INNOVATIVE PRINCIPAL PREPARATION PROGRAMS:
WHAT WORKS AND HOW WE KNOW

This article provides an overview of the contexts, the key features, and the evidentiary data—the criteria regarding candidates to engage in administrative work—for five innovative principal preparation programs. Short case studies and cross-case analysis of the sample programs are used to provide thorough descriptions. The five programs in fact share many characteristics and design structures that warrant close consideration, given each program's specifically measured success.

Miguel de Cervantes Saavedra wrote in Don Quixote that "the proof of the pudding is in the eating." That is to say, simply proclaiming something to be good doesn't make it so. Such has been a longstanding concern among scholars, policy makers, and practitioners with programs that prepare school principals. Claims of program effectiveness rest upon a very thin foundation empirically and rarely include measurable evidence of a principal's impact on important organizational outcomes such as teaching practices and student performance. Unquestionably, current policy initiatives (such as Race to the Top) and methodological developments in educational research underscore the imperative for greater clarity and accuracy regarding the attributes and qualities of principal preparation programs and their effects on school leaders, teachers, and students.

To shed light on this issue, in this article we highlight five university-based principal preparation programs that contain design elements aligned with seven key features of effective leadership preparation programs (Davis, Darling-Hammond, Meyerson, & LaPointe, 2005, pp. 8–15). These features include

1) Clear focus and values about leadership and learning around which the program is coherently organized,

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

3) Field-based internships with skilled supervision,

4) Cohort groups that create opportunities for collaboration and teamwork in practice-oriented situations,

5) Active instructional strategies that link theory and practice, such as problem based learning,

6) Rigorous recruitment and selection of both candidates and faculty, and

7) Strong partnerships with schools and districts to support quality field-based learning.

Although a sample of five programs is too small to support conclusions that can be generalized to the larger population of innovative or reputedly effective principal preparation programs across the nation, the selected programs are widely recognized as possessing exemplary features and provide insightful perspectives into the "state of the art" of program evaluation in the field and related claims of effectiveness.

Specifically, in this article we provide an overview of the contexts, key features, and evidentiary data established by sample programs to determine program quality (e.g., criteria regarding candidate readiness to engage in administrative work). We present our findings through short individual case descriptions and a cross-case analysis of the sample programs.

Exemplary Principal Preparation Programs:
Empirical Bases and Policy Contexts

The focus on the skills and abilities of school principals and the quality of programs that prepare them has never been more intense, and for good reason. Among the many school related factors that influence student learning, the importance of principal leadership is second only to that of teachers and may explain as much as 25% of the variation in student learning that is attributed to school related factors (Creemers & Reezigt, 1996; Seashore Louis, Leithwood, Wahlstrom, & Anderson, 2010). At both national and state policy levels, principals are being held accountable for the continuous growth in student achievement, closing achievement gaps, decreasing dropout rates, and increasing college or workplace readiness among disadvantaged students. And the stakes have never been higher. The careers of principals who fail to perform effectively are literally on the line. For example, within the schedule of sanctions outlined in No Child Left Behind and in several state statutes, principals of persistently underperforming schools may be removed from their jobs (Davis et al., 2005).

National policy initiatives such as No Child Left Behind and, in particular, Race to the Top (RTT) underscore the centrality of school leadership to improved teaching and learning in schools. Eligibility criteria for Race to the Top funding require that states design performance-based systems for assessing principal and program effectiveness. Specifically, RTT links its definitions of effective leadership and leadership preparation to student achievement growth in addition to other factors such as high school graduation rates and a supportive learning environment. In concert with the emergent federal policy interest in school leadership, many states have developed, or are developing, new policies that strengthen administrator licensure requirements (Davis, 2010) and systems to evaluate principal performance as instructional leaders (Davis, Kearney, Sanders, Thomas, & Leon, 2011; Hale & Moorman, 2003). Although when we wrote this article,

Congress had yet to reauthorize the Elementary and Secondary Education Act, it appears likely that developing effective principals and establishing robust methods for assessing their impact on important school outcomes will continue to be a topic of great interest to federal policy makers.

Concerns about principal effectiveness are not new. Long before the advent of No Child Left Behind, scholars and policy makers raised serious questions about the quality of principals and the viability of programs that prepare them (McCarthy, 2002), and these concerns continued to fester well into the new century (Levine, 2005; Hess & Kelly, 2005). In response, during the last 20 years, professional standards for administrators began to emerge from various national and state professional organizations. Importantly, many states adopted or adapted licensure and accreditation policies based on the standards for school administrators developed by the Interstate School Leaders Licensure Consortium in 1996 (and revised in 2008), and several have established alternative pathways to administrative licensure in order to attract talented leaders from within and outside of education (Fry, O'Neill, & Bottoms, 2006). Nevertheless, even today not all states have explicitly aligned professional standards with principal preparation programs, licensure requirements, and evaluation systems (Davis, 2010).

Efforts to study, revise, and improve principal preparation and professional development programs have paralleled the standards movement, particularly over the past decade. For example, a growing number of innovative programs such as those described by Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen (2007) began to frame program elements around theories of adult and experiential learning (Fenwick, 2003; Knowles, Holton, & Swanson, 2005) by placing greater emphasis on hands-on internship experiences, thematically integrated curricula, problem-based instruction, and closer partnerships with school districts. More recently, the Rainwater Foundation and the University of Illinois at Chicago sponsored research to better understand innovative practices by studying a select group of principal preparation and training providers (Cheney, Davis, Garrett, & Holleran, 2010).

Pockets of innovation were also stimulated through United States Department of Education sponsored Leadership Development grants such as The Great Leaders for Great Schools Academy (GLGSA) at Cal Poly Pomona, California's first principal preparation program to be fully accredited under the state's experimental accreditation standards. Constructed upon several design features described by Darling-Hammond et al. (2007), the GLGSA differs from most traditional programs in the strength of its partnership with a neighboring school district, its thematically integrated and problem-based curriculum, and full-time administrative apprenticeship. Meanwhile, non-profit groups and collaboratives such as the Wallace Foundation, the Alliance to Reform School Leadership, and the Southern Regional Education Board examined innovative programs, disseminated promising practices, and facilitated networks of innovative programs across the country.

Similarly, recent research about principals and their impact on teaching and learning has contributed to the conversation about program effectiveness by illuminating the specific behaviors and leadership actions that matter most for learning to thrive—and thereby providing outcome benchmarks that may be traced back to program components, processes, and assessments of effectiveness. Notably, in their six year study of the relationship between school leadership and student learning, Seashore Louis et al. (2010) identified four key leadership practices of successful school leaders that remained constant across differing school and environmental contexts—setting directions, developing people, redesigning the organization, and managing the instructional program. The authors' finding that a principal's impact on student learning is mediated through the work of teachers and other organizational variables reinforced earlier research that examined leadership effects (most notably, Hallinger & Heck in 1996). Seashore Louis et al. concluded that it is the principal's ability to create synergy across these variables that has the greatest stimulative effect on student learning.

Although the design components of reputedly effective principal preparation programs and affiliated pockets of innovation are well known, much less is known about the impact of innovative programs and their components on principal behavior, and most important, on how those behaviors influence teaching and learning (McCarthy, 2002; Orr & Barber, 2009; Orr & Orphanos, 2011). Moreover, for the research that does exist, "evidence" is commonly based upon the self-reported perceptions of principals or the perceptions of various school stakeholders rather than measurable data of school and student outcomes (Darling-Hammond et al., 2007).

The limited empirical evidence linking credentialing program elements and individual performance on the job is emblematic of the tenuous relationship between research and educational reform in general (Cuban & Tyack, 1998; Davis, 2008). Nevertheless, with the growing use of statistical methods like hierarchical linear modeling that can examine nested relationships within schools, educational researchers are now poised to move beyond investigations of the relationship between leader behavior and organizational processes, and toward the alignment of program features, leadership behaviors, and organizational outcomes (Meyer & Dokumaci, 2011; Orr & Barber, 2009; Raudenbush & Bryk, 2002).

In the following section, we describe the contexts and key design features of our sample of five exemplary university-based principal preparation programs, including evidence of their effectiveness in preparing school leaders who can promote powerful teaching and learning.

Five Exemplary University-Based Principal Preparation Programs

The five sample programs include the Educational Leadership Cohort Program at Delta State University (ELCP), the University of Connecticut's Administrator Preparation Program (UCAP), the Principals' Institute

(PI) at Bank Street College, the Educational Leadership Development Academy at the University of San Diego (ELDA), and the Urban Educational Leadership Program at the University of Illinois at Chicago (UELP). With the exception of the UELP, descriptions of these programs were drawn from the Stanford Educational Leadership Institute (SELI) publication titled, *Preparing School Leaders for a Changing World: Case Studies of Exemplary Programs* (Darling-Hammond et al., 2007).

      The SELI study examined several kinds of evidence about program outcomes: candidates' and graduates' perceptions about their preparedness for various aspects of the principalship, self-reports of practices in key areas known to be related to effectiveness, and entry and plans to remain in the principalship, compared to a national sample; perceptions of employers about graduates' capacities; observations of graduates' practices on the job; and data about student achievement trajectories in graduates' schools. The UELP program has also published outcome data about graduates' preparedness, practices, and student achievement gains in comparison to those occurring in other schools serving similar students. In all five cases, these programs have emerged as producing significantly more positive outcomes across these indicators of effectiveness than the comparison samples. (S. Tozer, personal communication, December, 2, 2011; for details see Darling-Hammond et al., 2007).

      To provide more current information about program features and assessments, follow-up telephone interviews were conducted with several program directors in November 2011. Not surprisingly, since the 2007 Stanford study most of the programs have experienced changes in funding support and design elements. This posed the dilemma of how to describe the assessment of important program outcomes from two distinct periods of time. In our analysis, we make note of these distinctions.

      The UELP was not one of the Stanford study subject programs, but was included in the sample as a result of its recognition as an exemplar of innovative administrator preparation by the Rainwater Charitable Foundation (Cheney et al., 2010) and by the Alliance for Reform in Educational Leadership (a nationwide initiative for leadership development sponsored by the George W. Bush Institute—see http://www.bushcenter.com/portal-edreform/education-reform). Beyond the published outcome data described above, information about the UELP program was obtained through telephone interviews with program directors and the analysis of related program documents.

Delta State University Educational Leadership Cohort Program

      Context. Located one hundred miles south of Memphis, Tennessee and 100 miles north of Vicksburg, Mississippi, Delta State University (DSU) sits at the epicenter of one of the poorest regions in the United States. It is a relatively small public university, with approximately 1,350 graduate students and 2,800 undergraduates. About 40 percent of DSU's students are

of African American descent. Persistent problems associated with extreme poverty and chronically underperforming schools in the region led Delta State administrators and faculty members to pursue a bold new strategy for preparing school leaders with the skills and abilities to transform schools through the advancement of powerful teaching and learning.

The work began in the mid-1990s and was both stimulated and supported by a statewide administrator preparation reform initiative. Delta State University's reform efforts were framed upon the newly enacted Mississippi School Administrator Sabbatical Program, which provided funding to release teachers from their classroom duties to participate in a full-time administrative internship program. A consortium of rural Delta districts works with the university to select candidates and support internships for them in local schools.

Recent conversations with Delta State program faculty and administrators revealed that the state recently mandated another statewide overhaul of educational administration programs. In the spring of 2010, Delta State University Educational Leadership Cohort Program (ELCP) emerged as the first program in Mississippi to fully meet the new state accreditation requirements.

Key Design Features. There are at least six distinctive features of the ELCP:

- Its admission process is highly rigorous and highly selective, focusing on educators who have been successful teachers in Delta schools. The university fills about half of its positions with African American educators.

- It develops the core values and skills administrators need to lead instruction.

- It cultivates self-reflection and ethical behavior.

- It aligns problem-based learning with relevant theory.

- It develops leaders who are oriented to organizational change and renewal.

- It cultivates strong partnerships with school districts in the Delta region.

Program candidates begin Delta's 13-month program in June with a 12-credit session during summer school at the university. In each of two 4-week periods, they take one core course and one seminar. The program's theory of action is anchored by three key thematic foci, (a) curriculum, instruction, and assessment; (b) continuous improvement and culture of learning, and (c) leading organizations for learning). In addition, the curriculum is informed by the ISLLC standards and all courses are taken within a cohort structure.

During the school year, candidates complete three 12-week full-time and supervised internships in elementary, middle, and high schools and also a two-week internship in their district's central office. During these internships, the cohort returns to DSU one day a week for a gradu-

ate seminar. Between internships, members of the cohort spend one to two weeks on campus in all-day seminars.

The program is capped with a second 12-credit summer session that provides continuity between cohorts and frames the year for the graduating cohort. At the end of these 13 months, graduates have taken 39 graduate semester credits in a mixture of university courses and school-based experiences. Following the completion of all required coursework and a passing score on the School Leadership Licensure Assessment (SLLA) they receive a Masters of Education in Educational Leadership and initial certification as an administrator in the state of Mississippi.

ELCP program faculty members have identified seven areas of competence that all candidates must attain in order to graduate. These include the ability to:

1) Make data-driven diagnoses of school conditions and subsequent decisions.

2) Foster external partnerships with communities and parents.

3) Understand the processes and politics of school change.

4) Make ethical and morally sound decisions.

5) Assume administrative positions with the ability to successfully perform required tasks and skills.

6) Promote powerful teaching and learning.

7) Understand the nexus between curriculum, instruction, and assessment.

Outcomes. By 2011, the ELCP had graduated 144 licensed administrators. Of that group, 122 have found administrative employment in Mississippi public schools—currently 52 are school principals, 46 are assistant principals, 18 are middle level district office administrators, and three are superintendents. These rates are much higher than the averages for most programs, a minority of whom take administrative jobs (Darling-Hammond et al., 2007). Three ELCP graduates are Milken Award recipients.

In 2007 several elements of program effectiveness were illuminated by Stanford researchers, who found that ELCP graduates were significantly more likely than non-ELCP graduates to experience a full-time, mentored internship. Likewise, graduates were far more likely than non-ELCP graduates to participate in site-based internships across school types. Importantly, ELCP graduates who became school principals were significantly more likely than non-ELCP principals to engage in job activities centered upon facilitating student learning, providing instructional feedback to teachers, and fostering teacher professional development. In contrast, they were significantly less likely than non-ELCP graduates to spend time on the management of school facilities, resources, and operational procedures (Darling-Hammond, et al., 2007).

Although the ELCP has yet to complete research connecting its program features with the impact of its graduates on important school outcomes (it is currently working on this with the assistance of an educational consultant), it has developed several mechanisms for assessing the performance of its candidates as they progress through the program. Such assessments, which are made both by faculty and by supervising principals, are based on written assignments, portfolios, presentations, and individual and group work. Candidates must, for example, design and implement a major school-wide change project at each internship site. They write several "clinical correlations" for each site; these are problem-based case studies of complex issues facing school leaders that require literature reviews and the development of authentic administrative responses.

Rather than completing typical graduate courses, DSU's candidates earn their credits by documenting their work in portfolios and building a body of knowledge over the school year. A typical transcript includes a large number of incompletes until all the portfolios and activities are completed at the end of the school year. The work in the DSU leadership program is ongoing, and assessment is based on authentic, applied projects and portfolios.

In summary, program leaders report that ELCP graduates are proportionately more likely than non-ELCP graduates in Mississippi to find school site and district level administrative jobs. Similarly, students are more likely to report greater levels of program satisfaction, feelings of self-efficacy, readiness to assume administrative tasks and responsibilities, and instructional leadership skills. The impact of program graduates on measurable school and student outcomes has yet to be examined.

University of San Diego, Educational Leadership Development Academy

Context. With more than 130,000 students, the San Diego Unified School District (SDUSD) is the eighth-largest urban school district in the country. Like many of its urban counterparts, SDUSD students are predominantly students of color (75%) and from low-income families (60%). Approximately 30% of the students possess limited proficiency in English. In the late 1990s, chronic disparities between minority and non-minority students in important measures relating to academic success prompted newly hired superintendent Alan Bersin and his chancellor Tony Alvarado to initiate a set of reforms designed to train and support school leaders who could promote powerful teaching and learning for all students. In 2000, in partnership with the University of San Diego, the district launched an innovative approach to administrator preparation and development titled the Educational Leadership Development Academy (ELDA). Simultaneously, key district office functions and structures were reorganized and mobilized to strengthen the district's ability to guide and support the instructional leadership of school principals. A key feature of the ELDA was the depth and strength of the relationship between the school district and its program sponsor, the University of San Diego.

Key Design Features. Initially, the ELDA consisted of two programs: preparation for aspiring leaders and induction and support for newly hired leaders. The preparation component of ELDA--the Aspiring Leaders Program (ALP)—began as a one-year, cohort-based credential program serving the San Diego Unified School District. Initially, the 24 units of required coursework were co-taught by university faculty members and district practitioners. Program content consisted of tightly woven learning experiences, based upon principles of adult learning that emphasize knowledge of learning and instruction, professional learning and development, organizational behavior, and school management and change.

Candidates would study teacher supervision and development and then engage in the San Diego teacher evaluation system as part of their internship. They would study school improvement strategies while immersed in the district-wide reform process, allowing them to experience and reflect on the theories they were learning. Projects required that they identify professional development needs of a subset of teachers in their school and then design and support a professional development process.

Today, with growing interest from other districts, the ALP program is no longer linked as directly to San Diego Unified schools, and about half of its students come from other school districts in the San Diego region. Core academic instruction is provided by University of San Diego faculty members, while practicum activities occur under the supervision of both district mentors and university supervisors. However, after 10 years, the program's theory of action, curriculum, and core goals remain largely intact.

The program now requires 48 hours of coursework over two years and culminates in both a credential and a master's degree. Similar in many ways to the Delta State model, ELDA candidates are chosen in partnership with the districts through a rigorous nomination and selection process. In the original model, they were released from their teaching duties to work as full-time interns under the supervision of a skilled mentor principal. After 2005, the discontinuation of outside funding forced the program to transform the internship to a set of practices conducted while candidates are employed, often as assistant principals, supplemented by a full-time internship stint of forty hours conducted during after school hours and vacation periods.

As the program began to serve non-SDUSD students, internship placements were made in districts other than the student's home district, and particularly in districts where vacation schedules did not coincide. Unfortunately, the current budget crisis in California has added an unexpected challenge by reducing the variations among district academic calendars, and thereby reducing opportunities for mentored internships. The solution has been to locate internship placements in school district offices or in the County Office of Education during vacation periods.

Recently, ELDA and teacher education faculty began pairing up administrative credential students with student teachers to facilitate the development of instructional leadership skills while providing aspiring

teachers with useful feedback. As part of this process, lessons are videotaped and shared with the ALP cohort for collective analysis and feedback. This is part of the long-standing focus of the program on developing hands-on instructional leadership skills.

The culminating assessments include a problem-based learning project, portfolio, and professional platform statement. These are evaluated by a panel of district practitioners and university faculty members using rubrics aligned with the ISLLC standards. Candidate progress is carefully monitored through individual meetings with supervisors, monthly site visits, and formal evaluations. The emphasis on connecting theory and practice in a carefully supervised process of learning to lead remains intact.

Outcomes. Between 2000 and 2005, shortly after its inception, research on the Aspiring Leaders Program showed that it generated impressive results. For example, it graduated 53 students, and of these, 45 became SDUSD administrators. During this time, more than 60% of ALP graduates received a principal's position within two years of graduation. Ninety-three percent of District supervisor ratings of the administrative performance by ALP graduates fell within the "good to excellent" range, and after five years, 88% of ALP graduates remained in their administrative positions. In 2005-06, the SDUSD reported that 31 of the 38 schools led by ALP graduates showed growth on the California Academic Performance Index (API).

On a 2006 survey of program qualities and characteristics, graduates of the Aspiring Leadership Program (ALP) were significantly more likely than non-ALP graduates in California and a national comparison sample of principals to give their programs high ratings on 12 key variables:

1) Emphasis on instructional leadership.

2) Emphasis on leading school improvement.

3) Comprehensive coursework and coherent learning experiences.

4) Participation in a cohort.

5) Use of practitioners to teach in the program.

6) Multiple opportunities for self-assessment as a leader.

7) Opportunities to reflect on practice and analyze how to improve it.

8) Regular assessments of candidate skill development and leadership competencies.

9) Integration of theory and practice.

10) Knowledgeable faculty members.

11) Strong orientation to the principalship as a career.

12) Several opportunities to evaluate the program.

The survey data also revealed the deepened involvement of San Diego principals in improving instruction. Most of them reported substantial participation in guiding curriculum development and building learning communities. A striking 60% reported providing daily instructional feedback to teachers (compared to about 20% of principals elsewhere). An impressive 78% of San Diego principals reported working with teachers to change teaching methods where students are not succeeding (compared to only 3% of other California principals and 14% of principals nationally).

Currently, assessments of effectiveness (much like Delta State) rest upon candidate "in-program" performance assessments, and self-reported perceptions among graduates regarding program qualities and personal abilities, which remain strongly positive. Today, anecdotal feedback from ALP graduates suggests that most view their courses as highly relevant, because they often include applied tasks and problem-based learning cases, and they are linked to the challenges the candidates experience in their practicum activities.

Bank Street College Principals' Institute (PI)

Context. Established in 1989, the Bank Street College Principals' Institute (PI) has been an important pathway for the preparation of New York City's principals, and particularly those from the portion of the Bronx formerly known as Community District 10 and, following a reorganization, Region 1. In recent years, the NYC school system has undergone additional changes in organizational and governance structures, leadership, policy initiatives, and funding support, all of which have resulted in program modifications. Despite these challenges, the well-respected Principal's program continues to operate and now partners with schools throughout the city.

The PI was initially established following a request by NYC district officials to train a new and more diverse cadre of leaders who could address the complex educational demands of city schools. The district was particularly interested in increasing the proportion of leadership positions filled with women and people of color. Then-regional superintendent Irma Zardoya was instrumental in cultivating and building NYC's ongoing relationship with Bank Street. Through her efforts, the PI received both federal and foundation funding to support the institute, which included a full time administrative internship for candidates. A formal partnership with District 10, which became Region 1, allowed the district to work closely with Bank Street to recruit and select promising candidates and to partner in designing strong clinical experiences for them tied to district practices. The partnership continued past hiring to support a continuum of learning experiences for principals throughout their careers.

Throughout its existence, the PI program has enjoyed positive relationships between school system and university stakeholders. However, current participants note that, since the city has disbanded its Regional dis-

tricts and reorganized into non-geographically based networks of schools, there is no longer a formal district structure to guide the relationship, making the collaboration less formal, if still vibrant at the school level.

Key Design Features. Conceptually and functionally, the PI reflects the shared vision and beliefs of its partner institutions that promote ongoing leadership development activities (such as mentoring, advising, and self-reflection) in concert with the values of lifelong learning, inquiry, and advocacy. A central focus of the program is to develop self-actualized leaders who can learn from experience while cultivating constructive relationships with others.

Candidates undergo a selection process that includes transcript reviews, reference letters, an autobiographical statement, and a filmed group interview framed around a collaborative problem-solving situation. Eligibility for the program requires both strong instructional experiences and demonstrated leadership potential. The final selection of program candidates is made by the superintendent and deputy superintendent. After successfully completing 36 semester hours of coursework, including a passing score on a state leadership assessment test, candidates receive a master's degree and are eligible for a provisional state certification as building-level leaders.

Grouped as a cohort, candidates attend classes two nights a week and meet with advisors one night a week over four consecutive semesters beginning in the fall. Courses are thematically arranged around teaching, learning, school reform, and school redesign. Administrative skills and practical knowledge such as law, budget, supervision, and technology are infused within the coursework. The pedagogical approach emphasizes individual discovery, data-based decision-making, reflective inquiry, and a highly structured set of field-based practical experiences guided by state and school system standards. Because funding cuts eventually eliminated the full-time internship, the internship experience depends heavily on candidates' flexibility during the school day, the strength of their mentor principals, and placement as assistant principals during summer school. Mentoring and advising from district and university faculty is ongoing and includes regular meetings with conference groups of six to nine candidates from various school levels. Candidates also participate in a series of special topics seminars and off-site school visits in order to expose them to other school leaders and school environments.

Outcomes. From a program perspective, PI graduates fare better in a number of important ways than do graduates from other programs that serve the city and from a sample of principals from across the nation. Stanford researchers found that nearly three quarters of program graduates have gone on to become school administrators. In addition, graduates are significantly more likely than candidates from other programs to rate their program faculty highly and to experience student-centered instruction, leadership focused content, and reflection-rich content. PI graduates

are also more likely to have experienced a full or part-time administrative internship under the supervision of a trained mentor principal. Candidate competence while in the program is assessed through a variety of coursework and internship mechanisms, including a portfolio of critical work products that is subject to review by faculty advisors. The program assesses its own effectiveness through the various measures of candidate competence while in the program, candidate perceptions of program quality both before and after graduation, and evidence of career advancement.

University of Connecticut Administrator Preparation Program

Context. The University of Connecticut Administrator Preparation Program (UCAPP) is now in its 20th year of operation. Thanks to a favorable statewide policy environment that has promoted a steady and long-term commitment to school system reform and teacher and principal development, UCAPP continues to represent a strong model of what a university can do to prepare principals within a conventional program structure and with limited resources. Since the early 1980s the state of Connecticut engaged in many efforts to improve schools by professionalizing teaching, including the establishment of new teaching standards, revised teacher certification criteria, new evaluation systems, and a comprehensive system of preparation and support for new teachers.

To ensure the successful implementation of its school reform agenda at site levels, the state turned its attention in the 1990s to the training and support of school principals. It trained principals to analyze instruction, evaluate teachers, and develop professional development, and integrated these skills into a performance-based assessment used for licensure. In 1999 it developed an ISLLC-based set of principal preparation program standards. And, two years later, thanks to the infusion of Wallace Foundation "State Action for Educational Leadership" (SAELP) funding grant, these standards became firmly rooted across administrator credentialing programs. During this time, the state also mandated programs be evaluated by how many of their candidates achieve a passing score on the innovative performance-based licensure assessment. Programs cannot be accredited if their graduates do not achieve a pass rate of 80 percent. On the performance assessment, principals must demonstrate that they can analyze a videotape of teaching, identify areas of development, and design appropriate professional learning experiences, among other things. All of these initiatives have shaped administrator preparation across the state.

Key Design Features. The UCAPP is a two-year program framed upon the theory that leadership is a multi-dimensional process involving the interactions of many individuals and groups at various levels of the education system. The principal's ability to engender stakeholder support and engagement in the development of a school vision and related goals and programs is central to this theory of action.

Candidates to the UCAPP are selected through a pre-application recruiting process involving UCAPP faculty and school district leaders that effectively pre-screens desirable applicants according to a set of professional criteria and experiences. Those who make it through the pre-application process submit a written application and are personally interviewed by the program director.

The UCAPP program is cohort-based and requires 32 credit hours of on-campus coursework, one-third of which are associated with internship requirements. Courses and intern activities occur over a two-year period, bookended by two summer sessions. Students and advisors work closely to develop individual learning plans. Related artifacts and work products are documented through a portfolio that includes a school/community analysis project that begins in the first summer session and continues throughout the internship. Spread over two years, the internship requires 80 days of administrative fieldwork at another school, supervised by a mentor principal. Although students continue to teach full time, they typically complete a significant portion of internship activities during summer sessions and vacation periods. Activities may include shadowing, assigned administrative duties, or serving as a paid administrative intern.

Outcomes. Virtually all UCAPP graduates pass the rigorous state licensure assessment, in contrast to a statewide failure rate that averages about 20%. Stanford researchers found that UCAPP graduates were significantly more likely than graduates from other state programs and a national sample of principals to rate the program highly in three key areas:

1) The integration of theory and practice.

2) An emphasis on leadership for school improvement.

3) Knowledgeable faculty members.

Similarly, UCAPP graduates were more likely than most principals to engage in practices associated with facilitating student learning, building professional learning communities, fostering teacher professional development, and providing assistance to teachers who are not succeeding. Finally, UCAPP graduates who assume school leadership positions reported feeling better about their jobs than most non-UCAPP graduates.

University of Illinois at Chicago Urban Educational Leadership Program

Context. In 2001 a team of faculty members at the University of Illinois at Chicago launched an innovative administrative preparation program called the Urban Educational Leadership Program (UELP) designed to address growing concerns about persistently underperforming urban schools and the uneven quality of Chicago area principals in their ability to promote powerful teaching and learning. At the time, the program was one of only a few across the nation to require a full time administrative in-

ternship and extensive follow-up executive coaching. But what makes the UELP particularly distinctive from most traditional administrative credentialing programs is its culmination in both an Illinois "Type 75" administrative credential and an Ed.D. in urban school leadership. In contrast, the norm among programs is to combine a professional credential with a master's degree. As a result, UELP students come to the program with extensive academic and professional experiences and skills. Although the program is open to educators from districts outside of the Chicago Public School system (CPS), the majority of candidates are teachers in Chicago. The UELP is currently working in collaboration with several other university and nonprofit programs to provide the CPS with high quality school leaders.

Key Design Features. The administrative credential and doctoral degrees require 88 semester hours of coursework beyond the Master's degree that includes a series of specialization courses in various administrative content areas, a theoretical core consisting of two courses, a series of research methods courses, and dissertation research. From start to finish, the program is designed to take three years.

The UELP is distinguished from most traditional programs by its rigorous selection process. Annually, only 15 to 20 candidates are accepted. Candidates are selected on the basis of demonstrated success in various educational leadership roles, instructional competence, analytic and interpersonal skills, and a deep commitment to the challenges of promoting school improvement. For the first 18 months, the program requires full-time enrollment, which includes an intensive 12-month, full-time administrative internship under the supervision of an experienced mentor. Once hired in an administrative position, graduates receive three years of executive coaching support. All courses are designed to address the 10 Core Leadership Competencies established by the CPS and are framed around the overarching theme of transforming high need schools. Currently, the UELP is revising its curriculum to adhere to the new standards established by the National Board Certification for Educational Leaders.

Outcomes. UELP has made important inroads into the assessment of its graduates' impact on various school outcomes. Since 2002, 62 of 94 candidates who have completed the certification part of the program (most have not yet completed the Ed.D.) have become principals in urban schools; all but three are in Chicago. Internal program research has identified a number of markers of program success:

1) Entry and retention in the principalship:

   - Since the UELP's founding 10 years ago, 100% of completers have obtained administrative positions, 65% as principals. Statewide, approximately 15% of credential program graduates obtain principalships.

- Over 90% of UELP principals take over high-need schools, nearly all of them non-selective neighborhood schools.

- To date, UELP Principal retention rate is over 90%.

2) Progress in leading high-need elementary schools:

- In 2010-2011, 80% of UELP elementary school principals led school gains that surpassed the CPS district median gains for (a) exceeding state standards, (b) scoring at/above the state average, and (c) being on-track to meet/exceed ACT college readiness standards when students reach grade 11.

- State testing gains (on the ISAT) in all 10 of the high-poverty African American enrollment elementary schools led by UELP graduates are in the upper half of all 184 CPS schools in that demographic. Five of the ten schools led by UELP graduates are in the top 10% of the demographically similar schools in ISAT gains.

- Nine of these ten UELP principals led one-year gains during their first year as principal that were in the top fifth of gainers among their comparable schools.

- UELP-led elementary schools are 3.5 times more likely than other CPS schools to place in the top 5% of CPS school rankings on "value-added" measures in 2010.

3) Progress in leading high schools:

- UELP principals currently lead 10% of Chicago's 130 high schools. All UELP-led high schools are showing significant gains on improved school culture and climate measures and nearly all are exceeding district gains in freshmen-on-track and graduation rates.

- In 2011, TEAM Englewood, a non-selective neighborhood high school founded by a UELP Principal, graduated 95% of its senior class, of whom 95% were accepted into college with over $1 million in scholarship money earned (S. Tozer, personal communications, December 2, 2011; Hendershot, 2011).

Program director Steven Tozer recently noted that the UELP is beginning to apply a UIC developed statistical tool called "The Nearest Neighbor Analysis" (NNA) to compare a group of closely matched schools on a set of demographic and academic performance data. Currently being piloted with K–8 schools in the CPS, the NNA compares ethnic, socio-economic, and underserved student characteristics with attendance rates, ISAT scores in reading and math, and grade level benchmarks. However, by 2014 the model will have the capacity to compare CPS schools with comparable schools across the state and nation. The 2014 analysis will include several additional performance measures including state quar-

tile comparisons, comparison of schools according to an "average" student ranking across the state on ISAT scores, the percent of students who meet college readiness standards, and a longitudinal "same-student value-added" calculation by achievement level.

Discussion and Conclusions

Each of the five programs described in this article contain several common features: Each is driven by a theory of action that locates instructional leadership at the heart of school reform and where effective school leadership is best developed through the integration of practical and problem-based experiences and research-based knowledge. Each program is also highly selective, under the theory that exemplary leadership best emerges from the cultivation of highly experienced, dedicated, and instructionally competent teacher leaders with strong motivations to become school administrators. And, each program provides either full time or part time mentored internships at school or district office sites other than the candidate's school of employment.

The five credential programs appear to have several attributes that are relatively uncommon among more traditional programs. All five programs work with one or more local districts to recruit and train candidates and to integrate the work of the program into the work of the schools. All five use a cohort model in which a group of students enroll in and move through the coursework together. Finally, in all five programs candidate competence is assessed via multiple performance measures, and most commonly through the use of structured portfolios. Essentially, all five programs contain design features that are tightly aligned with the principles of adult learning described by Knowles et al. (2005)—most notably, an approach to learning that is experiential, problem-based, and authentic.

All of these programs have also endured fiscal crises, changes of personnel, and program modifications, a sign of the strength of their designs and the commitments of both the universities and districts involved.

Outcomes suggest that the programs have moved the field forward in learning how to train administrative leaders effectively. For example, across the five programs, survey results from the Stanford research project and, more recently, anecdotal testimonials from graduates and faculty directors uniformly point to high levels of student satisfaction with their programs, and high levels of confidence and efficacy relating to administrative tasks and working with teachers to promote powerful teaching and learning. Graduates of these programs appear to be significantly more successful than those from other programs in finding and keeping administrative positions. They commonly report that the skills acquired through their credential programs prepared them well for the complexities of organizational management in schools, and particularly for their roles as instructional leaders.

We also know something about the impact on teaching and learning by principals who have graduated from these five programs from the tracking of a small sample of each program's graduates in the Stanford study and from much more ambitious data collection by the UELP at the University of Illinois at Chicago. While all of these programs have some evidence of their effectiveness and of their graduates' impact on schools, derived from both internal data collection and external research, we note that well-developed outcome-based measures of programs' and candidates' effects are not yet well-rooted even in these notable programs, much less in the field as a whole.

We can think of three plausible explanations for the general paucity of impact data for program graduates. First, the fiscal crisis that has engulfed public school systems across the nation has had a calamitous effect on the ability of many states to develop and support robust data systems that can provide information about administrators' career trajectories linked to data about the schools they have led.

Second, for many school districts, the fiscal crisis has resulted in the reduction of teaching and administrative positions. Consequently, over the past five years a smaller proportion of credential program graduates have been hired as administrators than in previous years. Finally, revealing measurable relationships between a principal's leadership and student learning is considerably more difficult than analyses of the relationships between teaching and student learning. Moreover, in the wake of No Child Left Behind, the locus of school reform efforts has landed squarely upon the measurement and evaluation of teaching effectiveness. The nascent interest in calculating the impact of school leaders on important school outcomes (such as student learning, persistence in school, graduation rates, access to high-quality learning experiences, school climate, teacher capacity and retention in the field) has yet to deeply penetrate the field.

We believe that the University of Illinois at Chicago is on the right track. In its emergent value-added model, the UELP uses multiple (and longitudinal) measures of student success that extend beyond standardized test scores. For example, the program assesses several factors that relate to student learning and the principal's ability to impact organizational systems and structures such as changes in attendance and truancy rates. In these ways, the model acknowledges and responds to Hallinger and Heck's (1996) point that the principal's impact on student achievement is largely indirect. It also reflects the conclusions by Seashore Louis et al., (2010) that the principal's impact on student achievement is stimulated by his/her ability to create synergy among the school's resources (fiscal, material, human) and educational processes.

Of course, the range and types of variables that could be measured in a comprehensive approach to the assessment of a principal's impact on schools and students is undeniably vast, and most probably beyond the capacity of any one model to capture perfectly. However, in addition to

system-wide measures of student academic performance, the research on principal effectiveness points to six critical abilities of the principal to impact teaching and learning that could be assessed by credential programs. These are the ability to:

1) Influence teacher feelings of efficacy, motivation, and satisfaction,

2) establish the organizational and cultural conditions that foster a positive environment for teaching and learning,

3) promote professional collaboration,

4) promote and support the instructional abilities and professional development of teachers,

5) focus resources and organizational systems toward the development, support, and assessment of teaching and learning, and

6) enlist the involvement and support of parents and community stakeholders.

We look forward to seeing increased documentation by researchers and programs themselves about what leadership preparation programs do and with what results for principals' capacities, actions, and outcomes. It is imperative that the field be able to move forward with purposeful use of information about what works so that programs can better arm principals for the challenging and important work they must undertake.

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