds of instruction the program promotes?
11. Were the learning objectives explicit? How were they accomplished?

Follow-Up Questions for Students

1. When you consider what you need to learn to be an effective principal, how relevant is the subject matter taught in today's class?
    a. Is this level of relevance typical of this course? Of other courses in the program?
2. What were the goals of this class?
    a. What did you learn from this activity? What are the takeaways?

    b. How did this class influence your practice, beliefs, knowledge of the principalship?
    c. How will you apply this learning in your internship?
3. Can you describe the type(s) of instruction modeled in the class? [Can students articulate how the instruction and the activity is aligned with program goals around instruction and learning?]
4. Do you feel encouraged to participate in discussions and activities?
    a. What strategies encourage or discourage participation? (or) "When the professor did _____, were you encouraged to join the discussion?"
5. To what extent is the lesson/activity representative of the course? Of the instruction and learning fostered in the program?

Follow-Up Questions for Instructors

1. What were the goals of this class?
    a. What did you want participants to learn from this activity? What are the takeaways?
2. Can you describe the type(s) of instruction modeled in the class?
3. To what extent is the lesson/activity representative of the course? Of the instruction and learning fostered in the school?

SCHOOL SITE VISIT PROTOCOL

The goal of the school site visit is to get a first-hand record of the principal's practices, the nature of the school environment and teaching practice within the school, and teachers' views of how the principal operates and what changes/improvements are being made in the school.

The school visit includes four parts:

4. Interview with the principal
5. Shadowing the principal
6. Classroom visits
7. Teacher survey

Ideally, teachers will complete the short survey with us while we are on site, or we will make arrangements to have it administered by someone on staff and mailed back to us. Survey administration could happen in a faculty meeting or in some other setting in which teachers are gathered together. It should take 10-15 minutes.

Here is an overview of what will likely occur in the site visit and a list of things to look for and potential questions to ask. Remember to have all respondents fill out permission forms when you are talking to them.

I. Interview with the principal: (30 to 60 minutes, depending on how much conversation has already occurred with the principal beforehand)

Things to ask (see also the program grad/principal's interview protocol for additional questions):

1. How long have you been working in this school? How were you recruited/why did you choose to work in this school?

2. What did you see as the school's strengths and needs when you started working here? What do you see as the school's current strengths and needs?

3. What have you been focusing on in terms of school improvement?

4. What are your goals for the school? (Probe: nature of goals for student learning and achievement, teacher development and practice, parental or community involvement, development of school community)

5. How would you describe your strategy for pursuing these goals? (Probe: look for examples with respect to….) [See more detailed protocol attached for specific questions]
   - teacher hiring, evaluation, and development
   - curriculum development

- development of assessments and uses of assessment data regarding student performance
- community-building strategies
- governance / decision making approaches
- developing (distributed) school leadership
- other?

6. What successes would you point to in terms of your work thus far? (Try to get data on student achievement trends as well as other indicators of school improvement, e.g., reduced turnover of staff, improvements in school climate, etc.)

7. What challenges do you see ahead? How are you trying to approach these?

8. What influence, if any, would you say that [the principal development program] has had on your ability to meet the challenges you've faced as a school principal?

II. Shadow/observe principal: This could be following the principal into classrooms to observe teachers, attending a meeting, or simply shadowing him/her in other interactions with staff or parents (at least 1 hour).

In observing the principal, try to look for the following:

1. How does s/he interact with staff or parents? (Affective style: warm, affectionate, directive, commanding, soliticitous, how much listening, how much speaking?)

2. What is the focus of his/her concerns/interactions? What is s/he striving to accomplish in the interactions?

3. To what extent does s/he seem to accomplish these goals?

Try to debrief with the principal and get his/her views about what s/he was doing and trying to accomplish, what the context was, and what s/he views as the outcome of the interactions.

III. Classroom Visits: (1-2 hours, depending on time available; 15 minutes per classroom.) Within the classrooms look at:

1. What kinds of work are students engaged in? (In addition to what students are doing when you are there, look at what is on the walls as evidence of student work and in folders, notebooks, or portfolios in the room.)

2. What kind of teaching and learning do you see? (lecture, discussion, independent seat work, small group work, project work, writing, problem solving, work sheets?) Are all students engaged? (If not, which ones are engaged and which are not?) What are they engaged in? Is the work intellectually challenging? Does it call for critical thinking and reasoning or lower order skills of recall and recognition? Do students produce authentic

work or fill in worksheets/reply to textbook questions? What are students reading, writing, and producing?

3. How are students organized for instruction? (seats in rows, students work with each other in groups, students respond primarily to teacher, students are engaged in the same tasks at the same time or in different tasks around the room?)

4. What is the climate in the room? (calm, respectful, purposeful, happy, engaged, disorderly, disengaged, conflict-ridden?) How do they interact with one another and the teacher?

5. What are the norms in the room? (In addition to what you see in terms of expectations and interactions, look at and record signs on the walls that convey messages about what students are expected to do both in terms of behavior and intellectually.)

6. How does the teacher work with the whole class and with different students? (Describe teacher explanations/lecture, questioning/discussion techniques, and individualization with particular students if that occurs.)

7. What evidence can you see of student accomplishments or difficulties in learning?

IV. Teacher Interviews and or Focus Group: (Try to talk to five or six teachers while you are in the school, either in individual or paired interviews or a focus group). The goal is to get teachers' views about what the principal is doing and how it is affecting their work and the quality of the school. Here are some potential questions

1. **How long have you been teaching**? How long have you been teaching at this school in particular?

2. What are the **goals of the school**? To what extent would you say the goals of the school reflect what you believe? To what extent are goals agreed upon here?

3. What kinds of **instructional practices** are encouraged in this school? To what extent would you say that these practices are in line with your own goals for your classroom?

4. What **role does the principal have in shaping, articulating and ensuring that the goals of the school are met**? What role do teachers and other staff have?

5. Do you feel like **you are involved in decision-making at the school**? Please explain or provide examples. Do you have opportunities to take leadership in areas that are of importance to you? (Probe for examples) To what extent does your involvement reflect the principal's leadership style?

6. **To what degree to you feel you have a say (or influence) in things that affect your ability to teach?** What are the areas in which your input is sought? What are the things you do not have input in?

7. Are there specific reforms underway in this school or efforts to address specific school needs or challenges? How would you describe these initiatives? Where do they come from? (principal, district, staff?) How do you feel about the initiatives? Are they helpful? Are they working in your view? (Probe for the principal's role; pros and cons)

8. Are there particular programs/policies/practices that you think are **enhancing** or **undermining** teacher quality and teaching quality in this school (possible prompts: state, district and school level?)

9. How would you describe the **principal's leadership style** and goals? How do his or her efforts affect you in your classroom? (Probe for evidence of influence on practice, teaching supports, general satisfaction)

10. What **strengths does your principal bring to the school**? What are some **areas of growth** you could identify in your principal? In your opinion, is your principal well qualified to be a principal? Why or why not? Specifically, in what ways (if at all) does your principal demonstrate s/he is an **instructional leader**? Does s/he demonstrate abilities to lead teachers at your school in quality instruction? If so, what are they?

11. How often did the **principal visit your classroom last year?** What about this year? How would you describe your principal's approach to visiting classrooms and giving feedback? How did this affect you last year or is this affecting you this year? (Prompt: both positively and/or negatively) And your fellow teachers?

12. How does Principal X **marshal resources** to meet his/her goals for the school? (Possible prompts: time, outside money, expertise, others?)

13. Could you describe the kinds of **professional development** you have experienced and/or lead? (Prompt: what has been most valuable, least valuable, and why?) Has the nature of your professional development changed in the past couple of years? If so, how? And, how has this affected you and your teaching practice? What is your impression about **teachers' attitudes and participation** in professional development activities at this school? What is the principal's role in supporting your learning and that of other teachers?

14. How would you **characterize the quality of teaching at this school and within the district**? (Follow-up: What considerations are you keeping in mind as you make your characterization?)

15. Are there any **discussions related to improving the quality of teaching** at this school? If so, among whom and in what settings? (Prompt: How do individuals, small groups, whole-school faculty groups, principals, district personnel, board members, others address issues of instructional quality?)

Additional Questions for Principal's Interview

I. PRINCIPAL'S BACKGROUND AND TRAINING

As an Administrator/Principal

1) What factor(s) **motivated/led you to get your administrative credential**? (Prompt: greater salary? more decision-making authority? opportunity to leave the classroom?)
2) How did you learn or are you **learning how to be a principal**?
3) How would you describe a **typical day for you as principal** at this school?
4) What **kinds of support** have you sought and/or received in your role as principal? (Possible prompts: family, friends, colleagues; Instructional Leader, district principal professional development, informals, reading, study groups, visitations, video-taping, coaching or mentor principal, other networks?)
5) What has been your **greatest professional development** experience as principal? Why was it valuable?
6) What are your **particular skills and knowledge strengths**? **Weaknesses?**
7) Please describe how your experience as a principal has changed over the past few years?

II. PRINCIPAL'S MISSION & GOALS FOR THE SCHOOL

(Includes principal's vision of the school, preference for leadership style, and what s/he is trying to accomplish.)

8) How do you try to **communicate your goals** to others?
9) In what ways does the **school currently reflect your goals**? Please explain.
10) What have **you done, tried to do, or hope to do** that would support your effort to attain the goals of the school? (Possible prompts: school schedule, changes in the budget, changing teacher evaluations, acquiring more grant money for teacher professional development, making decisions about curriculum and instruction?)

III. PRINCIPAL'S VIEWS AND ACTIONS RELATED TO TEACHING AND TEACHERS

1) A. Teaching and Teacher Quality

11) How would you characterize the **quality of instruction** at this school? (Possible prompts: How rigorous is it? How well does it address the needs of the students?)
12) **Consider one or two teachers** whom you think are exceptionally good teachers (you don't have to name them). What characteristics do those individuals have? What strategies do you use to try to develop these abilities in other teachers?

13) How would you **characterize the teachers overall at this school**? (Possible prompt: how does the faculty here compare with the faculty at other schools in your district?)

2) B. Teacher Hiring

14) **How many teachers have you hired this year**? And last year? What **do you do to recruit teachers** to the school, if anything?
15) How **do you determine a teacher's knowledge and skill?** (Answers may include: test scores, reputation of the teacher education program, observation, conversations, interviews, past written evaluations, calls to references. Note: Goal is to find out if and how principals rely on proxies for teacher quality)
16) Are there **any barriers** to your hiring high quality teachers? If so, what are they? What **strategies** have you used in order to ensure you have the best possible teacher candidate pool from which to select teachers?
17) Do **other staff members have a role in** teacher recruitment and hiring? If so, please describe.
18) With which **hiring decisions** at this school have you been especially pleased? And why? Likewise, with which hiring decisions have you been least satisfied? And why?

3) C. Teacher Observations and Evaluation

19) **How much time (roughly) do you spend in classrooms** each week? How many observations do you make each week (formal or informal)? **What motivates you to do classroom observations**? (Prompt: Is it the district mandate? Is it that you enjoy it? Do teachers ask you to come into their classrooms?)
20) How do you organize **support and feedback for teachers** in this school? (probe for peer coaching, professional development, shared planning time, evaluation practices)
21) **What do you look for when you go into classrooms**? **What do you consider as evidence for what you are looking for?** How do you document that? And, how do you communicate your purpose and your observations with teachers?
22) **How did you learn to evaluate teachers? How many teachers did you evaluate this year and last year**? How many teachers have you or others under your direction been providing special assistance to over the last two years? Are there any teachers you have been **documenting** over the past two years? Have these teachers resigned, been reassigned, remained (improved or been given a different teaching assignment)?

IV. PRINCIPAL'S THOUGHTS AND ACTIONS RELATED TO ORGANIZING THE SCHOOL (Includes how the principal and school are marshalling resources to address mission and goals. Specifically includes: time, money, talent, learning opportunities for students and teachers, and decision-making.)

23) **What are some specific things you have tried to do or would like to do to enhance the overall teaching quality at your school?** The following questions probe further on this issue . . . which I will pursue *after* giving principal an opportunity to answer the question on her own terms.
24) **How are teachers assigned** to teach the classes they teach? How are teachers assigned to teams, if applicable? Who are your "best" teachers and what are they teaching?
25) **In what ways do teachers spend time working together?**
26) **How are students assigned to the classes they take**? (e.g., listen for match between teachers and students, retention/social promotion criteria, parent preferences, student choice, teacher recommendation, others?)
27) **How do you attempt to meet students' learning needs across the board**?
28) Take a moment to think about some ***ideal* professional development** opportunities for teachers at your school. What characteristics do those opportunities have? How do you **assess and develop professional development opportunities** for teachers at the school? And, who (else) is **responsible for professional development at your school**? (Prompt: Is there a team of people? One or two people?) To what extent are teachers taking responsibility for their own professional development? What examples do you have of teachers doing this? Could you describe the **nature of professional development** for faculty at your school? How different is this from what has happened in the past? How would you describe the **caliber of the professional development training** provided by **the district** for teachers, peer coaches/staff developers? Principals? Vice-principals? Others? Provided by **the school?** Provided by **other entities?**
29) In what ways does the **school budget** reflect *your* priorities for meeting the school goals, if at all? Please explain.
30) Besides some of the school-level efforts you have mentioned toward enhancing school quality, what **efforts can you identify on the part of the district**, if any, toward enhancing your school's capacity and overall quality? Which of these efforts do you value most and why? What about any **efforts from the state or other organizations**? [possible prompts: this could come from the county offices of education, union organizations, professional associations . . .]

Login: _____

Fill in the entire circle that corresponds to your answer for each question on the survey. Do not use check marks.

1. **What institution sponsored your formal leadership preparation program [the program you completed leading to a credential for the principalship]?** *(fill in one)*

   - O University (name of institution) _____
   - O University/district partnership (name of program) _____
   - O District only (name of district/program) _____
   - O A non-university organization (specify) _____
   - O More than one institution (earned credits from various sources) _____
   - O Other _____
   - O I did not attend a program for formal leadership preparation in order to become a principal

2. **When did you begin the program?**

   _____ (month/year)

3. **When did you finish the program?**

   _____ (month/year)

4. **Were you referred by your school or district to participate in this program?** *(fill in just one)*

   - O Yes, I was formally nominated or recommended to attend the program
   - O Yes, informally someone in my school or district suggested that I go
   - O No, I initiated participation.

5. **How did you pay for your preparation program participation costs (tuition, books, instructional materials?)**

   - O I incurred no costs related to my professional development activities.
   - O I paid for all of it myself.
   - O I paid part of the costs, but another party paid part (whether through reimbursement, subsidy, stipend, or direct payment). Estimated percentage of total costs paid by me: _____.
   - O If the costs were shared, who contributed to covering the costs? *(fill in all that apply)*
     - O **District.** Estimate percentage paid: _____.
     - O **State.** Name of program/department: _____. Estimate percentage paid: _____.
     - O **Foundation or business grant.** Estimate percentage paid: _____.
     - O **University scholarship.** Estimate percentage paid: _____.
     - O **Other** _____. Estimate percentage paid: _____.
   - O My costs were tax deductible

6. **Using the following scale, indicate how effectively the school principal performs each of the following at your current school?** (*Mark one answer for each item*)	Not at All		Some-what		To a Great Extent
	1	**2**	**3**	**4**	**5**
a. The program content emphasized instructional leadership	O	O	O	O	O
b. The program content emphasized leadership for school improvement	O	O	O	O	O
c. The program content emphasized managing school operations efficiently	O	O	O	O	O
d. The program content emphasized working with the school community and stakeholders	O	O	O	O	O
e. The course work was comprehensive and provided a coherent learning experience	O	O	O	O	O
f. I was in a student cohort-- a defined group of individuals who began the program together and stayed together throughout their courses	O	O	O	O	O
g. Practicing school or district administrators taught in the program	O	O	O	O	O
h. The program provided many opportunities for self-assessment as a leader	O	O	O	O	O
i. I was often asked to reflect on practice and analyze how to improve it	O	O	O	O	O
j. The program provided regular assessments of my skill development and leadership competencies.	O	O	O	O	O
k. The program integrated theory and practice	O	O	O	O	O
l. The faculty members were very knowledgeable about their subject matter	O	O	O	O	O
m. The program gave me a strong orientation to the principalship as a career	O	O	O	O	O
n. The faculty provided many opportunities to evaluate the program	O	O	O	O	O

7. To what extent were the following learning practices/ instructional strategies parts of your coursework?	Not at All 1	2	Some-what 3	4	To a Great Extent 5
a. Field-based projects in which you applied ideas in the field	O	O	O	O	O
b. Linkages between coursework and your internship or other field based experience	O	O	O	O	O
c. Use of problem-based learning approaches	O	O	O	O	O
d. Action research or inquiry projects	O	O	O	O	O
e. Journal writing of your experiences	O	O	O	O	O
f. Analysis and discussion of case studies	O	O	O	O	O
g. Lectures	O	O	O	O	O
h. Participation in small group work	O	O	O	O	O
i. A portfolio demonstrating my learning and accomplishments	O	O	O	O	O

8a. Did you have a supervised internship experience working directly with a principal on administrative tasks?

O Yes [Skip to question 9] O No [Answer question 8b]

8b. If no, did you have another kind of supervised educational leadership internship experience?

O No O Yes, *if yes, please describe briefly* _____

9a. How many building-level internships did you have? _____

9b. Did you have a mentor at your internship site(s)? *(fill in all that apply)*

O No, I did not have a mentor at any internship site [Skip to question 10]

O Yes, the principal served as my mentor

O Yes, someone else served as my mentor (specify role) _____

9c. Did your mentor work with you regularly, offering advice, modeling and feedback?

O No, my mentor was rarely available to work with me directly on my personal development

O Yes, a mentor was available to work with me regularly in at least one of my internship sites

10a. How many weeks was your internship/field experience? (Please give total number of weeks if you had more than one internship or field experience.) _____

10b. How many hours TOTAL was your internship/field experience? _____

11. Was your internship/field experience in the same school where you were teaching? *(fill in all that apply)*

- O Yes, at least one internship in the school where I was teaching.
- O No, my internship(s) occurred in a different school.
- O Not applicable. I do not teach.

12. How did you manage the time needed for your educational leadership internship/field experience?

- O My full-time position was my internship; I did not teach or hold another job at the same time.
- O I had some release time from my teaching to carry out my internship.
- O I carried a full teaching load and did my internship work during non-teaching time during the school year.
- O I did my internship work during the summer and was not teaching at the time.
- O Other (specify)_____

13. To what extent did your educational leadership internship experience(s) reflect the following attributes? *(select one answer for each item below)*

		Not at All 1	2	Some-what 3	4	To a Great Extent 5
a.	I worked in one or more schools serving students with a variety of socioeconomic backgrounds.	O	O	O	O	O
b.	I was closely supervised and assisted by knowledgeable school leaders.	O	O	O	O	O
c.	I had responsibilities for leading, facilitating, and making decisions typical of an educational leader.	O	O	O	O	O
d.	My internship achievements were regularly evaluated by program faculty.	O	O	O	O	O
e.	I was able to develop an educational leader's perspective on school improvement.	O	O	O	O	O
f.	My internship experience was an excellent learning experience for becoming a principal.	O	O	O	O	O

14. **How effectively did your formal leadership program prepare you to do the following?** *(select one answer for each item below)*	Not at All 1	Poorly 2	To Some Extent 3	Well 4	Very Well 5
a. Understand how different students learn and how to teach them successfully	O	O	O	O	O
b. Create a coherent educational program across the school	O	O	O	O	O
c. Evaluate curriculum materials for their usefulness in supporting learning	O	O	O	O	O
d. Design professional development that builds teachers' knowledge and skills	O	O	O	O	O
e. Evaluate teachers and provide instructional feedback to support their improvement	O	O	O	O	O
f. Handle discipline and support services	O	O	O	O	O
g. Develop broad agreement among staff about the school's mission	O	O	O	O	O
h. Create a collaborative learning organization	O	O	O	O	O
i. Find and allocate resources to pursue important school goals	O	O	O	O	O
j. Analyze budgets and reallocate resources to achieve critical objectives	O	O	O	O	O
k. Create and maintain an orderly, purposeful learning environment	O	O	O	O	O
l. Manage facilities and their maintenance	O	O	O	O	O
m. Mobilize the school staff to foster social justice in serving all students	O	O	O	O	O
n. Work with parents to support students' learning	O	O	O	O	O
o. Use data to monitor school progress, identify problems and propose solutions	O	O	O	O	O
p. Engage staff in a decision making process about school curriculum and policies	O	O	O	O	O
q. Lead a well-informed, planned change process for a school	O	O	O	O	O
r. Engage in comprehensive planning for school improvement	O	O	O	O	O
s. Redesign school organizations to enhance productive teaching and learning	O	O	O	O	O
t. Use effective written and communication skills, particularly in public forums	O	O	O	O	O
u. Collaborate with others outside the school for assistance and partnership	O	O	O	O	O
v. Engage in self-improvement and continuous learning	O	O	O	O	O
w. Develop a clear set of ethical principles to guide decision making	O	O	O	O	O

15. Prior to enrolling in the leadership preparation program, what were your intentions to become a principal? *(fill in one)*

- O I intended to go into the principalship as soon as possible.
- O I thought I might go into the principalship someday.
- O I was undecided about the principalship.
- O I had few if any plans for going into the principalship.
- O I was already a principal when I enrolled in the program.

16. What were/are your plans for going into the principalship? *(fill in all that apply)*

- O I have become a principal since enrolling in the program
- O I was already a principal when I enrolled in the program
- O I intend to go into the principalship as soon as possible
- O I think I may go into the principalship someday
- O I am undecided about the principalship
- O I have NO plans of going into the principalship

17. If you had the opportunity to do it over again, would you choose the same program?

- O Definitely Yes
- O Probably Yes
- O Not Sure
- O Probably Not
- O Definitely Not

18. I believe being a principal can (or does): *(select one answer for each item below)*	Strongly Disagree **1**	Disagree **2**	Neutral **3**	Agree **4**	Strongly Agree **5**
a. Make a difference in the lives of students and staff	O	O	O	O	O
b. Provide opportunities for professional growth	O	O	O	O	O
c. Enable me to develop relationships with others inside and outside the school	O	O	O	O	O
d. Enable me to influence school change	O	O	O	O	O
e. Require very long work hours	O	O	O	O	O
f. Have too many responsibilities	O	O	O	O	O
g. Decrease my opportunity to work directly with children	O	O	O	O	O
h. Create a lot of stress	O	O	O	O	O

19. How many years of elementary and/or secondary teaching experience have you had? _____

20. What subject areas and grade levels have you taught? *(fill in all that apply)*

- O Elementary school
- O Middle school
- O Secondary school
- O Special Education (K-12)
- O Math or science
- O English / language arts
- O Social Science
- O Foreign language
- O Vocational technology
- O Physical education/ Health
- O Other, specify _____
- O None, I have not taught [Go to #21]

21. If you never taught, what was your prior employment before entering the program or the principalship?

- O A position in K-12 education (specify)_____
- O A job outside of K-12 education (specify field and position)_____

22. Have you held any of the following school positions? (*include temporary positions*) *(fill in all that apply)*

- O Department head
- O Curriculum specialist or coordinator
- O Assistant principal or program director
- O Guidance counselor
- O Athletic coach or director
- O Sponsor for student clubs, debate teams
- O Literacy or math coach
- O Person in charge of/responsible for school-wide functions
- O Grade level or subject area team leader/chair person
- O Member of a shared-decision making/school based leadership team or committee

23. How many years in total have you worked in any certified educational leadership positions? _____

24. INCLUDING this school year, how may years have you served as a principal of ANY school? _____

25. What certification for the principalship do you hold?

- O Initial/provisional/probationary certification (the credential for the principalship granted in your state following initial preparation that is held during an initial probationary period)
- O An alternative certification issued to allow employment as an administrator while you are in a preparation program
- O Permanent or professional certification (the highest standard credential for the principalship granted in your state)
- O Other administrative certification (specify_____)
- O I do not hold a certification for the principalship

26. What graduate degree, if any, did you earn as part of your formal leadership preparation?

O Master's degree (MA, MS)
O Masters of Education (M. Ed.)
O Specialists degree
O Doctorate (Ed.D. Or PhD)
O No degree

27a. Did you take a state test after completing your leadership preparation program?

O Yes O No

27b. How many times did you take the test before successful completion?

O Passed after _____ times
O Have not passed test

28. What is your gender?

O Male O Female

29. Are you of Hispanic or Latino origin?

O Yes O No

30. How do you identify yourself in terms of race/ethnicity?

O White
O Black or African American
O Asian
O Native Hawaiian or Other Pacific Islander
O American Indian or Alaska Native
O Other: _____

31. What is your year of birth? _____

IF YOU ARE SERVING OR HAVE SERVED AS A PRINCIPAL WITHIN THE LAST YEAR, PLEASE ANSWER THE REMAINING QUESTIONS. IF YOU HAVE NOT SERVED AS A PRINCIPAL WITHIN THE PAST YEAR, STOP HERE AND RETURN THIS SURVEY IN THE ENCLOSED SELF-ADDRESSED ENVELOPE. THANK YOU!

PLEASE ANSWER THE FOLLOWING QUESTIONS WITH RESPECT TO THE SCHOOL WHERE YOU CURRENTLY SERVE OR HAVE SERVED AS PRINCIPAL WITHIN THE PAST YEAR.

32. INCLUDING this school year, how many years have you served as the principal of THIS school? _____

33. What best describes the location of your school?

O Urban O Small City O Suburban O Small town O Rural

34. What grades does your school include? *(fill in all that apply)*

O Pre-K	O 3	O 7	O 11
O K	O 4	O 8	O 12
O 1	O 5	O 9	O Other _____
O 2	O 6	O 10	

35a. How many students are in your school? _____

35b. What percent of students are classified as racial/ethnic "minority" students? _____

35c. What percentage of your students are eligible for free or reduced-price lunch? _____

36a. How many teachers are in your school? _____

36b. How many teachers LEFT your school within the last year? _____

37a. How many teachers were NEW to your school last year (2003-04)? _____

37b. Of the teachers who were NEW to your school last year, how many are STILL teaching in your school this year? _____

38. How many total hours do you spend on ALL school-related activities for this school during a typical week? Include hours spent working during the school day, before school, after school and on weekends. _____

39. In the last month, approximately how often did you engage in the following activities in your role as principal of this school?		Never	Once or Twice a Month	Once or Twice a Week	Daily
		1	2	3	4
a.	Facilitate student learning (e.g. eliminate barriers to student learning; establish high expectations for students)	O	O	O	O
b.	Facilitate student learning (e.g. eliminate barriers to student learning; establish high expectations for students)	O	O	O	O
c.	Build professional learning community among faculty and other staff	O	O	O	O
d.	Maintain the physical security of students, faculty and other staff	O	O	O	O
e.	Manage the school facilities, resources, procedures (e.g. maintenance, budget, schedule)	O	O	O	O
f.	Attend district level meetings and carry out district-level responsibilities	O	O	O	O
g.	Foster teacher professional development for instructional knowledge and skills	O	O	O	O
h.	Evaluate and provide instructional feedback to teachers	O	O	O	O
i.	Use data to monitor school progress, identify problems and propose solutions	O	O	O	O
j.	Work with outside agencies and individuals for school assistance and partnership	O	O	O	O
k.	Work with parents on students' problems or learning needs.	O	O	O	O
l.	Meet with parents and the community about other school matters.	O	O	O	O
m.	Work with teaching staff to solve school or department problems	O	O	O	O
n.	Work with teachers to change teaching methods where students are not succeeding	O	O	O	O
o.	Develop and enforce school rules with students and staff	O	O	O	O
p.	Work with faculty to develop goals for their practice & professional learning	O	O	O	O

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40. **Please indicate the extent to which you feel each statement describes your school.**	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
a. Teachers in this school feel responsible to help each other do their best	O	O	O	O	O
b. Teachers in this school are continually learning and seeking new ideas	O	O	O	O	O
c. Teachers use time together to discuss teaching and learning	O	O	O	O	O
d. Students work hard in this school	O	O	O	O	O
e. Students are aware of the learning expectations in this school	O	O	O	O	O
f. This school has consistent standards from classroom to classroom	O	O	O	O	O
g. Teachers take an active role in school-wide decision making	O	O	O	O	O
h. The faculty has an effective process for making group decisions and solving problems	O	O	O	O	O
i. In this school we take steps to solve problems, we don't just talk about them.	O	O	O	O	O
j. Assessments of student performance lead to changes in this school's curriculum	O	O	O	O	O
k. Teachers collect and use data to improve their teaching	O	O	O	O	O
l. This school has developed effective strategies for involving parents in children's education	O	O	O	O	O
m. This school has useful partnerships with outside agencies and groups in the community that support its improvement effort	O	O	O	O	O
n. People who take the initiative are appreciated.	O	O	O	O	O
o. Good practices are shared across classrooms.	O	O	O	O	O
p. Many special programs and projects come and go in this school	O	O	O	O	O
q. There is a clear sense of purpose in the school about what we want our students to accomplish	O	O	O	O	O
r. All students have access to expert teaching and high-quality curriculum.	O	O	O	O	O
s. Once we start a new program, we follow up to make sure that it's working	O	O	O	O	O
t. Curriculum, instruction, and learning materials are well coordinated across the different grade levels at this school	O	O	O	O	O
u. Teachers strongly support the changes we have undertaken at this school.	O	O	O	O	O
v. Students who struggle or fall behind get needed support.	O	O	O	O	O
w. Teachers believe the school is getting stronger academically	O	O	O	O	O
x. The school has a well developed process for facilitating ongoing schoolwide improvement and long range planning.	O	O	O	O	O

41. **How effectively did your formal leadership program prepare you to do the following?** *(select one answer for each item below)*	Much Less 1	Some-what Less 2	No Change 3	Some-what More 4	No Change 5
a. Consensus among staff about the school's goals	O	O	O	O	O
b. Collaboration among teachers in making curriculum and instructional decisions	O	O	O	O	O
c. Focus by teachers on improving and expanding their instructional strategies	O	O	O	O	O
d. Job satisfaction experienced by staff	O	O	O	O	O
e. Staff sensitivity to student needs	O	O	O	O	O
f. Use of performance assessments and exhibitions of student learning	O	O	O	O	O
g. Opportunities for teachers' professional growth	O	O	O	O	O
h. Staff recognition for a job well done.	O	O	O	O	O
i. Emphasis on student discipline and enforcing consequences for misbehavior	O	O	O	O	O
j. Use of student performance data for instructional improvement	O	O	O	O	O
k. Coordination of curricular and instructional materials among regular and special programs/classrooms	O	O	O	O	O
l. Confidence in the value of our work.	O	O	O	O	O
m. Attention to the needs of low-performing students	O	O	O	O	O
n. Efforts among teachers to share practices with each other.	O	O	O	O	O
o. Involvement of parents and families in school decision making and student learning	O	O	O	O	O

42. To what extent is each of the following a problem in this school? *(mark each line)*	Not a Problem 1	2	Some-what a problem 3	4	A Serious Problem 5
a. Lack of parental involvement	O	O	O	O	O
b. Teacher turnover	O	O	O	O	O
c. Student absenteeism	O	O	O	O	O
d. Students come to school unprepared to learn	O	O	O	O	O
e. Teacher absenteeism	O	O	O	O	O
f. Physical conflicts among students	O	O	O	O	O
g. Robbery or theft	O	O	O	O	O
h. Student class cutting	O	O	O	O	O
i. Students dropping out	O	O	O	O	O
j. Verbal abuse of teachers	O	O	O	O	O
k. Low teacher expectations of students	O	O	O	O	O

43. Please indicate how strongly you agree or disagree with the following statements regarding your district.	Strongly Disagree 1	Disagree 2	Agree 3	Strongly Agree 4
a. Often I find it difficult to agree with the district's policies on important matters relating to teachers	O	O	O	O
b. The district's expectations are too high for our school.	O	O	O	O
c. The district supports my school's efforts to improve	O	O	O	O
d. The district promotes my professional development	O	O	O	O
e. The district encourages principals to take risks in order to make change	O	O	O	O
f. The district helps me promote and nurture a focus on teaching and learning	O	O	O	O

44. Please indicate the extent to which you agree or disagree with each of the following statements about the principalship.	Strongly Disagree 1	Disagree 2	Agree 3	Strongly Agree 4
a. The stress and disappointments involved in serving as principal of this school aren't really worth it	O	O	O	O
b. If I could get a higher paying job, I'd leave education as soon as possible	O	O	O	O
c. I plan to remain principal of this school as long as I am able	O	O	O	O
d. I think about transferring to another school	O	O	O	O
e. I plan to remain a principal until I retire	O	O	O	O
f. I will continue being a principal until something better comes along	O	O	O	O

45. In the past 12 months, how often have you participated in the following kinds of professional development? (mark each row in the left hand column). For each kind of professional development, please rate how helpful it was to you in improving your practice. (1= not at all helpful . . . 5=extremely helpful)

Not at All 1	Once or Twice 2	Three Times or More 3	Kinds of professional development	Not at all Helpful 1	2	Some-what helpful 3	4	Extremely Helpful 5
O	O	O	University course(s) related to your role as principal	O	O	O	O	O
O	O	O	Visits to other schools designed to improve your own work as principal	O	O	O	O	O
O	O	O	Individual or collaborative research on a topic of interest to you professionally	O	O	O	O	O
O	O	O	Mentoring or coaching by an experienced principal, as part of a formal arrangement that is supported by the school or district	O	O	O	O	O
O	O	O	Peer observation / coaching in which you have an opportunity to visit with other principal(s) for sharing practice	O	O	O	O	O
O	O	O	Participating in a principal network (e.g. a group of principals organized by your district, an outside agency, or on-line)	O	O	O	O	O
O	O	O	Workshops, conferences, or training in which you were a presenter	O	O	O	O	O
O	O	O	Other workshops or conferences in which you were not a presenter	O	O	O	O	O
O	O	O	Reading professional books or articles.	O	O	O	O	O

46. In the past 12 months, how often have you participated in professional development activities WITH TEACHERS from THIS school?

O Never O Once or twice O 3-5 times O 6 or more times

47. In the past 12 months, what motivated you to participate in professional development activities? *(fill in all that apply)*

- O State re-certification requirements.
- O District policy
- O Personal interest in topic covered by activity
- O Advancement on district payscale
- O Promotion to another position as school administrator
- O Other: _____

48. In the past 12 months, how did you pay for your <u>in-service professional development</u> costs (tuition, books, instructional materials?)

- O I incurred no costs related to my professional development activities.
- O I paid for all of it myself.
- O I paid part of the costs, but another party paid part (whether through reimbursement, subsidy, stipend, or direct payment). Estimated percentage of total costs paid by me: _____.
- O If the costs were shared, who contributed to covering the costs? *(fill in all that apply)*
  - O **District.** Estimate percentage paid: _____.
  - O **State.** Name of program/department: _____. Estimate percentage paid: _____.
  - O **Foundation or business grant.** Estimate percentage paid: _____.
  - O **University scholarship.** Estimate percentage paid: _____.
  - O **Other** _____. Estimate percentage paid: _____.
- O My costs were tax deductible

Fill in the entire circle that corresponds to your answer for each question on the survey. Do not use check marks.

PART I: YOUR TEACHING BACKGROUND

1. **INCLUDING THIS YEAR, how many years have you been teaching at this school?** _____
2. **INCLUDING THIS YEAR, how many TOTAL years have you taught elementary or secondary education?** _____

3. **What subject(s) do you currently teach?** *(Mark all that apply)*

- O Elementary school
- O Middle school
- O Secondary school
- O Special Education (K-12)
- O Math or science
- O English / language arts
- O Social Science
- O Foreign language
- O Vocational or technology
- O Physical education/ Health
- O Other, specify _____

4. **What kind of teaching credential do you hold in your main assignment area?** *(Mark one)*

- O Standard, professional credential awarded by your state when all requirements for a credential have been met
- O Probationary or provisional credential awarded AFTER completion of teacher education and while a probationary period is underway
- O Temporary or provisional credential awarded WHILE teacher education or testing requirements are still being completed. [This category also includes alternative certification programs that award an internship credential]
- O Emergency permit or waiver awarded BEFORE teacher education requirements have been undertaken
- O No credential

5. **What is the highest degree you have earned?** (*Mark one)*

- O Masters degree in education
- O Masters degree in something other than education (specify) _____
- O Education specialist or professional diploma (at least one year beyond master's level)
- O Doctorate (EdD or PhD)
- O Other (specify) _____

6. **In the past 12 months have you participated in the following activities RELATED TO TEACHING?** *(Mark one for each line)*	Yes	No
a. University courses for recertification or advanced certification in your main teaching assignment field or other teaching field	O	O
b. Observational visits to other schools	O	O
c. Individual or collaborative research on a topic of interest to you professionally	O	O
d. Regularly-scheduled collaboration with other teachers on issues of instruction (excluding administrative meetings)	O	O
e. Mentoring and/or peer observation and coaching, as part of a formal arrangement that is recognized or supported by the school or district.	O	O
f. Attending workshops, conference, or training	O	O

PART II: YOUR SCHOOL ENVIRONMENT

7. **Using a scale of 1-5, where 1 means "no influence" and 5 means "a great deal of influence," how much actual influence do you think teachers have over school policy AT THIS SCHOOL in each of the following areas?** *(Mark one for each item)*	No Influence		Some Influence		A great deal of Influence
	1	**2**	**3**	**4**	**5**
a. Setting performance standards for students of this school	O	O	O	O	O
b. Establishing curriculum	O	O	O	O	O
c. Determining the content of in-service professional development programs	O	O	O	O	O
d. Evaluating teachers	O	O	O	O	O
e. Hiring new full-time teachers	O	O	O	O	O
f. Setting discipline policy	O	O	O	O	O
g. Deciding how the school budget will be spent	O	O	O	O	O

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8. **To what extent do you agree or disagree with each of the following statements?** (*Mark one answer for each item*)	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
a. The principal lets staff members know what is expected of them	O	O	O	O	O
b. The school administration's behavior toward the staff is supportive and encouraging	O	O	O	O	O
c. The level of student misbehavior in this school (such as noise, horseplay or fighting in the halls, cafeteria or student lounge) interferes with my teaching	O	O	O	O	O
d. I receive a great deal of support from parents for the work I do	O	O	O	O	O
e. Necessary materials such as textbooks, supplies, and copy machines are available as needed by staff	O	O	O	O	O
f. Routine duties and paperwork interfere with my job of teaching	O	O	O	O	O
g. My principal enforces school rules for student conduct and backs me up when I need it	O	O	O	O	O
h. The principal talks to me frequently about my instructional practices.	O	O	O	O	O
i. Most of my colleagues share my beliefs and values about what the central mission of the school should be	O	O	O	O	O
j. The principal knows what kind of school he/she wants and has communicated it to the staff	O	O	O	O	O
k. There is a great deal of cooperative effort among the staff members	O	O	O	O	O
l. In this school, staff members are recognized for a job well done	O	O	O	O	O
m. Teachers in this school are committed to improving student achievement	O	O	O	O	O
n. Students are well aware of the learning expectations of this school	O	O	O	O	O
o. Teachers provide a high quality of instruction	O	O	O	O	O
p. Students work hard in this school	O	O	O	O	O
q. I am given the support I need to teach students with special needs	O	O	O	O	O
r. I make a conscious effort to coordinate the content of my courses with that of other teachers	O	O	O	O	O
s. The amount of student tardiness and class cutting in this school interferes with my teaching	O	O	O	O	O
t. I sometimes feel it is a waste of time to try to do my best as a teacher	O	O	O	O	O
u. I am generally satisfied with being a teacher at this school	O	O	O	O	O

9. **Using the following scale, indicate how effectively the school principal performs each of the following at your current school?** (*Mark one answer for each item*)	Not at All Effectively 1	Slightly Effectively 2	Somewhat Effectively 3	Very Effectively 4	Extremely Effectively 5
a. Communicates respect and value of teachers	O	O	O	O	O
b. Encourages teacher to change teaching methods if students are not doing well	O	O	O	O	O
c. Works with staff to develop and attain curriculum standards	O	O	O	O	O
d. Encourages professional collaboration among teachers	O	O	O	O	O
e. Works with teaching staff to solve school or department problems	O	O	O	O	O
f. Encourages the teaching staff to use student evaluation results in planning curriculum and instruction	O	O	O	O	O
g. Develops broad agreement among the teaching staff about the school's or department's mission	O	O	O	O	O
h. Facilitates and encourages professional development activities of teachers	O	O	O	O	O
i. Sets a respectful tone for interaction with students	O	O	O	O	O
j. Demonstrates a willingness to change own practices in light of new understandings	O	O	O	O	O
k. Promotes an atmosphere of caring and trust among staff	O	O	O	O	O
l. Distributes leadership broadly among the staff	O	O	O	O	O
m. Takes my opinion into consideration when initiating actions that affect my work	O	O	O	O	O
n. Is aware of my unique needs and expertise	O	O	O	O	O
o. Is inclusive, does not show favoritism toward individuals or groups	O	O	O	O	O
p. Is a source of new ideas for my professional learning	O	O	O	O	O
q. Stimulates me to think about what I am doing for my students	O	O	O	O	O
r. Encourages me to pursue my own goals for professional learning	O	O	O	O	O
s. Encourages us to develop/review professional goals consistent with school goals.	O	O	O	O	O
t. Expects us to be effective innovators	O	O	O	O	O
u. Helps clarify the practical implications of the school's mission	O	O	O	O	O
v. Works toward whole staff consensus in establishing priorities for school goals	O	O	O	O	O

10. **This question concerns how teachers interact with each other in your school. Please indicate the frequency with which you do each of the following.** (*Mark one answer for each item*)	Never 1	Once in a While 2	Monthly 3	Weekly 4	Almost Daily 5
a. Share ideas on teaching with other teachers	O	O	O	O	O
b. Observe another teacher teaching	O	O	O	O	O
c. Be observed by another teacher	O	O	O	O	O
d. Teach with a colleague	O	O	O	O	O
e. Discuss with others teachers what you/they learned at a workshop or conference	O	O	O	O	O
f. Share and discuss student work with other teachers	O	O	O	O	O
g. Discuss particular lessons that were not very successful	O	O	O	O	O
h. Discuss beliefs about teaching and learning	O	O	O	O	O
i. Discuss how to help students having problems	O	O	O	O	O
j. Meet to discuss common challenges in the classroom	O	O	O	O	O
k. Work together to develop teaching materials or activities for particular classes	O	O	O	O	O

11. **To what extent do you agree or disagree with each of the following statements.** (*Mark one answer for each item*)	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
a. You can see real continuity from one program to another in this school	O	O	O	O	O
b. Many special programs come and go in this school.	O	O	O	O	O
c. Once we start a new program, we follow up to make sure that it's working	O	O	O	O	O
d. Curriculum, instruction, and learning materials are well coordinated across the different grade levels at this school	O	O	O	O	O
e. Most changes introduced at this school have little relation to teachers' and students' real needs and interests	O	O	O	O	O
f. My principal gets me to do more than I expected to do	O	O	O	O	O
g. My principal increases my willingness to try harder	O	O	O	O	O
h. My principal heightens my desire to succeed	O	O	O	O	O
i. In my school, people give open and honest feedback to each other	O	O	O	O	O
j. My school supports staff who take calculated risks	O	O	O	O	O

12. **Over the last year, to what extent do you believe there has been an increase or decrease in the following in your school:** (*Mark one answer for each item*)	Much Less 1	Somewhat Less 2	No Change 3	Somewhat More 4	Much More 5
a. Consensus among staff about the school's goals	O	O	O	O	O
b. Collaboration among teachers in making curriculum and instructional decisions	O	O	O	O	O
c. Focus by teachers on improving and expanding their instructional strategies	O	O	O	O	O
d. Job satisfaction experienced by staff	O	O	O	O	O
e. Staff sensitivity to student needs	O	O	O	O	O
f. Use of performance assessments and exhibitions of student learning	O	O	O	O	O
g. Opportunities for teachers' professional growth	O	O	O	O	O
h. Staff recognition for a job well done.	O	O	O	O	O
i. Emphasis on student discipline and enforcing consequences for misbehavior	O	O	O	O	O
j. Use of student performance data for instructional improvement	O	O	O	O	O
k. Coordination of curricular and instructional materials among regular and special programs / classrooms	O	O	O	O	O
l. Confidence in the value of our work.	O	O	O	O	O
m. Attention to the needs of low-performing students	O	O	O	O	O
n. Efforts among teachers to share practices with each other	O	O	O	O	O
o. Involvement of parents and families in school decision making and student learning	O	O	O	O	O

13. Within the last year, what impact if any, has the school's approach to school improvement had on each of the following aspects of your work? (*Mark one answer for each item*)	No Impact 1	2	Some Impact 3	4	A great deal of Impact 5
a. The effectiveness of your teaching	O	O	O	O	O
b. The quality of the curriculum	O	O	O	O	O
c. The engagement of your students	O	O	O	O	O
d. Your opportunities for professional growth	O	O	O	O	O
e. Sense of community in the school	O	O	O	O	O
f. Your commitment to the school	O	O	O	O	O
g. Your workload	O	O	O	O	O
h. The quality of student academic performance	O	O	O	O	O
i. The school's relations with parents	O	O	O	O	O
j. Equitable treatment of students	O	O	O	O	O
k. Race, ethnic, and cultural relations among students	O	O	O	O	O
l. Culture of the school	O	O	O	O	O

PART III: YOUR PERSONALBACKGROUND AND PLANS

14. What is your gender? O Male O Female

15. Are you of Hispanic or Latino origin? O Yes O No

16. How do you identify yourself in terms of race/ethnicity?

- O White
- O Black or African American
- O Asian
- O Native Hawaiian or Other Pacific Islander
- O American Indian or Alaska Native
- O Other: _____

17. What is your year of birth? _____

18. How long do you plan to remain in teaching?

- O As long as I am able
- O Until I am eligible for retirement
- O Will probably continue unless something better comes along
- O Definitely plan to leave teaching as soon as I can
- O Undecided at this time

19. Five years from now, I plan to be:

- O Teaching at this school
- O Teaching at another school in the same district
- O Teaching in another district
- O Working in a non-teaching educational position, here or elsewhere
- O Working in a non-educational position, here or elsewhere
- O Retired:
- O Other: _____

***THANKS** FOR YOUR TIME AND ATTENTION TO THIS WORK*

Appendix C: Instrumentation for Study of Costs of Principal Professional Development Programs

To make informed decisions about financing and operating professional development programs for principals, policymakers and program leaders need easy-to-use, adaptable tools to analyze programs' costs. They need comprehensive information that goes beyond a line item in a budget. They need detailed analysis of how much it costs to deliver and operate a principal professional development program, what types of resources are needed, and what individuals and organizations are expected to provide those resources.

Such comprehensive information on cost may be of interest to several groups, including:

- policymakers who are considering implementing a professional development program and need a sense of the resource requirements to make decisions about the feasibility of such a program;
- universities and districts that are currently implementing principal preparation and development programs and need information about resources for planning and sustainability purposes;
- state and district policymakers who are interested in supporting aspiring and developing principals; and
- aspiring or current principals who are anticipating participating in a preparation or development program and who want a sense of the time and resources needed to complete the process.

The cost analysis approach and template described below are designed to guide policymakers and program leaders in obtaining and considering comprehensive cost information on principal preparation and professional development programs. They build on previous work, conducted by The Finance Project in partnership with Dr. Jennifer King Rice, that includes the development of a theoretical framework of the costs of professional development in education and the application of this framework in a recent study.[10]

The specific template discussed below has been developed based on our ongoing work studying the costs of principal preparation and professional development under this study. It has been piloted in three sites to date, and may continue to evolve as we learn more about the structure and costs of the programs included in the study. However, the template is designed to be a flexible tool that can accommodate and reflect varying program designs.

[10] For an explanation of the development of the cost framework, see Jennifer King Rice, *Cost Framework for Teacher Preparation and Professional Development* (Washington, D.C.: The Finance Project, 2001) and J. K. Rice, "Investing in Teacher Quality: A Framework of Estimating the Cost of Teacher Professional Development," in *Theory and Research in Educational Administration*, Vol. 2, ed. W. Hoy and C. Miskel (Greenwich, Conn.: Information Age Publishing, Inc., 2003), 209–33 and J. K. Rice, "Cost Analysis in Education: Paradox and Possibility," *Educational Evaluation and Policy Analysis*, 19, no. 4 (1997): 309–17. For an application of the framework, see Carol E. Cohen and Jennifer K. Rice, "National Board Certification as Professional Development: Design and Cost," August 2005.

Table C-1: Abbreviated Cost Template for Study of Principal Preparation and Professional Development Initiatives

COMPONENTS/Resource Ingredients	TOTAL ANNUAL COST						DISTRIBUTION OF COST*			DIRECT VS. UNCOMPENSATED COSTS	
	Amount (natural units)	No. of Units	Unit Value ($)	Period (years)	Shared (%)	Annual Cost ($)	Univer-sity	School District	Grant	Direct Cost	Uncom-pensated Cost
ADMINISTRATION AND INFRASTRUCTURE											
Administrative personnel											
Office facilities, materials, and equipment											
Travel and transportation											
Other, e.g., resources for information dissemination, printing, events											
COURSEWORK/GROUP TRAININGS											
Instructor time											
Participant time											
Course facilities, materials, and equipment											
Travel and transportation, e.g., local											
Other, e.g., room & board if residential											
INTERNSHIPS											
Intern time											
Supervisor time											
Facilities, materials, and equipment, e.g., laptop computers											
Travel and transportation, e.g., conferences											
Other, e.g., time of other experts, purchased training packages, catering											
MENTORING (Including Mentor Training)											
Mentor time											
Mentee time											
Trainer time											
Facilities, materials, and equipment											
Travel and transportation, e.g., local											
OTHER											
TOTAL COST											
AVERAGE COST PER CANDIDATE											

Note: *In the full template, Distribution of Cost includes columns for federal, state, district, school, university, union, grant, principals, teachers, other staff time, volunteers, business, community groups, and students.

The Cost Analysis Approach

Our cost analysis method "unpacks" costs in a systematic way that specifies the resources needed to provide and undertake a principal professional development program and identifies the distribution of the cost burden. Calculating cost estimates using this approach allows users to gain an understanding of the types of costs associated with a principal preparation or in-service professional development program, as well as how these costs are distributed across various stakeholder groups. It provides a comprehensive estimate of the requisite costs and resources to operate a program.

Budgets, while important resources that can inform a cost analysis, are only a starting point to obtaining full cost estimates.[11] A cost analysis goes beyond a study of budgetary expenditures to look at a program's total and per-participant economic (or societal) cost, including direct as well as uncompensated resources. In contrast, budgets tend to be limited to fiscal resources, despite the fact that many in-kind contributions may not require financial outlay, but nonetheless count as program costs. For example, office space donated by universities and the volunteer time of mentor principals can be essential resources needed to sustain a principal preparation or development program. If these resources do not translate into additional expenditures, however, they generally do not appear in a budget. Yet the unavailability of these resources could undermine successful implementation of the program. Consequently, it is important that all resources—direct and uncompensated—be included in a cost analysis to give policymakers and program planners a comprehensive and accurate picture of program cost.

The Cost Template

We have designed a cost template to be used as the basic tool for systematically collecting and estimating the costs of principal preparation and development programs using the approach described above. The template allows the user to identify and assign values to all relevant resources used to implement a specific program. It also allows for variability in how programs are designed and implemented. Thus, the template can be used to estimate the costs of principal preparation and professional development programs beyond the studied sites. (See Table C-1.)

Program Components and Ingredients

The first step in the cost analysis involves identifying the components of and services included in the program as well as the resources required for those components and services. The first column of the template prompts the specification of the program components and services. Based on our work to date, we have identified the major components and services of principal preparation and professional development programs as: (1) administration and infrastructure; (2) information, recruitment, and selection; (3) coursework; (4) internships; (5) mentoring and

[11] For budget-based analysis of professional development spending, see K.H. Miles, A. Odden, M. Fermanich, and S. Archibald, "Inside the Black Box of School District Spending on Professional Development," *Journal of Education Finance*, vol. 30 no. 1 (2004):1-26 and *Excerpts from Inside the Black Box: School District Spending on Professional Development in Education—Lessons from Five Urban Districts*, by K.H. Miles, A. Odden, M. Fermanich, and S. Archibald with a preface by The Finance Project, The Finance Project (Washington, DC), 2005.

mentor training; and (6) other.[12] These are listed as major headings in the first column. Under each major heading is a list of component-relevant resource categories. Major resource categories include personnel time (including program directors, instructors, mentors, and participants); facilities, materials, and equipment; and travel and transportation.[13] Other categories, such as catering or publishing, may be specific to certain activities.

The second column, "Ingredients," requests a list of the resources needed to support the program components and services.[14] This includes donated and volunteered resources along with resource requirements that translate into expenditures. It includes all types of personnel as well as non-personnel resources such as facilities, equipment, and materials. The ingredients are organized by the program components and services and cost categories listed in the first column, and together they guide the remainder of the template entries.

Below are descriptions of the program components and services listed in the first column of the template and potential ingredients associated with each, as identified in pilot sites:

- *Administration and Infrastructure.* Programs require resources devoted to administration and infrastructure, including personnel, office space, and materials and equipment needed to run the program. This category also captures administrative travel costs, such as travel to national meetings or local travel to schools and districts, as well as catering for special events.[15]

- *Information, Recruitment, and Selection.* This category includes costs associated with publicizing the program, such as meeting time; development, design, and printing of publications and brochures; and time spent interviewing and selecting applicants.

- *Coursework.* Program costs in this category include instructor time and textbooks, as well as time spent developing curricula, classroom space, room and board for residential programs, and student travel expenses.[16] Participant time spent preparing for and attending classes is also captured in this category.

- *Internships.* This category includes both the time of interns and the time of personnel devoted to supervising interns.

[12] These categories represent program components common to the sites we have visited to date in this study. They may be modified as we gain additional study information. In addition, other users may adapt this tool and modify these categories to estimate the costs of professional development programs.
[13] For more detail on these resource categories and how they were developed, see Jennifer King Rice, *Cost Framework for Teacher Preparation and Professional Development* (Washington, D.C.: The Finance Project, 2001).
[14] For a description of the "ingredients approach" to cost analysis, see Henry M. Levin and Patrick J. McEwan, *Cost-Effectiveness Analysis: Methods and Applications*, 2d ed. (Thousand Oaks, Calif.: Sage Publications, 2001).
[15] Payment for some administrative resources may take the form of administrative overhead charges. While a detailed analysis of the components of such administrative costs is ideal, this category may also include institutional overhead charges that cannot be itemized.
[16] Student tuition and fees for coursework can be considered an offset to program costs. These payments are addressed in the section of the template that analyzes distribution of the cost burden.

- *Mentoring and Mentor Training.* Program costs in this category include training time and materials for mentors as well as participant time spent in formal and informal meetings.[17]

- *Other.* The template allows the user to identify other program components and services and their associated ingredients that have not been accounted for elsewhere. The goal is to be as comprehensive as possible without double-counting any resources.

Calculating Total Annual Cost

The next set of columns in the template guides the calculation of the total annual cost of the program. The first column in this section, "Amount," specifies the amount of each ingredient listed in the previous column. The resource amounts are left in the most natural and descriptive units possible. For example, personnel are recorded in terms of the number of positions needed or hours per year, while travel costs might be represented in terms of the number of miles driven and the amount of time spent traveling.

The next column, "Number of Units," indicates the number of the resources specified in the previous columns that are required for the program. Some resources are directly linked with the number of participants in the program (e.g., coursework materials), while others are relatively independent of this factor (e.g., program director). This distinction is important in planning principal professional development programs because there are potential implications for economies of scale.

The column "Unit Value" requests a dollar value for each of the ingredients listed. In the case of personnel, this entry includes salary as well as fringe benefits, bonuses, and other add-ons. The figure entered in this column corresponds with the units used in the "Amount" column. For example, if hours-per-year is the unit used in the "Amount" column, then the appropriate hourly wage should be entered in the "Unit Value" column. Likewise, if the number of positions is entered in the "Amount" column, then the annual salary for that type of position should be entered in the "Unit Value" column.[18] The standard values we used for these calculations are included in Table C-2.

The next column, "Period," requests information on the recurrence of the cost. Some resources are required year after year, such as salaries and benefits for personnel. Other resources, such as equipment, may be used for a number of years and should not simply be added into the annual cost estimate each year. The data in this column indicate the number of years over which various resources can be used. The number of years representing the expected life of the resource is entered, with recurring annual costs designated as "1."

The column titled "Shared" indicates the degree to which the same ingredient (e.g., a staff member) is used across multiple service components or multiple programs. If the resource is shared with other service components in the program, it should be prorated (e.g., time of the staff

[17] Stipends paid to mentors are included in the analysis of cost distribution.
[18] The user has the option of entering actual values for each resource in each site or "standard" values for selected resources. If costs are going to be compared across programs in multiple sites, standard values applied universally across sites enable comparisons that account for geographic differences in the cost of resources.

member) according to how much is spent on each component. This is most evident in the distribution of administrative time across various program components and services. If the resource is shared with programs other than the principal professional development program, the fraction devoted to the program should be entered (e.g., the principal development program uses half, or 50 percent, of the office space listed in the "Ingredients" column). This entry should be "1" for fully-dedicated resources and should be expressed in a decimal format (e.g., 0.50 for 50 percent) in the case of shared resources.

"Annual Cost," calculates a dollar figure representing the total annual societal cost of each resource. This information should be calculated using the entries in the previous five columns. The appropriate formula is:

Annual Cost = (Amount x Number of Units x Unit Value x Shared)/Period.

The figures in the "Annual Cost" column can then be vertically summed to derive the total annual cost estimate of the resources required to support the program. The "Total Annual Cost" estimate is calculated in the second to last cell at the bottom of the "Annual Cost" column. The cell at the bottom of the "Annual Cost" column divides the total cost by the number of participants in the program in the study year to derive an estimate of the "Average Cost Per Participant." Calculating annual cost gives a view of what it takes to provide the full set of program activities at their current scale.[19] This per-participant estimate enables cost comparisons across programs by controlling for the size (i.e., number of participants) of each program.

Distribution of the Cost Burden

The next set of columns in the template analyzes the distribution of the cost burden by illustrating how the costs of the program are supported by various stakeholders and financial sources. These may include the federal government, state, school districts, schools, universities, unions, grants, tuition, fees, stipends, school principals, program participants, other principals and staff, businesses, and community groups. Specified in fiscal units, the entries across a row in this section should sum to equal the figure in the "Annual Cost" column of that same row. The vertical sum of each column indicates the cost of the program to each constituency. However, the fiscal amounts entered do not necessarily imply that dollars actually change hands. In many cases (e.g., participants' time), it is time rather than money that is devoted to the program. This analysis can also highlight how making substitutions, such as paying volunteers for their time or obtaining more grant funding, would shift the cost burden.

Direct and Uncompensated Costs

The final two columns in the template allow users to distinguish between a program's direct cost and uncompensated costs. The "Direct Cost" column includes resources that would often be listed in a program budget, while the "Uncompensated Cost" column captures in-kind contributions, donated time, and other non-fiscal resources required for program operation. Separating these costs allows users to see the difference between direct (or typical budget) costs,

[19] The average annual cost per participant does not represent the cost for any one participant to complete the program if the program duration differs from one year.

and total costs. For existing programs with established budgets, the "Direct Cost" column can serve as a point of comparison between budgeted costs and total costs. For programs in development, this section can facilitate the development of a budget while keeping planners mindful of uncompensated costs.

Data Collection

In this study, cost template data were collected through interviews with program personnel, including site directors, program staff, budget personnel, participants, instructors, and mentors. Questions asked were relevant to the knowledge of each interviewee and closely followed the cost template, beginning with the components and services and cost categories under each, followed by detailed questions to determine specific amounts and values. For example, an interview with a supervisor of a program's mentoring component would begin with a request for a description of the structure and content of the mentoring program. Follow-up questions would cover the number of meetings, number of attendees at each, duration, distances participants travel, meeting space required, rent for that space, materials and equipment required, and costs of those materials and equipment. In addition, The Finance Project has developed a survey for participants to collect additional information on their time and out-of-pocket costs. Finally, a careful review of budget and expenditure documents can supplement interviews and reveal how the program conceptualizes cost components and values.

Table C-2: Standard Values for Cost Analysis				
Resource	**Standard Value**			**Data Source**
Personnel	Annual Salary*	Daily Rate*	Hourly Rate*	
Superintendent	$160,963	$619.09	$77.39	ERS
Assistant Superintendent	129,015	496.21	62.03	ERS
Other School District Admins.				
Finance and Business	104,598	402.30	50.29	ERS
Instructional Services	111,188	427.64	53.46	ERS
Staff Personnel Services	108,708	418.11	52.26	ERS
Principal	101,930	392.04	49.01	ERS
Assistant Principal	84,225	323.94	40.49	ERS
Retired Principal Consultant		313.63	39.20	ERS
School Teacher	57,355	301.87	37.73	ERS
Substitute Teacher		226.38	37.73	ERS
University Dean, Education	134,575	517.60	64.70	BLS: Education Deans, based on data from CUAHR
University Faculty, Education	68,188	262.26	32.78	BLS: Education Teachers, Postsecondary, 2004 mean
Program Dir., University-Based	96,975	372.98	46.62	BLS: Education Administrators, Postsecondary
Program Dir., District-Based	95,063	365.63	45.70	BLS: Education Administrators, Elementary and Secondary School
Executive Assistant	46,688	179.57	22.45	BLS: Executive Secretaries and Administrative Assistants
Office support/secretarial staff	34,400	132.31	16.54	BLS: Secretaries
Budget Analyst	75,363	289.86	36.23	BLS: Budget Analysts
Editor	62,963	242.16	30.27	BLS: Editor
School Administration Manager (SAM)	49,310	189.65	23.71	NACE: average starting salary for business administration major, 2005
Data Technician	39,238	150.91	18.86	BLS: Statistical Assistants
Staff Person	37,921	145.85	18.23	NACE: average starting salary for liberal arts major, 2005
Other				
Mileage	$0.46/mile			Federal government rate
*includes fringe benefits except for retired principal consultant				
ERS: Education Research Service, Salaries and Wages Paid Professional and Support Personnel in Public Schools, 2004-05.				
BLS: Bureau of Labor Statistics, Occupational Outlook Handbook, 2006-07.				
CUAHR: College and University Association for Human Resources				
NACE: National Association of Colleges and Employers				

Appendix D: Cross-State Comparisons of Principals' Survey Responses

The following analyses are based on the complete national sample of principals and state sub-samples, weighted so that principals within states represent their proportion in the state, and state samples represent their proportion in the nation. Two-tailed t-test comparisons are between each state's principals and the national sample. *p<.05; **p<.01; ***p<.001.

Background Characteristics of Principals									
	Nation n=1086	CA n=189	MS n=81	CT n=183	KY n=114	NY n=107	DE n=40	GA n=38	NC n=36
Years of elementary/ secondary teaching experience	**14.13**	15.17	15.3	16.73*	12.72	12.91	13.63	14.32	12.09*
Years in certified leadership positions	**15.62**	17.41	14.41	14.91	14.20	12.4**	14.68	15.48	17.69
Years as principal at current school	**9.528**	9.91	7.70**	10.04	9.13	7.86	8.38	7.91	10.58
Percentage of principals taking a test after completing preparation program	**0.369**	0.198**	0.739**	0.273	0.707**	0.029**	0.079**	0.878**	0.666**
Percentage of female principals	**0.464**	0.587	0.323*	0.548	0.499	0.479	0.538	0.441	0.468
Percentage of Latino principals	**0.045**	0.198**	0	0.035	0	0.005**	0	0	0.031
Percentage of white principals	**0.909**	0.764**	0.797*	0.955*	0.931	0.938	0.872	0.735**	0.848
Percentage of African-American principals	**0.104**	0.031	0.202**	0.039	0.043	0.058	0.128	0.264**	0.121
Percentage of principals earning a Masters of Education as part of formal leadership preparation	**0.395**	0.304	0.494	0.207**	0.304	0.241**	0.410	0.161**	0.343
Percentage of principals earning a Specialists Degree as part of formal leadership preparation	**0.114**	0.000**	0.132	0.394**	0.234*	0.388**	0	0.419**	0.187
Percentage of principals earning a Doctorate as part of formal leadership preparation	**0.089**	0.164	0.091	0.057	0.092	0.026**	0.359**	0.226*	0.125
Percentage of principals earning no degree as part of formal leadership preparation	**0.074**	0.087	0.03	0.116	0.16	0.13	0.15	0.032	0.062

To what extent were the following qualities true of principals' educational leadership program? Rating : Not at all (1). . .To great extent (5)									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
Program content emphasized instructional leadership	**4.069**	4.268	4.449**	4.15	4.125	4.033	3.894	3.942	3.944
Program content emphasized leadership for school improvement	**3.6496**	3.8525	4.187**	3.7999	3.887	3.747	3.421	3.571	3.500
Program content emphasized efficient school operations management	**3.7761**	3.515	4.375**	3.436**	3.838	3.613	3.71	4.028*	3.888
Program content emphasized working with the school community and stakeholders	**3.5941**	3.635	4.101**	3.623	3.454	3.502	3.342	3.800	3.750
Course work was comprehensive and provided a coherent learning experience	**3.8393**	3.967	4.042	3.890	3.732	3.775	3.447**	3.771	3.944
Principal was in a student cohort	**2.4062**	3.631**	2.464	2.145	2.037	2.403	2.324	1.942*	2.142
Practicing school or district administrators taught in the program	**2.8850**	3.556**	2.797	3.367**	2.585	3.54**	3.052	2.685	2.111**
Program provided many opportunities for self-assessment	**3.1908**	3.490*	3.452*	3.420	3.013	3.330	3.000	3.285	3.222
Principal was asked to reflect on practice and analyze how to improve it	**3.3721**	3.641	3.726**	3.577	3.301	3.333	3.026*	3.428	3.361
Program provided regular assessments of skill development and leadership competencies	**3.1549**	3.398	3.701**	3.193	3.244	3.252	2.578**	3.205	3.083
Program integrated theory and practice	**3.7315**	3.822	4.104**	3.794	3.936	3.899	3.315**	3.657	3.694
Faculty members were very knowledgeable about subject matter	**4.1587**	4.281	4.471**	4.318	4.280	4.346*	4.108	4.085	4.111
Program gave me strong orientation to principalship as career	**3.7182**	3.701	4.012**	3.818	3.593	3.641	3.324**	3.771	3.638
Faculty provided many opportunities to evaluate the program	**3.3513**	3.221	3.526	3.353	3.095	2.967**	3.055	3.342	3.027*

To what extent were the following practices/instructional strategies part of principals' coursework? Rating: Not at all (1). . .To a great extent (5)									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
Field-based projects in which principals applied ideas in the field	**3.669**	3.908**	3.364	3.334	3.200	3.609	2.815**	3.514	3.305
Linkages between coursework and internship	**3.3716**	3.906**	3.353	3.243	2.961**	3.847**	2.526**	3.514	3.444
Use of problem-based learning approaches	**3.4097**	3.602	3.808**	3.811**	3.298	3.638	3.184	3.228	3.371
Action Research , inquiry projects	**3.2863**	3.652**	3.709**	3.527	3.295	3.096	3.21	3.371	3.444
Journal writing of experiences	**2.9571**	2.945	3.213	3.006	2.573**	2.866	2.526**	3.058	3.000
Analysis and discussion of case studies	**3.7344**	3.632	4.297**	3.96	3.787	3.72	3.378**	3.857	3.971
Lectures	**3.9655**	3.752	4.049	3.871	4.316**	3.791	4.131	4.085	4.342**
Participation in small-group work	**3.7806**	3.732	4.216**	3.889	3.757	4.162**	3.842	3.942	3.944

Internship Access and Quality (% of principals reporting)									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
Principals who had internship	**0.633**	0.291**	0.279**	0.536	0.546	0.920**	0.081**	0.600	0.714
Principals who had no internship but other supervised experience	**0.105**	0.227*	0.201	0.104	0.115	0.078	0.108	0.114	0.171
Principals had no internship or other supervised experience	**0.262**	0.480**	0.519**	0.359	0.338	0.0009**	0.810**	0.285	0.114**
Internship was at principal's school	**0.474**	0.341*	0.280**	0.386	0.357	0.738**	0.100**	0.368	0.555
Internship was at a different school	**0.150**	0.083	0.156	0.162	0.154	0.183	0.025**	0.157	0.222
Internship was a full-time position	**0.259**	0.200	0.36	0.267	0.463**	0.428**	0.375	0.400	0.275
Principal had some release time from teaching to carry out the internship	**0.177**	0.183	0.065*	0.138	0.100**	0.115	0.125	0.160	0.206
Teacher did the internship during the summer	**0.074**	0.062	0	0.115	0.002**	0.028*	0	0.12	0.068
For those who had an internship, "To what extent did the educational leadership internship experience offer the following?" Rating: Not at all (1). . .To a great extent (5)									
Principal worked in one or more schools serving students with a variety of socioeconomic backgrounds	**3.365**	4.004*	3.312	3.336	3.306	3.402	3.375	3.272	2.827*
Principal was closely supervised and assisted by knowledgeable school leaders	**3.544**	3.424	3.763	3.894**	3.49	3.794	3.500	3.681	3.448
Principal had responsibilities for leading , facilitating and making decisions typical of an educational leader	**3.760**	3.877	3.800	3.863	3.891	4.206**	3.625	3.636	3.413
Internship achievements were regularly evaluated by program faculty	**3.202**	3.158	3.616	3.393	3.534	3.56**	2.500	3.19	3.206
Principal was able to develop an educational leader's perspective on school improvement	**3.669**	4.072	4.164**	3.951	3.913	3.821	3.875	3.772	3.551
Internship experience was an excellent learning experience for becoming a principal	**3.810**	3.868	4.412**	3.900	3.972	3.796	4.333	4.090	3.666

Principals' perceptions of how well the program prepared them to do the following: Rating : Not at all (1. . .Very well (5)									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
Understand how different students learn and how to teach them successfully	**3.188**	3.275	3.666**	3.417*	3.200	3.219	3.162	3.029	3.088
Create a coherent educational program across the school	**3.288**	3.545	3.703**	3.617**	3.497	3.403	3.162	3.205	3.147
Evaluate curriculum materials in supporting learning	**3.173**	3.389	3.597**	3.676**	3.405	3.168	3.189	2.911	3.058
Design professional development that builds teachers' knowledge and skills	**3.142**	3.399	3.514**	3.405**	3.279	3.120	3.189	3	3.205
Evaluate teachers and provide instructional feedback	**3.535**	3.642	3.973**	3.907**	3.502	3.463	3.324	3.294	3.617
Handle discipline and support services	**3.401**	3,592	3.76**	3.07**	3.427	3.246	2.891**	3.235	3.47
Develop broad agreement among staff about school's mission	**3.302**	3.593	3.783**	3.275	3.393	3.325	3.189	3.212	3.411
Create a collaborative learning organization	**3.353**	3.607	3.821**	3.467	3.547	3.715**	3.324	3.088	3.411
Find and allocate resources to pursue important school goals	**3.093**	3.420*	3.417**	3.148	3.312	3.163	2.783*	3.264	3.176
Analyze budgets and reallocate resources to achieve critical objectives	**3.124**	3.477**	3.422	3.223	3.535**	3.289	3.162	3.088	3.147
Create and maintain an orderly learning environment	**3.653**	3.787	4.127**	3.563	3.713	3.791	3.416	3.545	3.617
Manage facilities and their maintenance	**3.327**	3.45	3.81**	2.90**	3.541	3.090	2.675**	3.484	3.353
Mobilize school staff to foster social justice in serving all students	**3.006**	3.215	3.683**	3.026	2.859	2.823	2.757	2.941	3.088
Work with parents to support students' learning	**3.178**	3.481	3.663**	3.129	3.07	2.985	2.919	3	3.147
Use data to monitor school progress	**3.0549**	3.014	3.849**	3.161	3.428**	2.86	2.864	3.181	3.206
Engage staff in decision-making process about curriculum and policies	**3.347**	3.603	3.853**	3.342	3.323	3.506	3.054*	3.394	3.235
Lead well informed planned change process for school	**3.210**	3.513	3.603**	3.337	3.299	3.379	2.945	3.117	3.294
Engage in comprehensive planning for school improvement	**3.218**	3.575**	3.698**	3.336	3.224	3.43	2.838*	3.147	3.235

(Continued on next page)

Principals' perceptions of how well the program prepared them to do the following: (cont'd) Rating : Not at all (1. . .Very well (5) (Cont'd)									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
Redesign school organizations to enhance productive teaching and learning	**3.059**	3.466**	3.478**	3.174	3.102	2.96	2.783*	2.941	3.117
Use effective written and communication skills, particularly in public forums	**3.638**	3.969**	4.166**	3.644	3.77	3.69	3.675	3.697	3.53
Collaborate with others outside school for assistance and partnership	**3.208**	3.425	3.637**	3.181	3.336	3.064	3.054	3.333	3.176
Engage in self-improvement and continuous learning	**3.659**	3.883	3.982**	3.823	3.781	3.848	3.702	3.676	3.647
Develop a clear set of ethical principles to guide decision making	**3.760**	3.938	4.247**	3.882	3.761	3.817	3.621	3.617	3.818

Principal's intentions and plans prior to enrolling in the leadership preparation program (% of principals)									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
Principal intended to go into principalship as soon as possible	**0.303**	0.153**	0.435	0.259	0.343	0.287	0.351	0.411	0.454**
Principal thought he/she might go into principalship someday	**0.414**	0.364	0.367	0.365	0.404	0.396	0.270**	0.323	0.272*
Principal was undecided about principalship	**0.106**	0.151	0.099	0.148	0.067	0.080	0.081	0.088	0.121
Principal had few if any plans for going into the principalship	**0.108**	0.092	0.098	0.154	0.135	0.210	0.216	0.147	0.121
Principal was already a principal when he/she enrolled in the program	**0.068**	0.238**	0	0.071	0.050	0.026*	0.081	0.029	0.030
Would principal choose the same program given the opportunity? (% of principals)									
Principal would definitely choose the same program	**0.402**	0.395	0.491	0.418	0.292	0.318	0.270*	0.5	0.484
Principal would probably choose the same program	**0.332**	0.302	0.347	0.309	0.387	0.418	0.324	0.235	0.333
Principal not sure about choosing the same program	**0.133**	0.210	0.066	0.171	0.160	0.130	0.162	0.117	0.060*
Principal would probably not choose the same program	**0.096**	0.091	0.094	0.076	0.105	0.131	0.162	0.058	0.121
Principal would definitely not choose the same program	**0.036**	0.001**	0	0.025	0.054	0.001**	0.081	0.088	0

Principals' beliefs about the principalship Level of agreement : 1 (Strongly Disagree). . .5 (Strongly agree)									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
A principal can make a difference in the lives of students and staff	**4.874**	4.88	4.809	4.85	4.819	4.947**	4.692	4.885	4.848
A principal provides opportunities for professional growth	**4.683**	4.587	4.744	4.70	4.691	4.713	4.641	4.743	4.696
A principal can develop relationships with others inside and outside of school	**4.625**	4.573	4.807*	4.699	4.613	4.479	4.538	4.685	4.727
A principal can influence school change	**4.733**	4.805	4.777	4.873**	4.765	4.791	4.769	4.857**	4.757
Principalship requires very long hours	**4.731**	4.776	4.855**	4.765	4.818	4.711	4.718	4.882**	4.843*
Principalship has too many responsibilities	**4.082**	4.39**	4.088	4.037	4.17	4.16	3.97	4.088	4.090
Being a principal decreases opportunities to work directly with children	**3.444**	3.462	3.193	3.142*	3.443	3.114*	3.307	3.6	3.66
Principalship creates a lot of stress	**4.118**	4.271	4.037	3.90	4.329	4.113	4	4.2	4.090

In the last month how often did the principal engage in the following activities? Frequency : 1 (Never). . .4 (Daily)									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
Facilitate student learning	**3.2897**	3.468	3.326	3.236	3.229	3.269	3.322	3.30	3.281
Guide the development and evaluation of curriculum and instruction	**2.8665**	2.777	3.106**	2.821	3.134**	2.776	2.87	3.166**	2.875
Build professional learning community among faculty and other staff	**3.0125**	3.14	3.015	2.881	3.062	2.98	2.903	3.033	3.125
Maintain the physical security of students and faculty	**3.6793**	3.555	3.847**	3.754	3.744	3.793	3.677	3.733	3.687
Manage the school facilities	**3.6821**	3.588	3.867**	3.639	3.797	3.791	3.516	3.633	3.656
Attend district level meetings and carry out district-level responsibilities	**2.7534**	2.723	2.526**	2.777	2.543*	2.845	2.935	2.60	2.781
Foster teacher professional development for instructional knowledge and skills	**2.6628**	2.512	2.478	2.898	2.521	2.772	2.741	2.80	2.656
Evaluate and provide instructional feedback to teachers	**2.9379**	2.879	3.23**	3.026	3.042	3.21**	3.30**	3.00	3.093
Use data to monitor school progress	**2.7345**	2.735	2.878	2.846	2.834	2.45**	2.742	2.793	2.875
Work with outside agencies and individuals for school assistance and partnership	**2.3296**	2.203	2.192*	2.423	2.314	2.15**	2.516	2.467	2.469
Work with parents on students' problems or learning needs	**3.3462**	3.461	3.283	3.634**	3.076**	3.498	3.290	3.533*	3.4
Meet with parents and community about school matters	**2.7573**	2.87	2.505**	2.845	2.86	2.851	2.806	3*	3.161**
Work with teaching staff to solve school or departmental problems	**3.2163**	3.265	3.001	3.487**	3.121	3.228	3.129	3.414*	3.312
Work with teachers to change teaching methods where students are not succeeding	**2.6733**	2.446*	2.699	2.81	2.619	2.859	2.9**	3**	2.718
Develop and enforce school rules with school and staff	**3.6086**	3.532	3.569	3.601	3.631	3.646	3.516	3.4	3.718
Work with faculty to develop goals for their practice and professional learning	**2.5066**	2.275**	2.568	2.561	2.502	2.536	2.548	2.724*	2.718*

Principals' perceptions of their schools Level of agreement: Strongly disagree (1). . .Strongly agree (5)									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
Teachers in the school feel responsible to help each other do their best	**4.265**	4.265	4.281	4.197	4.177	4.147	4.233	4.366	4.156
Teachers in the school are continually learning and seeking new ideas	**4.164**	4.067	4.005	4.233	4.174	4.15	4.2	4.233	4.093
Teachers use time together to discuss teaching and learning	**4.077**	4.037	3.919	4.305**	4.054	4.119	4.067	4.167	3.968
Students work hard in this school	**4.138**	4.238	4.010	4.263	4.126	4.087	4.266	4.1	3.937
Students are aware of the learning expectations in the school	**4.327**	4.364	4.565**	4.499*	4.36	4.209	3.367	4.5*	4.406
The school has consistent standards from classroom to classroom	**3.949**	3.961	4.042	3.874	3.764	3.737	3.867	3.933	3.937
Teachers take an active role in school-wide decision making	**4.263**	4.168	4.346	4.14	4.233	4.231	4.133	4.333	4.093
Faculty has an effective process for making group decisions and solving problems	**4.095**	4.1	4.041	3.84	3.94	4.086	3.867	4.1	4.06
In school, faculty and principal take steps to solve problems	**4.359**	4.243	4.436	4.197	4.218	4.38	4.267	4.433	4.25
Assessments of student performance lead to changes in curriculum	**4.284**	4.264	4.468	4.311	4.364	4.146	4.333	4.3	4.031
Teachers collect and use data to improve their teaching	**4.087**	3.966	3.983	4.191	4.198	3.7**	3.964	4.1	4.062
School has developed effective strategies for involving parents in children's education	**3.747**	3.632	3.857	3.722	3.528	3.727	3.758	3.867	3.781
School has useful partnerships with outside agencies and groups in the community	**3.61**	3.404	3.762	3.562	3.442	3.58	3.433	3.867*	3.718
People who take initiative are appreciated	**4.447**	4.451	4.6*	4.542	4.486	4.517	4.5	4.533	4.375
Good practices are shared across classrooms	**4.178**	3.939	4.371**	4.316	4.076	4.182	4.133	4.3	4.25
Many special programs and projects come and go in this school	**3.234**	3.06	3.196	3.396	3.171	3.127	3.367	3	3.281
There is a clear sense of purpose in the school about what faculty want the students to accomplish	**4.371**	4.344	4.535	4.435	4.369	4.364	4.233	4.414	4.375

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Principals' perceptions of their schools (Con'td) Level of agreement: Strongly disagree (1). . .Strongly agree (5)									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
All students have access to expert teaching and high-quality teaching	**4.198**	3.893*	4.29	4.218	4.118	4.205	4.167	4.367	4.218
Once a new program starts , school follows up to make sure that it is working	**4.168**	4.098	4.379**	4.079	4.094	4.211	4.133	4.333*	4.062
Curriculum, instruction, and learning materials are well coordinated across grade levels	**4.057**	4.063	4.318**	4.018	3.964	4.09	4.2	4.2	3.968
Teachers strongly support the changes undertaken in school	**3.917**	3.767	3.877	3.701	3.879	3.938	3.9	3.933	3.812
Students who struggle or fall behind get needed support	**4.158**	4.128	4.38**	4.09	4.185	4.542**	4.033	4.1	4.031
Teachers believe the school is getting stronger academically	**4.104**	4.1	4.315**	4.012	4.159	4.122	4.2	4.267	4.157
The school was a well developed process for facilitating ongoing school-wide improvement and planning	**4.152**	3.999	4.227	4.015	4.245	3.971	4.267	4.23	4.28

Principals' responses: "Over the last year to what extent there was a decrease or increase in the following in your school?" Much less (1). . .Much more (5)									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
Consensus among staff about school's goals	**3.976**	3.8	4.067	4.057	3.971	3.701**	4	3.9	3.969
Collaboration among teachers in making curriculum and instructional decisions	**4.079**	4.071	4.282**	4.125	4.151	4.006	4.193	4.2	4.219
Focus by teachers on improving and expanding their instructional strategies	**4.128**	4.037	4.253	4.238	4.394**	4.037	4.29*	4.207	4.125
Job satisfaction experienced by staff	**3.677**	3.505	3.729	3.663	3.915*	3.909*	3.767	3.758	3.625
Staff sensitivity to student needs	**3.785**	3.606	3.859	3.778	3.953*	4*	3.806	3.862	3.843
Use of performance assessments and exhibitions of student learning	**3.993**	3.933	4.204	4.116	4.041	4	3.967	4.067	3.781
Opportunities for teachers' professional growth	**3.973**	3.871	4.299**	3.95	4.103	3.857	4.193*	4.367**	4.187*
Staff recognition for a job well done	**3.846**	3.574**	4.135**	3.943	3.897	3.856	4	3.933	3.906
Emphasis on student discipline	**3.79**	3.623	3.924	3.904	3.922	3.726	3.806	3.833	3.812
Use of performance data for instructional improvement	**4.1**	3.905	4.291	4.24	4.502**	3.884*	4.032	4.2	4.03
Coordination of curricular and instructional materials among regular and special programs and classrooms	**3.919**	3.835	4.349**	4.035	4.045	3.793	3.935	4	3.781
Confidence in the value of our work	**3.909**	3.639*	4.135**	3.934	4.023	3.71	3.935	4	3.875
Attention to the needs of low—performing students	**4.032**	3.838	4.362**	4.177	4.167	3.917	4.064	4.267**	3.906
Efforts among teachers to share practices with each other	**3.939**	3.804	4.105	3.978	4.137**	3.884	3.967	4.133*	3.937
Involvement of parents and families in school decision making and student learning	**3.539**	3.338	3.848**	3.534	3.671	3.537	3.645	3.633	3.718

Principals' perceptions of the district: 1: Strongly disagree. . .4 : Strongly agree									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
It is often difficult to agree with the district's policies on important matters relating to teachers	**1.777**	1.927	1.709	1.83	1.988	1.54**	1.724	1.633	1.896
District's expectations are too high for principal's school	**1.479**	1.57	1.377	1.502	1.62	1.47	1.333*	1.31*	1.55
District supports my school's efforts to improve	**3.249**	3.144	3.379	3.176	3.167	3.464*	3.517*	3.467*	3.241
District promotes principal's professional development	**3.217**	3.181	3.407	3.251	3.195	3.158	3.517**	3.367	3.233
District encourages principals to take risks in order to make changes	**2.954**	2.859	3.035	3.055	2.888	3.061	3.241*	3.067	3.067
District helps principal promote and nurture a focus on teaching and learning	**3.179**	3.144	3.437**	3.18	3.137	3.31	3.379	3.344	3.1

Perceptions and Plans about the Principalship: Strongly disagree (1). . .Strongly agree (5)									
	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
Stress and disappointments involved in serving as principal of the school aren't really worth it	**1.839**	1.961	1.765	1.604**	1.991	1.848	1.548**	1.586**	1.769
If principal could get a higher paying job he/she would leave education as soon as possible	**1.835**	1.765	1.607*	1.638	1.867	1.725	1.6*	1.414**	1.73
I plan to remain principal of my current school as long as I am able	**2.876**	2.606	3	3	2.852	2.913	3.03	2.931	2.846
I am thinking about transferring to another school	**1.901**	1.932	1.512**	1.936	1.774	1.782	1.516**	1.7	1.746
I plan to remain principal until I retire	**2.893**	2.472**	2.769	2.917	2.843	2.757	2.967	2.767	3.115
I will continue being a principal until something better comes along	**2.090**	2.262	1.839	1.859	2.411**	2.297	1.966	2	1.84

Participation in professional development (percentages of principals) Usefulness of each item is measured from 0: Not at all helpful. . .2: Extremely helpful for those who participated	Nation	CAL	MISS	CT	KY	NY	DE	GA	NC
University courses related to role as principal									
Not at all	**0.655**	0.657	0.833**	0.859**	0.81**	0.756	0.733	0.767	0.76
Once or twice	**0.212**	0.171	0.036**	0.07**	0.069**	0.212	0.167	0.1**	0.2
Three times or more	**0.132**	0.172	0.131	0.071	0.121	0.031**	0.1	0.133	0.04**
How useful in improving principal practices	**1.553**	1.107*	1.604	1.039	1.492	1.504	1.857**	1.857**	1.833*
Visits to other schools designed to improve their work									
Not at all	**0.323**	0.273	0.279	0.274	0.279	0.449	0.483*	0.333	0.333
Once or twice	**0.508**	0.479	0.438	0.398	0.532	0.364*	0.414	0.467	0.458
Three times or more	**0.169**	0.248	0.283	0.329*	0.189	0.187	0.103	0.2	0.208
How useful in improving principal practices	**1.531**	1.344	1.689*	1.579	1.582	1.302**	1.5	1.6	1.563
Individual or collaborative research on a topic of interest									
Not at all	**0.283**	0.342	0.167*	0.181	0.31	0.333	0.241	0.31	0.542
Once or twice	**0.396**	0.378	0.434	0.329	0.514	0.362	0.345	0.414	0.25*
Three times or more	**0.321**	0.279	0.399	0.489*	0.176**	0.304	0.414	0.276	0.208
How useful in improving principal practices	**1.653**	1.481	1.719	1.737	1.577	1.669	1.809*	1.65	1.90**
Mentoring or coaching by experienced principal									
Not at all	**0.783**	0.826	0.718	0.793	0.759	0.872	0.607*	0.733	0.8
Once or twice	**0.097**	0.1	0.064	0.036*	0.162	0.002**	0.143	0.133	0.12
Three times or more	**0.119**	0.074	0.218	0.170	0.078	0.127	0.25	0.133	0.08
How useful in improving principal practices	**1.676**	0.864*	1.979**	1.8	1.686	1.986**	1.4	1.875*	1.6

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Participation in professional development (percentages of principals) (Cont'd.) Usefulness of each item is measured from 0: Not at all helpful. . .2: Extremely helpful for those who participated									
	Nation	**CAL**	**MISS**	**CT**	**KY**	**NY**	**DE**	**GA**	**NC**
Peer observation/coaching in which the principal had an opportunity to visit other principals for sharing practice									
Not at all	**0.501**	0.511	0.29**	0.446	0.398	0.659*	0.679**	0.517	0.44
Once or twice	**0.295**	0.243	0.418	0.273	0.401	0.185*	0.214	0.276	0.4
Three times or more	**0.204**	0.246	0.291	0.280	0.2	0.155	0.107*	0.207	0.16
How useful in improving principal practices	**1.667**	1.372*	1.55	1.73	1.66	1.895**	1.75	1.643	1.571
Participating in a principal network									
Not at all	**0.183**	0.248	0.17	0.381**	0.243	0.09*	0.276	0.267	0.125
Once or twice	**0.251**	0.178	0.266	0.139*	0.156	0.151	0.172	0.233	0.25
Three times or more	**0.566**	0.574	0.563	0.479	0.602	0.759**	0.552	0.5	0.625
How useful in improving principal practices	**1.699**	1.622	1.723	1.784	1.862**	1.857**	1.85*	1.818	1.714
Workshops , conferences or training in which principal was a presenter									
Not at all	**0.542**	0.498	0.579	0.265**	0.567	0.513	0.276**	0.7*	0.417
Once or twice	**0.334**	0.391	0.321	0.410	0.265	0.355	0.483	0.133	0.417
Three times or more	**0.124**	0.111	0.1	0.324**	0.168	0.133	0.241	0.167	0.167
How useful in improving principal practices	**1.592**	1.29*	1.768	1.41	1.698	1.662	1.571	1.667	1.714

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Participation in professional development (percentages of principals) (Cont'd.) Usefulness of each item is measured from 0: Not at all helpful. . .2: Extremely helpful for those who participated									
	Nation	CAL	MISS	CT	KY	NY	DE	GA	NC
Other workshops or conferences in which you were not a presenter									
Not at all	**0.048**	0.033	0.03	0	0.011**	0.12	0.069	0.033	0.083
Once or twice	**0.382**	0.264	0.432	0.249*	0.369	0.33	0.341*	0.367	0.417
Three times or more	**0.57**	0.702	0.537	0.75**	0.619	0.549	0.689	0.6	0.5
How useful in improving principal practices	**1.653**	1.587	1.645	1.702	1.788**	1.767	1.885**	1.655	1.619
Reading professional books or articles									
Not at all									
Once or twice	**0.161**	0.136	0.157	0.0008**	0.214	0.067**	0.038	0.167	0
Three times or more	**0.839**	0.863	0.843	0.999**	0.786	0.933**	0.961**	0.833	1
How useful in improving principal practices	**1.702**	1.66	1.84**	1.781	1.817*	1.805	1.846**	1.733	1.727
Professional Development with teachers									
Low Frequency : Never / One or Twice	**0.156**	0.306*	0.033**	0.165	0.003**	0.24	0.032	0.103	0.269
Medium frequency: 3-5 times	**0.369**	0.34	0.433	0.375	0.393	0.391	0.484	0.483	0.385
High Frequency: 6 or more times	**0.475**	0.355	0.534	0.461	0.604	0.369	0.484	0.414	0.346