Leadership Development in California

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This study was conducted by the Institute for Research on Education Policy & Practice in collaboration with the School Redesign Network at Stanford University

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Analysts, policymakers, and practitioners increasingly recognize the role of school leaders in developing high-performing schools.   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). Since the "effective schools" research of the 1980s, which identified the importance for academic achievement of principals who function as strong instructional leaders (Hallinger & Murphy, 1986), several lines of research have identified the critical role of principals in recruiting, developing, and retaining teachers, in creating a learning culture within the school, and in supporting improvements in student learning (Leithwood & Duke, 1999; Leithwood et al., 2004; Pounder, Ogawa, & Adams, 1995).

Like many others, a recent California study identified school leadership as a key factor associated with high student achievement levels at California schools that outperform others with similar student bodies (Kirst, Haertel, & Williams, 2005). Researchers found that student achievement levels were higher in schools with principals whose responses suggest they 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.

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 in California? And what might the state do to systematically support the development of leaders who can develop and manage a new generation of schools which are increasingly successful in teaching all students well?   In addressing these questions, this paper reviews research on the status of leadership development programs nationally and in California,

and suggests implications for planting and expanding successful strategies for developing effective leaders throughout the state.

The Challenges of Developing 21st Century School Leaders

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 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, which suggests yet another set of skill demands, including a sophisticated understanding of organizations and organizational change. Finally, as new approaches to funding schools are discussed and developed, the principal's role in making sound resource allocation decisions that are likely to result in improved achievement for students, is a critical element of reform plans.

In many states, policymakers have responded to demands for school reform by focusing their attention almost exclusively on areas that have an obvious direct connection to student learning: teacher recruitment, training, credentialing and evaluation; curriculum content standards and textbooks; class size reduction, testing and accountability. Many of these legislative efforts have increased the demands on principals by requiring implementation or monitoring at the school site, without increasing principals' knowledge and capacities to manage the reforms. The significant role of the principal in creating the conditions for improved student outcomes was largely ignored 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.

Issues in Leadership Development

Several factors have contributed to recognizing the importance of quality school principals and the lack of such leaders in many underperforming schools. During the 1990s, most states developed new standards for student learning and assessment and accountability systems that focused attention on school progress. Like other states, California embarked on a standard-based reform and results-based accountability system that has permeated all other educational efforts in the state. In 1999, the passage of the

Public School Accountability Program (PSAA), established a system that holds all schools accountable for demonstrating academic progress. Under the PSAA, schools are the principal unit of analysis and the target for rewards and sanctions; therefore, the role of school administrators has become central to the state's reform strategy

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. A 1998 survey commissioned by the National Association of Elementary School Principals (NAESP) and the National Association of Secondary School Principals (NASSP), found that approximately half the school districts surveyed reported a shortage of K-12 principals that year. A 2001 Public Agenda survey found a similar proportion of superintendents reporting an insufficient supply of principal candidates, rising to 61% of urban superintendents. Analyses of principal shortages have identified the pressures of new accountability systems, expanding responsibilities, reforms removing principal tenure, and inadequate compensation as among the factors discouraging individuals certified for administration from seeking or remaining in principalships (see, e.g. Whitaker, 2002, for a review). To many, the job as it is currently configured in many districts does not seem doable or adequately supported.

California districts have been among those reporting shortages. A Los Angeles *Times* story headlined: "Principal: A Tougher Job, Fewer Takers" summarizes the prevailing view about reasons for difficulty finding qualified takers: "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). Los Angeles opened the 2000-01 school year with 40 principal vacancies unfilled (Kerrins, 2001). Some other California districts have noted only 4 or 5 applications for administrative jobs that once received 75 or more applicants (Adams, 1999). A CSU-Northridge survey of Los Angeles, Ventura and Santa Barbara counties found that of graduates who received preliminary Administrative Services credentials, only 38 percent were serving in any administrative role (including deans and assistant principals), and 26 percent were considering leaving administration, citing salaries, work hours, inadequate support, and job demands. Of the remainder, nearly half said that their decisions not to seek jobs as

administrators were a function of their greater satisfaction in their current roles than they thought they would have as principals, given the politics, long hours, stress, lack of support, and lack of job security they perceived principals receive (Adams, 1999), a finding reiterated in studies elsewhere (Winter, Rinehard, & Munoz, 2002).

The demands of the principalship are even greater in California than in other states, because the levels of staffing are so much lower and principals receive less support from both district and school level staff than elsewhere. With costs of living among the highest in the nation and per pupil expenditures still below the national average, California has fewer staff per pupil than most other states, ranking 48th in the number of district administrators, 49th in the number of teachers and certified school staff, and 50th in the number of guidance counselors and principals or assistant principals in 2003-04 (See Table 1.) This means California principals need to do more of the management work district offices might do elsewhere, and are less supported by assistant principals, counselors, and others who would handle student supports and other tasks.

Table 1: Staffing Ratios in California and the Nation

Staff per 1,000 Pupils in 2003-04								
	Texas	New York	U.S. Average	Illinois	Florida	California	California's Rank	% of National Average
TOTAL STAFF	137.7	136.8	**123.0**	120.9	114.3	**90.9**	48	74%
Total District Staff	2.9	11.1	**5.9**	5.8	6.8	**5.2**	31	88%
Officials & Administrators	1.8	1.0	**1.3**	1.9	0.7	**0.4**	48	31%
School Staff	98.3	102.1	**89.9**	88.1	79.4	**68.4**	50	76%
Certified School Staff	77.1	81.1	**69.7**	66.3	62.0	**51.7**	49	74%
Principals & Assistant Principals	6.8	2.7	**3.4**	3.1	2.7	**2.1**	50	62%
Teachers	66.9	75.0	**63.1**	60.8	56.0	**48.3**	49	77%
Guidance Counselors	2.3	2.2	**2.1**	1.5	2.2	**1.1**	50	52%
Librarians	1.1	1.2	**1.1**	1.0	1.0	**0.2**	51	18%

Note: The District of Columbia is included with the 50 states.

Data Source: National Center of Education Statistics (NCES), EdSource, School Finance Overview, 11/05. Retrieved 11/10/06 from http://www.edsource.org/edu_fin.cfm

Concerns about entering this challenging job are occurring as a wave of retirements creates more vacancies. A national estimate of demand in 2002 set the proportion of principal vacancies over the upcoming five-year period at 60% (Peterson, 2002). A

statewide survey conducted by the Association of California School Administrators in 2000 found that, although the state was credentialing enough applicants for the substantial demand, districts reported difficulty hiring: Almost half stated it was difficult to find a candidate they wanted to hire, with the greatest dissatisfaction in suburban districts and unified districts. (This may be a measure of selectivity as well as shortages.) As indications of the difficulty finding experienced candidates, which most districts seek, nearly 40% of those hired in the previous three years had less than 2 years of administrative experience, and almost 9 percent of the new hires were reported to have less than the administrative credential requirement of three years of teaching experience. District officials who responded to the survey noted concerns about principal's competencies in several areas, including curriculum development and the design of staff development responsive to instructional needs, knowledge of legal and collective bargaining requirements, ability to coordinate educational services with other local social service agencies, ability to develop and administer school budgets, and ability to evaluate the efficiency and effectiveness of services funded by the budget (Kerrins, 2001).

In addition, principals often feel under-prepared for the challenges of the work they are now expected to do. As expectations of principals have continued to increase, so has awareness of the shortcomings in many principals' preparation and capacities to meet the demands of the job. Among key sources of role changes creating a more difficult job, Whitaker (2003) identifies the evolution of local site management, with concomitant needs for principals to manage budgets, decision making processes, and constituencies; increased accountability; expectations of change leadership (rather than traditional management); and changed relationships with communities. Winter, Rinehart, & Munoz (2002) found that 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' sense of self-efficacy. In their sample, only 10% of eligible candidates reported they were likely to apply for a principalship.

Historically, preparation programs for principals in the U.S. have been a collection of courses regarding general management principles, school laws, administrative requirements, and procedures, with little emphasis on knowledge about 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 that have allowed prospective leaders to learn the many facets of their complex jobs in close collaboration with highly skilled veteran leaders. And many professional development programs for principals 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 to carry out the new missions demanded of them, unlike career paths in many management jobs in business or in many other professions, such as medicine, architecture, and engineering, that build in apprenticeships in the early years, along with ongoing professional development.

The Evolution of Leadership Policy

As the importance of leadership to 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 nine to forty (Peters & Bagenstos, 1988; Snyder & Ebmeier, 1992). 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. More than 40 states have adopted or adapted these standards, and some have developed performance assessments to evaluate candidates' acquisition of the skills they outline. State, national, and international investments in in-service training of principals increased during the period (Hallinger, 1992; Murphy, 1990). New leadership development programs have been launched by some foundations as well as 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.

A consensus about the features of successful programs has begun to develop. As outlined in a recent review of the research (Davis, Darling-Hammond, LaPointe, & Meyerson, 2005), strong leadership development programs are believed to feature:

- *Research-based content* on learning and instruction, the development of quality teaching and professional learning, organizational development, data analysis, and change management, as well as leadership skills;
- *Curricular coherence* that links goals, learning activities, and candidate assessments around a set of standards for leadership competence;
- *Problem-based learning methods* that connect theory and practice and teach effective problem-framing and problem-solving strategies;
- *Field-based internships or coaching* that connects intellectual work with practical work under the guidance of an expert practitioner who can model good practice, coach another practitioner, ask probing questions to guide reflection, and provide feedback to guide the development of practice;
- *Cohort groups* that create opportunities for collaboration and teamwork in practice-oriented situations;
- *Close collaboration* between programs and school districts, so that the work of the program is directly linked to the instructional efforts of the schools.[1]

Some of these features, such as problem-based learning methods, have been linked to stronger cognitive outcomes of programs, and others, such as well-constructed internships, have been linked to principals' capacity to enact what they learn. Most have emerged either from case studies of well-respected programs or from professional consensus about what practitioners perceive has been successful in their experience.

State initiatives have often sought to incorporate some of these features in accreditation requirements for pre-service programs and the design of in-service programs. A number of districts have created innovative partnerships with local universities to strengthen pre-service and in-service preparation of principals, and some states have undertaken new initiatives to support stronger preparation for principals and other school leaders. As we will see below, the efforts of some states, like Mississippi and

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[1] It may be worth noting that some other countries undertake principal preparation as a post-appointment process, which offers a very different model.

Connecticut, seem to have led to important changes in the preparation of principals in ways that respond to current demands for principals as instructional leaders and school change agents. Others, like North Carolina and Kentucky, have made substantial investments in recruiting prospective principals, and – with the addition of Georgia and Delaware – in providing intensive, ongoing in-service development opportunities. In California, investments have been less consistent and intensive, and principals report less support for their learning than in some other states, as well as less engagement, on average, in some of the practices that appear to lead to strong school performance.

In what follows, we describe California's policies regarding administrator development, research on principal development programs nationally, how California principals compare to those in other states, and what policy strategies may strengthen the leadership workforce in California. The data for these analyses derive largely from a national study of principal development[2] that included a nationwide survey of more than 1000 principals, with oversampling in 8 states, including California. In these eight states, we also conducted policy case studies by reviewing policy documents and literature and interviewing stakeholders: policymakers and analysts, principals and superintendents, and representatives of professional associations, preparation programs, and professional development programs. Finally, we studied 8 exemplary leadership development programs in 5 of these states and documented their approaches and outcomes.

Principal Development Policy in California

California has undertaken various policy initiatives in the area of administrators' preparation since the 1970's. However, many of these have been sporadic or limited in scope. Others have been discontinued. For example, the long-standing, highly regarded California State Leadership Academy, founded in the mid-1980s, was discontinued as a free-standing institute due to state budget cuts in 2003. What remains of the Academy is now a project in WestEd. Beyond establishing credential requirements and accreditation standards, California now has only one major state level initiative directed at principals' professional development: a short-term professional development requirement under AB 75, described further below.

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[2] This study was funded by the Wallace Foundation.

Credentialing Policy

Credentialing policy for teachers and administrators in California is developed and implemented by the California Commission on Teacher Credentialing (CCTC), which was created in 1970 by the Ryan Act and is the oldest autonomous state standards board in the nation. The Commission, most of whose members are appointed by the Governor,[3] has the mandate to design, develop and implement the standards that govern the professional preparation of all educators in the state of California and had a major role in legislative efforts in the area of credentialing over the last 25 years.

History of Principal Development Policy in California. In 1977, the first legislative attempt to provide administrators with training beyond their initial preparation was vetoed by then Governor Jerry Brown. In 1979, a report stimulated by the efforts of Assemblyman Dennis Mangers argued that certification requirements were inadequate, especially for educational leaders. In 1983, the Commons Commission reported that the principal's role must be thoroughly redefined and new training programs for principals must be developed. This was when the CSLA was instituted for in-service development (discussed later). The Commons Commission report also argued that the one-step credential that was in use at that time placed more emphasis on pre-service training covering broad aspects of educational administration than on the needs of in-service principals for ongoing skill development. It was argued that a two-tiered credential could support a developmental process combining theory and practice that would help administrators deal with the specific needs and challenges they faced at their schools. A Preliminary Credential would be given upon the completion of the initial program, and the principal would receive more training, including a field-based component, when he or she held a full-time administrative position.

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. Although this requirement intends to encourage a well-structured field experience tied to study, the resources and organizational infrastructure for providing this experience in a well-supervised manner that can promote systematic

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[3] CCTC's relationship with Governor's offices was strengthened in 1987. The Governor appoints 14 of the 15 voting commissioners. There are five other ex-officio non-voting members.

learning of critical skills have typically been missing. Thus, while the two-tier credentialing format holds possibilities for deeper learning of leadership skills, these possibilities have not always been realized. Administrators have often criticized the lack of adequate clinical training at the preliminary credential level (tier 1), while characterizing the training they must undertake for the Tier 2 credential as time-consuming, expensive, unhelpful, and even redundant (Bond, n.d., pp. 66-67).

Changes to the administrative preparation program and credentialing requirements over the last decade reflect both an evolving understanding of the skills and knowledge necessary to be a successful principal and a growing concern about a shortage of principals.   In 1994, the Commission adopted recommendations leading to the modification of the structure of the credentialing (creating the Certificate of Eligibility) and defining standards for each level of preparation. Beginning in 2000, the CCTC led another review of the administrative credential in light of the changing demands on school principals. The public discussion that followed produced two significant conclusions: (1) the level and intensity of field experience at the initial preparation level did not always provide the administrator with sufficient understanding of the responsibilities that the position entailed and (2) the structure and content of the "tier 2" professional level credential should also be redesigned.

Current Preparation and Credentialing Requirements. Implementation of the first policy objective occurred in 2003 with the adoption of the California Professional Standards for Educational Leaders (CPSEL). The CPSEL were adapted from the national administrator standards created by the Interstate School Leaders' Licensure Consortium (ISLLC) to have a greater emphasis on teaching and learning as well as community and parent outreach.

Figure 1
California Professional Standards for Educational Leaders (CPSEL)

Standard 1: Facilitating the development, articulation, implementation and stewardship of a vision of learning that is shared and supported by the school community.
Standard 2: Advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.
Standard 3: Ensuring management of the organization, operations, and resources for a safe, efficient and effective learning environment.

> **Standard 4**: <u>Collaborating with families and community members</u>, responding to diverse community interests and needs, and mobilizing community resources.
> **Standard 5**: Modeling a personal <u>code of ethics</u> and developing professional leadership capacity.
> **Standard 6**: Understanding, responding to, and influencing the larger <u>political, social, economic, legal and cultural context</u>.

To maintain CCTC accreditation, preparation programs must align their curricula with the six CPSEL thematic areas, but due to budgetary constraints there has been little oversight of preparation programs to ensure this alignment or the quality of the resulting programs. Some programs participate in voluntary national accreditation through NCATE (the National Council on Accrediting Teacher Education), which requires them to document many aspects of program quality and outcomes, but they represent a minority of programs in the state. (The CCTC just voted in August, 2006 to re-start site visits by the Committee on Accreditation and to redesign the accreditation process.) There have also been few resources devoted by the state to program development. A number of knowledgeable observers view existing California programs as uneven in quality, with some programs adopting cutting edge approaches to training leaders and others characterized by low admissions and graduation standards, a weak faculty, lack of curricular coherence and relevance, and little connection between theory and practice. Although the California State University (CSU) programs have developed curricula that align with the CPSEL standards, concerns remain on some campuses about the design or absence of the internship experience and the over reliance on adjunct professors with limited expertise in the scholarship of educational leadership. With little state investment in program development or monitoring, there are few current incentives to reform.

Pursuit of the second policy objective led to a significant revision of the requirements to obtain both the Tier I Preliminary credential and the Tier II Professional Clear credential. According to the CCTC Handbook:

> The Preliminary Administrative Services program is designed to prepare persons for administrative responsibilities in a variety of educational settings and contexts. The Professional Clear Administrative Services Credential program is intended to be an induction experience for beginning administrators that provides mentoring, ongoing support, and professional development targeted to the individual candidate's assessed needs. Ongoing credential renewal requirements recognize the

need for administrators to remain professionally current and to select and engage in activities that improve their own practice.

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Figure 2
California Administrative Credential Requirements

Tier I: Preliminary Administrative Services Credential (Non-renewable, 5-year credential).
Administrator must meet <u>all</u> of the following:
   - Possession of valid prerequisite teaching or services credential.
   - Minimum of 3 years successful, full time service in public or private school.
   - Passing score on the CBEST
   - Accepted an administrative position.
   - Also must complete <u>one</u> of the following:
   - A college or a university based program accredited by CCTC.
   - A CCTC approved program of specialized professional preparation in administrative
        services.
   - A passing score on "School Leaders Licensure Assessment"

Tier II: Professional Clear Administrative Services Credential (renewable every 5 years with completion of 150 hours of professional development). Administrator must meet <u>all</u> of the following:
   - Possession of valid Preliminary Administrative Services Credential.
   - Minimum of 2 years, successful, full-time administrative experience in a public or
        private school.
Also must complete <u>one</u> of the following:
   - A college or a university based program accredited by CCTC, option to forgo
        coursework through demonstration of mastery of fieldwork performance standards
   - AB 430 (formerly AB 75) Principal Training Program
   - CCTC approved alternative program resulting in recommendation from program
        sponsor
   - An individualized program of advanced preparation designed in cooperation with
        employer and CCTC approved program sponsor.

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In practice, however, a candidate may obtain both the Preliminary and Professional Clear credentials without completing any program by passing an examination or by completing an alternative program that consists of only an internship. Although the testing option was intended to accommodate experienced administrators from other states and the examination was developed around the ISLLC standards (from which California's standards were derived), the paper-and-pencil test of factual knowledge does not provide information about candidate's hands-on problem-solving skills or on-the-ground abilities. The fact that this route is open to candidates about whom there are no other indicators of

experience, training, or competence concerns education leaders who question whether such a measure can evaluate a candidate's capacity to meet the demands of the principalship. In addition to concerns about the ability of candidates to understand, prioritize, juggle, and enact the many administrative challenges of the job, respondents shared their worry that under the alternative route it is unclear where administrators learn about instruction, professional development, legal requirements, policy, community engagement, ethics, budgeting, and organizational systems and change.

The introduction of alternatives to traditional preparation programs as a means to qualify for administrative credentials reflects both a desire to address shortages by lowering barriers that may keep candidates from pursuing careers in administration and, perhaps, policymakers' lack of faith in existing programs. Although most candidates are still receiving training through the California State University system, policymakers have taken steps to include outside organizations like the Association of California School Administrators (ACSA), as well as individual districts and private groups.

Although state funding of public higher education institutions keeps tuition costs lower than at private institutions, principal candidates in the traditional programs contribute a significant amount to their training in the form of both tuition and time. Some districts do reimburse aspiring principals for the cost of their training, but for other potential candidates, the non-reimbursed costs are high and may create too great a barrier to entering the profession. For this reason, the alternative routes have an obvious appeal. However, some analysts have noted that nontraditional providers are often hindered by the fact that many superintendents will not hire administrators without preparation who are credentialed through alternative routes (Hess & Kelly, 2005). Concerns about alternative programs that skirt training, on the one hand, and the costs of traditional programs, on the other, have been addressed in some states by investments both in improved programs and in financial subsidies for candidates to become well-trained. Thus far, these kinds of investments in pre-service programs and candidates have occurred in some local California districts, as we describe later, but have not occurred on a statewide basis.

In-Service Development

For nearly 20 years, the state sponsored and funded the California School Leadership Academy (CSLA), which was launched in 1983 under Senator Gary Hart's SB

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813.   The stated mission of the CSLA was to "develop leadership focused on teaching and learning so that each student meets or exceeds standards." Twelve county offices of education received grants to host the CSLA School Leadership Centers, which serve the entire state. In 1992, CSLA, in collaboration with the Association of California School Administrators (ACSA), began to offer professional development for superintendents through an Executive Leadership Center (ELC). More than 25,000 school leaders, including at least 600 school superintendents, participated in these programs, which offered intensive, long-term training (for example, 10 to 15 multi-day sessions annually for one to three years) for both individual leaders and leadership teams.

The CSLA was recognized nationally as a source of high-quality professional development. For example, a study of the practices of 44 graduates of its 3-year training academy identified it as a highly effective model of instructional leadership development (Marsh, 1992). Other accounts of the training and its outcomes reinforce these findings (Nelson, 1989; Peterson, 2002).   Kent Peterson (2002), a researcher with extensive experience in studying educational leadership development programs observed:

> Overall, CSLA offers some of the most carefully designed, conceptually integrated, locally sequenced, and reform-focused programs in the country. Its set of training modules, regional structure, attention to developing leaders for a standards-based setting, and efforts to produce a coherent and powerful collegial culture make it a well-developed professional development package. The program's ability to build a strong network and cohesive professional culture across the state is unique among programs (Kelley & Peterson, 2000; Peterson, 1995) (p. 225).

Aspects of CSLA's work have been adopted in Alabama, Louisiana, Mississippi, New York, Texas, New Mexico, Arizona, the Department of Defense Schools, and the Netherlands, Sweden, and Kuwait. Before it was discontinued in 2003 as a function of budget cuts, the legislature appropriated $1.5 million annually for the administration of the overall program and $5.1 million for grants to the regional centers.   Some of the CSLA work continues as a "leadership initiative" project within WestED, supported on a fee-for-service basis. However, the broad capacity of the Academy has been difficult to sustain. Currently, the only direct legislative funding focused on in-service professional

development is the state's *Principal Training Program* authorized under Assembly Bill 75 (Chapter 697, AB 75, 2001) and reauthorized as Assembly Bill 430 (AB 430, 2006).

AB 75 Training. AB 75 established the Principal Training Program to provide incentive funding for Local Educational Agencies (LEA) to train school-site administrators – primarily principals and vice-principals, primarily to administer the state-approved curriculum. The total appropriation for the program was $27.5 million when it was authorized, or about $5 million per year. Federal funds augmenting the program were about $1.5 million in 2005-06. Until February 2006, the Bill and Melinda Gates Foundation supported some of the costs of program implementation though an $18 million grant. To receive the Gates Foundation funds, districts had to engage both principals and teachers in a pre- and post-assessment of technology use.

For each participating administrator, the state allocates $3,000 to the LEA to underwrite the cost of training. For each $3,000 received, LEAs have the obligation to provide $1,000 in matching funds that must be used for training-related costs. To date, CDE staff estimate that 10,000 administrators have gone through the training since it was launched five years ago. Participation in the training program is usually voluntary; however, principals of schools that are designated as High Priority or are engaged in School Intervention must participate and are given priority in assignments to training. Training for the AB 75 content areas is provided in two phases, an 80 hour Institute and an 80 hour Follow-up Practicum. The law requires that principals receive training in the following Content Areas:

1) School financial and personnel management;
2) Core academic standards;
3) Curriculum frameworks and instructional materials aligned to the state academic standards;
4) The use of pupil assessment instruments and data from the Standardized Testing and Reporting system (STARS) to improve pupil performance;
5) Instructional Leadership and management strategies regarding the use of instructional technology to improve pupil performance;
6) Extension of the knowledge, skills and abilities acquired in the preliminary administrative preparation program in ways that strengthen the ability of administrators to serve all students in their currently assigned school.

The Principal Training Program was designed to support California's standards-based reform; thus, the training is aligned with the state's curriculum standards and

emphasizes learning about the state-adopted instructional materials. The program is divided in three modules which emphasize, respectively, 1) Leadership and Support of Student Instructional Programs, 2) Leadership and Management for Instructional Improvement and 3) Instructional Technology to improve Student Performance.   Module 1 emphasizes the knowledge and actions required to lead and assist teachers in fully implementing the standards-based instructional programs approved by the state and local school boards and to plan, monitor and act on assessment data for improving instruction and student achievement. Module 2 focuses on the elements necessary to align monetary and human resources to priorities that will support effective instruction and improved student achievement. Module 3 is about technology applications that serve as a link between the first two modules.   In the 80 hour Institute, a minimum of 40 hours must be allocated to Module 1, while modules 2 and 3 are allocated a minimum of 15 hours each.

AB 75 is intended to provide leadership support for the teacher training programs established by AB 466, which provide intensive professional development in reading/language arts and mathematics instructional materials for K-12 teachers ("Overview of Principal Training Program," 2001). This occurs both through the Module 1 training in instructional materials and through the fact that principals can satisfy their "practicum requirement" by attending the 466 training with their teachers.

Training for the three modules is offered by providers approved by the State Board of Education.[4] The criteria for the approval of training providers were developed by the State Board of Education in consultation with the Commission on Teacher Credentialing (CTC) and other experts. LEAs can hire as many as three different training providers, or they can serve as their own providers if they is are approved by the SBE. Since the intent of the bill is to help all administrators master the contents of the three modules, the design of the program offers multiple approaches to customizing the training to match not only the different levels of skill and experience among principals but also the different needs and challenges that LEA may face. LEAs are encouraged to seek out the best provider fit for their needs and can collaborate with the provider to develop an appropriate training program for their principals.

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[4] Currently there are 50 SBE approved training providers listed at the AB75 Management System web site, 13 of which serve multiple areas. Most providers serve one local agency.

Each principal must complete a minimum of 160 hours of training and LEAs can negotiate with the training providers to offer up to ten more hours of training to their administrators. The allocation of the hours is also an issue of negotiation between LEA and providers. LEAs have the right to request advanced training assuming there is an adequate number of qualified principals. The advanced level may include similar content at a more advanced level or additional content beyond of what is offered at the basic level. As of January 2003, principals can acquire the "tier 2" Professional Clear Administrative Services Credential upon completion of AB 75 training, if they already hold the Preliminary Credential.

Strengths and Limitations of AB 75. The California Department of Education is expected to perform an evaluation of the program, using data and materials submitted to it by the LEA and the training providers. LEAs must evaluate the effectiveness of individual trainers and providers and the extent to which administrators are making progress towards mastering the core competencies in each of the AB 75 content areas. Each training provider must also conduct a pre-assessment of administrators in order to identify specific or advanced needs and document delivery methods and information regarding trainers. The hope is that LEAs and providers will use this information to design the training program in order to be a good fit for each agency's administrators.

So far there is no formal statewide evaluation of the training program; however, there are indications from anecdotal evidence and local evaluations about some positive outcomes. One analysis based on conversations with local administrators in several districts found that principals who took part in the training reported they had developed a deeper understanding of the curriculum and were better able to implement instructional programs – a key goal of AB 75 – as well as to converse with teachers about teaching and support their instructional needs (King & Smoot, 2004). The principals felt they had learned about the importance of creating a culture that focuses on academic achievement and were better able to handle data management. Several superintendents reported that, as a result of AB 75 training, administrators had become more visible in the classroom and more supportive of teachers, because they better understood the curriculum.   In addition, there is anecdotal evidence that some administrators better understand how to analyze and disaggregate student achievement data and use it to support interventions in the classroom.

An evaluation of the program in the Los Angeles Unified School District found that principals showed significant gains in learning during the course of the program as demonstrated by scores on "Knowledge Application Scenarios" in each of the three core areas completed before and after their training. These scenarios asked participants to describe what they plan to do at their site in several areas: planning for professional development, focus on core academics, creating personal learning environments, and organizing staff and other resources to support instructional priorities. Almost all of the interviewed principals indicated that they had incorporated into their daily work at least some aspects of the knowledge and skills imparted by the program (Neuhaus, 2004).

CDE consultants and trainers interviewed for this report noted that the training has generally been most successful when it is interactive, when principals share knowledge with each other and work in together on site-specific problems (e.g. bringing achievement data from their own site to analyze together), and when district officials also participate in the training, so that more coherence and reinforcement occurs district-wide. Most perceive the greatest area of success as an increase in principals' knowledge about the curriculum and textbooks being used in the classroom, a major goal of the program. As one noted, "Before AB 75, principals would send their teachers off to learn about the textbook but wouldn't necessarily know about the textbook themselves."

The focus on state-required texts and materials is seen as both a strength and weakness of the legislation by different observers. Critics of AB 75/430 suggest that the bill as it was finally approved and implemented does not provide the broad induction program for new principals originally intended. Instead, they believe the modules are overly focused on introducing principals to specific curricula and text books, rather than a more comprehensive body of knowledge and skills about curriculum, instructional development, and the improvement of teaching. Another criticism of the program is that it is typically delivered as a "one size fits all" training, which means, as one respondent noted, that "seasoned veterans have to get the 'baby food' you're feeding the rookies." Furthermore, the training is not equally useful to principals at different school levels, since the state-adopted texts are focused on elementary schools, and the middle and high school curricula are much broader and more specialized than can be treated adequately in the short time available. Finally, once the training is completed there is nothing else available.

Both proponents and critics agree that 80 hours of training is not enough to meet many of the needs that principals have, and that a crucial missing link is the absence of real mentoring or coaching for principals to improve their practice on the ground. Although the 80 hour practicum could conceivably used for some coaching, and is in at least a few districts, the time is too short, the funding is too limited, and the structure of the program is not conducive to such an approach. Many principals complete their entire 80 hours of "practicum" follow-up by sitting in on AB 466 training in reading and mathematics (40 hours each) with their teachers or by completing readings and reflective journals, rather than by applying knowledge in their sites with the support of expert veterans. While these activities can be useful, they are a step removed from improving actual practice in the principalship.

While most observers believe that AB 75 has provided some useful in-service training for school leaders, no one we spoke with believes that it addresses the full range of concerns experienced by principals. Critical areas where principals voice a need for more support range from the management of accountability and the redesign of schools to the professional development of teachers to provide instructional support for all pupils, including English learners and special needs students. The desirability of a program providing coaching was voiced by a number of interviewees. Finally, the ability of principals to rethink organizational designs, allocate resources in the most potentially effective ways, and manage an organizational change process are not directly addressed by this short training. Those who believe that AB 75 training does not adequately meet the wide-ranging needs of principals are concerned about the provision allowing principals to earn their Professional Clear credential through this route, believing that it leaves principals with insufficient preparation and support to meet the demands of the job.

Other Professional Development for Principals. As a source of in-service professional development for principals, AB 75 (reauthorized in 2006 as AB 430) is the only one funded directly by the state. However, there are many diverse programs, including workshops, conferences and coursework, sponsored by districts, county offices, universities and organizations like the Association of California School Administrators (ACSA). Along with the other professional development it provides, ACSA has recently developed a mentoring model, described later, that it hopes to scale up. Some federal Title

II money and state categorical grants may be used by districts for principal professional development, but because these funds are primarily used for teacher professional development, the amount available for administrators varies from year to year. The state lost an important resource when the California School Leadership Academy went out of operation in 2003.   CSLA provided many of the kinds of professional development our respondents noted were now largely absent for California principals, including training district teams to manage standards-based reform and to turn around struggling schools.

Aside from the professional development districts provide, which is highly variable across the state, and the limited scholarships provided by ACSA for attendance at conferences, principals bear much or all of the cost of their professional development. In our national survey conducted in 2005, 78% of the California principals reported that they paid all of the costs for their pre-service preparation – a proportion slightly higher than the national average (73%). California principals were also significantly less likely than those in other states to report that their in-service development was subsidized. Only 37% of California principals received the training they engaged in at no cost, as compared to 57% of principals nationally and 75% in states like Mississippi and Delaware that have fairly extensive state leadership academies.

A few districts, such as San Diego, have made significant efforts to establish professional development programs to increase their principals' capacities as instructional leaders through intensive training, mentoring and networking. (This program is described below.) Other districts have focused on principal recruitment. Sacramento, for example, launched the Aspiring Elementary School Administrators Network (AESAN) and the Future African American Administrators program to inspire qualified individuals to pursue credentialing programs. District programs such as these, however, have generally lacked reliable long-term funding.

Although issues surrounding principal training have received more attention from state policymakers in the last decade, there are many remaining concerns voiced by representatives from districts, ACSA, preparation programs, and the CCTC regarding every stage of principals' careers. The desire to recruit better qualified and more diverse candidates suggests the need for more outreach programs and stronger pre-service preparation models. Concerns about both recruitment and the quality of pre-service

programs have led to new models focused on instructional leadership and created in partnership with districts – like those recently developed by UC-Berkeley and University of San Diego – as well as to requests for increased funding to support the development of better programs, to reimburse candidates for the cost of attending those programs, and even to pay individuals for their time so that they can afford to enter full time programs that permit a supervised internship. In addition, there have been calls for greater oversight of all accredited preparation programs to ensure alignment between the training and the demands of the job and to bolster the validity of administrative credentials in signaling an administrator's ability to meet those demands.

Similar requests for consistent funding for the development and implementation of quality induction programs have also been made. Many have called for an induction program for beginning principals with a mentoring component modeled on the successful Beginning Teacher Support and Assessment (BTSA) program, which appears to support both teacher retention (CCTC, 2002) and the development of competence. For example, in 1998, 21 of 30 local evaluations showed greater than expected performance or skill levels on the part of BTSA-supported beginning teachers (Bond, n.d., pp. 82-83).

Research on Principal Development Programs Nationwide

As we consider options for strengthening California's principal workforce, it is useful to place the state's efforts in national perspective. We are able to do that by drawing on a nationwide study of the principal development programs recently completed by a team of researchers at Stanford University and the Finance Project. The School Leadership Study was designed to contribute information about the design and impact of state policies addressing school leadership development, as well as about the characteristics and outcomes of high quality pre- and in-service programs.   The study is guided by the following research questions:

(1) **Qualities of Effective Programs.** What are components of effective training programs and ongoing professional development for principals? What qualities and design principles are displayed in exemplary programs?

(2) **Context of High-Quality Programs.** What role do state, district, and institutional policies play in the development of principal development programs? What does it cost to provide an exemplary professional development program?

(3) Impact of Exemplary Programs. Are aspiring principals developing the knowledge and skills taught by these programs? Do graduates of exemplary programs demonstrate leadership practice that is more instructionally focused, relative to other leaders?

The study examines leadership development policies in eight states – California, Connecticut, Delaware, Georgia, Kentucky, Mississippi, New York, and North Carolina – and zooms in on eight programs reputed to be highly effective in five of these states. These exemplary programs were selected based on expert interviews, a review of the research nationally, and initial research on a much larger sample of programs. They were chosen to represent a variety of approaches with respect to their design, policy context, and the nature of the collaboration. With one exception, these programs represent a continuum of principal preparation and on-going professional development programs — generally through district-university partnerships.   The sample includes the following programs:

Pre-Service	In-Service
University of San Diego / SDCS	San Diego City Schools
Bank Street College	Region 1 – New York City Public Schools
University of Connecticut	Hartford School District
Jefferson County (KY)	Jefferson County (KY)
Delta State University (MS)	

The states represented by the program sample were augmented with three additional states to allow for a broader perspective on how state policy and financing structures influence program financing, design, and orientation. We conducted a national survey of principals that oversampled in these eight states. Using lists provided by the National Associations of Elementary and Secondary Principals, we drew a random sample of principals nationwide with oversampling of principals from the focus states. In addition, we sampled graduates and participants from the eight preparation programs. The final sample of 1086 principals included 728 from the focal states, including 189 from California.   The samples were weighted to represent their proportions of the respective populations for each set of analyses. Below we describe California principals in relation to principals in other states, and we describe the features of the exemplary principal development programs, with special emphasis on the San Diego program, since it was

constructed within the unique context of California. Subsequently, we offer recommendations about how leadership development might be strengthened in California by building on the lessons offered by these programs and state policies.

How California Principals Compare to those in Other States

California principals are similar in many regards to those across the nation: They are slightly more experienced, with 15 years of prior teaching experience (vs. 14 nationally) and 17 years of leadership experience (vs. 16 nationally), 10 of those years in the same school. California principals are noticeably more likely to be women (59% as compared to 46% nationally) and Latino/a (20% as compared to 5% nationally). These demographics are similar for elementary and secondary principals, with the exception that secondary principals are more likely to be men (64% vs. 18%, not unlike the national distribution) and to be non-white (43% in secondary schools, a much higher ratio than the nation, vs. 14% in California elementary schools.) About 58% of current principals in California had previously been assistant principals, nearly the same as the national sample (59%). (See Appendix A for tables showing cross-state comparisons and Appendix B for tables showing a breakdown by school level. Responses for elementary and secondary principals are similar, except where noted.)

On most measures California principals' responses to questions about their preparation, the qualities of their programs, and their preparedness for their work are very similar to the national average, differing substantially in only a few areas. First of all, California principals are far more likely than those in any other state to have begun their pre-service programs after they were already in the principalship – 24% as compared to 7% nationally – probably a sign of looser licensing procedures. California principals described pre-service program experiences that seemed especially connected to their work in the field, with significantly more of them reporting that that school practitioners taught in their program, and that they engaged in field-based projects, action research, and coursework linked to their fieldwork. These descriptors were most pronounced for secondary principals' training. California principals were also more likely to be in a student cohort and to have opportunities to engage in self-assessment than their peers nationally. They gave high marks to their programs for having knowledgeable faculty and, especially among elementary principals, for emphasizing instructional leadership.

California principals also felt about as well prepared in most areas as the national sample, and better prepared than the average in a few areas of particular importance to this study (p<.05). These included their preparedness to find and allocate resources to pursue important school goals, to analyze budgets and reallocate resources to achieve critical objectives, to engage in comprehensive planning for school improvement, and to redesign school organizations to enhance productive teaching and learning. In these areas and others, secondary principals felt significantly better prepared than their counterparts nationally, and rated their programs more positively than California's elementary principals did. However, most principals, including those in California, rated their preparation in these organizational and fiscal management areas as weaker than their other areas of competence, and fewer than half of California principals actually felt well-prepared to manage resources and school improvement or redesign. (See figure 3.) As figure 3 illustrates, although California principals rated their preparation significantly above the national average on these areas, among the eight states we focused on, principals in Mississippi and Connecticut felt best prepared on most of these measures, and those in Kentucky and New York felt best-prepared to analyze budgets and reallocate resources to achieve critical objectives. Both of these are states that had introduced site-based management during the 1990s, and provided training to principals to manage their local budgets.

Compared to other principals nationally, those in California were much less likely to have had an internship as part of their training experience (27% vs. 63% on average in the national sample and 92% in New York). Those who had such an experience found it extremely useful, but they were in a small minority.

Figure 3: Percent of Principals Feeling Well-Prepared
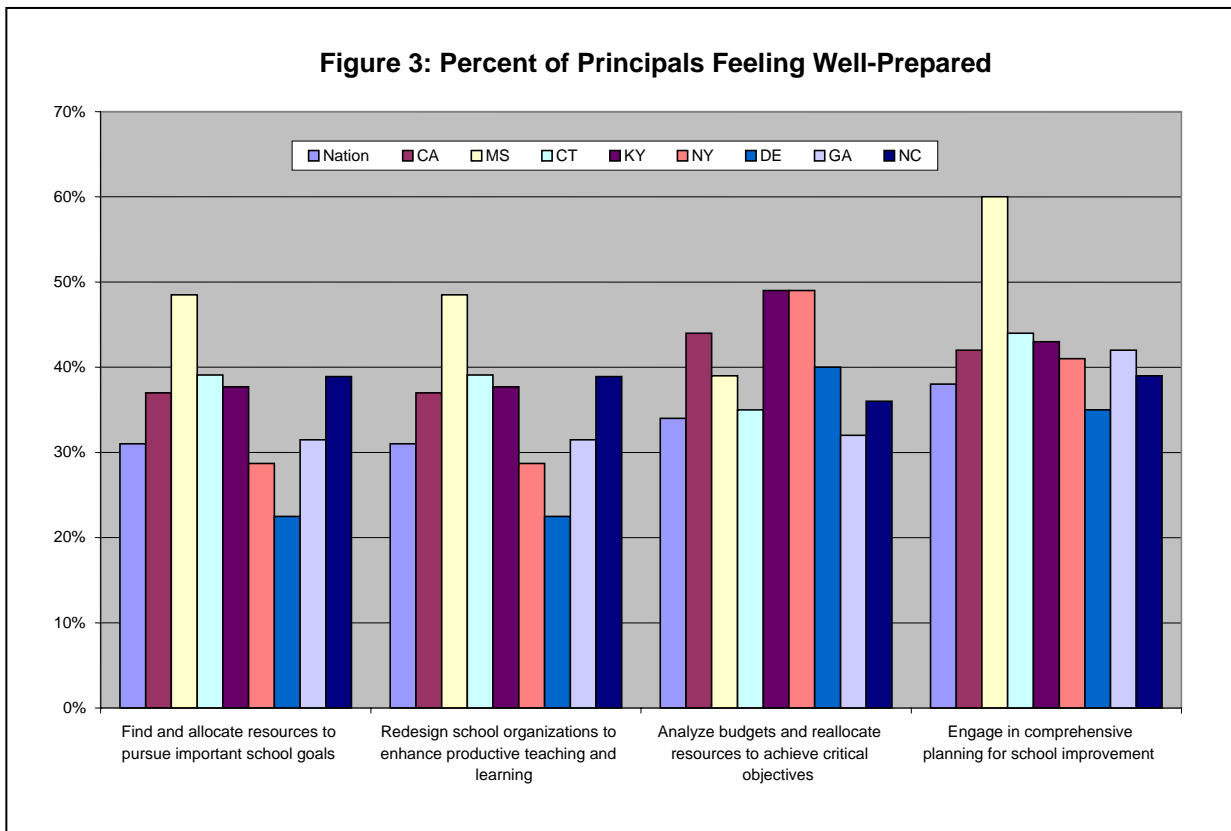
In terms of professional development experiences, California principals have about as much access as others nationally, except in a few areas, such as participating in a principal network, engaging in individual or collaborative research, and being mentored or coached by a veteran principal -- an opportunity only 17% of California principals had in the last 12 months. (See figure 4.) While the differences between California and the national average are not statistically significant (see Appendix A), some states did engage in professional development practices at levels significantly above those of California and other states. For example, principals in Mississippi were significantly more likely to engage in research and peer observations / coaching than others nationally; those in Connecticut were more likely to engage in research, workshops and conferences, and professional reading; those in Delaware were more likely to have mentoring from experienced principals, as well as to participate in workshops, conferences, and professional reading; those in New York were more likely to engage in principal networks and professional reading.

Figure 4- California Principals' Access to Professional Development in Last 12 Months
% of Principals Participating
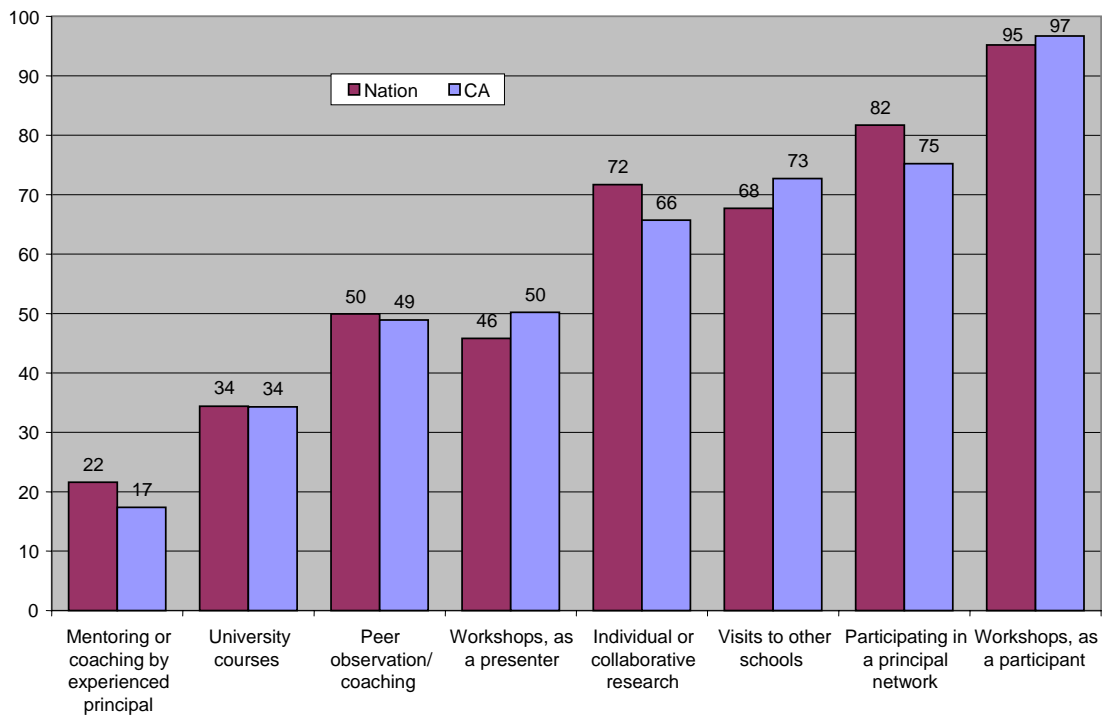
California principals were significantly less likely than others nationally (and the least of any of our eight states) to participate in professional development with teachers, a practice researchers have found is a central element of strong instructional leadership (see, e.g. Elmore & Burney, 1999; Darling-Hammond et al., 2005). (See Table 2 and Figure 5.)

	Table 2: California Principals' Engagement in Professional Development with Teachers in their School			
% of Principals reporting:	Elementary Nation N=443	Elementary California N=87	Secondary Nation N=379	Secondary California N=52
Low Frequency : Never / One or Twice	10.7	19.6	21.4	42.4
Medium frequency: 3-5 times	32.7	45.8	41.5	21.3*
High Frequency: 6 or more times	56.5	34.6*	0.371	36.2

** p<0.05 , *p<0.10.

Figure 5 - Percent of Principals Participating in Professional Development with Teachers

(3 or more times last year)

Professional Development with teachers, 3 or more times
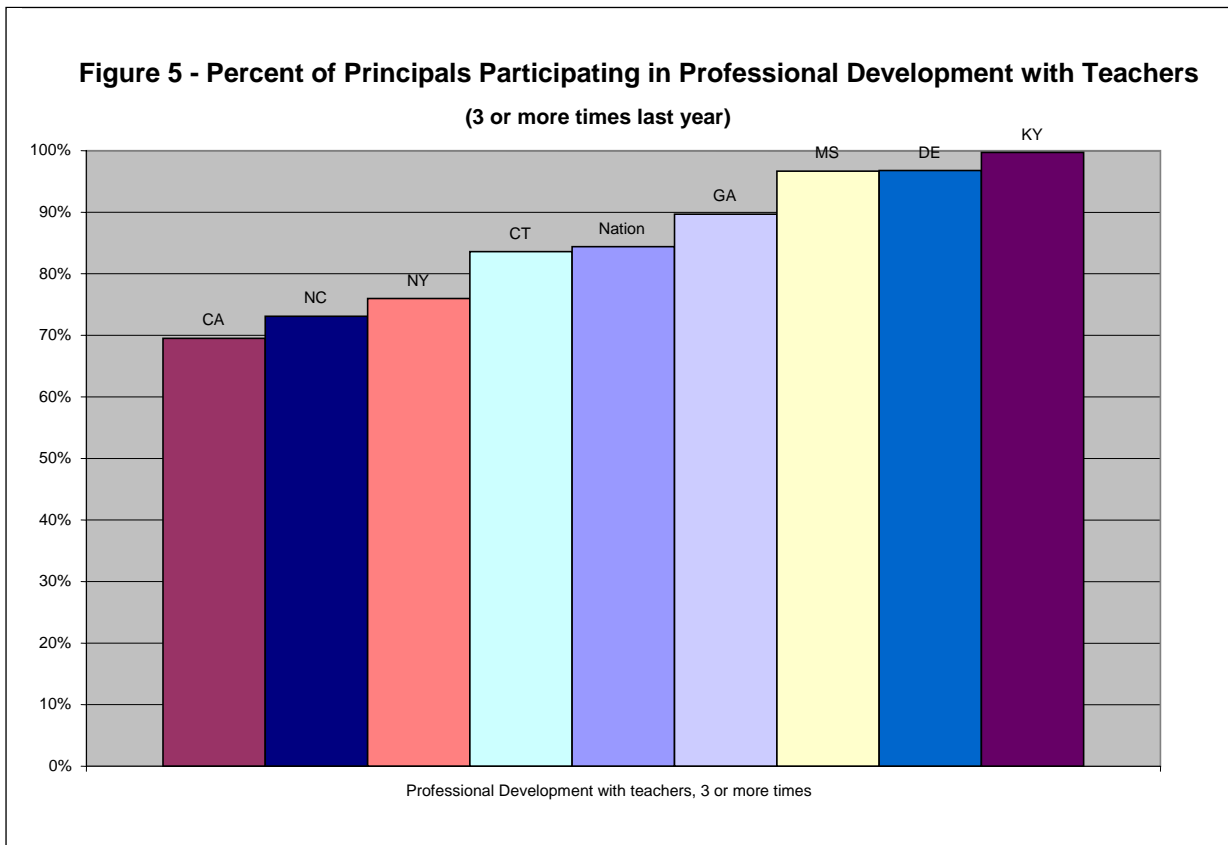
In addition, principals in California appear to spend less time on key instructional leadership functions than those in many other states. California principals' self-reported practices are in some ways substantially similar to those of other principals nationally. However, California principals are significantly <u>less</u> likely than principals nationally to report that they work frequently with teachers to change teaching methods where students are not succeeding or that they work with faculty to develop goals for their practice and professional learning.   They spend less time evaluating teachers and providing instructional feedback, fostering professional development, or guiding the development of curriculum and instruction.   Despite the fact that they felt relatively well-prepared to plan for school improvement, California principals were less likely than those in 5 of the other 7 states to find or make time to use data to monitor school progress. (See figure 6.) These differences were most noticeable between California elementary principals and their peers elsewhere. This may in part be a function of principals' preparation for these functions (recall that California elementary principals did not feel as well-prepared in these areas as secondary principals) or how they conceptualize the leadership role. It may also be partly

a function of the lower levels of staff supports California principals have as compared to their peers elsewhere.

Figure 6 - Principal's Frequency of Engaging in Instructional Activities

1= Never, 2= Once or Twice a Month, 3=Once or Twice a Week, 4=Daily

Nation · CAL · MISS · CON · KEN · NY · DEL · GEO · NC

Categories: Evaluate and provide instructional feedback to teachers; Foster teacher professional development for instructional knowledge and skills; Guide the development and evaluation of curriculum and instruction; Work with teachers to change teaching methods where students are not succeeding; Work with faculty to develop goals for their practice and professional learning

It is worth noting that a recent EdSource survey found that California principals rank training to use assessment data as their top professional development need, followed next by evaluating teachers' instruction (for those in high-performing schools) and addressing English language learners' needs (for those in low-performing or "program improvement" schools; this was also rated highly as a need area by high-performing schools' principals) (Ed Source, 2006).

Among the professional development experiences they had had, the same survey (Ed Source, 2006) found that California principals rated most important for influencing their practice: 1) workshops or conferences related to their role as principal (76% reported a great or moderate amount of influence), 2) individual or collaborative research on a topic of interest (70%), 3) participating in a principal network (62%), and mentoring or peer

observation / coaching (59%). Several items further down the list, after district institutes, visits to other schools, and university courses, came AB 75 training (47% said it had a great or moderate influence on their practice). (See Table 3.)

Principals Report Influence of Past Professional Development Sessions on Practices — Ordered by Amount of Influence	A Great Amount	A Moderate Amount	A Small Amount	None	N/A	Missing
Workshops or conferences related to your role as principal	33%	43%	19%	2%	2%	1%
Individual or collaborative research on a topic of interest to you	33%	37%	20%	4%	5%	1%
Participating in a principal network	31%	31%	21%	4%	12%	1%
Mentoring and/or peer observation and coaching of principals	27%	32%	18%	7%	15%	1%
District training/institutes	23%	38%	25%	4%	10%	1%
Visits to other schools designed to improve your work as principal	22%	36%	22%	8%	12%	0%
University courses related to your role as principal	22%	32%	35%	8%	3%	0%
Completing AB 75 principal training	20%	27%	16%	7%	29%	1%
Attending ACSA's principal institute	13%	9%	6%	13%	57%	3%
Other	7%	1%	0%	<1%	7%	85%

Areas of discouragement. There were some areas in which California principals seem more discouraged than those in other states. For example, they were significantly less likely than principals in any other state to believe that all of the students in their school have access to expert teachers and high-quality teaching – likely a response to the much higher levels of underprepared teachers in California than in any of the other states. California principals were also much less likely than their peers in other states to report that their school has experienced an increase in staff confidence in the value of their work or in staff recognition for a job well done   They were also noticeably less likely than other principals to reports increases over the last year in attention to the needs of low-performing students, sharing of good practices among teachers, or the use of performance data for

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instructional improvement.   There are many plausible reasons for these differences, ranging from a real or perceived lack of supports for schools to the nature of the state accountability system to principals' own knowledge and practices in these areas.

While California principals feel positively about their ability to influence school change and to make a difference in the lives of children, they are significantly more likely than others in any other state to say that the principalship has too many responsibilities, and more likely to say they plan to leave the job: Only 48 percent plan to stay in the principalship until they retire, as compared to 67% nationally.   These differences are particularly pronounced for secondary principals, of whom only 22% plan to remain principals until they retire. These concerns no doubt reflect some of the difficulties of being a principal in California, a state where staffing and other resources have lagged far behind those of other states, while accountability pressures have grown.

Table 4
Plans to Stay in the Principalship

Proportion of principals who plan to remain principals until they retire	Elementary Nation N=443	Elementary California N=87	Secondary Nation N=379	Secondary California N=52
Strongly Disagree	8.2	11.7	11.5	35.5*
Disagree	18.5	11.9	22.3	42.6
Agree	30.0	46.7	26.5	7.5**
Strongly Agree	34.2	23.8	29.3	14.2

P** <0.05 , p*<0.10

As we describe in the next section, principals in the exemplary pre- and in-service leadership development programs in San Diego were more positive about their preparation and professional learning opportunities than those in California as a whole and than principals nationally – and they were significantly more likely to engage in instructional leadership functions on a regular daily and weekly basis. The nature of their learning opportunities and supports is detailed below.

Exemplary Programs

In our study of exemplary programs, we surveyed all graduates of five pre-service

programs from 2000 to 2005 (n=285) and all participants in three in-service programs (n=215), in addition to a national random sample of principals (n=630). (There was overlap between some of the pre-service graduates and in-service program participants; thus, the total sample size was 1086.) We found that, as compared to our national random sample, the eight exemplary programs we studied recruited different kinds of individuals to the principalship: Although similar in years of experience, program principals were significantly more likely to be women and minorities, and were more likely to have strong instructional backgrounds. For example, many more had been department chairs, curriculum leaders, or academic coaches and less likely to have been athletic coaches (who comprise more than 1/3 of principals nationally). Most of the programs have strong relationships with districts which proactively identify teachers with strong leadership potential, rather than just waiting to see who signs up to attend.   Attendance is typically subsidized through state or district funds that enable candidates to undertake at least a full-year of study including an internship in a school under the tutelage of an expert principal.

The program participants reported their pre-service programs offered them more coherent training which was more focused on instructional leadership and provided much tighter connections between theory and well-supervised practice. They felt significantly better prepared for virtually all of the aspects of their jobs than other principals. The in-service program participants reported many more opportunities for coaching and networking with other principals, observations of other schools to analyze practices, and participation in professional development both with their teachers and with other principals. They also found the professional development activities they engaged in to be more helpful than comparison group principals.

The programs have several important features in common. The exemplary pre-service programs had created a comprehensive and coherent program of study, including program content that stresses instructional leadership and leadership for school improvement taught by both university-based and school-based faculty who are theoretically and practically knowledgeable.   The programs engage in a praxis-oriented pedagogy: They do not deal just in generalities but create occasions for instantiating well-grounded theory in practical problems and situations. Applications of knowledge are

fostered through problem-based learning, field-based projects, use of case studies, analysis of leadership dilemmas, and action research. Well-crafted, full-time school-based internships under the guidance of expert principals allowed candidates to learn about practice *in* practice. These are closely tied to coursework where candidates acquire concrete professional tools and practices to develop instruction, improve teaching, and manage change, often tied to district instructional reform strategies. For example, virtually all of the programs used tools like school walk-throughs to help candidates learn to look at classroom teaching analytically and learn how to support teacher development in concrete, specific ways.

Cohort group structures support collegial learning, and candidates have extensive opportunities to reflect on their experiences and development as a leader with continuous assessment and feedback about their competencies. Performance assessments ask candidates to demonstrate their ability to engage in instructional leadership, by observing and evaluating teachers, analyzing student work and learning, designing and delivering professional development, and developing school-wide improvement plans.

San Diego's Principal Development Progams

These characteristics were prominent in two interrelated programs we studied in California: San Diego's Educational Leadership Development Academy (ELDA), sponsored by the University of San Diego and San Diego City Schools, and the City's in-service development program for principals, which featured an extensive web of interrelated learning opportunities.

ELDA was created to develop a talent pool for the principalship as part of a district reform focused on transforming teaching and learning through the development of instructional leadership. Candidates for the Aspiring Leaders program were tapped based on their instructional prowess and leadership potential and released from their classroom or staff development responsibilities for a full year while they participated in university coursework and a paid, full-time administrative internship, working alongside the district's most effective principals. As a consequence of the proactive recruitment strategy, ELDA graduates were much more likely to be female (81% vs. 48% nationally) and Latino (24%

vs. 2% nationally) or African American (8% vs. 5% nationally) than principals outside of San Diego. And, whereas 43% of principals nationally have been school athletic coaches, 55% of ELDA principals have been literacy coaches. Nearly ¾ (74%) were previously grade level or subject matter team leaders or chairpersons (as compared to 46% nationally.)

These instructionally experienced candidates received a strong program focused squarely on developing instructional leaders.   The content of the program emphasizes knowledge of learning and instruction, professional learning and development, organizational behavior, and school management and change.   All of the courses are tied directly to practice. In Instructional Leadership and Supervision, for example, students develop a work plan aligned with the district's principal work plan that asks them to analyze, improve, and integrate a school's professional development structures, the plan for building staff capacity, and the monitoring of student achievement.

ELDA candidates are carefully placed with exemplary supervising principals who model leadership and decision-making practices and intensively coach the interns on the development of their own skills. Principals are selected for these roles based on their own success in improving school outcomes. The internship experience is framed by a learning contract that candidates develop in conjunction with their supervising principal and a university advisor. This contract outlines the knowledge and skills that school leadership candidates are expected to develop, such as subject matter and pedagogical knowledge demonstrated through modeling lessons to other teachers and leading whole- and small-group staff development. Their work is evaluated regularly by both their university advisor and supervising principal using a rubric based on the ISLLC standards. The candidates meet at least monthly with both their university advisor and supervising principal to review their progress toward the goals identified on their learning contract and to ensure that they have adequate opportunities to develop their skills and knowledge In order to ensure that candidates' experiences are of consistent scope and quality across all placement sites, supervising principals also attend periodic meetings throughout the year to review their work and discuss common challenges or concerns. In addition, the ELDA program director regularly visits to candidates' schools to observe their work.

This tightly knit program drew strong praise from graduates, who were

significantly more likely than other principals in California and the nation to say they were well-prepared on every dimension of practice. (See Tables C1 and C2 in the appendix.) The differences were especially stark in areas having to do with the development of reflective instructional leaders and change agents. ELDA graduates were significantly more likely than other California principals or principals nationally to report that the program emphasized instructional leadership "to a great extent" (83% of ELDA graduates rated this a "5" on the 5-point Likert scale as compared to 46% of California principals and 39% of principals nationally). Similarly, 81% of ELDA graduates said their program strongly emphasized leadership for school improvement as compared to only 21% of the other two groups. ELDA graduates were also much more likely to say that they were asked to reflect on practice and analyze how to improve it (75% rated this a "5" as compared to only 27% of other California principals and 18% of principals nationally).

ELDA graduates were much more likely than other California principals to report that they had had an full-time paid internship (94% vs. 27%) – and for those who had an internship, that it was a good learning experience (96% vs. 65%), largely because of the quality of the supervision, the link between coursework and the internship, and the kinds of concrete leadership tasks incorporated into both the courses and the clinical work. These tasks were built into a variety of activities throughout the program. Compared to principals in California and the nation, they were much more likely to report that they engaged frequently[5] in field-based projects (92%), problem-based learning approaches (94%), analysis and discussion of case studies (88%), action research or inquiry projects (77%), and a portfolio demonstrating their learning (96%).

Graduates felt better prepared than other principals in California and the nation in almost every area. Among the areas in which graduates felt exceptionally well-prepared were engaging in school improvement planning; using data to monitor programs, identify problems, and propose solutions; evaluating teachers and providing instructional feedback; designing professional development; creating a coherent educational program across the school; and creating a collaborative learning organization. (See Table C2.) When we observed graduates of the program in their jobs as principals, surveyed the teachers in their

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[5] A rating of 4 or 5 on a 5-point Likert scale which ranged from "1 - not at all" to "5 – to a great extent"

schools, and examined learning gains in the schools, we saw strong evidence of graduates'
abilities to implement effectively what they had learned in their preparation.

Meanwhile, the in-service principal development program in San Diego was also
extremely well-developed. These in-service learning supports included mentoring and
supervision of principals by Instructional Leaders, monthly professional development
conferences principals (tied to the district's instructional reform agenda), a principals
network sponsoring study groups as well as visitations and observations at other schools,
mentors and coaches for new and veteran principals, and participation in ongoing teacher
professional development activities. (See Figure 6 for a summary of these elements.)

Figure 6: San Diego Principal Development Supports
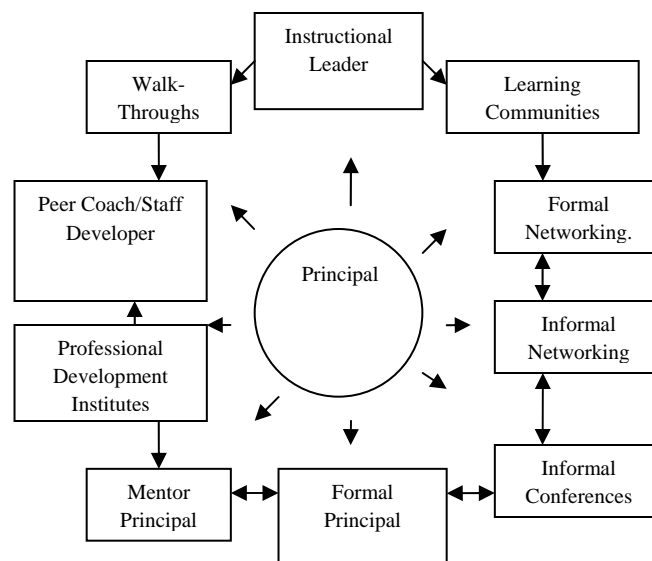
In surveys, principals in San Diego not only reported participating more frequently
in professional development opportunities, they also found most of these opportunities
more helpful than other principals in California or the nation. (See Table 5.)

Table 5 - Principal Ratings of Professional Development

For each kind of professional development you participated in during the last 12 months, how helpful was it to you in improving your practice? (1=not at all helpful… 5= extremely helpful.	San Diego Principals n=88	CA Principals n=33	National Principals n=551
Visits to other schools designed to improve your own work as principal	4.27	3.51**	3.68***
Individual or collaborative research on a topic of interest to you professionally	4.39	3.73**	3.93***
Mentoring or coaching by an experienced principal, as part of a formal arrangement that is supported by the school or district	4.40	3.18**	4.17
Peer observation / coaching in which you have an opportunity to visit with other principal(s) for sharing practice	4.29	3.67*	4.04*
Participating in a principal network (e.g. a group of principals organized by your district, an outside agency, or on-line)	4.24	4.16	4.06
Workshops, conferences, or training in which you were a presenter	3.73	3.48	3.91
Other workshops or conferences in which you were not a presenter	4.04	3.93	3.91
Reading professional books or articles.	4.51	4.01**	4.01***

Samples are non-overlapping.   T- Tests of group means. *p<.05; **p<.01; ***p<.001

Aside from reading professional books or articles, the most helpful activities were being mentored or coached by an experienced principal, engaging in peer observation or coaching in which principals have an opportunity to visit other schools and visit with other principals to share practice, engaging in research or inquiry on a topic of interest, and participating in a principal network. The continuous relationships created by the web of learning opportunities among principals allowed them to connect in ways that create deeper learning and changes in practice. As one principal observed:

> 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 do we think would help the staff move.

More important, principals' reports about their focus of their attention and their preparedness were borne out in the survey data we collected, which show that San Diego principals were much more likely to be deeply involved in instructional management and leadership than principals elsewhere in California and the nation. Finally, principals trained in these programs engaged significantly more often in instructional leadership

activities on the job (based on their own reports and those of the teachers we surveyed who worked with them) and felt more efficacious in their work.   Most San Diego principals (as compared to a much smaller minority of principals elsewhere) reported that they were involved on a daily basis in guiding curriculum development, building learning communities among faculty, providing instructional feedback to teachers (60 % do this daily as compared to only about 20 % of principals elsewhere), and working with teachers to change teaching methods where students are not succeeding. Fully 78 % of San Diego principals reported being involved in this kind of work daily, as compared to 3 % of other California principals and 14 % of principals nationally. (See Table 6.) In line with the program's efforts, both elementary and secondary principals reported being intensely involved with these instructional leadership activities.

   To triangulate the self-reports of principals we conducted observations of a sample of program graduates, examined achievement trends in their schools, and conducted surveys of their teachers. We observed principals engaging in sophisticated instructional leadership practices that had improved school achievement, and we found that teachers also reported their principals worked closely with them on instruction, knew how to manage a collaborative school change process, and had helped them make positive changes in their own learning and practice, as well as the school's climate and outcomes.

Table 6 – Frequency of Principal Activities

In the last month, approximately how often did you engage in the following activities in your role as principal of this school? % reporting: Daily / At least weekly	San Diego Principals N=88 Daily/ Weekly	CA Principals N=30 Daily/ Weekly	National Principals N=551 Daily / Weekly
Facilitate student learning (e.g. eliminate barriers to student learning; establish high expectations for students)	66 / 27	57 / 33	42 / 43
Guide the development and evaluation of curriculum and instruction	50 / 33	20 / 37	21 / 44
Build professional learning community among faculty and staff	65 / 25	40 / 33	33 / 32
Maintain the physical security of students, faculty and other staff	86 / 8	76 / 3	80 / 8
Manage the school facilities, resources, procedures (e.g. maintenance, budget, schedule)	79 / 19	66 / 28	78 / 16
Attend district level meetings and carry out district-level responsibilities	10 / 55	7 / 66	11 / 54

Foster teacher professional development for instructional knowledge and skills	35 / 45	3 / 47	9 / 50
Evaluate and provide instructional feedback to teachers	60 / 32	20 / 50	17/ 56
Use data to monitor school progress, identify problems and propose solutions	21/ 38	20 / 33	19 /41
Work with parents on students' problems or learning needs	38 / 57	57 / 33	47 / 42
Meet with parents and the community about other school matters	24 / 41	30 / 30	16 / 42
Work with teaching staff to solve school or department problems	43 / 31	40 / 47	38 / 41
Work with teachers to change teaching methods where students are not succeeding	78 / 13	3 / 43	14/ 45
Work with faculty to develop goals for their practice & professional learning	9 / 48	3 / 23	8 / 37

In order to consider how the features of these extraordinarily successful programs might be incorporated into a policy framework, it is useful to distill the features that seem most responsible for the outcomes we observed. Perhaps the most critical aspects of the ELDA program are the year-long internship for prospective principals under the tutelage of expert principals, and its close linkage to coursework on learning, teaching, instructional improvement, and the use of data to diagnose needs and manage change. The tightly integrated program engages aspiring leaders in developing and implementing professional development and school improvement plans, analyzing teaching and student work, analyzing a variety of data to diagnose organizational needs, conferencing with teachers about practice – and critiquing their own practice in all of these regards – so that they understand both theoretically and practically how to move a school forward. This program design, with the paid full-year internship at the center, was made possible by funding from the Broad Foundation and the San Diego Schools. It is now no longer externally funded, and is therefore not available for all candidates.

Similarly, critical aspects of the San Diego in-service development program included both the ongoing monthly principals' conferences and principals' network – creating an ongoing learning community for school leaders with content tied to the districts' instructional reforms – and the availability of mentors and coaches to guide principals in their applications of this new knowledge and to help them problem-solve. While all of these features are compatible with the Tier 1 and Tier 2 standards for principal

certification in California, none of them are built into the expectations and financial supports for principal learning through legislation or conventional practice.

Cross-State Comparisons

Are there state policies that have made practices like these more widespread across states?   Through interviews with policy makers and stakeholders and review of policy documents, we studied policy development in the eight states in which we surveyed principals. In our cross-state survey, we were surprised to note that, on almost every dimension of preparation for the principalship and on principal practices, one state, Mississippi, stood out as significantly stronger than the others. As we describe below, Mississippi undertook a radical reform of leadership preparation programs in 1994, closing all of its programs and requiring that they meet national accreditation standards in order to reopen. Ongoing program revisions are triggered by graduates' performance on a state licensing exam and an external review process.

Connecticut principals' responses regarding their preparedness and engagement in instructional leadership practices were also frequently above the national averages and the averages of other states. Connecticut leveraged improvements in its preparation programs through its performance-based licensing assessment, which is one of the most innovative and rigorous in the country. The state also tied principal development to statewide teacher training and evaluation reforms, so that Connecticut principals are deeply involved in learning about instruction by virtue of intensive training in teacher assessment.

There were also specific areas of strength in other states. For example, the higher ratings given by Delaware principals to many of their development opportunities (including university courses, workshops, research, and engagement in a principals' network) and the greater availability of highly rated mentoring from experienced principals are linked to the provision of mentoring supports through the state's Academy for School Leaders at the University of Delaware.   Specific professional development offerings by leadership academies in Kentucky, Georgia, and New York, and North Carolina are also tied to highly rated learning opportunities and leadership practices in particular areas, such as using data to monitor school progress, allocating resources to achieve school goals, and engagement in supporting curriculum and instruction. The training of leadership teams by Georgia's Leadership Institute has been linked to improvements in student achievement.

Ironically, many of these academies were modeled after California's discontinued School Leadership Academy, which had also achieved strong outcomes, including achievement gains in schools where teams had been trained for standards-based school improvement.[6]

Some states have created innovative approaches to simultaneously boosting principal supply and quality. For example, North Carolina's Principal Fellows Program has underwritten the preparation of more than 800 principals with two-year scholarships that allow full-time study and an internship, repaid by four years of service in the public schools, making a substantial contribution to the supply of well-prepared principals. Mississippi's state-funded Educator Sabbatical Program provides similar supports on a smaller scale. Kentucky also supports an internship program, as well as an alternative recruitment pathway for distinguished educators who receive leadership training while they are on leave to support targeted school improvement initiatives.

In this section, we review some of the policy strategies these states have used to improve the quality of principal preparation and professional development.

State Strategies for Strengthening Pre-Service Preparation

Most states – including all the ones we studied – have adopted the ISLLC standards for guiding principal preparation programs, and these have sharpened the focus of principal training considerably. However, states have differed in how they use and enforce these standards and how they encourage programs to improve. Program monitoring and approval strategies, licensure assessment, and investments in specific program elements, such as internships, are among the policy tools available to states.

California's adoption of new leadership standards has stimulated programmatic reforms in a number of colleges and universities which have led to stronger program models. The ELDA program we highlighted took good advantage of the California standards in designing its innovative approach. As we noted, on average, California principals feel about as well-prepared as their peers nationally (though less well-prepared than ELDA grads), and somewhat better prepared in areas like finding and allocating resources and planning for school improvement. However, observers note wide variability in programs with few policy levers to stimulate improvements where they are needed.

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[6] See, for example, a discussion of Riverside's achievement gains as a result of CSLA leadership team training at http://www.wested.org/pub/docs/406.

California has traditionally reviewed programs through the Commission on Teacher Credentialing's Committee on Accredition.   However, in recent years the Committee has not had funds available to conduct site visits, although they are expected to start again soon. Nor has there been a mechanism for documenting program outcomes, like the licensing assessments in use in some other states. And more of California's principals enter the job without having completed training (25% in our sample), in some cases through an alternate route that is weaker than the alternatives in other states.   Other states offer examples of a range of higher-leverage strategies for addressing these needs.

Principal Assessment and Program Review. 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, based on principals' extraordinarily positive assessments of program quality and perceptions of their own preparedness. These outcomes may be related to the unusually aggressive approach Mississippi took to improving program quality. In the 1990s, the state closed all of its university administration programs, and made them re-apply for accreditation. They were required to become nationally accredited through NCATE (the National Council for Accreditation of Teacher Education), and demonstrate how they meet the Mississippi Administrator standards, which were aligned with the national ISLLC standards. None of the programs passed accreditation in the first round, and most had to overhaul their entire approach. In addition, ongoing accreditation depends on at least 80% of a program's graduates passing the state administrator test in the three 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 as having a positive impact on the rigor and quality of preparation programs, which were held in generally high esteem by the respondents we interviewed.

A similar process 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 GA 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. These efforts are stimulating further reform.

The Educator Performance Standards Board in Kentucky also monitors programs annually and allocates a Quality Performance Index score based on a number of measures, including the state principal licensure assessment. Indeed licensure assessments for the principalship, based on the ISLLC standards, are becoming commonplace. Among the states we studied, at least six of the eight now require such a test (Connecticut, Delaware, Georgia, Kentucky, Mississippi, and New York)

One of the most innovative of such assessments is the Connecticut Administrator Test (CAT), a performance assessment based on the ISLLC standards that poses 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, including 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 six hours. Two modules require the test-taker 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. 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. 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.

New York will also use a newly piloted administrator assessment, launched in spring 2006, as part of its recent overhaul of all certification requirements for principals, which introduced new standards, requires all candidates to graduate from an approved program (rather than picking up credits at a variety of universities over time), and requires – along with redesigned coursework a 15-week full-time internship supervised by a certified building level leader and program faculty. Like Mississippi, New York has required programs to close and be re-registered by meeting national accreditation standards, which gets the state out of the business of being the sole manager of quality control. As in Mississippi and Connecticut, outcome data from the assessment will be part of that accreditation process.

State Support for Principal Recruitment and Internships. As noted above, many states are introducing requirements for full-time administrative internships under the direct supervision of veteran principals as part of their overhaul of administrator preparation. California does not require or fund a full-time administrative internship as part of the licensing process, and thus has very few principals who have had the opportunity for this kind of hands-on training (only 27% as compared to 63% nationally). A number of states have developed innovative funding streams for administrator internships that address issues of both supply and quality, including North Carolina and Mississippi.

North Carolina launched its Principal Fellows Program (PFP) in 1993 to attract outstanding full-time aspiring principals to two-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 which time the candidate receives a stipend equal to the entry level salary for an assistant principal, paid by the host district through an appropriation from the N.C. Department of Public Instruction. In return, each participating

Principal Fellow agrees to repay the scholarship loan with four years of service as a principal or assistant principal in a North Carolina public school within six years following graduation from the Program. More than 800 scholarship loans 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 practicing principals and assistant principals are graduates of the Principal Fellows Program.

A key element of Mississippi's approach is the School Administrator Sabbatical Program. Funded by the legislature since 1998, this program allows candidates to participate full-time with pay for one year in an approved administrator preparation program. School districts who recommend qualified teachers for the program grant a one-year leave of absence to participants in exchange for their commitment to serve as an administrator at their sponsoring school district for at least five years. Participants in the sabbatical program remain on district payroll, but districts are reimbursed by the State Department of Education (SDE) for the salary equivalent of a teacher with five 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 proves to be a central element of exemplary programs, including the Delta State University program we studied in Mississippi.

The Kentucky Principal Internship Program (KPIP), the state's yearlong induction program provides a three-member team that provides support to the new principal 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. Though budget cuts eliminated the funding for this program from 2002 to 2005, its perceived value is demonstrated by the fact that the legislature returned funding to KPIP in 2005.

State Support for Leadership Development

Like California, many states are requiring tiered licenses. These are often tied to ongoing professional development requirements, including internships and 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 three years, with each year focusing on different components of the standards. The state provides funding for this mentoring 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 programs for school leaders. In addition, the state, with funding from the Wallace Foundation, developed an assessment center program for new administrators or those on improvement plans that gives them 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.[7]

Several states have established and continuously fund 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 continuing education for principals in North Carolina 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.

Through a combination of state appropriations and foundation funds, Georgia's Leadership Institute for School Improvement (GLISI) has reached nearly half of the districts in the state with several kinds of professional development for leaders, including highly-rated mentoring and ongoing sessions on instructional improvement and use of data with district leadership teams. Districts whose leaders have participated in this training have had greater student achievement gains on state tests than similar non-participating districts. GLISI also runs other on-going training and support for school leaders including

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[7] http://saelp.doe.k12.de.us/about/who_we_are/accomplishments.html

"hot topic" sessions and workshops that provide credit for principals' on-going licensure requirements, and a new coaching model for candidates in programs to help them meet state performance standards for their license. Principals in Georgia are significantly more likely 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.

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 SDE provides all in-service training to entry-level administrators in a two-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 such courses. SEMI also offers the courses that allow career-level license holders to renew their license every five years. A great deal of this training is offered through programs offered regionally and locally and staffed by SDE staff, current and former administrators, and university professors.

In Connecticut, the state's role has focused the principalship on teaching and learning by incorporating principals into the ambitious reforms of teaching that began with the Education Enhancement Act of 1986. This Act sharply raised teacher (and principal) salaries while dramatically increasing standards for teacher education, certification, and on-the-job evaluation and development. Professional development for principals was required for renewal of certification, and much of that professional development was tied to the state's teacher evaluation initiatives, as principals were trained to evaluate teachers through the state's BEST assessment system. When a highly 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. Thus, the state's teacher reforms made teacher assessment a focus of administrator preparation and professional development. This deepened administrators' understanding of good teaching and of the state's learning and

teaching standards, which are embedded in the evaluation system. Funding for principal development was provided by the state through the regional education centers and the state principals' association.

Through a multi-year Wallace Foundation grant, statewide school leader evaluation and professional development guidelines were established in 2002, requiring a professional development plan for each principal focused on the skills and abilities for instructional leadership outlined by the guidelines. In addition, an Urban Leadership Academy was created 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.

These state initiatives provide a more institutionalized means than California now has available for supplying school leaders with individualized and collective learning opportunities focused on the improvement of schools and student learning.

Summary of Findings

California's ambitious aspirations for raising student achievement and reducing the achievement gap require major systemic changes as well as investments in the knowledge and skills of teachers and leaders. Furthermore, the possibility that California may develop a funding system that equalizes access to resources, reduces the constraints posed by excessive use of categorical programs, and devolves more authority for making decisions about resource allocation to principals requires school leaders who know a great deal about how to achieve strong outcomes with the resources they are given. This includes knowing:

1) what kinds of practices and investments are likely to make a difference in student learning (based on familiarity with research on teaching, learning, curriculum, and school effectiveness as well as clinical experience);

2) how to allocate resources and design the school organization to productively use time, expertise, and dollars;

3) how to build the skills and abilities of teachers and other staff to engage in effective practices through evaluation, feedback, and professional development;

4) how to manage an effective school improvement process; and

5) how to use data in the cause of continuous school improvement.

Although California's principals feel about as well-prepared as others nationally by their pre-service preparation programs, fewer than half reported feeling well-prepared (4 or 5 on a 5-point Likert scale) to do these things. Furthermore, our random sample of California principals was less likely than principals elsewhere to be regularly engaged in evaluating and supporting teachers, working with teachers to change practices when students are not succeeding, helping to develop curriculum plans, fostering professional development, or using data to monitor and improve instruction. In order to do these things well, practitioners must have both access to information and the opportunity to apply it under the guidance of experts.

California principals were much less likely to have had an administrative internship as part of their preparation or to have access to mentoring or coaching in their work than principals in other states. They were also less likely to have access to a principal's network while on the job, and significantly less likely to have participated regularly with teachers in professional development – a practice associated with strong instructional leadership. While preparation and focus may be a component of the problem, it is also true that principals must have the staffing resources that allow them to free up their time to focus on these key activities – another challenge in many under-resourced California schools, where there are fewer administrative staff than in other states.

Finally, we found a much less well-developed infrastructure for ongoing professional development in California than in most other states we studied. Whereas other states we examined have funded ongoing leadership academies, and several have launched mentoring / coaching models to support principals, California discontinued its highly successful School Leadership Academy in 2003. Thus, the only direct state funding for leadership development in California currently is the training provided by AB 75 (reauthorized as AB 430). This training has reached a large share of principals and assistant principals in the state and is credited with helping principals become more familiar with curriculum and instruction – especially as related to state-approved texts and standards. The training also familiarizes principals with management and resource allocation strategies and technology uses. However, the training is only 80 hours of

coursework and 80 hours of practicum (often satisfied by participating in curriculum training with teachers). Criticisms are directed at the brevity and one-size-fits-all nature of the training and the fact that it generally does not include direct mentoring or coaching of principals. While new principals can use the training to help satisfy their Tier 2 credentialing requirements, there are no state-funded offerings or requirements for principals to continue to develop and learn once they have completed this training and the tier 2 credential.

In contrast, all of the other states we examined have ongoing professional development requirements for principals to renew their licenses and several have developed a 3 tier licensing system to incorporate supports for this learning. Most have created institutions to organize and provide ongoing professional development opportunities (variously housed in universities and in free-standing academies), and these typically have line-item state funding.

On average, California principals generally found the professional development experiences they did have somewhat less useful to improving their practice than principals nationally, possibly suggesting lower quality organization and delivery of these learning opportunities or, as some observers suggested of the AB 430 / 75 training, too little tailoring of learning opportunities to candidates' needs and stages of development. The differences in perceived utility were significant with respect to California principals' experiences of workshops and conferences, peer observations and coaching, and university courses.

However, large majorities of the principals who experienced the exemplary programs we studied, including San Diego's ELDA and in-service programs, felt well-prepared to lead instructional improvement and engaged much more regularly in instructional leadership activities known to be associated with strong student achievement. Our research also found that these exemplary program principals were effective in these activities and in stimulating school improvement leading to student learning gains.   With respect to pre-service preparation, these principals had had the benefit of a tightly coherent program focused on instructional improvement and wrapped around a full-time internship with an expert veteran principal. With respect to in-service development, principals experienced extensive personalized supports as well as collective learning opportunities

tied directly to instructional leadership, such as mentoring and coaching from expert veteran principals, a principal's network and ongoing study groups, highly-focused visits to other schools to observe and critique instruction, and monthly principals' conferences on instruction, evaluation and supervision, professional development, school improvement, and change management.

These distinctive outcomes have implications for developing policy strategies that could provide stronger and more widespread learning opportunities for principals across California. A central need is to develop approaches that support principals' abilities to lead instructional improvement and to design high-performing school organizations that invest resources in highly productive ways.

Implications for Leadership Development Policy in California

Below we draw out implications from this research to inform strategies that might leverage improvements in pre-service principal development programs, especially with an eye toward helping principals get access to top-flight clinical training and support to learn the intricacies of leadership from experts in the field, and might help develop an infrastructure for ongoing professional development focused on developing schools as high-performance learning organizations.

1) Strategies to Stimulate Pre-Service Program Improvement

California has strengths to build on with respect to its leadership preparation programs, and has begun the process of stimulating further improvement with the adoption of CSPEL standards that guide programs. There are three key policy strategies we observed that might help strengthen and focus programs on critical needs.

a) Leveraging Improvement through Program Review and Accreditation: We found that other states have created a variety of strategies for leveraging program improvements. National accreditation has 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-opened or re-registered. Georgia has recently decided to pursue the same strategy. These states and others, such as Connecticut, also use data from performance assessments of principals as part of the ongoing program review and accreditation process.

Several states have launched regular, external program reviews, through their Educator Standards Boards or other organizations. The standards and indicators they use create a stimulus and focus for ongoing improvement. Kentucky publishes an annual Quality Performance Index based on review from the standards board. Mississippi's audits by external review panels and Georgia's program reviews through the Georgia Leadership Institute are similar strategies. These occur annually or bi-annually, rather than every five years in the usual accreditation cycle, and they are more focused on developing indicators of performance than counting courses. Some of them include measures like results on the administrator licensing assessments as well as data from surveys of principals and evidence of graduates' accomplishments.

California is getting ready to re-start its state accreditation process, with more frequent data collection and review, and is undertaking study of whether to encourage national accreditation as well, a potentially low-cost, high-yield strategy. As part of this process, the state could develop an approach that would examine indicators of how well-prepared graduates of programs are to lead instructional improvement, design productive learning organizations, and allocate and manage resources to achieve learning gains. As in other states, this might include performance assessments for principal licensure.

b) Performance Assessments for Principal Licensure: Increasingly, states are using licensure assessments for prospective school leaders, both as a lever to improve program quality and as a means to ensure readiness for leadership roles. The results of these measures are often used in their audits or program review processes. The usefulness of such assessments for driving better preparation and readiness depends on how authentic they are to the demands of the job. For example, Connecticut's Administrator Test – an in-basket performance assessment that evaluates principals' abilities to examine teaching and student work to guide teacher professional development and to design school improvement processes based on research and knowledge of specific school contexts – appears to be one of the drivers for principals' high levels of preparedness and engagement in teacher evaluation, professional development, and school-wide problem solving. Principals receive a set of artifacts about teaching, in the first instance, and a school performance dilemma, in the other, and must show that they can use their knowledge of research and good practice to diagnose the situation and recommend an appropriate solution.

California has just required its teacher education programs to use a teacher performance assessment as a basis for the licensure recommendation and input to the accreditation process. Twenty universities have developed a teacher performance assessment modeled on Connecticut's successful beginning teacher assessment. A companion assessment, like Connecticut's, grounded in actual performance, could be considered as part of the administrator preparation and licensing process as well. Such an assessment might provide input to programs to guide their program development, to the state to inform accreditation decisions, and to candidates to guide their own professional development.

c) Supporting the spread of best practices: Leadership development is a rapidly changing field, and research on the qualities of effective programs is just beginning to emerge. One often-neglected role of state agencies is the dissemination of information about best practices through research and publication, brokering of professional development and learning about practice, and incentives for encouraging programs to adopt specific practices that are not yet widespread. The state could, in partnership with stakeholder organizations like the Association of California School Administrators, support the dissemination of best practices by collecting and disseminating evidence about successful program designs from its program reviews and from research, and supporting challenge grants to programs to plant specific, needed practices in programs. This could be particularly helpful in, for example, encouraging programs to incorporate training around instructional leadership, use of data to monitor and support school change, and resource management to develop more productive school organizations.   This could be done both in the context of pre- and in-service training programs.

2) Principal Recruitment

We found evidence that California is experiencing a tight labor market for principals, with many districts reporting difficulty hiring qualified applicants. The labor market could become even tighter, as California principals are significantly less likely than their peers nationally to plan to stay in their jobs through retirement. The problem appears not to be due to inadequate numbers of credentialed administrators, but to reluctance to enter and remain in the job, especially in high-need communities, because the challenges

of the job are viewed as out of proportion to its rewards, and candidates do not feel adequately prepared to succeed.

a) Targeted Subsidies for Preparation: California has no direct subsidies that would support the proactive recruitment and training of talented prospective principals for these jobs. Instead, except for a small number of programs like San Diego's ELDA (when it had foundation funding), the pool is largely comprised of those who self-recruit into programs. California could consider a recruitment initiative like North Carolina's Principal Fellows Program, a particularly successful model which underwrites a preparation in eight state universities and full-time internships with expert principals in participating school districts in exchange for at least four years of service in the state's schools. This program has supplied that state with 800 highly-trained principals. Interestingly, North Carolina's principals are by far the most likely in our sample to say they plan to stay in the principalship until they retire. Mississippi's Educator Sabbatical program provides another strategy that allows districts to target talented teachers for a full year of preparation. This, too, typically includes a year-long internship with an excellent principal in addition to coursework.

b) Internships and Mentoring: These recruitment strategies allow the state and districts to identify particularly talented individuals to bring into the principalship, ensure that they get strong training, and incent them to enter and stay in the state's leadership corps. The coupling of recruitment with programs providing internships is important, as research on strong leadership development programs underscores the critical importance of learning sophisticated practices *in* practice under the supervision of expert practitioners in tandem with high-quality coursework. The exemplary programs we studied, including the Educational Leadership Development Academy (ELDA) in San Diego, included strong internships as central elements of their successful models.

Some states have begun to provide financial support for these high-quality full-time internships, so that mature adults can afford to undertake much stronger training leading to higher levels of competence early in the career. Generally, these costs are shared with districts, sometimes by placing program participants in schools as assistant principals; other times by reimbursing a portion of a salary to the district.

California has successfully launched a statewide internship model for teachers through BTSA. The New Teacher Center at UC-Santa Cruz, which is known for its highly successful work in new teacher mentoring, has developed a New Administrator Program, which is attempting to translate lessons from BTSA into supports for new principals. In addition, ACSA has just developed a mentoring model for principals that it plans to roll out over the next five years, which could provide a foundation for a broader statewide effort. California might investigate how to encourage strong internships that allow candidates to learn from expert principals during their preparation through a combination of accreditation standards and funding strategies. The state might especially consider how to recruit and support leaders in high-need communities through subsidies for preparation programs like ELDA or the North Carolina Fellows Program so that hands-on training from top-flight principals in challenging communities could support candidates' success where they need to be most skilled.

Many of the observers we interviewed felt a next horizon for ongoing professional development for California principals would be the development of a mentoring or coaching model to augment the kind of training that has been provided by AB 75 / 430 and other professional development.   States underwriting mentoring have typically done so through seed money to Leadership Academies or other institutes which offer this among other professional learning opportunities. In Delaware, all beginning principals have the opportunity for mentoring, which principals there rate extremely highly.

3) Create an Infrastructure for High-Quality Professional Development

Most of the states we studied have created a solid infrastructure for ongoing professional development for principals by creating high-leverage opportunities for ongoing learning, focused on concrete skills of instructional leadership, and supporting one or more state Leadership Academies that can organize, broker, and provide high-quality professional development on an ongoing basis. All of the observers we talked to felt that broader professional development opportunities like those once provided by the CSLA were still needed in California.

a) Creating high-leverage opportunities for ongoing learning: Like most states, California has established a renewable 5-year credential with ongoing professional development required as part of the renewal process. This requirement provides the incentive for ongoing learning, but does not itself create high-quality learning opportunities. AB 75 / 430 is a useful element of a professional development system but it is a one-time event and is most helpful for early career principals. California needs to re-create high-leverage opportunities that develop sophisticated leadership practices as some other states have done.

Two approaches stand out: Connecticut's involvement of its principals in state teacher evaluation processes, including a portfolio system for beginning teachers, has enabled principals to become expert at assessing and developing teaching, developing shared knowledge about teaching and shared standards of practice. Principals can acquire professional development credits by being trained as assessors in the portfolio system for licensing beginners and they receive ongoing training for assessing veteran teachers as well, through Regional Education Centers. California has just passed a requirement for implementing a Teacher Performance Assessment as a condition of the preliminary license and could develop a similar set of incentives for principals to develop expertise regarding the evaluation of teaching by serving as assessors in this system while earning credits toward license renewal.

Other states use the emergence of specifically identified needs to guide intensive professional development opportunities offered in their leadership academies – for example, the use of data to analyze school needs and design school improvement plans; models for redesigning schools to invest resources in more productive ways; the design of professional development. Undertaken on a broad scale, such approaches can raise the bar on leadership practice across an entire state. In addition to the kind of support offered through AB 75 / 430, which has now reached most of its principals, California needs mechanisms to fund learning opportunities that go beyond the foundational professional development it offers. To be used for evolving needs, these funds could be targeted to one or more Leadership Academies that can organize and design an evolving set of learning opportunities.

b) State Leadership Development Academies: Like other states, California needs a stable set of institutions that can develop cutting-edge professional development that take many forms as needed to meet different needs: residencies, coaching, principal networks, brokered school visits, workshops and conferences, training for school and district teams, and so on. Given the strong research documenting the work of the CSLA and its 12 regional centers until 2003, and the fact that the hub of that work has not yet disappeared (it is still housed in WestEd), refunding the CSLA might be an efficient way to renew this capacity. As a part of expanding capacity, it is also conceivable that the Education Leadership Development Academy, still in existence in San Diego, could help other pre-service programs develop similarly strong models of preparation, or could become one of several regional ELDA sites supported especially to train principals for high-need communities.

A rebooted state leadership academy could also organize professional learning and mentoring for veteran principals around topics of particular need and interest. With a steady base of support for core operations, more widely and consistently available offerings would allow districts to plan how to take advantage of a learning resource for district development over a longer period of time. As in other states, such an Academy could be operated by existing entities such as universities, principal organizations or, regional / county education agencies. Whatever the strategy, it is clear that some vehicles for continuous, consistently available, customized professional development are needed to support principals' learning for the challenging standards-based reform work they are called upon to do.

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Appendix A – Cross-State Comparisons of Principals' Survey Responses

The following analyses represent 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 black principals	**0.104**	0.031	0.202**	0.039	0.043	0.058	0.128	0.264**	0.121
Percentage of principals earning Master's as part of formal leadership preparation	**0.326**	0.443	0.25	0.226	0.208*	0.214*	0.087**	0.161**	0.281
Percentage of principals earning 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 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 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

	Nation	CA	MS	CT	KY	NY	DE	GA	NC
Principals sponsored by university	**0.882**	0.813	0.984**	0.944**	0.886	0.936	0.875	0.921	0.944
Principals sponsored by district	**0.047**	0.0284	0.912	0.004**	0.014**	0.000**	0.025	0.026	0.055
Principals sponsored by organization	**0.064**	0.0005**	0.0279	0.022	0.0012**	0.000**	0	0.0526	0.0277
Principals were referred to the program	**0.326**	0.4722*	0.2729	0.2903	0.189**	0.2509	0.0789**	0.333	0.471*
Principals paid no costs	**0.065**	0.089	0.049	0	0.316	0.0285	0.0526	0.057	0.1176
Principals paid all costs	**0.727**	0.7825	0.7029	0.6257	0.8656**	0.8313*	0.3421**	0.7714	0.7352
Principals paid some costs	**0.209**	0.1283	0.2477	0.3742**	0.1026**	0.1401	0.6052**	0.1714	0.1470
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	**3.8393**	3.967	4.042	3.890	3.732	3.775	3.447**	3.771	3.944

	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
learning experience									
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**
	Nation	**CAL**	**MISS**	**CON**	**KEN**	**NY**	**DEL**	**GEO**	**NC**
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*

** $p < 0.05$, *$p < 0.10$.

Were the following practices / instructional strategies part of principals' coursework?									
1: Not at all – 5: To a great extent									
	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
Portfolio demonstrating learning and competencies	**2.7299**	3.023	3.214**	2.581	2.958	3.015	1.973**	2.857	2.944

** $p<0.05$, *$p<0.10$.

Internship Access and Quality (% of principals reporting)									
	Nation	**CAL**	**MISS**	**CON**	**KEN**	**NY**	**DEL**	**GEO**	**NC**
Principals had internship	**0.6325**	0.291**	0.279**	0.536	0.546	0.920**	0.081**	0.600	0.714
Principals 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	**0.4736**	0.341*	0.280**	0.386	0.357	0.738**	0.100**	0.368	0.555
Internship was at a different school	**0.1501**	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	**0.1766**	0.183	0.065*	0.138	0.100**	0.115	0.125	0.160	0.206
Teacher did the internship during the summer	**0.0742**	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 reflected the following attributes: 1: Not at all – 5: To a great extent									
Principal worked in one or more schools serving students with a variety of socioeconomic backgrounds	**3.3653**	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	**3.5436**	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	**3.7601**	3.877	3.800	3.863	3.891	4.206**	3.625	3.636	3.413
Internship achievements were regularly evaluated by program faculty	**3.2024**	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	**3.6696**	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	**3.81**	3.868	4.412**	3.900	3.972	3.796	4.333	4.090	3.666

** $p<0.05$, *$p<0.10$.

How well the program prepared principals 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	**3.1877**	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	**3.1726**	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	**3.1416**	3.399	3.514**	3.405**	3.279	3.120	3.189	3	3.205
Evaluate teachers and provide instructional feedback	**3.5351**	3.642	3.973**	3.907**	3.502	3.463	3.324	3.294	3.617
Handle discipline and support services	**3.4014**	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	**3.3016**	3.593	3.783**	3.275	3.393	3.325	3.189	3.212	3.411
Create a collaborative learning organization	**3.3533**	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	**3.0932**	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	**3.1244**	3.477**	3.422	3.223	3.535**	3.289	3.162	3.088	3.147
Create and maintain an orderly learning environment	**3.6532**	3.787	4.127**	3.563	3.713	3.791	3.416	3.545	3.617
Manage facilities and their maintenance	**3.3270**	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	**3.1784**	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	**3.2176**	3.575**	3.698**	3.336	3.224	3.43	2.838*	3.147	3.235
Redesign school organizations to enhance productive teaching and learning	**3.0592**	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	**3.6383**	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	**3.2084**	3.425	3.637**	3.181	3.336	3.064	3.054	3.333	3.176
Engage in self-improvement and continuous learning	**3.6593**	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	**3.7602**	3.938	4.247**	3.882	3.761	3.817	3.621	3.617	3.818

** $p<0.05$, * $p<0.10$.

Prior to enrolling in the leadership preparation program what were principal's intentions and Plans.									
	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?									
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 their position. 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

	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
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 principals 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

	Nation	CAL	MISS	CON	KEN	NY	DEL	GEO	NC
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*

** p<0.05 , *p<0.10.

Statements describing principals' 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
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

** p<0.05 , *p<0.10.

Over the last year to what extent there was a decrease or increase in the following in your school? 1 (Much less) – 5 (Much more)									
	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

** p<0.05 , *p<0.10

To what extent the following are problems at schools (1: Not a problem – 5: A serious problem)									
	Nation	**CAL**	**MISS**	**CON**	**KEN**	**NY**	**DEL**	**GEO**	**NC**
Lack of parental involvement	**2.594**	2.729	2.784	2.342	3.138**	2.344	2.741	2.467	2.58
Teacher turnover	**1.562**	1.798	1.72	1.297**	1.68	1.40	1.58	1.793	1.81*
Student absenteeism	**2.305**	2.602	2.848**	2.178	2.603*	2.095	1.87**	2.733	2.387
Students come to school unprepared to learn	**2.656**	2.767	2.776	2.27**	2.841	2.459	2.58	2.7	2.806
Teacher absenteeism	**1.834**	1.867	2.403**	1.99	2.379**	1.733	1.613	2.069	1.774
Physical conflicts among students	**1.739**	1.999	1.993	1.5*	1.84	1.573	1.45**	1.6	1.833
Robbery or theft	**1.43**	1.238*	1.621	1.145**	1.727**	1.336	1.354	1.267*	1.828**
Student class cutting	**1.414**	1.434	1.616	1.238*	1.464	1.428	1.258*	1.333	1.6
Students dropping out	**1.39**	1.269	1.707*	1.155**	1.929**	1.365	1.193**	1.633	1.867**
Verbal abuse of teachers	**1.459**	1.369	1.407	1.309	1.825**	1.459	1.533	1.267*	1.733*
Low teacher expectations of students	**1.69**	1.842	1.836	1.401**	2.237**	1.434*	1.87	1.73	1.77

** $p<0.05$, *$p<0.10$

Perceptions of the district : How strongly agree or disagree with the following statements regarding your district									
1: Strongly disagree – 4 : Strongly agree									
	Nation	**CAL**	**MISS**	**CON**	**KEN**	**NY**	**DEL**	**GEO**	**NC**
Principal often finds it 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

** p<0.05 , *p<0.10

Plans about 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

** p<0.05 , *p<0.10.

	Nation	CAL	MISS	CT	KY	NY	DE	GA	NC
Participation in professional development (percentages of principals) **Usefulness of each item is measured from 0: Not at all helpful – 2: Extremely helpful**									
University courses related to their role as principals									
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
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
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

Appendix B – Principal Survey data by School Level

The following analyses represent 822 of the 1086 principals in the national data set: 443 elementary school principals and 379 secondary school principals. Excluded from this analysis are 217 principals who did not provide information about the grade level composition of their school and 47 schools that include all or most grades (K-12). Among California principals, 139 of 189 are included in these analyses: 87 elementary principals and 52 secondary principals. Samples are weighted so that principals represent their proportions in the state and national populations. T-test comparisons are between California principals and the respective national sample.

Sponsorship and Financing for Principal Preparation Program				
	Elementary		**Secondary**	
% of Principals	**Nation**	**California**	**Nation**	**California**
Principals sponsored by university	0.881	0.879	0.887	0.854
Principals sponsored by district	0.072	0.060	0.023	0.002**
Principals sponsored by organization	0.001	0.0003**	0.001	0.001
Principals were referred to the program	0.345	0.376	0.282	0.463
Principals paid no costs	0.035	0	0.052	0.076
Principals paid all costs	0.789	0.931	0.715	0.766**
Principals paid some costs	0.175	0.068*	0.232	0.157

** $p < 0.05$, * $p < 0.10$.

Perceptions of Preparation Programs				
To what extent were the following qualities true of principals' educational leadership program?				
Rating : Not at all (1) – To great extent (5)				
	Elementary		**Secondary**	
	Nation	**California**	**Nation**	**California**
Program content emphasized instructional leadership	4.051	4.365*	4.022	4.149
Program emphasized leadership for school improvement	3.551	3.753	3.631	3.922

Program emphasized efficient school operations management	3.759	3.626	3.853	3.766
Program content emphasized working with the school community and stakeholders	3.468	3.808	3.723	3.54
Coursework was comprehensive and provided a coherent learning experience	3.753	3.672	3.879	4.453**
Principal was in a student cohort	2.430	3.324**	2.278	3.911**
Practicing school or district administrators taught in the program	2.745	3.449*	3.032	3.772**
Program provided many opportunities for self-assessment	3.058	3.379	3.269	3.693*
Principal was asked to reflect on practice and analyze how to improve it	3.198	3.564	3.450	3.844
Program provided regular assessments of skill development and leadership competencies	3.094	3.437	3.138	3.614
Program integrated theory and practice	3.686	3.692	3.759	4.223**
Faculty members were very knowledgeable about subject matter	4.088	4.251	4.163	4.381
Program gave me strong orientation to Principalship as career	3.632	3.814	3.796	3.694
Faculty provided many opportunities to evaluate the program	3.035	3.197	3.596	3.385

** $p<0.05$, * $p<0.10$.

Pedagogical Practices in Principal Preparation Programs Were the following practices / instructional strategies part of principals' coursework? 1: Not at all – 5: To a great extent	Elementary		Secondary	
	Nation	California	Nation	California
Field-based projects in which principals applied ideas in the field	3.278	3.633	3.369	4.246**
Linkages between coursework and internship	3.224	3.814**	3.448	3.998**
Use of problem-based learning approaches	3.299	3.386	3.449	3.835**
Action Research , inquiry projects	3.175	3.314	3.310	3.907**

Journal writing of experiences	2.793	2.637	2.982	3.331
Analysis and discussion of case studies	3.569	3.569	3.847	3.998
Lectures	3.961	3.630	4.069	4.161
Participation in small group work	3.655	3.516	3.865	4.001
Portfolio demonstrating learning and competencies	2.554	2.899	2.691	3.339*

** p<0.05 , *p<0.10.

Access to and Type of internships				
% of Principals Reporting:	**Elementary**		**Secondary**	
	Nation	**California**	**Nation**	**California**
Principals had internship	0.624	0.317**	0.632	0.236**
Principals had no internship but had other supervised experience	0.088	0.249	0.106	0.229
Principals had no internship	0.287	0.433	0.262	0.534**
Internship was at principal's school	0.509	0.237**	0.513	0.427
Internship was at a different school	0.144	0.178	0.144	0.003**
Internship was a full-time position	0.245	0.294	0.249	0.009**
Principal had some release time from teaching to carry out the internship	0.208	0.277	0.152	0.167
Teacher did the internship during the summer	0.044	0.142	0.103	0
To what extent did the educational leadership internship experience reflected the following attributes: 1: Not at all – 5: To a great extent				
Principal worked in one or more schools serving students with a variety of socioeconomic backgrounds	3.270	4.218**	3.326	3.417
Principal was closely supervised and assisted by knowledgeable school leaders	3.615	3.680	3.448	2.823
Principal had responsibilities for leading , facilitating and making decisions typical of an educational leader	3.749	4.11	3.688	3.422

Internship achievements were regularly evaluated by program faculty	3.192	3.347	3.147	2.817
Principal was able to develop an educational leader's perspective on school improvement	3.597	4.113	3.629	4.004
Internship experience was an excellent learning experience for becoming a principal	**3.821**	**3.883**	**3.725**	**3.611**

** p<0.05 , *p<0.10.

Principals' ratings of how well their preparation program prepared them to do the following? Rating : Not at all (1) – Very well (5)				
	Elementary		**Secondary**	
	Nation	**California**	**Nation**	**California**
Understand how different students learn and how to teach them successfully	2.959	2.825	3.329	3.76*
Create a coherent educational program across the school	3.172	3.25	3.392	3.84**
Evaluate curriculum materials in supporting learning	3.10	3.25	3.215	3.53
Design professional development that builds teachers' knowledge and skills	3.07	3.13	3.108	3.69**
Evaluate teachers and provide instructional feedback	3.39	3.75	3.564	3.62
Handle discipline and support services	3.28	3.437	3.414	3.99*
Develop broad agreement among staff about school's mission	3.208	3.534	3.295	3.764
Create a collaborative learning organization	3.298	3.318	3.392	3.99**
Find and allocate resources to pursue important school goals	3.081	3.190	3.078	3.683*
Analyze budgets and reallocate resources to achieve critical objectives	3.199	3.492	3.035	3.607**
Create and maintain an orderly learning environment	3.587	3.567	3.678	4.22**
Manage facilities and their maintenance	3.321	3.373	3.329	3.611
Mobilize school staff to foster social justice in serving all students	2.977	3.25	3.055	3.154
Work with parents to support students' learning	3.117	3.312	3.229	3.686

Use data to monitor school progress	2.992	2.766	2.996	3.232
Engage staff in decision making process about curriculum and policies	3.291	3.496	3.346	3.763
Lead well informed planned change process for school	3.173	3.556	3.223	3.458
Engage in comprehensive planning for school improvement	3.133	3.436	3.276	3.764*
Redesign school organizations to enhance productive teaching and learning	3.009	3.37	3.107	3.576
Use effective written and communication skills, particularly in public forums	3.555	3.813	3.690	4.30**
Collaborate with others outside school for assistance and partnership	3.079	3.191	3.349	3.76*
Engage in self-improvement and continuous learning	3.589	3.693	3.688	4.15**
Develop a clear set of ethical principles to guide decision making	**3.662**	**3.800**	**3.770**	**4.151**

** $p < 0.05$, * $p < 0.10$.

Principals' intentions prior to enrolling in the leadership preparation program and post hoc views of program				
	Elementary		**Secondary**	
	Nation	**California**	**Nation**	**California**
Principal intended to go into Principalship as soon as possible	0.269	0.066**	0.340	0.232
Principal thought he/she might go into Principalship someday	0.448	0.375	0.395	0.383
Principal was undecided about Principalship	0.109	0.187	0.125	0.077
Principal had few if any plans for going into the Principalship	0.114	0.124	0.088	0.079
Principal was already a principal when he/she enrolled in the program	0.059	0.246**	0.052	0.288
Would principal choose the same program given the opportunity?				
Principal would definitely choose the same program	0.356	0.315	0.446	0.386
Principal would probably choose the same program	0.303	0.310	0.353	0.307
Principal not sure about choosing the same program	0.173	0.309	0.087	0.152
Principal would probably not choose the same program	0.112	0.063	0.098	0.154
Principal would definitely not choose the same program	0.058	0.002**	0.015	0.0004**

Principals' beliefs about the principalship Level of agreement : 1 (Strongly Disagree) – 5 (Strongly agree)				
	Elementary		Secondary	
	Nation	California	Nation	California
A principal can make a difference in the lives of students and staff.	4.908	4.940	4.856	4.856
A principal provides opportunities for professional growth.	4.727	4.478*	4.639	4.644
A principal can develop relationships with others inside and outside of school	4.625	4.443	4.602	4.713
A principal can influence school change.	4.749	4.88*	4.692	4.714
Principalship requires very long hours.	4.633	4.59	4.854	4.925
Principalship has too many responsibilities.	4.18	4.55**	4.09	4.50**
Being a principal decreases opportunities to work directly with children.	3.486	3.112	3.451	3.845
Principalship creates a lot of stress	**4.155**	**4.345**	**4.157**	**4.42**

** p<0.05 , *p<0.10.

Demographic Characteristics of Sample				
	Elementary		Secondary	
	Nation	California	Nation	California
Years of elementary/ secondary teaching experience	14.685	14.14	12.889	15.82
Years in certified leadership positions	16.311	17.15	16.098	18.62
Years as principal	10.601	10.08	8.967	9.94
% of principals taking a test after completing preparation program	0.329	0.23	0.395	0.14**
Percentage of female principals	0.649	0.82*	0.249	0.36
Percentage of Latino principals	0.070	0.25*	0.021	0.21*
Percentage of White principals	0.921	0.86	0.896	0.57**
Percentage of black principals	0.058	0.003**	0.053	0.07
% of principals earning Master's as part of formal leadership	0.339	0.53	0.290	0.22

preparation				
% of principals earning Masters of Education as part of formal leadership preparation	0.397	0.30	0.417	0.43
% of principals earning Specialists Degree as part of formal leadership preparation	0.118	0.0003**	0.115	---
% of principals earning Doctorate as part of formal leadership preparation	0.064	0.115	0.126	0.283
Percentage of principals earning no degree as part of formal leadership preparation	0.089	0.063	0.052	0.073

In the last month how often did the principals engage in the following activities? Frequency : 1 (Never) – 4 (Daily)				
	Elementary		**Secondary**	
	Nation	**California**	**Nation**	**California**
Facilitate student learning	3.407	3.26	3.189	3.709**
Guide the development and evaluation of curriculum and instruction	2.815	2.582	2.915	3.000
Build professional learning community among faculty and other staff	3.055	3.074	2.977	3.217
Maintain the physical security of students and faculty	3.611	3.473	3.822	3.646
Manage the school facilities	3.637	3.505	3.725	3.692
Attend district level meetings and carry out district-level responsibilities	2.773	2.667	2.712	2.784
Foster teacher professional development for instructional knowledge and skill	2.626	2.333**	2.687	2.718
Evaluate and provide instructional feedback to teachers	3.018	2.894	2.887	2.862
Use data to monitor school progress	2.761	2.510*	2.721	2.995
Work with outside agencies and individuals for school assistance and partnership	2.26	1.947**	2.386	2.498
Work with parents on students' problems or learning needs	3.309	3.558*	3.372	3.352
Meet with parents and community about school matters	2.651	2.568	2.838	3.209*
Work with teaching staff to solve school or departmental problems	3.065	3.003	3.304	3.556

Work with teachers to change teaching methods where students are not succeeding	2.679	2.273**	2.643	2.645
Develop and enforce school rules with school and staff	3.659	3.500	3.584	3.569
Work with faculty to develop goals for their practice and professional learning	2.459	2.138**	2.567	2.433

** $p<0.05$, * $p<0.10$.

Principals' views of their schools: Level of agreement : Strongly disagree (1) – Strongly agree (5)				
	Elementary		**Secondary**	
	Nation	**California**	**Nation**	**California**
Teachers in the school feel responsible to help each other do their best	4.383	4.25	4.163	4.282
Teachers in the school are continually learning and seeking new ideas	4.262	3.883*	4.066	4.28
Teachers use time together to discuss teaching and learning	4.242	4.070	3.919	4.001
Students work hard in this school	4.281	4.137	4.017	4.35*
Students are aware of the learning expectations in the school	4.411	4.434	4.257	4.285
The school has consistent standards from classroom to classroom	4.121	3.997	3.794	3.921
Teachers take an active role in school-wide decision making	4.318	4.128	4.236	4.213
Faculty has an effective process for making group decisions and solving problems	4.230	4.003	4.002	4.212
In school faculty and principal take steps to solve problems	4.437	4.268	4.321	4.216
Assessments of student performance lead to changes in curriculum	4.308	4.188	4.279	4.351
Teachers collect and use data to improve their teaching	4.207	3.938*	4.012	3.998
School has developed effective strategies for involving parents in children's education	3.892	3.567	3.604	3.709
School has useful partnerships with outside agencies and groups in the community	3.538	3.135	3.705	3.715
People who take initiative are appreciated	3.473	4.443**	3.383	4.462**

Good practices are shared across classrooms	4.299	3.887*	4.057	4.000
Many special programs and projects come and go in this school	3.251	2.873	3.224	3.277
There is a clear sense of purpose in the school about what faculty want the students to accomplish	4.436	4.192	4.287	4.532
All students have access to expert teaching and high-quality teaching	4.289	3.869*	4.117	3.923
Once a new program starts , school follows up to make sure that it is working	4.229	4.064	4.107	4.140
Curriculum, instruction and learning materials are well coordinated across grade levels	4.185	3.940	3.974	4.207
Teachers strongly support the changes undertaken in school	4.003	3.629	3.856	3.926
Students who struggle or fall behind, get needed support	4.317	4.122	4.015	4.135
Teachers believe the school is getting stronger academically	4.226	4.066	4.035	4.140
The school was a well developed process for facilitating ongoing school wide improvement and planning	**4.2**	**3.939**	**4.1**	4.069

** p<0.05 , *p<0.10.

Principals' Perceptions of Change in their Schools: "Over the last year to what extent there was a decrease or increase in the following in your school?" 1 (Much less) – 5 (Much more)				
	Elementary		Secondary	
	Nation	**California**	**Nation**	California
Consensus among staff about school's goals	4.002	3.677	3.993	3.933
Collaboration among teachers in making curriculum and instructional decisions	4.105	3.886	4.054	4.286
Focus by teachers on improving and expanding their instructional strategies	4.142	3.822**	4.136	4.285
Job satisfaction experienced by staff	3.655	3.383	3.715	3.646
Staff sensitivity to student needs	3.816	3.447**	3.791	3.789
Use of performance assessments and exhibitions of student learning	4.002	3.754	4.030	4.14

Opportunities for teachers' professional growth	3.895	3.88	4.057	3.861
Staff recognition for a job well done	3.811	3.571	3.868	3.578
Emphasis on student discipline	3.718	3.382*	3.867	3.924
Use of performance data for instructional improvement	4.143	3.883	4.088	3.929
Coordination of curricular and instructional materials among regular and special programs and classrooms	3.883	3.629	3.952	4.072
Confidence in the value of our work	3.896	3.326**	3.945	3.999
Attention to the needs of low—performing students	4.063	3.698	4.033	4.001
Efforts among teachers to share practices with each other	3.992	3.634**	3.887	3.999
Involvement of parents and families in school decision making and student learning	**3.565**	**3.259**	**3.535**	3.43

** $p<0.05$, * $p<0.10$.

Principals' views of district 1: Strongly disagree – 4 : Strongly agree				
	Elementary		Secondary	
	Nation	California	Nation	California
Principal often finds it difficult to agree with the district's policies on important matters relating to teachers	1.879	2.204*	1.719	1.623
District's expectations are too high for principal's school	1.468	1.594	1.497	1.541
District supports my school's efforts to improve	3.125	2.876	3.347	3.455
District promotes principal's professional development	3.136	3.139	3.267	3.229
District encourages principals to take risks in order to make changes	2.849	2.806	3.035	2.92
District helps principal promote and nurture a focus on teaching and learning	**3.146**	**3.072**	**3.219**	3.229

** $p<0.05$, * $p<0.10$.

Principals' views about remaining in the principalship				
	Elementary		Secondary	
% of principals responding:	Nation	California	Nation	California
Stress and disappointments of serving as principal aren't really worth it.				
Strongly Disagree	0.345	0.239	0.305	0.357
Disagree	0.415	0.528	0.468	0.428
Agree	0.111	0.117	0.074	0.142
Strongly Agree	0.048	0.058	0.048	0.070
If I could get a higher paying job I would leave education as soon as possible				
Strongly Disagree	0.367	0.470	0.345	0.499
Disagree	0.410	0.412	0.375	0.145**
Agree	0.097	0.059	0.099	0.212
Strongly Agree	0.035	0.0003**	0.072	0.141
I plan to remain principal of my current school as long as I am able				
Strongly Disagree	0.093	0.117	0.059	0.212
Disagree	0.218	0.176	0.232	0.284
Agree	0.368	0.527	0.306	0.289
Strongly Agree	0.229	0.122	0.298	0.213
I am thinking about transferring to another school				
Strongly Disagree	0.359	0.296	0.378	0.569
Disagree	0.346	0.353	0.294	0.214
Agree	0.127	0.178	0.171	0.144
Strongly Agree	0.077	0.116	0.048	0.071

I plan to remain a principal until I retire				
Strongly Disagree	0.082	0.117	0.115	0.355*
Disagree	0.185	0.119	0.223	0.426
Agree	0.300	0.467	0.265	0.075**
Strongly Agree	0.342	0.238	0.293	0.142
I will continue being a principal until something better comes along				
Strongly Disagree	0.270	0.296	0.309	0.215
Disagree	0.362	0.409	0.262	0.216
Agree	0.213	0.235	0.235	0.285
Strongly Agree	0.063	0.001**	0.088	0.282

P** <0.05 , p*<0.10

Participation in professional development (% of principals) Perceived usefulness of professional development 1: Not at all helpful – 5 : Extremely helpful				
	Elementary		**Secondary**	
	Nation	**California**	**Nation**	**California**
University courses related to their role as principals				
Not at all .	0.726	0.811	0.628	0.465
Once or twice	0.183	0.063**	0.237	0.305
Three times or more	0.092	0.126	0.135	0.229
How useful in improving principal practices	1.647	1.667	1.502	0.86**
Visits to other schools designed to improve their work				
Not at all	0.331	0.307	0.304	0.230
Once or twice	0.492	0.435	0.521	0.534
Three times or more	0.176	0.258	0.174	0.236
How useful in improving principal practices	1.520	1.287	1.555	1.405

Individual or collaborative research on a topic of interest				
Not at all	0.244	0.431	0.312	0.232
Once or twice	0.356	0.313	0.444	0.459
Three times or more	0.400	0.255	0.244	0.309
How useful in improving principal practices	1.720	1.564	1.581	1.404
Mentoring or coaching by experienced principal				
Not at all	0.737	0.803	0.853	0.852
Once or twice	0.119	0.124	0.077	0.072
Three times or more	0.143	0.073	0.070	0.076
How useful in improving principal practices	1.682	0.749*	1.614	1.039
Peer observation/coaching in which the principal had an opportunity to visit other principals for sharing practice				
Not at all	0.449	0.430	0.534	0.612
Once or twice	0.289	0.191	0.315	0.307
Three times or more	0.261	0.378	0.150	0.082
How useful in improving principal practices	1.668	1.458	1.675	1.214**
Participating in a principal network				
Not at all	0.206	0.328	0.178	0.155
Once or twice	0.270	0.134	0.247	0.229
Three times or more	0.524	0.538	0.575	0.615
How useful in improving principal practices	1.725	1.799	1.660	1.457
Workshops, conferences or training in which principal was a presenter				
Not at all	0.539	0.497	0.534	0.499
Once or twice	0.328	0.435	0.354	0.332
Three times or more	0.132	0.067	0.112	0.168
How useful in improving principal practices	1.565	1.258	1.589	1.332

Other workshops or conferences in which principal was not a presenter				
Not at all	0.049	0.0003**	0.045	0.071
Once or twice	0.279	0.186	0.450	0.355
Three times or more	0.670	0.813	0.505	0.574
How useful in improving principal practices	1.673	1.564	1.661	1.614
Reading professional books or articles				
Not at all				
Once or twice	0.123	0.184	0.199	0.078*
Three times or more	0.876	0.816	0.801	0.922*
How useful in improving principal practices	1.728	1.693	1.702	1.619
Professional Development with teachers				
Low Frequency : Never / One or Twice	0.107	0.196	0.214	0.424
Medium frequency: 3-5 times	0.327	0.458	0.415	0.213*
High Frequency: 6 or more times	0.565	0.346*	0.371	0.362

** $p < 0.05$, * $p < 0.10$

Table C1 - Principals' Mean Ratings of their Principal Preparation Program	ELDA Program n=63	CA Sample n=33	National Sample n=551
To what extent were the following true of your educational leadership program? 1= Not at all; 5 = To a great extent			
The program emphasized instructional leadership	4.78	4.26**	4.13***
The program content emphasized leadership for school improvement	4.77	3.83***	3.63***
The course work was comprehensive and provided a coherent learning experience	4.42	3.94*	3.87***
The program provided many opportunities for self-assessment as a leader	4.46	3.47***	3.22***
I was often asked to reflect on practice and analyze how to improve it	4.67	3.62***	3.41***
The program provided regular assessments of my skills and leadership competencies	4.42	3.38***	3.23***
The program integrated theory and practice	4.62	3.79***	3.73***
The faculty members were very knowledgeable about their subject matter	4.58	4.28~	4.15***
The program gave me a strong orientation to the principalship as a career	4.51	3.71**	3.73***
The faculty provided many opportunities to evaluate the program	4.12	3.21**	3.41***
To what extent were the following learning practices/ instructional strategies part of your coursework?			
Field-based projects in which you applied ideas in the field	4.46	3.88*	3.37***
Linkages between coursework and your internship or other field based experience	4.56	3.90**	3.41***
Use of problem-based learning approaches	4.67	3.57***	3.47***
Action research or inquiry projects	4.03	3.63~	3.34***
Journal writing of your experiences	3.72	2.90*	3.03***
Analysis and discussion of case studies	4.36	3.60**	3.74***
Lectures	3.39	3.72	3.97***
Participation in small group work	4.61	3.69***	3.86***
A portfolio demonstrating my learning and accomplishments	4.69	2.96***	2.81***
To what extent did your educational leadership internship experience(s) reflect the following attributes?			
I was closely supervised and assisted by knowledgeable school leaders.	4.67	3.43***	3.63***
I had responsibilities for leading, facilitating, and making decisions typical of an educational leader.	4.65	3.89*	3.84***
My internship achievements were regularly evaluated by program faculty	4.60	3.15***	3.19***
I was able to develop an educational leader's perspective on school improvement.	4.76	4.07**	3.74***
My internship experience was an excellent learning experience for becoming a principal.	4.71	3.87**	3.91***

Table C2 – Mean Ratings of Principals' Views of their Preparation "How effectively did your formal leadership program prepare you to do the following?" 1= Not at all; 5 = Very Well	ELDA Program n=63	CA Sample n=33	National Sample n=551
Understand how different students learn and how to teach them successfully	3.81	3.25*	3.20***
Create a coherent educational program across the school	4.14	3.53**	3.29***
Evaluate curriculum materials for their usefulness in supporting learning	3.44	3.39	3.11*
Design professional development that builds teachers' knowledge and skills	4.50	3.38***	3.13***
Evaluate teachers and provide instructional feedback to support their improvement	4.40	3.63***	3.53***
Handle discipline and support services	3.44	3.57	3.39
Develop broad agreement among staff about the school's mission	3.81	3.57	3.29**
Create a collaborative learning organization	4.14	3.58*	3.36***
Find and allocate resources to pursue important school goals	3.30	3.41	3.07
Analyze budgets and reallocate resources to achieve critical objectives	3.05	3.48~	3.15
Create and maintain an orderly, purposeful learning environment	4.05	3.76	3.65**
Manage facilities and their maintenance	3.00	3.45*	3.32*
Mobilize the school staff to foster social justice in serving all students	3.56	3.22	3.06**
Work with parents to support students' learning	3.33	3.47	3.21
Use data to monitor school programs, identify problems and propose solutions	4.39	2.98***	3.09***
Engage staff in a decision making process about school curriculum and policies	3.76	3.58	3.37**
Lead a well-informed, planned change process for a school	3.93	3.52~	3.24***
Engage in comprehensive planning for school improvement	4.10	3.56*	3.22***
Redesign school organizations to enhance productive teaching and learning	3.89	3.46*	3.07***
Use effective written and communication skills, particularly in public forums	4.29	3.95~	3.64***
Collaborate with others outside the school for assistance and partnership	3.79	3.40~	3.21***
Engage in self-improvement and continuous learning	4.61	3.87***	3.64***
Develop a clear set of ethical principals to guide decision making	4.41	3.92*	3.77***

T-tests of group means: CA sample and national sample in relation to ELDA graduates *p<.05; **p<.01; ***p<.001

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