Evaluating Progress Toward Equitable Distribution of Effective Educators

No Child Left Behind Act of 2001
Title II, Part A, Teacher Quality

This document is intended to assist local educational agencies (LEAs) in thinking about how teacher qualifications and characteristics can be used to ensure that poor and minority students have access to highly qualified and effective teachers. It also provides guidance for LEAs as they develop strategies for recruiting, developing and retaining highly qualified and effective teachers and administrators

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Foreword

One of the foundational principles of the No Child Left Behind (NCLB) Act is the idea that teacher quality is the single most important school-related factor in student success. Ample research supports this principle. Research also shows that teacher quality is unevenly distributed in schools and that the students with the greatest needs tend to have access mainly to the least-qualified and least-effective teachers. At the same time, research increasingly demonstrates that the quality of school leadership is also crucial to teacher success, which, in turn, translates into higher student achievement. Numerous studies on what makes a school successful have consistently shown that high-performing schools are run by highly effective administrators and staffed by highly effective teachers.

An important first step in closing the achievement gap for all children is determining teacher quality on the basis of effectiveness in the classroom rather than simply on the basis of qualifications for entry into the teaching profession. And if we mean what we say—"all children"—we must take the additional step of ensuring that every child has the same opportunity to be taught by highly qualified and effective teachers regardless of which school in a district a child attends.

As is the case for teachers, administrators must be able to demonstrate their effectiveness by showing results in student achievement at their schools. And, as do teachers, administrators need professional development to strengthen their knowledge and skills.

In a letter dated May 15, 2006, Secretary of Education Margaret Spelling stated that "to meet the No Child Left Behind (NCLB) Act requirement of having every student on grade level in reading and mathematics by 2014, we must take bold action to ensure that every student has access to a highly qualified, effective teacher." In this letter Spelling outlined the U.S. Department of Education's requirement that states develop and implement strategies to improve the distribution of effective teachers, especially in schools that have high concentrations of poor, minority, and low-performing students.

California's Revised State Plan of Activities to Meet NCLB Teacher Quality Requirements (State Plan) (November 2006) requires local educational agencies (LEAs) to develop and implement a detailed, coherent set of specific activities to ensure that poor and minority children are not taught by inexperienced, underqualified, or out-of-field teachers at higher rates than are other children (Elementary and Secondary Education Act of 1965 [ESEA] Section 1111[b][8][C]) in the district. The State Plan requires LEAs to be more strategic in determining the qualifications, experience, and effectiveness of teachers and administrators and to take new actions to address this issue.

Years of LEA improvement plans, school improvement plans, sanctions, and reorganizations have demonstrated that struggling districts need immediate, long-term, personalized technical assistance to develop, implement, and sustain whole system improvement. It is crucial that the technical assistance be carried out in a collaborative manner between the LEA, local stakeholders, and the state educational agency. The plan for achieving equitable distribution of effective teachers and administrators must be based on data (both qualitative and quantitative), recommended procedures, policies, programs, and strategies that are research-based and show measurable outcomes.

Closing the Achievement Gap

The persistent academic achievement gaps between children living in poverty and those living in affluence endanger our state's future and prosperity. While it is important to acknowledge social factors, including the effects of poverty on families and children, some long-standing educational practices continue to contribute to inequities in student achievement. Unfortunately, the most vulnerable students, those attending high-poverty, low-performing schools, are far more likely than their wealthier peers to attend schools having a disproportionate number of under qualified, inexperienced, out-of-field, and ineffective teachers and administrators. Because minority children disproportionately attend such schools, minority students bear the brunt of staffing inequities.

California will not solve staffing inequities by simply hiring more teachers or by moving current teachers from one school to another. Teachers are not troops recruited and deployed; rather, they are professionals who respond to opportunities for employment within local labor markets. The goal, then, must be to improve so-called "hard-to-staff schools" by making all schools, including high-poverty, low-performing schools, the kinds of places where our most effective teachers and administrators will want to work.

The California Department of Education (CDE) recognizes that staffing challenges are difficult and, sometimes, a sensitive issue to discuss. Nothing in this document is meant to minimize the commitment and hard work of the many excellent teachers and administrators who already work in our state's most challenging schools. As outlined in *A Shared Responsibility: Staffing All High-Poverty, Low-Performing Schools with Effective Teachers and Administrators* – A Framework for Action (Learning First Alliance 2005) California educators must find new courage to address these issues while remaining sensitive to how teachers, bargaining units, and others will perceive the discussion of these issues. New alliances, based on mutual respect and trust, must be forged in an effort to find fair and sustainable solutions to the complex causes for the inequitable distribution of highly qualified, experienced, and effective teachers and administrators.

Requirements for Local Educational Agency Equitable Distribution Plan

As required by the NCLB Act (Title I, Part A, Subpart 1, Section 1111[b][8][C]), states must ensure that poor and minority children are not taught at higher rates than other children by inexperienced, underqualified, and out-of-field teachers. California's State Plan is a multifaceted plan; it addresses the equitable distribution of high-quality, experienced, and effective teachers, specifically in schools with high-poverty, high-minority populations whose students continue to under-perform academically. The CDE's focus is to target state monetary and staff resources for schools with high-poverty, high-minority populations that have historically been unable to recruit and retain highly qualified and effective teachers.

California is the nation's most economically, geographically, and linguistically diverse state. It has the largest population of teachers and students in the nation. California is also a "local control" state, which means that each LEA has developed into a unique educational agency. Among the state's more than 1,053 LEAs, no two are identical; therefore, no single plan could solve the problems facing California. As the state moves aggressively to close the student achievement gap, California's plan is to collaborate with districts that have significant issues with equitable distribution of highly qualified and experienced teachers. This collaboration will focus on identifying the significant issues that have prevented the LEA from recruiting and retaining highly qualified teachers and on improving the effectiveness of current teachers.

To maintain California's position as a world-class leader, both economically and technologically, the state must continue to develop and support a world-class educational system. Doing so includes ensuring that the state has an adequate supply of highly qualified and effective teachers and administrators who are prepared to meet the challenges of teaching California's growing and diverse student population. Recruiting and developing highly qualified teachers and administrators is the most important investment of resources that our state can make in education.

The Comprehensive LEA Plan

LEAs that cannot demonstrate current equitable teacher distribution must create a comprehensive plan to ensure an equitable distribution of highly qualified and experienced teachers within the district. The comprehensive plan will include: (1) clearly outlined steps the LEA will take to ensure that low-performing schools serving a disproportionate number of poor and minority students are recruiting, developing, and retaining highly qualified teachers and administrators; (2) identification of the underlying reasons that poor and minority children are being taught at higher rates than other children by inexperienced, underqualified, and out-of-field teachers and an outline of specific strategies for remedying this inequity; (3) procedures and policies to ensure that only highly qualified teachers are hired to teach in Title I and Title II, Part A Class Size Reduction classrooms; (4) procedures and policies to ensure that only highly qualified teachers are hired to teach NCLB Core Academic Subjects or that clearly delineated steps are in place to ensure that teachers will be highly qualified (HQ) by the end of the current school year; and (5) an evaluation process that ensures that administrators assigned to low-performing schools are highly effective leaders.

Data Requirements for Creating the Plan

Throughout California LEAs will be at different stages in the process of building data collection and analysis infrastructures. LEAs will have different contexts in which they collect data and varying restrictions on the types of data collected. Many LEAs have already created systems for evaluating and reporting on progress toward increasing the number of highly qualified teachers in the district. Most, however, lack mechanisms for tracking where HQ teachers are assigned and correlating that information with

classroom, school, and district demographics. To begin this work LEAs should focus on documenting their current ability to collect and analyze appropriate data in the short term and begin the process for the future development of data collection and analysis efforts to aid the district in creating and maintaining long-term, sustainable improvement.

The purpose of data collection and analysis as a planning tool is to assist LEAs as they: (1) take stock of the types of data collection, analysis, and reporting procedures currently in place; (2) consider the types of data they may want to collect in the future as well as determine procedures for analysis and reporting in the future; and (3) create their plan for action. LEAs should use this document as a guide when determining a working definition of the term “effective” and the types of data that would be beneficial to collect. Such data would be internal and would be used for guidance as LEAs formulate their plans; the data would not be intended for external use (Appendix D).

Determination of an Effective Index

LEAs will first need to determine a baseline of the inequitable distribution of highly qualified, experienced, and effective teachers. That determination will be made through the use of the Effective Index formula (Appendix C). Districts will conduct subsequent annual recalculations of the Effective Index to evaluate improvement in the equitable distribution of highly qualified, experienced, and effective teachers or to guide districts in the revision of their equitable distribution plan.

The Linking Variable

As indicated later in this document a number of variables must be considered when determining equitable teacher distribution, including the tracking of the assignment of highly qualified teachers to classrooms within schools. The linking of individual students to teachers is useful because of the impact of class effects and peer effects; all students in a class are assumed to be exposed to the same conditions for learning, including the same teacher, the same peers, and the same classroom-level resources.

Analysis of Data and Writing of the Plan

Once the current distribution of teacher qualifications and characteristics are documented, the LEA can then analyze the data to determine whether low-performing schools or schools with large percentages of high-poverty students have higher percentages of classes taught by teachers with significantly lower qualifications, particularly in terms of HQ status, experience, and out-of-field teaching assignments. The analysis may reveal any of several scenarios:

1. The LEA has no districtwide differences in teacher distribution (i.e., classes taught by highly qualified, experienced, and effective teachers are distributed

2. The LEA has significant districtwide differences in teacher distribution across all schools in the LEA (i.e., classes taught by highly qualified, experienced, and effective teachers are not distributed evenly within the district).

3. The LEA has significant districtwide differences in teacher distribution, but the differences are concentrated in a few schools (i.e., schools with high percentages of classes taught by highly qualified teachers are found among both high-poverty and low-poverty schools but are concentrated in low-performing schools as indicated by Academic Performance Index [API] or Adequate Yearly Progress scores).

In response to the first scenario, the LEA would need to provide documentation but would not have to address policy changes because none would be needed. In response to the second scenario, the LEA would consider policy changes to support recruitment, retention and overall professional development for teachers throughout the LEA. And in response to the third scenario, the LEA would consider developing policies and procedures to ensure that all teachers are better prepared to teach underperforming students.

The LEA Plan for Equitable Distribution of Highly Effective Educators (Appendix D) will include specific strategies such as the following:

1. Clearly outline steps that the LEA will take to ensure that low-performing schools that serve a disproportionate number of poor and minority students are recruiting, developing, and retaining highly qualified teachers and administrators.

2. Identify possible underlying reasons that poor and minority children are taught at higher rates than other children by inexperienced, underqualified, and out-of-field teachers and outline specific strategies for remedying this inequity.

3. Develop procedures and policies to ensure that only HQ teachers are hired to teach in Title I and Title II, Part A, Class Size Reduction classrooms.

4. Develop procedures and policies to ensure that only HQ teachers are hired to teach NCLB core academic subjects or that clearly delineated steps are outlined to ensure that teachers will be HQ by the end of the current school year.

5. Create an evaluation process that ensures that administrators who are assigned to low-performing schools are highly effective leaders.

The Problem: Inequitable Distribution of Effective Teachers

Does the quality of the teacher really make a difference in the academic achievement of his or her students? According to *Classroom Instruction That Works*: Research-Based Strategies for Increasing Student Achievement (Marzano, Pickering, and Pollack 2001), an individual teacher can have a powerful effect on students even if the school does not. After reviewing hundreds of studies conducted in the 1970s, researchers Jere Brophy and Thomas Good commented, “The myth that teachers do not make a difference in student learning has been refuted” (Marzano, Pickering, and Pollack 2001). Research conducted by William Sanders and others in the mid 1990s noted that the individual classroom teacher has even more of an effect on students’ achievement than originally thought; in fact, Sanders’s study clearly indicated that the most important factor in students’ learning is the teacher. “We cannot wait until every piece of this puzzle is in hand; we must use the devices we have to lure the best teacher candidates in, screen others out, and develop the rest” (Haycock 1998).

Research conducted for more than two decades has unequivocally demonstrated that when it comes to academic success, teacher quality is what matters most! *What Matters Most: Teaching for America’s Future* (National Commission on Teaching and America’s Future 1996) reports that:

1. The most important influence on what students learn is what their teachers know and can do.

2. School reform cannot succeed unless it focuses on creating the conditions under which teachers can teach— and teach well.

3. The central strategy for improving our schools is the recruitment, preparation, and retention of good teachers.

Research conducted over the last dozen years has clearly indicated that teacher quality is a powerful predictor of student performance. In her analysis of teacher preparation and student achievement across states, Darling-Hammond (2000) reports that “measures of teacher preparation and certification are by far the strongest correlates of student achievement in reading and mathematics, both before and after controlling for student poverty and language status.” She contends that measures of teacher quality are more strongly related to student achievement than to other kinds of educational investments, such as reduced class size, overall spending on education, and teacher salaries.

Comprehensive Definition: Effective Teaching

If the quality of the teacher has the greatest impact on student achievement, it is critical, especially for those in charge of hiring, training, and retaining a qualified teaching force, that **effective teaching** be clearly and accurately defined. The starting point is to ask

the questions, How do you define a good teacher? What characteristics do you look for? Given all the factors related to student performance, what kind of impact can we expect from teachers? and finally, If teachers are so important to student learning, how can we ensure all students, especially students attending failing schools, receive the benefit of good teachers?

Studies of student achievement in Texas (Ferguson 1991), Alabama (Ferguson and Ladd 1996), and New York (Armour-Thomas, et al. 1989) have concluded that teachers' qualifications, based on measures of knowledge and expertise, education, and experience, account for a larger share of the variance in student achievement. Regardless of how it is measured, teacher quality is not distributed equitably across schools and school districts. Low-income and minority students are much less likely to have well-qualified teachers than are students who are better off. Data from the (national Schools and Staffing Survey (SASS) U.S. Department of Education 2002) showed that students in high-poverty secondary schools were 77 percent more likely to be taught by teachers without degrees in the subject they were teaching than were their affluent counterparts. Students in high-minority schools were 40 percent more likely to be taught by out-of-field teachers. The problem is especially acute in middle schools (Jerald & Ingersoll, 2002) in which poor and minority students are about twice as likely to have teachers with fewer than three years of teaching experience (National Center for Education Statistics [NCES] 2000).

Over the past five years, the number of underprepared teachers in California classrooms has declined. The number peaked in 2000-01, when the state had more than 42,000 underprepared teachers in its classrooms. Since then, the number has dropped by 58 percent to about 17,800. Underprepared teachers represented six percent of the teacher workforce in 2005-06, down from 14 percent in 2000-01. Along with the overall decline in underprepared teachers, a shift has occurred in the types of credentials and permits held by under-prepared teachers. A greater percentage of underprepared teachers now hold intern credentials and, therefore, meet the federal and state definition for NCLB teacher quality. In 2005-06, 47 percent of under-prepared teachers or 8,300 teachers held intern credentials, up from 44 percent the previous year. The number and percentage of underprepared teachers— those who held emergency, waiver, and pre-intern permits— dipped slightly from 48 percent in 2004-05 to 45 percent in 2005-06 (Guha, et al. 2006).

On virtually every measure, teacher qualifications vary by the status of the children they serve. Students in high-poverty schools are much less likely to have teachers who are fully qualified and much more likely to have teachers who lack a license and a degree in the field they teach (NCES 1997); this is increasingly true in California. In 2005-06 novice teachers accounted for 12 percent of the total teacher workforce, down slightly from 15 percent at the beginning of the decade. Notably, the composition of the novice teacher pool has shifted over time. In 2000-01, 47 percent of all novice teachers were underprepared; by 2005-06 that number had fallen to 23 percent (Guha, et al. 2006). The distribution of teachers with these qualities has become increasingly inequitable in

recent years. Jerald and Ingersoll (2002) showed that the problem of out-of-field teachers actually worsened for disadvantaged students during the 1990s. In addition, efforts to reduce class sizes have led to the hiring of more unqualified and untrained teachers, thus minimizing the possible benefits of smaller class sizes (Jepsen and Rivkin 2002). This has been especially true in urban schools with high populations of poor and minority students.

Out-of-field teachers are those who hold a full credential in a subject area but do not have the proper credential for one or more of the subjects they are teaching. This problem is primarily found in middle and high schools because of the structure of the secondary credentialing system and the departmentalized format found in the upper grades. The extent of out-of-field teaching varies by subject matter, ranging from 11 percent in life science to 20 percent in physical science. Out-of-field teachers made up 12 percent of all teachers of mathematics and 15 percent of all teachers of English, the two subjects tested on the California High School Exit Examination (CAHSEE) (Guha 2006). Of particular interest is the high incidence of eighth grade mathematics teachers who do not hold a single-subject credential in mathematics, given that algebra content has been moved into the mathematics curriculum for the eighth grade. Although state law may not require middle school mathematics teachers to hold a mathematics credential, it is necessary for all mathematics teachers, especially those who are teaching with a multiple-subject credential and who may have a limited mathematics background, to have content background to successfully teach algebra standards for grade eight. Of all middle school algebra teachers, 23 percent are fully credentialed in a particular subject area but lack a mathematics authorization. Those out-of-field teachers teach nearly 60,000 students statewide. An additional nine percent of middle school mathematics teachers do not hold a full credential of any kind. Those underprepared teachers teach more than 28,000 students statewide. Thus, more than 88,000 California students are enrolled in middle school algebra classes in which the teacher may not be adequately prepared to teach the subject.

This document refers to the federal/state definition of HQ teachers as well as to a comprehensive definition of HQ teachers. To determine the effectiveness of a teacher, it is important to consider both definitions. Other characteristics, however, can and should be considered when fully defining effectiveness at the district level.

The federal/state criteria for highly qualified are as follows:

1. Full state certification;
2. At least a bachelor's degree; and
3. Demonstration of subject-matter competency in each of the academic subjects taught.

A comprehensive definition for *highly qualified-effective* elaborates on the federal/state criteria by adding three more:

1. Teaching experience;
2. Teacher expectations; and
3. Overall academic ability.

The criteria can be described as follows:

Full state certification. Several studies provide evidence that the students of fully credentialed teachers perform better than students of underprepared teachers. Underprepared teachers are those teaching with an intern credential, emergency, waiver, or pre-intern permit.

- Teacher certification in mathematics produces better mathematics scores for students. An analysis done in Texas identified similar students who were taught by Texas mathematics teachers who were also similar except that some were certified and others were not. The study found that the students taught by certified teachers scored better on the state mathematics achievement test. A study that examined the mathematics achievement of elementary students also found that students taught by new, uncertified teachers scored significantly lower on achievement tests than those taught by new, certified teachers (Laczko-Kerr and Berliner 2002).

- Studies in various subject-matter fields that compare teachers with and without formal preparation have typically found that teachers with formal preparation have higher student achievement rates than teachers without formal preparation. The findings of the studies of science and mathematics teachers cited earlier hold true for studies of reading and elementary education teachers (Hice 1970; LuPone 1961; McNeil 1974), early childhood education teachers (Roupp et al. 1979), gifted education teachers (Hansen 1988), and vocational education teachers (Erekson and Barr 1985).

- New or uncertified teachers have the least effect on improvements in student achievement. Likewise, Darling-Hammond (1999) found a significant positive association between student achievement and teacher certification. She also found a significant negative association between student achievement and the presence of a high proportion of new or underprepared teachers in the school.

- Fetler (1999) found that teachers with emergency teaching certificates did not perform as well as teachers who were fully certified, even when controlling for the amount of teaching experience. One subset of the undercertified teachers was from a national program, Teach for America (TFA). Certified teachers in the study had graduated from accredited universities and had met state requirements for receiving the regular initial certificate (referred to in California as a “preliminary credential”) to teach. Recently hired undercertified and certified teachers (N=293) from five low-income school districts were matched on a number of variables, resulting in 109 pairs of teachers whose students all took the mandated state

achievement test. Laczko-Kerr and Berliner found that students of TFA teachers did not perform significantly different from students of other undercertified teachers and that students of certified teachers out-performed students of teachers who were undercertified. This was true on all three subtests of the SAT 9: reading, mathematics, and language arts. Effect sizes favoring the students of certified teachers were substantial. In reading, mathematics, and language arts, the students of certified teachers outperformed the students of undercertified teachers, including the students of the TFA teachers, by about two months on a grade-equivalent scale (2002). Overall, students of undercertified teachers make about 20 percent less academic growth per year than do students of teachers with regular certification (Darling-Hammond, 2002). In addition, data provided by the TFA on teacher retention in the Chicago Public School system found that fewer than half of the teachers hired through TFA stayed on the job for three years; in 2001 only 43 percent of TFS teachers assigned to teach in Chicago were still on the job in 2004.

Traditional programs for teacher preparation apparently result in positive effects on the academic achievement of low-income primary schoolchildren (Laczko-Kerr 2002). The widespread practice of hiring undercertified teachers, including those from the TFA program, to work with our most difficult-to-teach children may be contributing to the achievement gap. Clearly, more research is needed to determine the full effect this practice has on high-poverty students.

Subject matter competency: Teachers' knowledge of the content they teach is a consistently strong predictor of student performance even though studies differ in how strong the effects are. This research typically uses teachers' college degrees to represent content knowledge.

- Major in related field. Goldhaber and Brewer (1996) found that the classroom presence of teachers with at least a major in their subject area was the most reliable predictor of student achievement scores in mathematics and science. They also found that although advanced degrees in general were not associated with higher student achievement, an advanced degree that was specific to the subject area taught by the teacher was associated with higher student achievement.

- Minor in related field. Darling-Hammond (1999) found that although other factors had a stronger association with student achievement, the classroom presence of a teacher who did not have at least a minor in the subject matter that he or she taught accounted for about 20 percent of the variation in student achievement scores.

Teaching experience: Research has also been consistent in finding positive correlations between years of teaching experience and higher student achievement. Teachers with more than five years of experience in the classroom seem to be the most

effective; conversely, inexperience on the part of the teacher is shown to have a strong negative effect on student performance. A *novice teacher* is defined as one who is in his or her first or second year of teaching.

- Experienced teachers produce higher student test scores. A comprehensive analysis by Greenwald, Hedges, and Laine (1996) examined data from 60 studies and found a positive relationship between years of teacher experience and student test scores. Similarly, the Texas Schools Project data showed that students of experienced teachers attained significantly higher levels of achievement than did students of new teachers (those with one to three years of experience) (Rivkin, Hanushek, and Kain 2005).

- Schools with more inexperienced teachers have higher dropout rates. In a related finding, an analysis of mathematics achievement and dropout rates in a sample of California high schools (Fetler 2001) found that schools whose dropout rates were in the highest 10 percent had 50 percent more new teachers than did schools in the lowest 10 percent.

Teacher expectations: Beginning with *Pygmalion in the Classroom* (Rosenthal and Jacobson 1968), an extensive body of research has been developed that describes how teachers' expectations can influence student performance. While it would be misleading and inaccurate to state that teacher expectations determine a student's success, the research clearly establishes that teachers' expectations do play a significant role in determining how well and how much students learn.

- Schools that establish high expectations for all students—
and provide the support necessary to achieve those expectations—
have high rates of academic success (Brook et al. 1989; Edmonds 1986; Howard 1990; Levin 1988; Rutter et al. 1979; Slavin et al. 1989).

- Effective teachers believe that every child can learn. Longitudinal studies support the Self-Fulfilling Prophecy hypothesis that teachers' expectations can predict changes in student achievement and behavior beyond the effects accounted for by students' previous achievement and motivation (Jussim and Eccles 1992).

- The evidence is clear that low teacher expectations for students can negatively affect student performance. Meanwhile, the evidence that high expectations for students can also have an impact has been clearly documented. A study by Edmonds and Frederiksen (1978) found that teachers in instructionally effective inner-city schools had "high expectations" for all of their students. Other studies have yielded comparable results (Brophy and Evertson 1976; McDonald and Elias 1976; Rutter, et al. 1979; Andrews, Soder, and Jacoby 1986; Bamburg and Andrews 1989).

Academic ability: Research has shown that students of teachers who have greater academic ability, as demonstrated by subject-matter exam scores, GPA, IQ, tests of verbal ability, or selectivity of the college attended, perform better.

- Teachers' verbal ability counts. An analysis by Greenwald, Hedges, and Laines (1996) showed an overall positive relationship between a teacher's verbal ability and student performance.

- Teachers with high ACT scores produce better readers. A study of teachers in Alabama by Ferguson and Ladd (1996) found a correlation between a teacher's higher ACT scores and higher reading scores for the teacher's students.

Research consistently shows that teacher quality, as measured by content knowledge, experience, training and credentials, or general intellectual skills, is strongly related to student achievement. To put it simply, skilled teachers produce better student results. The fact that poor and minority students are the least likely to have qualified teachers is a major contributor to the achievement gap. It would follow, therefore, that assigning experienced, qualified, and effective teachers to low-performing schools and students would likely pay off in terms of better student performance and the narrowing of the achievement gap.

Measuring for Teacher Effectiveness

Through the use of recent studies of teacher effectiveness at the classroom level the Tennessee Value-Added Assessment System[1] and a similar database in Dallas, Texas have found that differential teacher effectiveness is a strong determinant of differences in student learning, far outweighing the effects of differences in class size and heterogeneity (Sanders and Rivers 1996; Wright, Horn, and Sanders 1997; Jordan, Mendro, and Weerasinghe 1997). Students who are assigned to a succession of ineffective teachers have significantly lower achievement and gains in achievement than do those who are assigned to a succession of highly effective teachers (Sanders and Rivers 1996).

According to Kati Haycock, director of the Education Trust, research conducted in Texas, Tennessee, Alabama, and Massachusetts supports the power of the teacher. "The difference between a good teacher and a bad teacher can be a full level of achievement in a single school year" (Haycock 1998). William L. Sanders, director of the Value-Added Research and Assessment Center at the University of Tennessee, Knoxville, grouped teachers into quintiles on the basis of their effectiveness in producing student learning gains. By grouping teachers in this way, researchers are able to assess the impact of teacher effectiveness on the learning of different types of students. On average, the least effective teachers (Q1) produce gains of about 14 percentile points during the school year. In contrast, the most effective teachers (Q5) showed gains among low-achieving students that averaged 53 percentile points (Sanders 1998). Considerable data support the effects a teacher has on a student's achievement over the long term. The Tennessee study found that the performance of students in grade five is affected by the quality of the teacher they had in grade three (Sanders 1998). A study conducted at the Dallas Independent School District illustrates just how important the placement of quality teachers before our students is. Robert Mendro, district's executive director of institutional research, reported that the average reading scores of a group of Dallas students who had been assigned successively to three highly effective teachers rose from the 59th percentile in grade four to the 76th percentile by the end of grade six. An otherwise fairly similar group of students had been assigned successively to three ineffective teachers, and fell from the 60th percentile in grade four to the 42nd percentile by the end of grade six (Mendro 1998).

[1] Developed by William L. Sanders (Sanders and Rivers 1996), the statistical methodology and accompanying framework known as the Tennessee Value-Added Assessment System (TVAAS) introduced a new paradigm for measuring student academic progress on the basis of the contribution (or "value-added") of individual teachers to students' gains on scores. Value-added assessment is a statistical tool for gauging how much students gain in academic achievement in a given year that is, how much value has been added to the children by their schooling. By aggregating pupil gains by school, value-added assessment can be used to evaluate schools, regardless of differences among entering students. By aggregating scores by teacher, value-added assessment can be used to identify which teachers' students are learning the most and which teachers' students are learning the least. This information provides an objective gauge of teacher effectiveness, replacing traditional modes of identifying good teachers by means of peer review or paper credentials.

The significance of a Value-Added system is its capacity to identify teachers for targeted professional development specific to the deficiencies of the students in the class. The ability to use this type of system to improve instruction requires the district to obtain relevant data quickly so the information can be used effectively. State test results, for example, are not available until well after the school year ends. As a way to provide more immediate feedback, school districts will need to look at district-level or site-level assessment options. In Pennsylvania a number of school districts have started using *4 Sight Benchmarks,* which are tests based on state standards for mathematics and reading. The tests are first given near the start of the school year and then quarterly to track student progress. Because the schools score the tests themselves, they have the data in time to target student learning. In Wilkinsburg, Pennsylvania, Turner Elementary used this method to drive professional development options. The principal scheduled in-service days so teachers could plan, practice, and implement teaching strategies based on the *4 Sight Benchmarks* results.

Value-Added systems should be used to identify teachers with the lowest estimates of relative effectiveness and then to provide targeted growth opportunities. Value-Added systems have the potential to significantly impact student achievement through the targeted professional growth of the teacher. Value-Added systems should not, however, be used as a part of a job performance evaluation.

Other studies indicate that effectiveness is impacted by differences in the perceptions and practices of teachers with varying amounts and kinds of teacher preparation. A number of studies suggest that the typical problems of beginning teachers are lessened for those who have had adequate preparation prior to entering the profession (Adams, Hutchinson, and Martray 1980; Glassberg 1980; Taylor and Dale 1971). Studies of teachers who enter into the profession with less than full preparation, those who have no teacher preparation, and those who enter by means of very short alternate routes have found that such recruits, when compared to their better-prepared colleagues, tend to be less satisfied with their training and tend to have greater difficulties in planning curriculum, teaching, managing the classroom, and diagnosing students' learning needs. In addition, administrators, supervisors, and colleagues tend to rate those recruits less highly on their instructional skills and they tend to leave teaching at higher-than-average rates (Darling-Hammond 1992; Lutz and Hutton 1989; Stoddart 1992).

Numerous studies have found a recurring positive relationship between student learning and "flexibility," "creativity," or "adaptability" on the part of the teacher (Berliner and Tikunoff 1976). Successful teachers tend to be those who are able to use a range of teaching strategies and who use a range of interaction styles rather than a single, rigid approach (Hamachek 1969). This finding is consistent with other research on effective teaching, which suggests that effective teachers adjust their teaching to fit the needs of different students and the demands of different instructional goals, topics, and methods. In addition to the ability to create and adapt instructional strategies, strong research support has linked student learning to such variables as the teacher's clarity, enthusiasm, task-oriented behavior, variability of lesson approaches, and opportunities

for students to learn criterion material. The teacher's ability to structure material, ask higher-order questions, use students' ideas, and probe students' comments have also been found to be important variables in what students learn (Rosenshine and Furst 1973; Darling-Hammond, Wise, & Pease 1983; Good and Brophy 1986). No single instructional strategy has been found to be unvaryingly successful; instead, teachers who are able to use a broad repertoire of approaches skillfully (e.g., direct and indirect instruction, experience-based and skill-based approaches, lecture and small-group work) typically are most successful. The use of different strategies occurs in the context of "active teaching" that is purposeful and diagnostic rather than random or prescriptive.

Teacher training programs appear to influence the use of these practices. Teachers who have had formal preparation have been found to be better able to use teaching strategies that respond to students' needs and learning styles and that encourage higher order learning (Skipper and Quantz 1987). Doyle (1986) hypothesizes that because the novel tasks required for problem solving are more difficult to manage than are the routine tasks associated with rote learning, the lack of knowledge about how to manage an active, inquiry-oriented classroom can lead teachers to turn to passive tactics that "dumb down" the curriculum (Carter and Doyle 1987), busying students with workbooks rather than complex tasks that require more skill to orchestrate (Cooper and Sherk 1989).

It seems logical that a teacher's ability to handle the complex tasks related to teaching for higher-level learning would likely be associated, to varying extents, with each of the variables for effectiveness—verbal ability, adaptability and creativity, subject-matter knowledge, understanding of teaching and learning, specific teaching skills, and experience in the classroom—as well as interactions among the variables. In addition, considerations of "fit" between the teaching assignment and the teacher's knowledge and experience are likely to influence teacher effectiveness (Little 1999), as are conditions that support teachers' individual teaching and the additive effect of teaching across classrooms, such as class sizes and pupil loads; planning time, opportunities to plan and problem solve with colleagues; and curricular supports, including appropriate materials and equipment (Darling-Hammond 1997).

Strong content knowledge is one quality of an effective teacher. Richard Ingersoll, a professor at the University of Georgia, found that minority and low-income students are systematically taught by the teachers with the least content knowledge (Ingersoll 1998). Haycock also found that students of color were more likely to be taught by less effective teachers. As the percentage of non-white children in a school increases, the average teacher score declines (Haycock 1998). NCLB, which is the 2001 reauthorization of the Elementary and Secondary Education Act of 1965, highlighted the importance of teacher quality by requiring that all teachers reach HQ status by the end of the 2005-06 school year (California, along with 41 other states, received a one-year extension to June 2007). The law now requires that schools assign teachers to courses they are qualified to teach. To achieve the central goal of NCLB—closing the achievement gap by 2014—California educators will need to focus on ensuring that highly qualified and

effective teachers are equitably distributed among the neediest of our students. Subject-matter competency is a key component of the HQ requirements.

Balanced Teacher Staff

Studies from the mid-1990s noted significant evidence of a strong bias in the assignment of students to teachers of varying levels of effectiveness (Jordan, Mendro, and Weerasinghe 1997), including indications that African American students were nearly twice as likely to be assigned to the most ineffective teachers and half as likely to be assigned to the most effective teachers (Sanders and Rivers 1996). Unfortunately, this trend continues in California. Overall, the state has made progress in reducing the inequitable distribution of underprepared teachers. The percentage of public K—12 schools with five percent or fewer underprepared teachers was 69 percent in 2005-06, down from 41 percent in 2000-01 (Guha 2006). These changes represent a substantial improvement, but significant staffing problems remain for a subset of schools. In 2005-06, five percent of schools (430) had faculties composed of 20 percent or more underprepared teachers, down from 24 percent (or 1,900 schools) in 2000-01; unfortunately, these schools serve more than 280,000 students and are located in 37 of the state's 58 counties, with most found in urban areas. On average, these schools serve 17 percent of African American students and 56 percent of Hispanic students. More than 45 percent of these schools are charter schools. Focusing solely on the statewide patterns of underprepared teachers masks important regional variations, such as the approximately 17,800 underprepared teachers concentrated in ten counties in 2005-06. Those ten counties, which accounted for almost 80 percent of the underprepared teachers in the state, are located primarily in central and southern California and enroll more than 70 percent of the state's students. Counties with the highest percentages of underprepared teachers (although not necessarily the highest numbers of underprepared teachers) span the state, with Imperial County having the highest percentage (12.5 percent) of underprepared teachers (Guha 2006).

While the number of underprepared teachers is declining, the number of novice teachers is increasing. Specifically, 21 percent of schools had 20 percent or more novice faculty in 2005-06 compared with 19 percent in 2004-05 (Guha 2006). Those schools may be struggling with a high teacher turnover rate, which means they expend precious resources annually to hire and induct new teachers, have less professional expertise at the school, and have fewer experienced teachers to serve as mentors and providers of support for novice teachers.

Historically the schools that have had the highest percentages of underprepared and novice teachers have also been the lowest-performing schools. In 2005-06 underprepared and novice teachers continued to be inequitably distributed across high-and-low achieving schools, although the gap has been closing over time. In 2005-06 schools in the lowest achievement quartile on the state's API had an average of nine percent underprepared teachers, compared with an average of three percent for the highest-performing schools. This six-percentage-point gap is a substantial improvement

over the 18-percentage-point difference between the highest- and lowest-performing schools in 2000-01. According to the Center for the Future of Teaching and Learning (CFTL), today's sixth graders who have attended elementary schools in the lowest achievement quartile throughout their elementary years have a 41-percent chance of having been taught by one underprepared teacher and a 24-percent chance of having had more than one such teacher. On the other hand, sixth graders who attended schools in the highest achievement quartile throughout their elementary years have a 20-percent chance of having been taught by an underprepared teacher and a two-percent chance of having been taught by more than one such teacher (CFTL 2006). The inequitable distribution across low- and high-performing schools is more pronounced when both underprepared and novice teachers are considered. In 2005-06, 21 percent of teachers in schools in the lowest achievement quartile were underprepared, novice, or both, compared with 12 percent of such teachers in the highest achieving schools (Guha 2006). Higher percentages of both underprepared and novice teachers mean that over the course of several years at such a school, a student is likely to be taught by more than one underprepared or novice teacher and, possibly, by several such teachers in consecutive years. The distribution of underprepared teachers shows a similar pattern for student achievement on the CAHSEE, with the lowest-achieving schools having the highest percentages of underprepared and novice teachers. In 2006 nearly 32 percent of faculty in schools with the lowest passing rates on the English portion of the CAHSEE were underprepared or novice, compared with 17 percent in the schools with the highest passing rates. Similarly, 31 percent of faculty in schools with the lowest passing rates on the mathematics section were underprepared or novice in 2006, compared with 17 percent in schools with the highest passing rates (Guha 2006).

Data Collection–Preparing to Develop a Plan for Equitable Distribution of Effective Teachers

Linking Variables:

1. **Equitable Teacher Distribution**
2. **Key Indicators of Effective Human Resource Practices**
3. **Key Indicators of Effective Administrative Practices**

Analysis of LEA Data on Equitable Teacher Distribution

Distributing effective teachers equitably is easier said than done. Most attempts to redistribute "effective" teachers to low-performing schools have not been successful. The most common strategy has been to offer pay increases or signing bonuses for teachers to come to high-need areas or to teach high-need subjects. Massachusetts, for example, offered a $20,000 signing bonus to attract qualified candidates to the teaching profession. What Massachusetts found, however, was that the majority of qualified candidates had already made the decision to teach and were already prepared to teach in the state's hard-to-staff schools. Furthermore, four years later, most were no longer teaching and, therefore, did not receive the bonus. Even when the incentives have been substantial, teachers have not always been willing to accept an assignment or stay in challenging schools. Major drawbacks to the efforts made in Massachusetts were: (1) not enough attention paid to what was needed to retain teachers; and (2) too much attention paid to individuals and too little attention paid to schools (Liu, Johnson, and Peske 2003).

What these results mean is that incentives for teachers to work in hard-to-staff schools should also take into account the working conditions provided to teachers. For example, low-performing schools often have weak organizational supports for teachers. They often do not have a culture of high expectations for students and for teachers or one that values teacher learning, collegiality, and cooperation. Districts also need strategies to ensure that these schools have strong and resourceful administrators and that teachers are provided sustained professional learning opportunities, including intensive long-term new teacher-induction programs, in which they can work with colleagues to continually sharpen and upgrade their knowledge and skills.

This research also suggests that scattering a handful of good teachers around the district will not produce desired results. One study has identified the "tipping point" for teacher quality as being when the proportion of underqualified teachers is about 20 percent of the total school faculty. Beyond that point, schools no longer have the ability to improve student achievement (Shields et al. 1999). Clearly, districts need to recruit, develop, and retain a well-qualified teaching force. In direct response the NCLB Teacher Quality requirements, the State of California has invested millions of dollars to recruit, train, and retain new teachers, with a special emphasis placed on schools that are difficult to staff. As a result California has seen a sharp decline in underprepared

teachers; however, these efforts have also increased sharply the number of novice teachers. While new teachers often bring with them inspiring levels of energy, passion, and new ideas, their students generally show lower achievement levels than do students with experienced teachers.

Research has also shown that school systems that lack such professional development programs as the Beginning Teacher Support and Assessment (BTSA)—in which new teachers receive support from experienced colleagues—significant numbers of beginning teachers leave the profession within a few years, especially in urban settings. Unfortunately, while programs such as BTSA have proven highly effective in reducing the attrition rates of beginning teachers, there are simply not enough experienced, effective teachers at many high-poverty, low-performing schools. School districts must be careful not to staff a school with an excessive number of beginning teachers vs. experienced teachers (Futernick 2003).

Analysis of LEA Data on Equitable Teacher Distribution

Variable 1: Public Reporting—For the LEA as a whole, the focus is on demonstrating that high-poverty, low-performing students are taught at equal or higher rates than are low-poverty students by an HQ teacher (measured year-to-year). The focus at each site is on demonstrating compliance with NCLB Highly Qualified Teacher requirements. LEAs must provide parents and the public with accurate, complete reports on the number and percentage of core academic classes taught by HQ teachers.

Documenting Improvement—For the LEA as a whole, the focus is on demonstrating that high-poverty students are taught at equal or higher rates than are low-poverty students by an HQ teacher (measured year-to-year). The focus at each site is on demonstrating compliance with NCLB Highly Qualified Teacher requirements.

Suggested Resources for Collection of Data:

1. Useful Indicators for Calculating Equitable Teacher Distribution: Data on Distribution of Highly Qualified Teachers Survey, Item 1

2. California Basic Educational Data System (CBEDS) Professional Assignment Information Form (PAIF) Data

Tracking Patterns—The LEA must be able to track teacher transfers between schools so patterns can be analyzed. This tracking is crucial to the development of data to support policies at the district level to address teacher transfers away from high-poverty, high-minority, and low-achieving schools.

Suggested Resource for Collection of Data:

- Useful Indicators for Calculating Equitable Teacher Distribution: Data on Distribution of Highly Qualified Teachers survey, Item 2

Teacher Characteristics—Additional, optional teacher characteristics and qualifications can be considered to allow the district to answer more complex questions about teacher qualifications and characteristics. However, the collection and use of these types of data may be subject to bargaining agreements.

Suggested Resource for Collection of Data:

- Useful Indicators for Calculating Equitable Teacher Distribution: Data on Distribution of Highly Qualified Teachers Survey, Item 3

Useful Indicators for Calculating Equitable Teacher Distribution
Data on Distribution of Highly Qualified Teachers

Information Requested

	Survey Rubric: (0 to 2)	
0	No, LEA does not have these data. COMMENT: What steps will be necessary to ensure that the LEA can collect this information?	
1	LEA has some of this data. COMMENT: What steps will be necessary to ensure that the LEA can collect this information?	
2	Yes, LEA has these data. COMMENT: Where are the data housed?	

Definitions

LOW-POVERTY = 39% or fewer students eligible for free and reduced lunch

EXPERIENCED = five or more years of classroom teaching experience; LEAs may not include years teaching under an emergency or pre-intern permit

HIGH-POVERTY = 40% or more students eligible for free and reduced lunch

HQ-EXPERIENCED = teacher who has met NCLB Teacher Quality requirements and has at least five years of classroom teaching experience, not including years teaching under an emergency or pre-intern permit.

			0	**1**	**2**	**Comments**
Item 1: For the district as a whole, the focus is on demonstrating that high-poverty students are increasingly more likely to be taught by a highly qualified teacher (measured year-to-year).						
1.1	District-level data should provide the following:					
	a.	The percentage of NCLB classes taught by HQ-experienced teachers currently teaching in the district				

			0	1	2	Comments
	b.	The percentage of NCLB classes taught by HQ-experienced teachers currently teaching in high-poverty schools in the district				
	c.	The percentage of NCLB classes taught by highly qualified-experienced teachers currently teaching in all low-poverty schools within the district				
	d.	The percentage of NCLB classes taught by teachers with less than five years of teaching experience currently teaching in the district				
	e.	The percentage of NCLB classes taught by teachers with less than five years of teaching experience currently teaching in high-poverty schools				
	f.	The percentage of NCLB classes taught by teachers holding an intern permit currently teaching in the district				
	g.	The percentage of NCLB classes taught by teachers holding an intern permit currently teaching in high-poverty schools				
	h.	The out-of-field teaching rate, by percentage, of NCLB classes taught districtwide; that is, the number of classes being taught by a teacher not credentialed in that subject as a percentage of the total number of classes taught by that teacher. (For example, a high school teacher certified only in English who is teaching one mathematics class out of five assigned classes would be counted as 20 percent out-of-field teaching. These rates would be averaged across schools for the district rate.)				
	i.	The out-of-field teaching rate, by percentage, of NCLB classes taught in high-poverty schools (see h)				
1.2	The LEA may want to consider collecting the following data to ensure high-poverty, low-performing, students are not disproportionately assigned less qualified teachers.					
	a.	The percentage of NCLB classes taught by alternatively certified				

			0	1	2	Comments
		teachers currently teaching in the district.				
	b.	The percentage of NCLB classes taught by alternatively certified teachers currently teaching in high-poverty schools.				
	c.	The percentage of NCLB classes taught by alternatively certified teachers currently teaching in low-poverty schools.				

			0	1	2	Comments
Item 2: An important element of equitable distribution is the ability of the LEA to easily track teacher transfers between schools so patterns can be analyzed. This tracking is crucial in the development of data to support policies at the district level to address teacher transfers away from high-poverty, high-minority, and low-achieving schools.						
2.1	Data on turnover rate					
	a.	The teacher turnover rate for the district (i.e., the number of vacant full-time equivalent slots to be filled each year minus newly created slots), and information about the grade level and subject area for the vacancies				
		The teacher turnover rate for each site (i.e., the number of vacant full-time equivalent slots to be filled each year minus newly created slots) and information about the grade level and subject area for the vacancies				
2.2	Teacher Data—All					
	a.	Years of teaching experience				
	b.	Initial hiring date				
	c.	Certification(s) at hiring date (full, intern, or Provisional Internship Permit[PIP]/ Short-Term Staff Permit[STSP])				
	d.	If intern or PIP/STSP, date of change in certification(s) plus certification type(s)				
2.3	Teacher Data—middle and high school teachers:					
	a.	Subject-matter certification • Full credential • Supplemental authorization • Subject matter authorization				

			0	1	2	Comments
	b.	Major in related field (Commission on Teacher Credentialing [CTC] Approved Subject Matter Waiver Program)				
	c.	Assigned out of field				
	Teacher Data—elementary teachers:					
		Liberal arts/studies undergraduate degree				

			0	1	2	Comments
Item 3: There are additional, optional teacher characteristics and qualifications that could be considered to allow districts to answer more complex questions about teacher qualifications and characteristics. However, the collection and use of those data may be subject to bargaining agreements.						
3.1	Optional teacher data might include the following:					
	b.	Race/ethnicity—to examine the distribution of teacher race relative to student race and race of other teachers within the school or district				
	c.	Second-language proficiency—to examine the distribution of teacher language proficiency to student native language				
	d.	Teacher test scores (such as California Subject Examinations for Teachers [CSET] scores or GPA scores)—to examine the distribution of high- and low-scoring teachers among classrooms, schools, and districts				
	e.	Teacher academic level (such as bachelor's of arts , master's, doctorate)—to examine the distribution of teachers in classrooms, schools, and districts				
	f.	National Board Certification status				
	g.	Participation in specialized coursework, field experiences, or professional development designed to better prepare teachers for the challenges of teaching in at-risk or hard-to-staff schools. (Senate Bill 472/Assembly Bill 430, Subject Matter Projects Institutes)				

The Issue: Inequitable Distribution of Effective and Experienced Administrators

California schools strive to deliver a high quality, multidisciplinary education to all students. Complicating the matter is the fact that never before have students come to the public school system from such diverse backgrounds, family patterns, and with as many native languages. Unfortunately, an increasing array of problems makes life and school difficult for many California children and their families and for the educators who try to serve their needs. Fortunately, there is no shortage of programs, processes, and school practices deemed effective for students at risk of failure in school and, subsequently, in life. What appears to be needed most, however, is school leadership that provides the knowledge, understanding, and expertise required for working with school staffs in the development of promising practices for schools at risk of failing their educational mission or the transfer of such practices to those schools.

Growing consensus on the attributes of effective school administrators shows that successful school leaders influence student achievement through two important pathways: (1) the support and development of effective teachers; and (2) the implementation of effective organizational processes (Waters 2006; Leithwood, et al. 2004; Davis, et al. 2005).

Public demands for more effective schools have placed growing attention on the crucial role of school leaders, a professional group largely overlooked by the various educational reform movements of the past two decades. Evidence suggests that, second only to the influences of classroom instruction, school leadership strongly affects student learning. Administrators' abilities are central to the task of building schools that promote powerful teaching and learning for all students (Davis et al. 2005).

Beginning teachers are more likely to remain in the profession if they are satisfied with the principal's leadership and the school climate, according to Beginning Teachers Perceptions of Mentoring, Climates and Leadership: Promoting Retention through a Learning Communities Perception, a new Duke University study (Wynn, et al. 2006). Many school districts focus on mentoring programs and salary hikes to keep teachers. While those incentives should be part of a comprehensive effort to retain well-qualified teachers, the new Duke study shows that principal leadership and school climate deserve more attention in the efforts made by school districts. The study found that teachers were more likely to stay at a school site when they were satisfied with their principal's leadership and with the school climate. Susan Wynn, director of the secondary teacher preparation program at Duke University's Program in Education and lead author of the study, and the other researchers attributed this finding to the fact that the principal is the key player in school-level decision making. "It highlights the important role that a leadership team has on beginning teacher satisfaction," said Wynn, who further stated, "The principal sets the tone for the school."

The two main conclusions of *How Leadership Influences Student Learning* (Leithwood, et al. 2004) are the following:

- Not only does leadership matter, "It is second only to teaching among school-related factors in its impact on student learning."
- Leadership effects are greatest in the schools that are in "more difficult circumstances" and are underperforming. Many factors may contribute to an underperforming school's turnaround, but leadership is the catalyst.

Keithwood presents three sets of practices that he and other authors consider to be the basics of successful leadership:

- **Set directions** for organizational activities and goals. The review of research suggests that "those leadership practices included in setting directions account for the largest proportion of a leader's impact." Such leadership practices include identifying and articulating a vision, fostering the acceptance of group goals, and creating high-performance expectations.

- **Develop staff** and **create capacity** while motivating staff to perform consistently at high levels.

- **Redesign the organization** to sustain the performance of administrators, teachers, and students.

Site Administration

In recent years, a number of reports depict the institution of site administration as being in a state of crisis largely precipitated by two troubling factors:

- School districts are struggling to attract and retain an adequate supply of highly qualified candidates for leadership roles (Knapp, Copland and Talbert 2003); and

- Principal candidates and current administrators are often ill-prepared and inadequately supported to organize schools to improve learning while managing all the other demands of the job (Young 2002; Levine 2005).

With the implementation of the standard-based reform movement, the role of administrator has swelled to include a staggering array of professional tasks and competencies. Administrators are expected to be educational visionaries, instructional and curriculum leaders, assessment experts, disciplinarians, community builders, public relations and communications experts, budget analysts, facility managers, special programs administrators, and guardians of various legal, contractual, and policy mandates and initiatives. In addition, administrators are expected to serve the often-conflicting needs and interests of many stakeholders, including students, parents,

teachers, district office officials, bargaining units, and state and federal agencies. As a result, many scholars and practitioners argue that the job requirements far exceed the reasonable capacities of any one person. It is obvious that the demands of the job have changed radically; therefore, traditional methods of preparing administrators are no longer adequate to meet the leadership challenges now posed by public schools (American Association of Colleges for Teacher Education 2001; Peterson, 2002; Elmore 2000; Levine 2005).

The mantra of the standard-based reform movement can be summed up in one phrase "The principal must serve as the instructional leader of the school." In *The Learning Principal*, Richard Dufour offers a radical proposal, suggesting that the focus on the administrator as instructional leader is flawed, and has, in part, contributed to the ever widening achievement gap. Instead administrators must serve as the **learning leader**. To begin the process of closing the achievement gap, struggling schools must move from "Did the teacher teach the content in the prescribed manner?" to "Did the teacher teach the content in a way that allowed the student to LEARN?"

Effective administrators instinctively begin the shift from "What are the teachers teaching?" to "To what extent are the students learning the intended outcomes of each course?" Such administrators also begin implementing systemwide changes to give both students and teachers the additional time and support needed to improve learning when test scores consistently demonstrate students were not achieving satisfactory progress toward mastery of the standards.

A shortage of highly qualified administrator candidates has been reported by school districts across the nation. In some parts of the country, nearly 60 percent of administrators will retire, resign, or otherwise leave their positions during the next five years (Peterson 2002). In other parts of the country, the issue has less to do with a dwindling supply than with the inequitable distribution of qualified candidates among suburban and affluent communities and urban and socioeconomically disadvantaged communities. In California the problem is not a shortage of certified administrators but a shortage of effective administrators committed to working in underserved communities and schools (Davis, 2005). Education administration programs are graduating an increasing number of certified school leaders; unfortunately, however, the processes and standards by which many principal preparation programs traditionally screen, select, and graduate candidates are often ill-defined, irregularly applied, and lacking in rigor. As a result, many aspiring administrators too easily gain admission to and are passed through the system on the basis of their performance on academic course work rather than on a comprehensive assessment of the knowledge, skills, and dispositions needed to successfully lead schools (National Policy Board for Education Administration 2001). Although these aspiring administrators are certified, they may not be equipped for the shifting role of the principal from manager to effective instructional leader. Districts should, therefore, consider adopting a process to identify weaknesses in critical areas and implement cohesive, targeted, ongoing professional development support

systems for administrators to build, enhance, and sustain the skills needed to effectively lead schools in closing the achievement gap.

District-Level Support

School District Leadership That Works: The Effect of Superintendent Leadership on Student Achievement is a meta-analysis of 27 studies that examined the influence superintendents have on student performance. This meta-analysis is the most recent in a series of analyses conducted by Mid-continent Research for Education and Learning (McREL) and is the largest-ever quantitative examination of research on superintendents.

The report summarizes three major findings:

- **District leadership matters.** A statistically significant relationship exists between district leadership and student achievement.

- **Effective superintendents focus their efforts on creating goal-oriented districts.** The following are district-level leadership responsibilities that have a positive correlation to student achievement:

    1. Use collaborative goal setting that involves all relevant stakeholders in the process;

    2. Set non-negotiable goals (that all staff members must act upon) for student achievement and classroom instruction;

    3. Ensure that the actions of the local board of education align with district goals and that no other initiatives detract from those goals;

    4. Monitor district progress toward student achievement and instructional goals continuously; and

    5. Use all resources necessary to accomplish goals.

- **Superintendent tenure is positively correlated with student achievement**. The positive effects appear to manifest themselves as early as two years into a superintendent's tenure.

Many studies have documented the characteristics of schools that have demonstrated sustained student achievement, but relatively little is known about the districts that house those schools. To provide a better understanding of how district-level activities support school improvement, the Washington State Research and Evaluation Office at

the Office of the Superintendent of Public Instruction collected and analyzed more than 80 research reports and articles. An analysis of the studies identified 13 common themes, clustered into four broad categories: Effective Leadership, Quality Teaching and Learning, Support for System-wide Improvement, and Clear and Collaborative Relationships. Collectively, the themes contribute to a district's effectiveness but are insufficient as change agents if implemented in isolation.

Much has been recorded about the administrator's leadership role as change agent and gatekeeper to instructional change. As visible as the principal has been in accounts of change, the superintendent has been nearly invisible and ignored. Lamenting this situation, some researchers have turned their attention to district-level players and to the contributions of the chief educational officer in the district. Further, the manner in which the superintendent relates to administrators and orchestrates change across a district is the focus of a growing body of knowledge. The discovery of these "second change facilitators" revealed their close association with administrators in supporting the implementation of new practices (e.g., the incorporation of a new curriculum or new instructional strategies into regular classroom use). These change facilitators work as a team, holding regular briefing and debriefing sessions when implementation is assessed and when the needs of implementers (those putting "newness" into place) are determined. Such teams frequently include central office staff who serve as an external assister, a factor identified by Cohen (1987) as a necessary force for change (Waters 2006; Shannon and Bylsma 2004; Crowson and Morris 1990; Duttweiler and Hord 1987; Coleman and LaRocque 1988; Hallinger, Murphy, and Peterson 1985, 1986, 1987; Pollack, et al. 1988; Hord, Stiegelbauer, and Hall 1984).

Studies focusing on these teams show clearly that while the administrator is viewed as a key player in change efforts and bears responsibility for their success, the principal by no means acts alone. A team composed of district-level personnel, site administrators, and various other stakeholders in the school—including professional and nonprofessional staff, parents, and community representatives—carries out the complex and regular demands made of schools involved in the change process. As a part of an overall plan for equitable distribution of HQ-effective teachers and administrators, planning committees will want to review and adopt change strategies that have proven effective in districts with hard-to-staff schools.

Data Collection: Analysis of LEA Data on Key Indicators of Effective Administrative Practices

Variable 2: For the LEA as a whole, the focus is on demonstrating that high-poverty, low-performing students are assigned to schools with identified HQ and effective administrators. The focus at each site is on demonstrating policies and practices that promote the hiring, retention, and development of HQ, experienced, and effective teachers.

Shared Vision: An educational leader promotes the success of all students by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by the school community.

Suggested Resource for Collection of Data:

- Useful Indicators for Calculating Equitable Teacher Distribution: Key Indicators of Effective Administrative Practices, Item 1

Culture of Learning: An educational leader promotes the success of all students by advocating, nurturing, and sustaining a school culture and instructional program that is conducive to student learning and staff professional development**.**

Suggested Resource for Collection of Data:

- Useful Indicators for Calculating Equitable Teacher Distribution: Key Indicators of Effective Administrative Practices, Item 2

Management: An educational leader promotes the success of all students by ensuring the effective management of the organization, operations, and resources to sustain a safe, efficient, and effective learning environment.

Suggested Resource for Collection of Data:

- Useful Indicators for Calculating Equitable Teacher Distribution: Key Indicators of Effective Administrative Practices, Item 3

Family and Community: An educational leader promotes the success of all students by collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources.

Suggested Resources for Collection of Data:

- Useful Indicators for Calculating Equitable Teacher Distribution: Key Indicators of Effective Administrative Practices, Item 4

Ethics: An educational leader promotes the success of all students by acting with integrity and fairness and in an ethical manner.

Suggested Resources for Collection of Data:

1. Useful Indicators for Calculating Equitable Teacher Distribution: Key Indicators of Effective Administrative Practices, Item 5

Useful Indicators for Calculating Equitable Teacher Distribution

Key Indicators of Effective Administrative Practices

Information Requested

Survey Rubric: (0 to 4)			
0	**No, we are not doing this**		
1	**Yes, we are at the 25% or less level of doing this; evidence is provided**		
2	**Yes, we are at the 50% or less level of doing this; evidence is provided**		
3	**Yes, we are at the 75% or less level of doing this; evidence is provided**		
4	**Yes, we are fully doing this; evidence is provided**		

	Shared Vision		**0**	**1**	**2**	**3**	**4**	**Comments**
Standard 1: An educational leader promotes the success of all students by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by the school community**.**								
1.1	In collaboration with others, uses appropriate data to establish rigorous, concrete goals in the context of student achievement and instructional programs.		**0**	**1**	**2**	**3**	**4**	**Comments**
	a.	The vision is measurable and reviewed frequently for progress by the school site council or site leadership team.						
	b.	Professional development programs are tailored to help teachers meet the school's vision of high academic achievement for all students.						
1.2	Uses research and/or best practices in improving the educational							

	Shared Vision		0	1	2	3	4	Comments
	program.							
	a.	Staff regularly analyze results of common assessments and develop strategies for improvement on the basis of the analysis.						
	b.	Professional development programs are based on analyses of student assessments and offer targeted help when a teacher is identified as having students who struggle to achieve academic goals.						
1.3	Articulates and promotes high expectations for teaching and learning.							
	a.	The staff and students are focused on the vision, having continuous conversations and taking actions that support the vision.						
	b.	A strong sense of trust exists among colleagues, as evidenced by a high level of respect, caring, integrity, and a belief in one another.						
	c.	Every teacher understands the vision for the school and is held personally responsible for carrying it out.						
	d.	Professional development programs are tailored to help teachers meet the school's vision of high academic achievement for all students.						
	e.	All teachers believe and actively practice the belief that students of all races and economic status can meet high academic standards.						
	f.	Every teacher is held personally accountable for the success of every student in the classroom.						
1.4	Aligns and implements the educational programs, plans, actions, and resources with the district's vision and goals.							
	a.	Resources are measured annually for their impact on student						

	Shared Vision		0	1	2	3	4	Comments
		success related to the vision.						
	b.	The allocation of dollars and time are directed to staff who need to improve their professional practices to meet the needs of students.						
		Funding decisions are aligned to the school's goals and are discussed with a site leadership team.						
1.5	Provides leadership for major initiatives and efforts for change.							
	a.	Site leadership promotes trust, reliability, and confidence on a daily basis through consistent actions.						
	b.	Site leadership maintains a high work ethic that is visible to staff and the community.						
1.6	Communicates effectively to various stakeholders regarding progress toward the goals of the school improvement plan.							
	a.	The school has a shared vision of high academic achievement by all students, which can be articulated by staff, students, and community members when asked.						
	b.	Site leadership is highly visible and engaged in the school community.						

	Culture of Learning		0	1	2	3	4	Comments
Standard 2: An educational leader promotes the success of all students by advocating, nurturing, and sustaining a school culture and an instructional program that are conducive to student learning and staff professional development.								
2.1	Provides leadership for assessing, developing, and improving climate and culture.							
	a.	The school is a safe and orderly environment in which to promote academic success.						
	b.	Practices are in place that help build student self-esteem.						
	c.	There is a strong sense of a professional learning community						

	Culture of Learning		0	1	2	3	4	Comments
		that is committed to sharing expertise, knowledge about practices and research to enhance teachers' ability to serve ALL students in meeting the state content standards.						
	d.	Site leadership and staff regularly evaluate extraneous data (attendance rates, discipline rates, and so forth) to evaluate the school's climate and culture as related to the closing of the achievement gap.						
	e.	The site leader uses current research and theory about effective schools and leadership to develop and revise his or her professional growth plan.						
2.2	Systematically and fairly recognizes and celebrates accomplishments of staff and students.							
	a.	Master teachers are involved in peer evaluations and lead teaching teams, devise internal assessments measures, and help keep the mission of the school focused on academic achievement.						
	b.	Site leadership organizes timely and meaningful activities to celebrate achievement of academic goals and other related goals.						
	c.	Staff achievements are visibly celebrated, and staff are made aware of how valuable they are to the success of a positive climate and culture on the campus.						
2.3	Provides leadership, encouragement, opportunities, and structure for staff to continually design more effective teaching and learning experiences for all students.							
	a.	Site leadership evaluates the staff and provides ongoing coaching for improvement.						
	b.	Teachers receive and use relevant and timely data to make informed decisions (e.g., staff receive results from local						

	Culture of Learning		0	1	2	3	4	Comments
		assessments in a timely fashion in order to make intervention decisions, placement decisions, master schedule decisions, or choices regarding instructional strategies).						
2.4	Monitors and evaluates the effectiveness of curriculum, instruction and assessment.							
	a.	Teachers are trained to evaluate students' work through the use of an accepted protocol method.						
	b.	Best practices are promoted through the use of a classroom walk-through protocol to collect data supporting instruction and informing professional growth opportunities at the site.						
	c.	Teachers are required to identify students who are falling behind and extra teacher support is offered.						
2.5	Ensures that staff members have professional development that directly enhances their performance and improves student learning.							
	a.	Site leadership, in collaboration with teachers, has clearly identified state standards and developed rigorous grade-level expectations.						
	b.	Teachers have the opportunity to collaborate at least bi-monthly on student work to inform their own practices, learn from each other, and adjust instruction to meet the needs of their students.						
	c.	A system is in place to quickly react when a student first shows signs of failing to master an academic goal.						
	d.	Regular staff and grade-level, department-wide, or vertical team meetings are held in which data are analyzed and applied to classroom practices.						

	Management		0	1	2	3	4	Comments
Standard 3: An educational leader promotes the success of all students by ensuring the proper management of the organization, its operations, and its resources for a safe, efficient, and effective learning environment.								
4.1	Recruits, selects, inducts, and retains staff to support quality instruction.							
	a.	The district has early hiring practices in place.						
	b.	Potentially effective teachers are offered signing bonuses and other monetary incentives.						
	c.	Site leadership understands that teacher quality is the single most accurate indicator of a student's performance in school.						
4.2	Manages fiscal and physical resources responsibly, efficiently, and effectively.							
	a.	Management addresses current and potential issues in a timely manner.						
4.3	Management protects instructional time by designing and managing operational procedures to maximize learning.							
	a.	The district eliminates unnecessary or redundant paperwork required of site administrators. The focus is on student success and site improvement.						
	b.	Management understands that time on task is the key to success in school. The district office limits the amount of time site administrators are off-site.						
4.4	Communicates effectively with both internal and external audiences about the operations of the school.							
	a.	Site leadership complies with state and federal mandates and local board policies.						
	b.	Regular school site council meetings are held to incorporate the perspectives of families and community members.						
	c.	Site leadership meets bi-annually with feeder schools and/or						

	Management		0	1	2	3	4	Comments
		surrounding schools to collaborate on academic goals.						
	d.	Regular focus group meetings with families are held to ensure a connection between the school and community to focus on improving support systems, leading to improved student success.						

	Family and Community		0	1	2	3	4	Comments
Standard 4: An educational leader promotes the success of all students by collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources.								
4.1	Promotes and supports a structure for family and community involvement in the education system.							
	a.	Site leadership engages families and the community by promoting shared responsibility for student learning and support of the education system.						
	b.	Academic expectations are clearly and regularly articulated to students and parents.						
	c.	The school regularly provides school resources and opportunities for parents to support their children's academic success (e.g., family math, science, and literacy events).						
	d.	Site leadership and staff make clear accountability requirements for parents and community members regarding student achievement.						
4.2	Collaboratively establishes a culture that welcomes and honors families and the community and seeks ways to engage them in student learning.							
	a.	Site leadership understands that extending the mission of the school into the home is the first step to high performance.						
	b.	A system is in place to quickly involve parents when a student						

	Family and Community		0	1	2	3	4	Comments
		first shows signs of failing to master an academic goal.						
	c.	Academic programs extend beyond the campus to take advantage of learning opportunities outside the school.						
	d.	Meetings with parents are held to ensure that they are informed about the standards-based system (e.g., high school exit exam, grade-level expectations, local assessments, and so forth).						

	Ethics		0	1	2	3	4	Comments
Standard 5: An educational leader promotes the success of all students by acting with integrity and fairness and in an ethical manner.								
5.1	Demonstrates values, beliefs, and attitudes that inspire others to higher levels of performance.							
	a.	Site leadership demonstrates ethical and professional behavior when interacting with staff and students.						
	c.	Site leadership fosters and maintains caring professional relationships with staff.						
	d.	Site leadership demonstrates appreciation for and sensitivity to diversity in the school community.						
	e.	Site leadership demonstrates values, beliefs, and attitudes that inspire others to higher levels of performance.						

The Issue: Human Resource Polices and Procedures

It is widely recognized that no factor under a school's control affects student achievement more than the quality of the teacher in the classroom. Yet on average, low-income and minority children have lower-quality teachers who are far more likely to be uncertified, to have scored poorly on college and licensure exams, and to be teaching outside of their field (Craig 2002). Conventional wisdom attributes this disparity to the inability of large urban school districts to attract HQ teachers. However, emerging research is revealing a very different reality. Stepped-up recruitment efforts by large urban districts have produced large numbers of HQ teacher candidate applicants, even in hard-to-staff districts they just are not getting hired.

An abundance of research has demonstrated clearly that the nation's low-income and minority students who mostly rely on public schools for their learning are consistently less likely to have fully qualified teachers and administrators. While there has been less research done on administrators in high-poverty, low-performing schools, the available evidence points to similar inequities in student access to the most qualified administrators. For example, an in-depth study of principal shortages in ten metropolitan regions found that high-poverty, low-performing schools struggle to fill vacancies with experienced and qualified candidates; more affluent schools, however, have a significant number of qualified applicants from which to choose (Papa 2002). In addition, high-poverty, low-performing schools have the most difficulty attracting and hiring sufficient numbers of experienced applicants. Similarly, high-poverty schools in inner-city areas regularly receive only a fraction of the applications that schools in affluent systems receive (Ravitch 2004). Furthermore, disadvantaged schools lose staff at a much higher rate than do other schools. A recent study revealed that high-poverty urban schools lose 22 percent of their teachers annually, compared with only 12.8 percent in low-poverty schools (Ingersoll 2004). To understand the consequences of that attrition in real terms, one can consider that a typical high-poverty, urban elementary school employing, say, 20 teachers would have to hire about 22 new teachers every five years. Finally, the cycle is complete when, faced with constant vacancies that result from high attrition rates, disadvantaged schools are forced to fill these vacancies over and over again with underqualified, less experienced candidates, many of whom will leave in a few years (Clotfelter, Ladd, and Vigdor 2004; Freeman, Scafidi, and Sjoqist 2002).

The complex nature of equitably distributing HQ, experienced teachers makes certain that simplistic solutions must not be sought; they will not work. Simply increasing the supply of qualified staff will not fully address the problem because high-poverty, low-performing schools are not currently competitive in attracting or retaining staff. Conversely, we must not establish policies that attempt to stem attrition rates in those schools because they will still face a disadvantage in competing for qualified candidates. Attracting more HQ candidates into low-poverty schools along with strategies to stem the flow of effective and experienced staff exiting these schools is the

viable solution. To accomplish that goal, solutions must address all the various factors that contribute to and reinforce the negative staffing cycle in high-poverty schools.

Counterproductive hiring and placement practices in some districts create a significant and needless barrier to recruiting HQ teachers who are willing to teach in high-poverty, low-performing schools. Such problems can have multiple causes: cumbersome application processes; poor customer service; insufficient data systems for tracking vacancies and candidates; high student mobility rates that create difficulties in forecasting vacancies; late notification deadlines for departing teachers; seniority provisions that require additional time for internal transfers; and late budgeting (Levine 2005). Whatever the causes, the results can be devastating for low-income students. In some urban districts, hiring and placement can take so long that qualified candidates feel compelled to accept jobs in suburban districts with less complicated hiring processes (Levin, et al. 2005). Late hiring all too often leaves the teachers who do take positions in high-poverty, low-performing schools with little or no time to prepare for the school year. A recent survey of new teachers found that those in high-poverty schools were three times as likely as those in low-poverty schools to have been hired after the school year officially began (Johnson, et al. 2004).

Many large urban districts fail to make timely job offers to new teachers. By waiting until July or August to make a job offer, they perpetuate the problem. Late-summer hiring—and significant applicant attrition—is present in districts across California. As high-need districts struggle to meet the requirements of NCLB law and hire “highly qualified” teachers, LEAs must realize that by waiting until summer’s end, their pool of better qualified candidates diminishes. Academically stronger and better-prepared teacher candidates want to teach in these districts, including in the highest-need schools. Getting them into the classrooms, however, will depend on reversing the slow-moving, seemingly half-paralyzed hiring processes that turn them away and leave the neediest districts to hire from a depleted and far weaker applicant pool. Fortunately, late teacher hiring is a solvable problem. Given the strong and proven connection between HQ teachers and student achievement, California districts must begin making the changes necessary to hire earlier in the year and hire only the best teacher candidates.

Late hiring is not the only issue that can drive potential teachers away; unfriendly, disorganized, and undertrained human resource (HR) staff can present a significant deterrent. Problems with customer service are often an outgrowth of the inattention paid by many districts to HR staffing structures and quality. Failure to ensure that all district employees who interact with external applicants are goal oriented and customer focused exacerbates the problems associated with converting applicants into hires. So does an HR department that lacks clear and rational staff roles and an effective leader to set the vision and ensure accountability for results.

Aggressive Recruitment

In 2003 The New Teacher Project, was conducted on a large scale by Jessica Levin and Meredith Quinn. Researchers found that hard-to-staff urban districts that implemented targeted, high-impact recruitment strategies received hundreds, if not thousands, of applicants—many more than they needed to successfully fill their vacancies. One district received 4,000 applications for fewer than 200 spots; three other districts received roughly 750 to 800 applications, five to seven times as many applicants as available positions. Equally significant, given these high recruitment figures, is that up to 37 percent of the candidates applied to teach in high-need areas, including mathematics, science, special education, and education for English learners (Levin and Quinn 2003).

The researchers found that despite having hundreds of applicants in high-need areas and many more total applicants than vacancies to fill, districts were left scrambling to fill vacancies as school was starting, because they failed to make job offers until mid-to-late summer. The study also found that anywhere from 31 percent to almost 60 percent of applicants withdrew from the urban hiring process, often to accept jobs with suburban districts that made offers earlier. When contacted, the applicants reported (50 percent to 70 percent) that late hiring timelines were the major reason they took other jobs.

Districts have lost the better qualified applicants and have been forced to hire less-qualified candidates. Not surprising was that the best candidates, who had the most options, were the most likely to abandon hard-to-staff districts in the face of hiring delays, which forced the districts to fill their vacancies from applicant pools with higher percentages of unqualified and uncertified teachers. In fact, the initial findings of the study reveal that applicants who withdrew from the hiring process in urban districts had significantly higher GPAs, were 40 percent more likely to have a degree in their teaching field, and were significantly more likely to have completed educational course work than were the new hires. Most of the teachers who withdrew their applications reported that they were committed to teaching in urban schools, and many wanted jobs in such high-need areas as science and mathematics. Despite the difficulties and delays they experienced, four out of five candidates said they would like to be considered again for a teaching position with the urban district. Almost half said they definitely or probably would have accepted an offer from the urban district if it had come earlier (Levin and Quinn 2003).

Three Hiring Policies Drive Hiring Failures

According to *Missed Opportunities: How We Keep High-Quality Teachers Out of Urban Classrooms* (Levin and Quinn 2003) the prevalent explanations for late hiring are poor

design and execution by district HR offices; specifically, a cumbersome application process, too many layers of bureaucracy, inadequate customer service, poor data systems, and an overall lack of urgency. Many of California's hardest-to-staff districts suffer from these problems, which not only delay hiring but also frustrate applicants. However, Levin and Quinn observed three widespread hiring barriers that would obstruct the efforts of even the most competent HR department:

1. *Vacancy notification requirements*. This barrier typically allows retiring or resigning teachers to provide very late notice of their intent to depart, creating serious difficulty in planning for vacancies that might exist at the start of the school year.

2. *Bargaining Unit transfer requirements.* This barrier often further stalls hiring by giving current teachers the first pick of openings before any new teacher can be hired. Timetables provided in union contracts and local laws frequently undermine expedited transfer processes by extending transfer decisions until a few months, weeks, or—
in some cases—days before schools reopen. Collective bargaining policies that require schools to hire transferring teachers create additional delays by causing administrators to be reluctant to post vacancies and interview, fearing the possibility of being forced to accept a transferring teacher they do not want.

3. *Late budget timetables and inadequate forecasting.* This barrier fosters chronic budget uncertainties and leaves administrators unsure about which positions will be funded in their schools. State budget timelines are a major source of the budget delays and uncertainty schools encounter. In California the fiscal year does not end until June 30; even then, the legislature may not pass a budget for several months.

Although frequently cited by HR personnel, policymakers, and education reformers, these three policy barriers seriously undermine efforts by school districts to turn quality applicants into high quality teachers (Levin and Quinn 2003).

Follow up research from *Unintended Consequences: The Case for Reforming the Staffing Rules in Urban Teachers Union Contract,* (Levin, Mulhern, and Schunck 2005) to *Missed Opportunities* (Levin and Quinn 2003) explored the consequences of contractual staffing rules governing "voluntary transfers" and "excessed teachers" (involuntarily transferred or surplus teachers) on poor, underperforming students. Voluntary transfers involved incumbent teachers who want to move from one school to another within a district, while excessed teachers are those how have been cut from a specific school, often in response to declines in budget or student enrollment. To better understand the impact of the voluntary transfer and excess rules on urban schools, this study focused on five representative urban districts (identified as Eastern, Mid-Atlantic, Midwestern, Southern, and Western districts). Within each district an extensive analysis

of data on internal teacher movements and new teacher hires was done. Included were principal surveys in the Eastern and Western districts and interviews of school and central staff in all districts. The findings demonstrate the negative impact these rules have on the ability of urban schools to hire and keep the best possible teachers.

The intent of the research was not to minimize the unfair practices that led to their adoption or the other staffing barriers urban schools face in such areas as school leadership, HR, and budgeting. However, the research clearly articulates that without significant change to these staffing rules, another generation of poor, underperforming students will bear the cost of well-intentioned but, ultimately, inadequate school improvement efforts. Levin and Quinn found that transfer and excessed contract language impacted hiring practices in several major ways in three areas:

Area one. The most detrimental impact of the transfer and excess rules is the widespread forcing of incumbent teachers on schools regardless of students' needs. Voluntary transfer rules often give senior teachers the right to interview for and fill jobs in other schools even if those schools do not consider them a good fit. In addition, schools generally are required to hire excessed teachers without any selection process at all. As a result, the following occurred across the five districts in one hiring season:

- On average, 40 percent of school-level vacancies were filled by voluntary transfers or excessed teachers, over whom schools had either no choice at all or limited choice. Moreover, administrators reported that they did not want to hire many of these teachers. For example, 47 percent of Western district administrators said they had attempted to hide their vacancies from central staff to avoid hiring voluntary transfers and excessed teachers.

- 64 percent of those who hired such teachers in 2004-05 said that they did not wish to have one or more of them in their school.

Area two. While the researchers found that the quality of voluntary transfers and excessed teachers spanned the continuum, it was clear that the transfers often functioned as a mechanism for teacher removal. Almost two in five administrators in the Eastern district and one in four in the Western district admitted to encouraging a poorly performing teacher to transfer or to placing one on an excess list. Passing along poor performers to other schools is clearly an unacceptable management practice; teacher termination data suggest that this is often the most practical course of action at the individual school level. Not surprisingly, the poorly performing teachers generally are removed from higher-income or higher-performing schools and placed in low-income and low-performing schools. The study indicated that reluctance on the part of administrators is seen as the reason for failure to initiate dismissal proceedings, but the data showed that even when they tried to formally terminate a teacher, they faced a very limited likelihood of success.

Area three. Only after voluntary transfers and excessed teachers had been placed at a site were schools allowed by contract to place new hires, including seasoned veterans from other districts. Generally, the researchers found, it was then too late to compete with neighboring districts for the best new teacher talent. Significantly, with only one month to go before the start of school, Midwestern, Southern, and Mid-Atlantic districts still had to hire and place between 67 and 93 percent of their new teachers. Previous research done by Levin and Quinn in 2003 showed that urban districts that hire teachers after May 1 lost large numbers of applicants, including the best, to districts that hire earlier. The applicants who withdrew from the hiring process had significantly higher undergraduate GPAs, were 40 percent more likely to have a degree in their teaching field, and were significantly more likely to have completed educational course work than those who were eventually hired (Levin and Quinn 2003).

NCLB reforms and statewide initiatives focused on improving student achievement have paid little attention to the critical role of the HR department in improving teacher and principal quality at high-poverty and lower-performing schools. According to research done by Campbell, DeArmond, and Schumwinger (2004) that oversight may have been a mistake. In fact, HR practices and procedures can have a huge impact on student achievement. It is the HR department that often determines whether qualified teacher candidates make it to the classroom or slip through the cracks. HR departments can help administrators find teachers who meet their school's particular needs or, conversely, drive potential hires into the waiting arms of neighboring districts. One of the report's central conclusions is that transforming the HR department into an active member of the improvement effort is essential to ensuring that every child an HQ teacher and administrator. Such a transformation requires a combination of two things: administrative reforms to increase the department's capacity and close attention paid by district leaders.

Data Collection: Analysis of LEA Data on Key Indicators of Effective Human Resource Practices

Variable 3: For the LEA as a whole, the focus is on demonstrating that practices and policies enhance rather than inhibit the recruitment, placement, and retention of HQ, experienced, and effective administrators and teachers in high-poverty, low-performing schools.

Measuring the Effectiveness of Current Hiring Practices: Application practices that are streamlined and effective increase the LEA's ability to attract substantial numbers of teacher candidates, including those who can teach in high-demand shortage areas.

Suggested Resource for Collection of Data

- Useful Indicators for Calculating Effective: Hiring Practices, Item 1

Measuring the Effectiveness of Contract Language on Equitable Distribution: Contract language does not have an adverse effect on the ability of the LEA to hire, retain, and place HQ, experienced, and effective teachers in high-poverty, low-performing, hard-to-staff schools.

Suggested Resource for Collection of Data:

- Useful Indicators for Calculating Effective: Hiring Practices, Item 2

Measuring the Potential Effectiveness of New Hires: The LEA employs interview strategies that allow for the identification of teachers who are more likely to succeed with at-risk students in hard-to-staff schools.

Suggested Resource for Collection of Data:

- Useful Indicators for Calculating Effective: Hiring Practices, Item 3

Useful Indicators for Calculating Effective Hiring Practices

Definitions			
	HIGH-POVERTY = 40 percent or more students eligible for free and reduced lunch		**LOW-POVERTY** = 39 percent or fewer students eligible for free or reduced-price lunch
	EXPERIENCED = five or more years of classroom teaching experience (LEAs may not include as experience years spent teaching under an emergency or pre-intern permit.)		**HIGHLY QUALIFIED-EXPERIENCED** = A teacher who has met NCLB Teacher Quality requirements and has at least five years of classroom teaching experience, not including years teaching under an emergency or pre-intern permit
	BTSA= a state-funded induction program, cosponsored by the CDE and the Commission on Teacher Credentialing (CTC), that is designed to support the professional development of newly credentialed, beginning teachers and fulfill the requirements for the California Clear Multiple Subject and Single Subject Credentials		**HIGHLY QUALIFIED-EFFECTIVE** = a teacher whose characteristics indicate a high likelihood that he or she will consistently produce higher student achievement (These characteristics include, but are not limited to: (1) full state certification; (2) a bachelor's degree; (3) demonstrated subject-matter competency in each of the academic subjects taught; (4) teaching experience; (5) teacher expectations; and (6) overall academic ability.)
	CALIFORNIA SUBJECT EXAMINATION FOR TEACHERS = (CSET)		

YES	NO	Circle the answer that most accurately reflects district practices; if yes, provide evidence.	Comments
Item 1: Measuring the Effectiveness of Current Hiring Practices			
1.1	Application practices: Streamlined and effective hiring practices will enhance an LEA's ability to attract substantial numbers of teacher candidates, including the most promising and those who can teach in high-demand/shortage areas.		
YES	**NO**	Does the LEA have a clearly defined application process with clear deadlines and steps that are communicated up front to applicants?	
YES	**NO**	While the LEA may have a process overview chart or diagram that suggests a clearly defined approach, does typical reality indicate that exceptions and chaos trump the chart and, ultimately, obscure any semblance of a clear process?	
YES	**NO**	Does the LEA have a clearly defined process of communication to ensure that hiring processes and clear-cut timelines are articulated to applicants in a friendly, professional manner?	
YES	**NO**	Does the LEA have an accurate system for predicting and tracking vacancies through which	

YES	NO	Circle the answer that most accurately reflects district practices; if yes, provide evidence.	Comments
		strategic decisions on hiring are made?	
YES	**NO**	Does the absence of a strong system to track applicants, vacancies, and transfers severely compromise the ability of the LEA to hire in a timely and efficient manner?	
1.2	Customer service expectations: Failure to ensure that all district employees who interact with external applicants are goal oriented and customer focused exacerbates problems related to converting qualified applicants into hires.		
YES	**NO**	Does the LEA give sufficient attention to staffing to ensure that all district employees who interact with external applicants are goal oriented and customer focused, hold clear and rational roles, and are coordinated by an effective leader who has set the vision and ensures accountability for results?	
YES	**NO**	Does the LEA have a clearly defined evaluation process to evaluate practices and procedures as they relate to external applicants?	
1.3	Transfer interviews: Sufficient attention must be given to the reason(s) teachers choose to leave a particular site to ensure that changes will occur within the district or at specific sites so that each hire will become a long-term employee.		
YES	**NO**	Does the district conduct an exit interview when a teacher voluntarily transfers from one site to another?	
YES	**NO**	Does the district currently conduct an exit interview for each teacher who voluntarily leaves the district?	
1.4	Hiring data: The right teacher is getting into the right classroom.		
YES	**NO**	What certification (full credential, intern permit, and so forth) does the teacher hold? Did the teacher go through a traditional credential program? If not, what type of alternative certification process did the teacher complete?	
YES	**NO**	Does the teacher hold an undergraduate degree in the field he or she is assigned to teach?	
YES	**NO**	Did the teacher earn his or her credential via a CTC-approved subject matter waiver program? If so, what was the teacher's GPA in the major? Did the teacher earn the credential through a CTC-approved examination (currently the California Subject Examinations for Teachers)? If so, what score did the teacher earn?	
YES	**NO**	Does the teacher have less than five years of full-time teaching experience?	

YES	NO	Circle the answer that most accurately reflects district practices; if yes, provide evidence.	Comments
YES	NO	Did the teacher complete a BTSA induction program?	

YES	NO	Circle the answer that most accurately reflects district practices; if yes, provide evidence.	Comments
ITEM 2**:** Measuring the Effectiveness of Contract Language on Equitable Distribution			
2.1	Vacancy notification requirements: Local bargaining unit contracts govern the requirements for notification by departing teachers, a practice that can lead to vacancies late in the summer or even after the beginning of the school year.		
YES	**NO**	Does the notification of teachers intending to retire or resign facilitate timely hiring? Does certificated staff have a date by which it must notify the LEA of its resignation or retirement?	
YES	**NO**	Does the LEA enforce “intent to return” deadlines and have clearly defined penalties that are enforced when teachers attempt to break their contract?	
YES	**NO**	Are departing teachers penalized by loss of health benefits or summer teaching opportunities when they voluntarily notify the LEA early?	
2.2	Bargaining unit transfer requirements: There are many ways in which to structure a transfer process, and the design can determine whether the process has an adverse effect on the timing and, therefore, the quality of teachers hired. When transfers begin late and last for months, and the process halts all hiring by law, districts simply cannot hire new teachers in a timely manner.		
YES	**NO**	Once school vacancies are identified, teacher transfer requirements do not prevent the timely hiring of new teachers.	
YES	**NO**	District transfer policies ensure that the transfer process is complete prior to the end of the current school year. Administrative efficiencies shorten these processes, as do streamlined transfer requirements.	

YES	NO	Circle the answer that most accurately reflects district practices; if yes, provide evidence.	Comments
Item 3: Strategies for Determining the Potential Effectiveness of New Hires			
3.1	Interview strategies: Districts should consider using interview techniques that will identify quality teachers who are likely to succeed with at-risk students in hard-to-staff schools.		
YES	**NO**	Does the district use interview techniques that identify teachers who are more likely to be	

YES	NO	Circle the answer that most accurately reflects district practices; if yes, provide evidence.	Comments
		successful in hard-to-staff schools?	
YES	NO	Has the district developed a system to determine the potential effectiveness of new hires? If yes, does it include:	
YES	NO	• Certification (full credential, intern permit, and so forth) that the teacher holds? Did the teacher go through a traditional credential program?	
YES	NO	• Credentialing pathway (traditional or alternative), including a university or alternative program?	
YES	NO	• Undergraduate degree?	
YES	NO	• Credential that was awarded through a CTC-approved subject matter waiver program? If so, what was the teacher's GPA in the major?	
YES	NO	• Credential that was awarded through a CTC-approved examination (currently the CSET)? If so, what score did the teacher earn?	
YES	NO	• Years of teaching experience in similar settings (urban, hard-to-staff, and so forth)?	
YES	NO	• Participation in a BTSA induction program?	
YES	NO	Does the district include on-site teachers, students, or parents as a part of the interview process?	
YES	NO	Does the district train and develop the capacity of school-based staff to maximize its interviewing and selection skills?	
YES	NO	As a part of the application process, does the district require candidates to submit:	
YES	NO	• Portfolios?	
YES	NO	• Standardized test scores?	
YES	NO	• Writing samples?	
YES	NO	• A lesson plan?	
YES	NO	• A videotape of a sample lesson?	

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Appendix A

Information Relating to Levels of Data to Assist in the Collection of Data for an Equitable Distribution Plan

Student-level data can be used to determine the relationship between specific student, teacher, and school characteristics. These data can be used to answer the following questions:

- Are low-achieving students more likely to be taught by less experienced teachers?
- What is the likelihood that an African American high school student will be placed in a remedial class rather than an advanced placement class in this school or district?
- What is the likelihood that a high-poverty student will be in a classroom or school with mostly high-poverty peers?

Teacher-level data can be used to determine the relationship between teacher characteristics and qualifications within schools or districts. These data can be used to answer the following questions:

- How likely is a teacher to be of the same ethnicity as the majority of teachers in the school?
- How likely is a teacher to be a first- or second-year teacher in a high-poverty school versus a low-poverty school?

Classroom-level data can be used to determine how teachers are distributed among classrooms within schools. These data can be used to answer the following questions:

- Are less experienced teachers more likely to be assigned to classrooms if the average achievement for the class is below that of the rest of the school's classrooms?
- Are teachers with waivers more likely to be assigned to classrooms with more minority students or high-poverty students than are teachers with full credentials?

School-level data can be used to determine how teachers are distributed across schools within districts, regions, or states. These data can be used to answer the following questions:

- What is the likelihood of an HQ teacher teaching in a low-performing school within a given district?
- Which schools within the district have the greatest need to improve their equitable teacher distribution?

District-level data that can be used to determine how teachers are distributed among schools within the state are as follows:

- Percentage of high-poverty students
- Percentage of students of different racial groups
- Percentage of students who are English learners
- Percentage of students at various levels of proficiency in such subjects as reading, mathematics, science, language arts, and social studies
- Percentage of special education students

Descriptions of Data

- **Classroom-level data** include student and teacher data requiring unique longitudinal statewide identifiers and a mechanism to link students to teachers.
- **School-level data** include aggregated data from classroom-level data or individual student data. Each school must have a unique identifier, and there must be a mechanism by which to link students and teachers to the school.
- **District-level data** include student, teacher, and school data—all of which require unique identifiers.

Appendix B

Sample Chart for Evaluating Comprehensive Teacher Quality

Presented below is an example of a spreadsheet for evaluating the comprehensive teacher quality of teachers in a mostly Latino, mostly Spanish-speaking, high-poverty urban school.

Teacher ID	Certif. Status	Year First Teaching with preliminary/ professional clear credential	Experience Level	Subject Certif.	Subject Matter Verification	Teacher Race/ Ethnicity	Language Fluency (other than English)	Special Certif.	Special Prof. Dev.	Teacher Performance
211463	1	2007	NC	Math	E	White	Spanish	EL, BCLAD		3
210489	2	2005	N	Lang Arts	BA	Hispanic	Spanish	EL	ARS, CSMP	2
319687	3	2003	E	Science	BA	Asian	Chinese	None	None	2
134241	3	1994	A	Math	E	White	None	EL	None	2
319443	3	2000	A	Social Studies	BA	White	None	NB	NB, ARS	1

Explanation of Codes

Certification Status: 0 = other permit, not listed; 1 = CCTC issued intern permit; 2 = preliminary certification; 3 = full certification.

Experience Level: Non Certified (NC) = teaching on anything other than credential; Novice (N) = 1-5 years teaching with a preliminary or professional clear credential; Emerging (E) = 5 or more years teaching with a preliminary pro professional clear credential; Advanced (A) = Advanced certification (National Board Certification in the area assigned to teach).

Subject Certification: CCTC issued certification relating to assignment.

Subject Matter Verification: BA/BS = Bachelors degree in related field; E = CCTC approved examination.

Special Certification: EL = English learner; BCLAD = bilingual cross-cultural language in academic development= NB = National Board Certification.

Special Professional Development: programs or course work related to special populations or content/pedagogical development (CSMP = California Subject Matter Project; ARS = At Risk Students; NB = National Board Certification).

Teacher Performance: District may want to consider using district developed standardized assessment; other standardized assessment or state wide assessment data can be used to determine this score. 1 = top 25 percent of district (in student achievement); 2 = middle 50 percent of district; 3 = lowest 25

percent of district. The goal would be to ensure that the lowest 25 percent of teachers in the district are not disproportionately assigned to the high-poverty, high-minority schools in the district.

Appendix C

Effective Index Formula for Equitable Distribution

High-poverty = 40 percent or more students eligible for free and reduced-priced lunch

Low-poverty = 39 percent or fewer students eligible for free and reduced-priced lunch

Experienced = five or more years of classroom teaching experience. LEAs may not include years teaching under an emergency permit, pre-intern certificate, short-term staff permit, provisional internship permit, Individualized Internship Certificate, district internship credential, and/or university internship credential.

Determining the Effective Index for LEAs with high- and low poverty schools:

For elementary level programs, use data on all low-poverty elementary schools within the LEA in the following formula:

1. Determine the percentage of NCLB Core Academic classes taught by an HQ teacher on those campuses.

2. Of the NCLB Core Academic Classes taught by an HQ teacher, determine the percentage that is taught by an HQ teacher with five or more years of experience.

3. Add those two percentages together and divide by two.

The result of this formula is the Elementary LEA Effective Index number. Now calculate the same formula for each high-poverty elementary school within the LEA. If the School Effective Index is equal to or greater than the LEA Effective Index, there is not an inequitable distribution of HQ, experienced teachers. However, if the school index is less than the LEA Effective Index, there is an inequitable distribution of HQ, experienced teachers.

For secondary-level programs, use data on all low-poverty secondary schools within the LEA in the following formula:

1. Determine the percentage of NCLB Core Academic classes taught by an HQ teacher on those campuses.

2. Of the NCLB Core Academic Classes taught by am HQ teacher, classes determine the percentage that is taught by an HQ teacher with five or more years of experience.

3. Add those two percentages together and divide by two.

The result of this formula is the Secondary LEA Effective Index number. Now calculate the same formula for each high poverty secondary school. If the School Effective Index is equal to or greater than the LEA Effective Index, there is not an inequitable distribution of HQ,

experienced teachers. However, if the school index is less than the LEA Effective Index, there is an inequitable distribution of HQ, experienced teachers.

Determining Effective Index for LEAs with Only High Poverty Schools

For elementary-level programs: use data on all elementary schools within the LEA with API scores of 700 or higher in the following formula:

1. Determine the percentage of NCLB Core Academic classes taught by an HQ teacher on those campuses.

2. Of the NCLB Core Academic Classes taught by an HQ teacher, determine the percentage taught by a HQ teacher with five or more years of experience.

3. Add those two percentages together and divide by two.

The result of this formula is the Elementary LEA Effective Index number. Now calculate the same formula for each elementary school with an API score of less than 699. If the School Effective Index is equal to or greater than the LEA Effective Index, there is not an inequitable distribution of HQ, experienced teachers. However, if the school index is less than the LEA Effective Index, there is an inequitable distribution of HQ, experienced teachers.

For secondary-level programs: use data on all secondary schools within the LEA with API scores of 700 or higher in the following formula:

1. Determine the percentage of NCLB Core Academic classes taught by an HQ teacher on those campuses.

2. Of the NCLB Core Academic Classes taught by an HQ teacher, determine the percentage taught by an HQ teacher with five or more years of experience.

3. Add those two percentages together and divide by two.

The result of this formula is the Secondary LEA Effective Index number. Now calculate the same formula for each secondary school with an API of 699 or lower. If the School Effective Index is equal to or greater than the LEA Effective Index, there is not an inequitable distribution of HQ, experienced teachers. However, if the school index is less than the LEA Effective Index, there is an inequitable distribution of HQ, experienced teachers

Alternative Method to Ensure Equitable Distribution of Highly Qualified and Experienced Teachers

This method will be used by “high poverty” districts, those with no school with less than 40 percent reported poverty. Other districts may use this method if they choose.

Schools meeting the following criteria may not have any teacher assigned to their campus that is not fully credentialed (holding at least a CTC issued preliminary credential) in the area of

assignment. Over any three year period, the site must maintain a balanced teaching staff of no more than 20 percent of the teaching staff having less than five years of experience.

Criteria:

1. 40 percent or more students eligible for the Free or Reduced Lunch Program, and assigned to participate in Program Improvement; or

2. 40 percent or more students eligible for the Free or Reduced Lunch Program, and an API statewide rank decile of one, two or three.